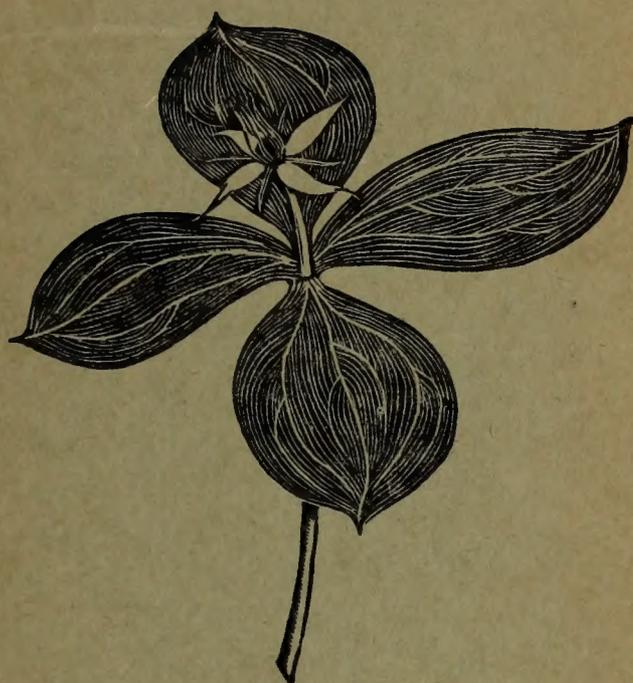




# The Reading Naturalist

No. 26



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THE READING NATURALIST

No. 26 for the year 1972-3

The Journal of  
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Society

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Mrs. Ada Chandy

By the death of Mrs. Ada Chandy in August 1973, our Society lost one of the two people who must have worked hardest for its welfare. The other was, of course, Mr. Fishlock. When he relinquished the Secretaryship to become our President in 1953 after twenty years devoted service, it seemed that the gap would be impossible to fill, but Mrs. Hasker, a friend of his and a comparatively new member of whom we knew little, stepped in and, under his guidance, filled the office with efficiency and enthusiasm for eleven years, making it her very life.

Carrying out the duties now shared by the general, winter programme and membership secretaries, Mrs. Fishlock, as she became in 1958, spared no trouble to ensure the smooth running of our affairs, brought a distinguished panel of speakers to address us meeting by meeting year after year, and was always at hand to extend to members the friendly welcome to which she attached the highest importance. She was unfailing in her attentiveness to elderly and sick members.

She was particularly interested in the South-eastern Union of Scientific Societies to which we were affiliated and at whose meetings she represented the Society for many years. It was largely as a result of her hard work and efficiency that the Union's 1958 congress, held in Reading at the joint invitation of this Society and the Zoological Department of the University, was generally acclaimed as one of the most successful ever held.

Shortly after Mr. Fishlock's death, she endowed an annual prize in his memory to encourage the love of natural history among the younger school children of Reading. In 1967, Mrs. Chandy, as she had then become, was elected an Honorary Member of the Society, and although her failing health has prevented her from coming among us frequently of late, we welcomed her each year when she came to the A.G.M. to present the Fishlock prize.

She was deeply interested in the countryside, nature and rural life and showed a particular interest in Reading's trees. Nature lovers in the town mourn an ally who did not spare herself in serving their cause.

An Appreciation, or Random Recollections of Every Day Life  
with the late George Thomas Vear  
by J. Bowden

Mr. George Thomas Vear, who died on 27th November 1973 in his 102nd year, was born near Spilsby in Lincolnshire on 12th March 1872. I think he believed that his ancestors came from the little town of Veere on the Island of Walcheren in South Holland, but he had no proof of this. We know, however, that the Dutch did come here to help with drainage work on the Fens.

He commenced work with Wm. Ridley & Sons, Timber Merchants in

Reading, at the age of 13 in 1885. He was told at his interview that he must always be polite and punctual and neatly dressed "as you are now" - they were his best clothes that he wore. Office hours were from 6 to 8 for dusting, 8.30 to one o'clock and 2.15 to 6.30 "or when work was finished", payment being £1 per month. One morning he was told that he was one minute late.

I first met him in 1911 when office work started at 8.30 - money still the same. I was rather apprehensive of him; he looked so severe when he wore pince-nez. I remember so well when he was trying to explain some intricate (to me) figures of the trade. I kept saying "yes, yes er - yes sir", he would say "don't say yes if you don't understand, I am trying to help you". What long hours we worked in those days. Some years later he had arranged for us to go to the Theatre, a Shakespeare play I think; we were still at the office at 7.30. much too late to go. Another late evening to retell - about 8 o'clock, raining hard, only the governor and T.V. there. He had no coat or umbrella but seeing what he believed was the office "gamp" said goodnight and took it. The next morning he was reproved. "Oh" said he, "I took it to be the office umbrella". Mr. Ridley replied "You knew it wasn't yours"!

Before he married he enjoyed a cycling tour with two or three companions thro' Holland. He also went to an Exhibition in Paris in 1900. In his early married life he did well over a hundred geometric drawings (designs) which he coloured. He had an intimate knowledge of the work of Charles Dickens, a general knowledge of Shakespeare's plays - some in detail - and of poetry, including some by American writers. He had read most if not all of Jules Verne's stories in French, could read Dutch, he had some knowledge of Greek (knew and recited by heart the Greek alphabet with his sisters from the age of six). He was a member of the Reading and District Natural History Society, and knew the Latin names of many birds, butterflies and flowers. He was particularly interested in the engravings of Gustav Doré and had thousands of his illustrations.

One might think perhaps that I am over-egging the pudding in my praise of him, but having known him for so many years I can assure the reader this is not so. His knowledge was quite fantastic and infinitely varied; as Goldsmith says in "Deserted Village" .. "and still they gazed and still the wonder grew that one small head could carry all it knew". It became a household phrase among his acquaintances in time; any difficulty in spelling, history, etc. "ask Mr. Vear". He wrote beautiful Pitman shorthand, even at speed, which others could read readily.

When we were timber-measuring together in the woods, usually during the winter months, we dressed in old clothes and boots for walking thro' brambles, barbed wire and ditches - we looked far from smart. I recall being on a Gentleman's estate one rough wet windy day. We met the owner and some conversation arose between them. I could see the gentleman looked impressed at my old friend's knowledge; various subjects arose upon which they warmed together, and eventually we were invited into the house. My friend soon spotted a pair of Louis (?XV) French Clocks; he was told they had been purchased quite independently and what a fortunate find the second one was. They then discussed the various pictures and naturally my old friend knew something of the old masters and the two were entertaining each other admirably - I

might add, with a glass of whisky a-piece (but T.V. was no drinker) But to be realistic in my admiration of him, I must strike a lower note. He freely admitted he knew nothing whatsoever of music and, like John Jorrocks which fills the bill, he only knew two tunes - one was God Save the Queen and the other wasn't!

He had an expert knowledge of timber, the identification of trees and measuring and had been appealed to at the Courts more than once to arbitrate on disputed valuations. Some years ago he handed over to the Reading Museum a fine collection of woods, neatly prepared and labelled by himself and they appeared like books when stacked on shelves. Once when he was being driven by one of the Mr. Ridleys (a rare thing) they saw a very large tree some distance from the road. Stopping, he was asked about its size while sitting in the car. "Probably 30"  $\frac{1}{4}$  girth" he said. "Well, measure it" he was told, which he did. On returning he said "Oh, I find I was wrong, it is 29 $\frac{1}{2}$ ". A dealer showing Mr. Vear a large tree lying in a ditch said "What will you give me for that ... (a bad word)?" "Oh, an Elm, I see" said T.V., "I did not recognize it by your description". He had to see a country Parson about a tree to be felled and remarked "It surprises me that a man of God should wish to dispose of the Tree of Heaven" (*Ailanthus glandulosa*). He retired at the age of 70 on 12th March 1942.

He was twice President of the Reading and District Natural History Society and was elected an Honorary Member in 1945. He had a moment of pride one evening when he was President in the chair. His wife was in the audience, his younger son was about to deliver a lecture, and the older one was operating the lantern slides. My dear old friend was delighted that the Vears were in so much evidence that evening.

For many years since his blindness I visited him weekly and read many books of his choosing to him. On departing I invariably said - "Well, goodbye, Mr. Vear, take care of yourself" - "I do" said he; - "and don't mess about" - "I don't." - "and God bless you, Mr. Vear" - "He does, He most certainly does"; - "hope to see you next week" - "Oh I hope so".

He was a fine, honourable, gentlemanly fellow, very modest, often saying that he had only a smattering of quite useless information. He had been a regular Church goer all his life, had an undoubted faith, and was convinced of a life after death. God rest him.

Editorial

Naturalists who have lived in or around Reading since before the war have seen many and at times devastating changes occur, sometimes with unbelievable swiftness, in the local flora, fauna and countryside. Following the high example set by Miss Cobb in her Presidential Address, which appears in this number of the Reading Naturalist, it has been suggested that at this point in its history a useful function of the Society would be to put details of such changes on record, as has been done by Miss Butler in another article. We accordingly invite members who have relevant personal recollections of any area to put them on paper for publication in future numbers.

Notice to Contributors

All available records for inclusion in the Honorary Recorders' Reports should reach them by September 30th. Supplementary records can be submitted up to the date of the Annual General Meeting, but any received after that may be held over until the following year.

Original papers can be submitted to the Honorary Editor at any time up to the beginning of October and short reports and notes not suitable for inclusion in the Honorary Recorders' Reports by the middle of November.

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## Meetings and Excursions 1972-73

The winter season of evening meetings opened with the Annual General Meeting, at which Miss L. E. Cobb delivered her Presidential Address entitled 'The Even Mead' (attendance 40). The lectures given at other meetings during the season were 'Some Aspects of the Ecology of Chalk Grassland' by Dr. C. J. Smith (32); 'Ecological Studies on the River Lambourn' by Dr. J. F. Wright (41); 'Succulent Plants in Habitat' by Mr. G. D. Rowley (39); 'Falconry and Conservation' by Mr. R. Upton (40); 'The Role of the Mediterranean in the European Flora', by Professor V.H. Heywood (37); 'Berkshire Bumble Bees', by Dr. I. H. H. Yarrow (42); and 'Man, Beaches and the Seafloor', by Dr. I. P. Joliffe (38). One of the remaining meetings was devoted to films (26) and the other two to members' films, talks and exhibits (47 and 43).

Winter walks were taken on December 2nd, for birds (3), February 10th, to Swallowfield (c. 8) and March 10th, for mosses (c. 30). On November 4th. a meeting was held in Mr. R. Gamble's garden at Woodley for soil insects (3) and on January 13th Mr. A. Price conducted a Microscopical Afternoon at his house in Reading.

The summer field meetings were: April 14th, Great Chalk Wood, near Goring (23); April 28th, Burghfield Common (30); May 12th, Swyncombe Hill (35); May 16th, an evening excursion to Wargrave Marsh (12); May 26th, Ivinghoe Beacon and Tring (17); May 30th, evening excursion to Whitchurch Hill (15); June 9th, Bix Bottom (21); June 13th, evening excursion to Whiteknights Park (c. 25); June 23rd, coach excursion to the Forest of Dean (46); July 7th, Lodge Hill area (8); July 20th, evening excursion to Pamber Forest (9, rain stopped activities); July 21st, Thatcham Marsh (16); August 4th, Grangelands and other B.B.O.N.T. reserves (16); August 18th, Hardwick Estate (c. 15); September 1st, Englemere Pond, near Ascot (17); September 15th, Fence Wood, Hermitage and disused railway line (c. 12); September 29th, riverside and woods, Pangbourne to Goring (c. 12); October 13th, Virginia Water (6); and October 30th, fungus foray at Harpsden Woods (c. 30).

The Even Mead

The Presidential Address

to the Reading and District Natural History Society

12th October 1972

by L. E. Cobb

When I addressed you at the A.G.M. a year ago I drew on the experience of more than thirty years of membership to tell you something of the Society over that period, and I thought it might be of interest if to-night we turned our thoughts outwards to the country around us and considered the changes, and perhaps now and again the lack of change, to be seen over the same period in the countryside of Reading and District and in its flora and fauna. To make this survey more representative than it could be if I relied on my impressions only, I have supplemented these with notes kindly provided by two other members of long standing, whom I should like to thank very warmly for their co-operation.

Inevitably the tale is in many ways a sad one, but it is not without its consolations. I suppose we can be considered comparatively fortunate so far in that most of the places we visited on our excursions thirty years ago are still fairly open country, and it would probably be possible to repeat much of a season's programme of those days. How long that state of affairs will continue when the development plan for the south-east gathers momentum I do not know. I think anyone giving such a talk as this in ten years' time would probably have a very different tale to tell.

And although much of the countryside is still there, what of its quality from the natural-history point of view? The picture here is less rosy. It is perhaps rather an anomaly that virtually none of Britain's 'natural countryside' is in fact natural. Though it is seldom fully realised, all except the small tracts of relict forest in this sophisticated island is man-made. High altitudes and extremes of temperature produce their characteristic flora and fauna, and thus create diversity, but in our humid and equable climate, the climax vegetation is always forest. The flowery meadows and road verges, primrose-carpeted copses, gay railway banks and heather moors and heathland are all the result of the activity of man and his domestic animals in the interplay of ordinary rural and semi-rural life as it was lived for centuries and continued to be lived until times that many of us can remember. Changes in man's habits can quickly affect diversity and reduce numbers of species. The change from grazing to arable farming, ploughing subsidies, mechanisation, the use of insecticides and herbicides and the decline in rural industries have all taken their toll, which must be added to the sweeping losses to towns, roads, power stations and car parks.

Even leaving the countryside to itself reduces variety of species or substitutes the less desirable as Shakespeare told us:

'The even mead, that erst brought sweetly forth  
The freckled cowslip, burnet, and green clover  
Wanting the scythe, all uncorrected, rank,  
Conceives by idleness, and nothing teems  
But hateful docks, rough thistles, keckies, burs,  
Losing both beauty and utility.'

We are very fortunate in this area in the wide range of habitats and types of country within easy reach. The main ones are: the acid heathlands, the chalk downland, woodland, streamside and finally the homely, lived-in countryside, compounded of lanes, arable and pasture fields, hedgerows and, formerly, the farm or village pond. What has happened in each of these?

The heathlands were never rich, botanically at least, but made up in beauty what they lacked in variety when the bell heather was at the height of its glory. I remember Finchampstead Ridges and Burghfield, Mortimer and Bucklebury Commons, when they were sheets of purple as far as the eye could see. A French friend, whom I took to Finchampstead Ridges shortly before the last war was incredulous before the intensity of the colour. Now one has to search for heather in all these places among the all-invading bracken or birches. At Inkpen Common, where management has recently passed to B.B.O.N.T., efforts are being made to return part of the area to heather by discouraging the invading gorse, birch, and bracken, but the task is not proving a simple one even when only a small area is involved. An early attempt produced not heather but thistles.

Chalk grassland is one of the saddest losses because it formerly seemed to me, and to many botanists, incomparably our most beautiful habitat. The typical, charming flowers of the chalk in their delicacy and variety can still be found in many of their old sites, but generally they are struggling to maintain themselves among a rank growth of coarse grasses and there is little resemblance to the spectacle of a multi-coloured profusion of flowers starring short-cropped turf - Shakespeare's 'even mead'. This turf we owed first to grazing by downland sheep and then to the activities of rabbits, which were to be decimated by myxomatosis in the 1950's. Both sheep and rabbits are regarded with disfavour by conservationists in many areas where their activities were excessive and produced near-desert conditions, but in Berkshire they performed to near-perfection a task at which we make but an indifferent showing when we try to do it without their aid. Happily, I think I see signs this year of the beginning of a return of sheep to the Downs.

Copses were among the best habitats for the all-round naturalist, providing, in addition to a sheltered environment for the much loved spring flowers (primroses, wood sorrel, wood anemones, moschatel and many more), nesting sites for a profusion of birds and cover for badgers, foxes, and indeed most of our relatively few wild mammals. Copses have suffered severely in two ways. Many have undergone complete annihilation, being merged in a matter of hours into the surrounding arable land by the ruthless action of the bulldozer. Bottom Copse at Arborfield, my favourite childhood haunt, is one of these. A small copse at Woodley that delighted me each spring as I looked at it every day from the

windows of the London train has given place to a school playing field. Others, left undisturbed, either because their siting did not make an alternative use economically desirable or through a well-intentioned wish to consider amenities, have been left entirely to their fate, as there is no longer a market for the products of coppicing. They have therefore become an impenetrable tangle, too dark to allow any ground flora to develop and too thick even to harbour many species of birds. Perhaps the mammals still find them hospitable. I hope so.

One of the most complete losses and a sad one is the village pond - victim of the mechanical age. At one time, the pond was an essential part of the make-up of any village, where it served the needs of thirsty horses and was the delight of small children with its inevitable flotilla of ducks and an interesting variety of animals to be fished out from the shelter of the weed. This often included sheets of water crowfoot that in summer turned it into an inverted milky way. With the passing of the horse as a normal means of transport and haulage, and changes in farming methods, the pond became redundant, and, far from being considered a desirable amenity, became the object of dislike and attack by the majority who considered it untidy, unsightly, unhygienic or dangerous and applauded any move to fill it in, generally for replacement by concrete or bricks and mortar in one form or another.

Finally, waysides! They were and are the most generally accessible of habitats, there to be enjoyed or ignored by virtually all except the house-bound or at least the town-bound. Waysides with the hedgerows behind them were formerly a source of delight in almost any rural area with a succession of flowers according to the geology, from the cow parsley of early spring through the seasons of hawthorn, elder, stitchwort, honeysuckle, roses, cam-pions, scabious, knapweeds, vetches and toadflax to the berries of autumn. The hedges provided shelter for birds' nests and innumerable insects and the verges for small mammals. The hedges have fallen victim to labour costs and the verges to herbicides and mechanical cutters combined with a passion for tidyness that leads many people actually to prefer a country roadside that looks like a poor attempt at a suburban lawn. Waysides are still potentially one of the best repositories of our fast-disappearing wildlife, and in this area much is being done in establishing good relations with local authorities and securing the abandonment of the use of herbicides on verges and co-operation in fixing cutting times to ensure the minimum loss of beauty. One nevertheless wonders whether the colourful waysides of our childhood are gone for ever from south-east England and fears it may be so. They have not disappeared everywhere, however, and on holiday in Northumberland this year I found the hedgerows a riot of hogweed, elder, roses, honeysuckle and tufted vetch. They were a sheer delight.

What of some of our old haunts? In the 1940's and 1950's, the first excursion of the season was very often to Padworth Gulley, and if this repetition seems a little unenterprising, I can assure members who did not know the gulley in those days that to walk up the path under the budding trees and look down on the anemone-covered sides of the gulley and the marsh marigolds in the stream below was an experience that certainly bore repeating year by year. Alas! as the '60's advanced, our beautiful gulley became choked with brambles and quite impenetrable. However, I visited

it again this spring and found that all the undergrowth had been cleared and a bed cut for the stream. All was in perfect order. The ground was largely bare, but the species that formerly graced it - marsh marigolds, anemones, wood sorrel, golden saxifrage - were all represented in small numbers. Conditions seem ideal for re-colonisation, and it is a site to be watched with keen interest. The surrounding area has a rich early spring flora.

Bix, of course, though farther afield and more difficult of access, was all the more appreciated when we reached it. With its wonderful flora, it was always a highlight for the botanists. Happily, through the vision and untiring efforts of Vera Paul, this magnificent site has become B.B.O.N.T.'s most extensive and highly prized reserve and is as safe as it can be made in these uncertain and ruthless days. If some of us nostalgically regret the need for 'management', nature trails, car parks and wardens, these are a very small price to pay for the continued existence of the site.

Greenham Common provided a favourite August excursion for its bog flora until it disappeared under the concrete of an American airfield during the later years of the war, and we must count ourselves lucky that we still have Snelsmore. The Kennet remains as a haven for water flora and fauna, though my last sight of a kingfisher was before the hard winter of 1963 and the insect life here as elsewhere seems to me to be much reduced in quantity and variety. Brian Baker tells me that he fears for the scarce Burnished Brass moth in the marshes between Newbury and Thatcham and that gravel extraction will be taking place over some of this ground. However, there has been consultation between naturalists, planners and contractors, and it is hoped that reservoir areas will allow continuance of the rich pattern of wildlife in this area. Beenham Woods were the scene of the first excursion in 1948 and again in 1971, and the Loddon Valley and Aston Rowant, visited in 1918, Checkendon visited in 1949 and Watlington Hill visited in 1951 featured on our programme again this year.

Thus much of our countryside remains to be visited and enjoyed for its relatively unpolluted air and comparative freedom from bricks and mortar, but what has happened to the plants and animals found in it? Here the situation is generally much less satisfactory. The gloomiest record of all is that of pondlife. At one of our meetings last winter we heard of the deterioration of Wokefield Common pond, which was famous among entomologists as the site of Philip Corbett's work on the life history of the Emperor dragonfly (Anax imperator). We heard that in the 1950's as many as 3,000 of these splendid creatures emerged in a single season from that comparatively small pond. For many years, members of this Society provided a working party each winter to clear the pond of rubbish and try to keep it in a biologically satisfactory condition. Now, it appears that with the pollution resulting from heavy building development and the activities of gipsies, the battle is being lost and a valuable site will probably have to be written off. I visited it in August and it looked a far from happy place. Arthur Price has supplied me with particulars of six other habitats around Reading that are disappearing or have already gone. Ponds and ditches at Tilehurst Potteries, another local site for the Emperor dragonfly, are being filled in with rubbish and severe pollution from paint drums is affecting, in addition to the dragonfly, the water bug Ranatra linearis and frogs, toads, and common and crested

newts. Colliers Claypit is being levelled for housing. Housing development has destroyed an extensive and valuable site at Coleman's Moor, Woodley, which had a rich and unusual flora as well as interesting birds and insects and was often visited and studied by members of this Society. The water violet (Hottonia palustris) has gone, the fate of the very rare beetle Ilybius subaeneus and of the uncommon Hydaticus seminiger and Ranatus grapii is problematical, and several species of Wainscot moth and interesting Caddis and dragonflies have been lost. The flow of the ditch at Little John's Farm behind the Oxford Road has been greatly reduced by work near Cow Lane. It is now overgrown by horn-wort (Ceratophyllum), and the water violet, forg-bit (Hydrocharis morsus-ranae) and bladderwort (Utricularia vulgaris) are greatly reduced. The level of the water meadows by Cow Lane has been raised 6 ft. by dumping and levelling, and four species of water beetles including the rare Dytiscus circumcinctus are affected, as well as the liverwort Riccia fluitans (Crystalwort). At Kingsmere near Finchampstead, water skiing with the consequent oil pollution is damaging the water spider Argyroneta aquatica, the fate of which is unknown, and also the uncommon water beetles, Ilybius senescens and Ilybius guttiger. The only slight ray of light in this direction is the fact that Heath Pond, now conserved and the property of the National Trust maintains a small population of some of the species endangered (or worse) at Kingsmere.

The change in insect life must be apparent to all. Everyone, not just the naturalist, is aware of the lack of the colourful butterflies (Peacocks, Red Admirals, Small Tortoiseshells and even Commas in good numbers) that used to jostle one another on our buddleias and michaelmas daisies. Now, we usually have to count ourselves lucky to see ones and twos. On a Whitsuntide outing twenty or so years ago, I always relied on seeing an Orange-tip butterfly, the handsome black and red froghopper Tomaspis vulnerata, several kinds of ladybirds, dragonflies and brightly coloured weevils and a Cardinal beetle. Now, I am pleased to see one or two of these. The soldier beetles still frequent the umbels but not in the dense masses of those days. One of my most interesting early entomological experiences with the Society was visiting Greenham Common on a brilliantly sunny day in high summer and having pointed out to me innumerable Grayling butterflies resting on the ground tilted over until they almost lay flat and cast no shadow. The white and gray mottled undersides of their wings provided such a perfect camouflage that it was hard to pick them out on the rough soil. It is many years since I last saw a Grayling butterfly. I was delighted to see a Wall butterfly at Upton this summer. It was my first for years. I used to have them in the garden every summer and Small Coppers too.

I had another exciting experience reserved for a very new and uninformed lepidopterist, when having watched a nondescript little brown butterfly settle on a grass stem on the Downs and seemingly disappear, I discovered on closer examination of the spot that the underside was green and was able by rapid consultation of South to confirm that there was indeed such a butterfly and that I was seeing my first Green Hairstreak. This charming little butterfly was common enough, and a visit to the chalk Downs at the right season would generally be rewarded with a sight of one, but, though they are probably still not rare, I am not so favoured nowadays. Also, although a walk on the Downs at the appropriate season can still

be fairly well relied upon to yield a Blue, it is usually a Common Blue. It was not always so. Brian Baker reports that the south-facing chalk slope overlooking the Thames at Hardwick held our closest colony of the Adonis Blue until it was ploughed during the war and the colony lost. The north-facing slope of Hardwick Hill formerly held the Chalkhill Blue and Marbled White butterflies in quantity. On this ground, nature is taking its own course and with the loss of the rabbits a coarse grass cover has developed and hawthorn scrub has encroached at the expense of the food plants of these butterflies. The story is the same at Streatley Hill where the northern face is rapidly 'scrubbing up' and the Adonis Blue and Silver Spotted Skipper have long since disappeared. The same applies to other slopes and trackways on the Berkshire Downs, and though valiant efforts have been made by Martin Sell and his helpers from R.D.N.H.S. to redress the situation at Aston Upthorpe, the Chalkhill Blue butterfly colony has not yet re-established itself. The higher ground above Padworth Gulley used to be fine ground for High Brown and Small Pearl Bordered Fritillaries. The former was especially abundant in 1941. The ground seemed beyond cultivation, being plateau gravel close to woodland fringe with deep alder gullies. However, an attempt was made at cereal growing, followed by the introduction of pigs, and this finished the locality as far as fritillaries were concerned.

Brian ends his contribution on a more cheerful note and strangely starts with a statement that seems to be in contradiction with Arthur Price's remarks! Perhaps every cloud really has got a silver lining! He feels that we can turn towards the credit side in considering aquatic habitats. He is thinking especially of the many artificial lakes now existing west of Reading. Although these were stark when first excavated, some have now 'matured' and provide rich breeding grounds for dragonflies such as the Scarce Aeshna. Brian also cites the unexpected arrival in the Burghfield area of the Pine Hawk Moth, for which a favourable habitat is assured by the policy of continued coniferisation in this area where local lepidopterists first saw it in July 1944. Since that time, it has become a steady resident, though the peak numbers of the '50's have not been reached of late. However, it still occurs widely across the heathlands of South Berkshire and North Hampshire and has recently been taken at light in the Chiltern beechwoods at Goring Heath. The monoculture of cereals covering much of the Downs to the detriment of Blue butterfly colonies has provided a habitat for the Brighton Wainscot, formerly only to be found with certainty upon the wheat-fields of Salisbury Plain. Much good country remains, and it is heartening to know that some of those concerned with the forestry operations on extensive estates in Berkshire and Hampshire have realised how easy it is to wipe out long established colonies of woodland butterflies and are now anxious to promote their conservation by leaving viable reservoir areas.

It is hard to assess the position as regards mammals, which are comparatively seldom seen even when present, but it is obvious that the urban sprawl must have driven most kinds further from us, and presumably the decrease in broad-leaved woodland, copses and hedgerows must have reduced the number that can find living space in the neighbourhood. However, badger setts are still to be found in many copses, hedgehogs still accept gifts of milk in town gardens in spite of the high toll on the roads, and the fallow deer

has been joined by the muntjac. The near disappearance of the alien rabbit made way for a much increased population of the native hare, and the fortunes of the rabbit itself are now, I think, on the mend. The temerity of the grey squirrels knows no bounds (and pests and intruders though they may be, yet they have great charm), and the fox, no doubt finding modern farms unprofitable, comes more and more boldly into town to raid the more fruitful dumps and dustbins.

Birds are under pressure from many directions, notably from pesticides, pollution and destruction of scrub and hedgerow, as well as predators and the hazards of weather, which struck with savage ferocity in the early months of 1963. The wrens, which suffered particularly at that time have made a good recovery, but I do not think that the kingfisher, which came near to extinction, has approached its former numbers. I do not know why it is that the cuckoo, which formerly, having delighted us each year by announcing the return of spring, soon threatened to drive us crazy with its monotonous call, is now so rarely heard that the sound of its voice is always an excitement. The scarcity of the nightingale is easier to explain, for it is exacting in its habitat requirements and coppice of the desired density is scarce. It is strange to reflect that thirty years ago one had only to open a window in Northcourt Avenue on a warm May night to hear the stillness broken by the sweet notes of a nightingale from Leighton Park, and, in Whitley Wood, the inhabitants complained bitterly that the nightingales prevented them from sleeping. The wryneck, though I have never seen it, was recorded year by year from Caversham gardens in those early years, and more recently it nested regularly in Tilehurst, I believe, but I do not think that it has occurred locally for many years. Rooks built up to large numbers during the war as a result of the increased acreage under cereal crops, and though some of the nearest rookeries are no more, there has been one in the town centre within the last few years and one has to travel only a few miles out on an early spring day to be sure of seeing activity on the skyline and hearing the fascinating call. On an excursion to the heronry at Coley Park in March 1960, we saw twelve nests, some twenty-five herons standing in the field and several leaving and returning to nests and standing in the tree tops. The following year, I noted twenty nests, of which at least twelve were large and occupied, and similar activity, but the building of high blocks of flats very near the site has disturbed the birds severely. Against the losses, we can set the short-eared owls that regularly winter at Aston Upthorpe in increasing numbers. Whether they have formed this habit comparatively recently or we have become aware of them comparatively recently, I do not know.

I have already referred more than once to Aston Upthorpe. This is a magnificent piece of chalk downland over which B.B.O.N.T. has a twenty-five year agreement with the owner for the maintenance of a habitat for juniper and some rich chalk flora, mainly the pasque flower (Anemone pulsatilla). We, as a Society, have undertaken to carry out the necessary conservation work, which has been in progress for several years. Here, as over the rest of the Downs, the 'even mead', wanting sheep and having only a modest population of rabbits, has conceived by idleness and brought forth, not docks and thistles certainly, but a rank growth of coarse

grass. To combat this and encourage the sheep's fescue and the freckled cowslip, burnet and the rest, Martin Sell, supported by a small band of rakers, annually in late winter wielded not a scythe but a 'Flymo'. A vast improvement in the appearance of the turf has resulted. In 1970, there were two very large colonies of cowslips, Polygala calcarea (chalk milkwort) was widespread, and candytuft appeared. Senecio campestris (field fleawort), the frog orchid and the pyramidal orchid occur there, as does also Orchis ustulata. This attractive little plant had been shown in the Museum in 1917, and I heard rumours that it grew at Streatley, but it was not until B.B.O.N.T. acquired the Reserve that I came to know it in England. It now flourishes on the Reserve, and in good years has been plentiful.

The story of the pasque flower itself, however, is to me a baffling and sad one. This beautiful flower has always been extremely local in our area, but we used to have a site off the Fair Mile above Streatley where it could be described as locally abundant. The Aston Upthorpe site was not then widely known. I first had the thrill of seeing pasque flowers on a Discussion Group outing to the Fair Mile site very early in the war. The plants grew scattered fairly plentifully over the crown of a hillock, the purple and gold flowers making a picture of great splendour. When we found that the forces had taken over the area for shelling practice and that the targets were on top of our cherished hill, we felt that the pasque flower in Berkshire was doomed. But we were quite wrong. As the ground in which it grew was torn up month in month out, the pasque flower flourished and increased. The plants covered the top and sides of the hill so thickly that on approaching, one could discern a purple haze from far away. Although the site was locally well known and there was considerable picking, the colony increased, for the plants still set quantities of seeds. The property changed hands and all access was forbidden, so I have not seen the site for many years, but I understand that the colony has almost died out and that there were no flowers at all this spring. At Aston Upthorpe, we have suffered from the activities of voles, which nibble off the flowers. We must be grateful that the pasque flower survives there, but it does so only in small numbers in spite of our efforts, and I feel that we have not found the complete answer. There should be a way of stimulating it to form a more prolific colony.

Another of our specialities, the fritillary (Fritillaria meleagris) has fared better. In my childhood, long before I was associated with this Society, a visit to the fritillary field at Stanford End Mill near Riseley was an annual delight. The farmer and his wife had the welfare of the flowers very much at heart. They kept the cattle out of the field until the plants had died down, and they sat on guard at the gate during the flowering season, charging visitors a modest 6d a bunch. They waged a hard battle with the gipsies who tried to outwit them each year and strip the flowers for sale. Every year, all flowers in one section of the field were left to set seed. Recently, I have visited the field much less often. In 1957, I went and was confronted with a sorry sight. The flowers, many fewer than usual, were almost all deformed. The suggested explanation was that the buds had been attacked by wood pigeons. For several years, I heard gloomy reports from fellow members on the poor showing of the plants.

In 1970, with the Wiltshire Naturalists' Trust, I visited a field near Cricklade, where, helped by the traditional system of land tenure, fritillaries grew so thickly that it was hard to avoid treading on them and they stretched as far as the eye could see. When I visited Stanford End a few days later, I was delighted to find that, though the field was much smaller than the Wiltshire one, the flowers were growing as thickly and were in equally good condition. The situation seemed to me to compare quite favourably with what it had been forty years earlier. This spring I found good, of not spectacular, numbers. This seems to me to be an example of highly successful management, for which we must be thankful, for the fritillary is now known from not more than thirteen localities I believe, whereas before 1930, it was known from more than a hundred.

I find it difficult to assess the position with regard to our very own speciality the summer snowflake (Leucojum aestivum) or as it is best known to us, the Loddon lily. It spreads with ease, bulbs that are washed downstream readily becoming established to found new colonies, but the green-tipped white bells, rather like outsize snowdrops, are extremely attractive and have always been a prey to mass picking both by gipsies for sale and by the ever increasing numbers of local dwellers and visitors for their own enjoyment. I am told by boat owners that it flourishes in the relative safety of islands on the Thames, but on its native Loddon, I find it elusive. On a memorable evening, 14th May 1948, with the Editor I took a path southwards from Loddon Bridge to a meadow where the river was fringed by a band of Loddon lilies several feet wide. Those on the landward side had been cut off, apparently grazed, but beyond this was a wide belt in all its beauty - an unforgettable sight but the only such view of Loddon lilies that I have ever had. That evening was memorable for two other things. The riverside vegetation was covered with the sparkling metallic blue and green of recently emerged adults of the damselfly Agrion splendens, a sight I have never seen repeated, and a little later I walked along Shinfield Road listening to nightingales. To return to the Loddon lilies - some years later when a party of visiting naturalists came to see some of our specialities we were able to show them just one flower of the Loddon lily at Sandford Mill. Years later, on an excursion to Woodley that I was unable to attend, many Loddon lilies were seen. A few days later, I carefully followed the route that had been taken. An entry that had been open then was now closed with barbed wire, building operations were in progress on the site and I was able to find only two or three Loddon lilies in a ditch. Near Sandford Mill, they survived in some numbers but in conditions that to me seemed hardly to qualify as truly wild. However, I am assured that they are still quite plentiful.

Cornfield weeds deserve a special mention. Whatever the farmers may think, cornfields have deteriorated badly from the naturalists' point of view. Hardly a weed! Apart from the showy expanses of poppies, they used to produce in modest numbers an assortment of less conspicuous but very attractive flowers. Venus' looking glass (Specularia hybrida) can still be found here and there and the two Kickxia's sometimes in fair numbers, and Venus' comb or shepherd's needle (Scandix) turns up very occasionally, but others have virtually disappeared. As a child, I used to come upon the corn buttercup (Ranunculus arvensis), with its

attractive fruits from time to time, but I have not seen it for some forty years, though our Secretary found one plant this year. It is shattering to know that this species was recorded as abundant in meadows and fields in the little local Flora published in 1900. In the same book, larkspur (Delphinium ajacis), which I have never found, is recorded from cornfields near Streatley and corn cockle (Agrostemma githago) and cornflower (Centaurea cyanus) from cornfields unspecified. I saw my only corn cockle in 1926 and I have never seen a cornflower in an English cornfield.

Cowslips have retreated before the plough, but I do not think that the decrease in the last fifty years has been nearly so rapid as in the late years of last century. When I was a child in Shinfield, I heard tales from local people of cowslips growing in profusion in the meadows near the Loddon when they were boys, but I certainly never saw a cowslip in that area, though they were plentiful at Grazeley on the railway bank. In general, they have now become flowers of chalk downland almost exclusively, and are seldom really plentiful. I do not know whether to ascribe their disappearance from the valleys to the making of cowslip wine or of cowslip balls, both horrifying practices, or to some more natural cause. They are certainly threatened by commercial exploitation.

Primroses are the subject of one of our saddest stories. They used to be so plentiful in our woods, copses and hedgebanks that primrosing expeditions were an essential part of childhood and it seemed impossible that it ever should be otherwise. Spring without several visits to a primrose wood would have been unthinkable and our churches were lavishly decorated with them for Easter, but such pleasures cannot be commonplace to Reading children to-day. Quite a long drive is necessary to run them to earth and then you have to know your spots. The causes of the decline are numerous. Uprooting by gipsies for sale and by greedy gardeners is blamed, but I doubt whether this is the chief cause. Hedgerow banks have fallen victims to prairie farming. Many woods have been cleared for building. When Bottom Copse at Arborfield was bulldozed out of existence, with it went carpets of primroses, violets and a fair number of early purple orchids. Larger woods, where one was once welcome to wander freely, were first enclosed with barbed wire as it became necessary to preserve a pheasant crop if the land was to make its necessary contribution to the revenue of an estate, and then, as clearance and management were neglected owing to the high cost of labour, they generally became too overgrown and dark to support a varied ground flora. Mrs. Trembath has carried out a noble rescue operation on the railway bank at Pangbourne station, where a once beautiful show of primroses had disappeared completely under a carpet of encroaching ivy. She sought and obtained permission to clear the ivy and she and all the other users of the station were rewarded this spring with a show of primroses as beautiful as it had ever been in past years. Early purple orchids, which once grew in many copses, have become much less widespread, though there is one wood only just outside the borough boundary, where Orchis mascula grows in very large numbers.

The local plant of which we were proudest in the early 1940's was the monkey orchid (Orchis simia) of which we had the only known site in the British Isles. I recall being taken to see it for the first time on a beautiful May afternoon when I sat with a few members of the Discussion Group on a grassy slope overlooking

the Thames with the beautiful little flowers beside us among the other chalk flora and blue butterflies flitting all around. The plants were not numerous then, perhaps there were a dozen, but they looked happy and safe on this site where they had long been undisturbed, and we held no fears for them. Our consternation was great, therefore, when the site came under the plough in 1949. A plant flowering on an upturned sod was sent to Kew but I think failed to survive. One reappeared under the hedge in 1960, but although the slope returned to grass after a long interval, the orchids have not reappeared on it. A small and struggling colony has appeared on a nearby slope but often it consists of no more than a few stunted plants and access to the site has had to be stopped lest damage be done. Fortunately, three sites are now known in other parts of England.

On the other hand, Spiranthes, that charming and somehow fascinating, albeit inconspicuous, little orchid known as the autumn lady's tresses, seems to have shown considerable gains. For long enough, all I knew of it locally was the tantalising information that it used to grow on Hardwick Hill, but although Hardwick was richly rewarding with a variety of chalk flora, I never saw lady's tresses there or heard of anyone who still did. I got to know this plant locally in the mid 1950's when, following a long dry season during which little mowing was done, it appeared on various lawns, notably Dr. Eales' lawn at Peppard where it still flourishes. It also appeared at Leighton Park, and in 1961 it appeared on a lawn at Yattendon, and it has grown on Dr. Watson's lawn at Cleeve. In 1969, it was found by a member growing plentifully on Turville Hill where a large party of members saw it on one of the Society's excursions in 1971. In 1970, it was found at Ashley Hill, so whether through real increase or more thorough searching we are certainly better pleased to see this plant than we were a generation ago.

The reverse is true, unfortunately, of the green-winged orchid. In my childhood, I often found meadows with Orchis morio flowering in quite large numbers together with purple clover and common vetch, which took up the same colouring, or with cowslips with which it contrasted to make a really regal show. Now it is rarely seen, though often the habitat remains, and it seemed to tolerate a fairly wide diversity of conditions. It used to be quite plentiful in the water meadows beside the Pang at Bradfield, and I made many a pleasant evening trip to see it growing in numbers with the cowslips in the railway cutting at Grazeley. The bank is still there, but the grass is rank and long, probably through lack of rabbits, and for very many years there has been no sign of the orchids. One still finds the odd few flowers from time to time but I last saw considerable numbers at Marlow Common in 1964. Although we were guilty of picking these flowers for decoration before we realised the harm that this does, nevertheless I doubt whether we were solely responsible for the decline. I incline to a theory that the fall in the horse population may be involved, as the meadows where the orchids were plentiful were often grazed by horses. However, the railway bank was not, though it lay just below a field where there were always horses. Orchis morio still grows on Dr. Eales' lawn with the Spiranthes and it must be many years since horses grazed that grass, although it is a tamed field. Is it once more the close cropping, here represented by mowing, that is wanted?

The lizard orchid (Himantoglossum hircinum) remains a legend as far as I am concerned. There has been one record of it in my time I believe, but I did not manage to see it and indeed have still never seen it growing anywhere.

The water violet (Hottonia palustris), a relative of the Primulas in spite of its misleading English name, is a lovely and exciting plant. I first saw it at Great Lea Common near Grazeley in the early 1940's and was thrilled with it. Over the years, I visited it several times, and although one would have wished that the site were more savoury, the beauty of the plant overcame its surroundings. In 1957, the pond was silting up and we feared the flower was doomed, but in 1970 an enormous increase in the colony was reported. The pond has survived the construction of an access road to the M4 Motorway within a few yards of it and this year all was well. A site near the Wokingham Road was less fortunate and has disappeared under a new roundabout. The plant has also been recorded from near Cleeve and in streams near the Thames, and in 1960 I saw it at Waltham St. Lawrence. I do not know how it has fared at these sites.

I think on the credit side, Oxford ragwort deserves a mention. It is not a distinguished plant, but certainly does not deserve its unkind specific epithet of squalidus. In fact it is neat and tidy in its growth and in an environment increasingly deprived of natural colour, it spreads sheets of gold over railway sidings and waste ground in towns for more than half the year. I do not know when it began to take possession in Reading. There was a record of it as occurring 'on a railway bank' in 1900, but it rated for a note all to itself in no. 1 of the Reading Naturalist in 1949, so was evidently still newsworthy then.

Perhaps the most satisfactory record is that of the bluebells. So far, our bluebells are mostly too far from centres of population and mass recreation to succumb to trampling - much their worst enemy - and they thrive on felling. Though some woods where they formerly flourished become too dark and overgrown for them to flower in any numbers, this has so far I think been compensated for each year by areas where clearing and felling have allowed a dense blue carpet to develop, and there is still no difficulty in finding these wonderful splashes of colour, much the most spectacular sight I think that the countryside of south-east England has to offer to-day.

That concludes my look at the natural scene around Reading as I have known it and seen it change over the past thirty years. It is just a survey and I do not aspire to draw any but the most obvious conclusions from it. We have lost a lot. Some forms of natural life and their habitats have suffered more than others, but if we have found here and there a slight compensation or a crumb of consolation, if everything - everywhere - is not quite as inky black as the prophets of gloom would have us believe, yet that is certainly no cause for the least suspicion of complacency but rather a source of inspiration giving us the courage to redouble our efforts to strive in every way in our power to save what still remains to us before it is too late. Time is running out.

Memories of Kingsmere and Heath Pool

by K. I. Butler

As one of the older members of the Reading and District Natural History Society I am very pleased to offer a small contribution concerning Heath Pool and Kingsmere Lake near Wellington College, Berks. I have known these two areas since my childhood, for one of my very earliest recollections is of my older brothers bathing in Heath Pool in 1911, whilst my father, a keen botanist, was introducing me to Drosera rotundifolia L. (Sundew), growing by the lakeside and undoubtedly my first botanical observation. This plant may be seen today around the margins of Heath Pool, which is still used as a bathing place by innumerable small boys and girls and where the remains of the diving board used by my brothers can still be seen.

Kingsmere recalls early memories of a different kind, of learning to skate. It was not until I became the Recorder for Botany for the Society from 1936 until 1963 that I got to know it botanically. In my botanical report for the year 1949 I recorded: "The most interesting find of the year was the discovery by Mrs. A. M. Simmonds (now Mrs. Sandels) of Illecebrum verticillatum L. (Whorled Knotweed) growing on the margin of Kingsmere Lake. Prior to 1891 this plant was only recorded from Cornwall, Devon and the Channel Islands in Great Britain. Therefore its discovery in that year (1891), as recorded by G. C. Druce in his 1897 Flora of Berkshire, growing on the damp sandy margin of a pool near Wellington College, was of singular interest. Druce, in his 1919 supplement to his Flora, records it again near Kingsmere Lake with the suggestion that it had spread from the original locality to other places near Wellington College, or that it had been previously overlooked. It is encouraging to know that during fifty odd years this uncommon little plant is still holding its own." It was seen again in 1950 when another visit was made by some other members of the Society and myself to the partially dried up bed of the Lake on 16th July. The ground flora consisted of Littorella uniflora L. Achers (Shoreweed), Hydrocotyl vulgaris L. (Marsh Pennywort), and Juncus bulbosus L. (Heath Rush). Large patches of D. intermedia Hayne (Long-leaved Sundew), of such a bright colour as to be visible at some distance away, and a small amount of D. rotundifolia L. were also found. In earlier years Kingsmere used to dry up on many occasions but apparently has not done so recently. Possibly, damage which had been caused to the 'hard pan' has now sealed itself.

During the ensuing years I have made few observations at Heath Pool or Kingsmere Lake. However, in the 1968 Flora of Berkshire (Dr. H. J. M. Bowen) the latest recordings for Drosera and Illecebrum are as follows:

- Drosera rotundifolia Triangle Pond, Finchampstead 1962. (I believe that this is Heath Pool.)
- Drosera intermedia Kingsmere 1950.
- Illecebrum verticillatum Heath Lake 1961.

Fortunately, Heath Pool is now owned by the National Trust and will be conserved for future generations of naturalists. Some

concern, however, is felt about the future of Kingsmere, where, in addition to the botanical records, many uncommon insects have been found. The very local water beetles Ilybius aenescens Thompson and I. guttiger Gyllenhal have been found in Kingsmere in great numbers whilst Heath Pool only provides occasional records.

Agabus affinis Paykull is found both in Kingsmere and Heath Pool whilst the Water Spider, Argyroneta aquatica L. is found in fair numbers in both habitats.

These observations suggest that, from a conservation point of view, the permanent acquisition of Heath Pool will not make up for the possible loss of Kingsmere.

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#### Albinism in frogs (Rana temporaria L.)

breeding from single recessives

by A. Price

In 1970, the mating of a 1968 female double recessive for albinism (cc) with 1968 male No 10 produced male and female pigmented frogs, which were expected to be single recessives (Cc) for albinism. The males proved themselves to be Cc when two back crosses were made in 1972 (Price 1973). These back crosses produced 50% pink tadpoles and 50% which pigmented as they developed. In the spring of 1973, four successful crosses, using the 1970 single recessive males and females, were carried out. A briefly held theory that all single recessive, female frogs would lay white spawn was disproved as two of the females laid white spawn whilst the other two laid black spawn.

All four matings produced approximately 25% pink tadpoles proving that all of the progeny of the 1970 mating, mentioned above, were single recessives for albinism.

The details of the four matings are given below.

'S' Spawn.  
1970 Cc female No 8 X 1970 Cc male No 2

This mating resulted in 125 ml. of black spawn, 99% of which was fertile, being laid on 20th March 1973. The tadpole count gave 312 pigmented tadpoles and 108 pigmented tadpoles which progressively lost their melanin and became completely pink. The result was therefore 25.7% cc tadpoles which proves that both of these frogs were single recessives for albinism.

'V' Spawn.

1970 Cc female No 5 X 1970 Cc male

This cross resulted in 175 ml. of fertile black spawn being laid on 16th March 1973. A count of the tadpoles which hatched gave us approximately 25% pigmented tadpoles which were losing their melanin and becoming pink. High mortality made an accurate count impossible but the results strongly suggest that both of these frogs were also single recessive for albinism.

'T' Spawn.

1970 Cc female X 1970 Cc male.

This cross resulted in 80 ml. of fertile white spawn, containing two black eggs, being laid on 20th March 1973. The developing tadpoles were counted and 390 of them pigmented as they developed whilst 140 remained completely pink. This represents a percentage of 26 double recessive tadpoles. The two black eggs hatched into pigmented tadpoles, which lost their melanin as they developed and became pink. This mating proves that both of the above frogs are single recessive for albinism.

'X' Spawn.

1970 Cc female No 7 X 1970 Cc male No 4.

On 20th March 1973 this mating resulted in 80 ml. fertile white spawn being laid. The count of the tadpoles gave us 234 which pigmented as they developed and 79 which remained entirely pink. This resulted in the text-book figure of 25% cc tadpoles as suggested for a Cc X Cc mating. This again proves that both the frogs in this mating were single recessives for albinism.

All eight frogs used in the above experiment were released in Pat Smallcombe's pond.

The Matriarch.

The Matriarch, which has bred under close control since 1967, was crossed with one of the 1970 Cc males which had already proved in 1972, by a successful back cross, that it was Cc for albinism (Price 1973). They were placed in a tank together on 11th March 1973 and were seen in amplexus on 14th March. On 20th March, 480 ml. of fertile white spawn, containing no black eggs, was laid. The tadpole count resulted in 691 tadpoles which pigmented as they developed and 215 pink tadpoles. This gave us a figure of 23.7% albinos.

This proves that the Matriarch is single recessive for albinism.

i.e. Matriarch Cc female X 1970 Cc male = CC + Cc + Cc + cc.

This fact would have been proved earlier but for the complicated genetic make-up of the pink-skinned, pink-eyed male, Mickie, who had earlier been mated with the Matriarch giving an unexpected result (Price 1970). The Matriarch was still alive in December 1973. She is now fourteen years old.

Back Crosses.

Two more successful back crosses were made in 1973 using 1970 Cc males and 1967 cc female and 1971 cc female.

A. 1967 cc female X 1970 Cc male

This cross produced 120 ml. of fertile white spawn on 21st March 1973 which on hatching gave us a count of 183 pink tadpoles and 171 tadpoles which pigmented as they developed, i.e. 52% pink tadpoles and 48% pigmenting tadpoles.

B. 1971 cc female X 1970 Cc No 6

This cross produced exactly 50% pink and 50% pigmenting tadpoles.

The two back crosses again confirms the postulated

$$cc \text{ female } \times \text{ Cc male } = \text{ Cc } + \text{ Cc } + \text{ cc } + \text{ cc}$$

The stock of tadpoles from these two matings were dispersed to suitable habitats, especially Pat Smallcombe's pond and the pond in Highmoor Road.

Highmoor Road.

A visit was made to the pond in Highmoor Road on 10th March 1973 following the discovery of a pair of frogs in amplexus in the Froghouse at 6, Mansfield Road. During this visit the surplus decaying algae and dead leaves were removed from the pond.

One pair of frogs was found in amplexus under the marginal vegetation in the pond. During a further visit on 20th March two cases of multiple amplexus were seen, i.e. a female with males clinging to both the dorsal and ventral surfaces. They were parted to save the female's life. This year only one clump of white spawn was found as opposed to thirty clumps of black spawn. The clump of white spawn was left in the pond to develop.

The steady decrease in the numbers of clumps of white spawn is shown in the table.

Year	White Spawn	Black Spawn	Remarks
1965	25	20+	( Information from
1966	25	20+	( Mrs. Jeffery
1967	20	25	
1968	16	20	
1969	12	25	
1970	15	30	Winter - 17 dead frogs
1971	5	28	
1972	1	36	
1973	1	30	
1974			

It seems that the laying of white spawn is about over for the present.

## The future

After nine years intensive study of the problem of white spawn and albinism I have decided to give up the study. I have achieved much of what I set out to do and possibly added slightly to the solution of some of the problems.

During the nine years of breeding, the biggest problem has been the provision of living food for the developing frogs. In the early stages of the experiment there were, in the vicinity of Mansfield Road, many neglected, open spaces and gardens with stands of nettle and bramble which provided insects, spiders and slugs. Most of these places have been developed making the task much more onerous.

The experiment will be continued by Pat Smallcombe to whom I have handed over all my remaining stock with the exception of the Matriarch. This is in addition to the tadpoles and small frogs which she has kindly permitted me to place in her pond over the last six years so that the strain will not die out.

The only task remaining is to summarise the work of the last nine years. Again my thanks are due to a great number of people.

## Summary.

1. The Matriarch has been proved to be single recessive for albinism.
2. Four Cc X Cc crosses have proved that the 1970 pigmented frogs are all single recessives for albinism.
3. Two more successful back crosses were made in 1973.

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Report on Aston Upthorpe - 1973

by M. Sell

This year the customary mowing stint was carried out in early March, two 'Elymo's' being used for the task over a two-day period. The ease with which the mowing can now be performed is illustrated by the fact that most of the Reserve was cut in the first day, and practically no raking is now needed after the mowing. The second mower has now been presented to the Trust, and will prove very useful in this sort of conservation work. About one third of the total area was not cut this year, and it will be interesting to

see what difference there is in 1974 between this area and the main part of the Reserve.

The Short-Eared Owls were again in the valley this last winter, but only one was seen by the writer, although up to a total of six were reported. By mid-April, it was becoming evident that an exceptional number of Pulsatilla plants would bloom, and on the 20th April fifteen blooms and six buds were seen inside the small enclosure, with nineteen blooms and six buds outside, a total of forty-six in all inside the Reserve. Outside the Reserve, about thirty yards above the enclosure, were a further twenty-eight buds and flowers, the first time in five years that this colony has been seen to flower. By 29th April, a careful count of numbers revealed the following situation: fourteen flowers and three buds inside the small enclosure, thirty-one flowers and three buds outside the small enclosure, but inside the Reserve itself, and no fewer than forty-four flowers and two buds in the colony above the Reserve, a fine sight! By this time, Senecio campestris was in bud in small numbers all over the Reserve, and Polygala calcarea also beginning to come out.

By mid-May, P. calcarea was providing a fine display over the whole area, but oddly enough, not on the part which was burned in 1972 as an experiment, although this particular patch had a massive covering of Cowslips (Primula veris) which could be seen from a considerable distance. S. campestris was by now well out, and Orchis ustulata was appearing, three buds being noticed inside the Reserve, and about ten flowering spikes outside. Two plants of Pulsatilla were still in flower, and one bud still to come. By the end of May, the Cowslips were nearly over, and about fifty blooms of O. ustulata were flowering in the Reserve, with about ten to fifteen outside, a good display, but only about a third of last year's record total. Further up the Downs, masses of Field Mouse-ear (Cerastium arvense) were to be seen on the verges, and plants of Meadow Saxifrage (Saxifraga granulata) were dotted about at intervals on Lowbury Hill.

Mid-June, and a very hot spell, saw the last four or five spikes of O. ustulata, and by this time Frog Orchids (Coeloglossum viride) were to be seen, two coming into bloom, and more coming up. Chalk Milkwort had almost finished flowering, but Dropwort (Filipendula vulgaris) and Candytuft (Iberis amara) were rapidly taking the place of early-flowering species. There was also a plant of Common Gromwell (Lithospermum officinale) in the valley bottom near the Reserve.

By mid-July, Dropwort plants were in full bloom on the Reserve, and twenty-one Frog Orchids were flowering in two colonies; as with the Burnt-tip Orchids, this was only about a third of the number seen last year. Pyramidal Orchids (Anacamptis pyramidalis) were also flowering by this time, and a surprise find was a small colony of Bristly Poppy (Papaver hybridum) near the field gate by the Reserve, although there were many more plants of this species on the edge of a cornfield near Aston Tirrold village.

In mid-August, the scene had changed yet again, this time the Reserve being a mass of Clustered Bellflower (Campanula glomerata) and Felwort (Gentiana amarella). A small patch of Saw-wort (Serratula tinctoria), a predominately acid-soil species, gave

cause for thought as to why it should be growing there, but there was a further colony on the other side of the valley; these two stands indicate that the plant will also grow on chalk as well as acid soils, but seems much less common on the former than the latter, as it appears not to have been recorded to any extent on downland areas in the vicinity of Reading. Also in the vicinity of the Reserve was a plant of Corn Gromwell (Lithospermum arvense), and on the top of the hill by the dewpond opposite Juniper Valley was a small colony of Woolly Thistle (Cirsium eriophorum), eight plants in full bloom. This is also a very local species in this area, as there is little suitable rough pasture left on the Berkshire Downs for it to grow in.

Again, a good year for most plant species, particularly the Pasque Flower, and the mowing certainly seems to be producing results when the flora on the Reserve is compared with that in the rest of the Valley. Bird life was also quite active, a family of Kestrels being noted, two Sparrowhawks being reported, and Stone Curlews being heard or seen near the Fair Mile. Quail appeared not to be so much in evidence as last year, only about two or three being heard over the far side of Lowbury Hill.

As far as Reserve management is concerned, some of the fencing needs to be renewed, and some palings have been obtained from Moor Copse to do the job. The gates also need to be strengthened, and this work will be put in hand this winter. Mowing will be carried out about the usual time next spring, but there is scope for carrying out certain experimental work in controlled areas, which could be of interest, and provide some valuable information on plant activity. It has been noted, for instance, that where mowing has been done regularly, Bromus erectus has been considerably thinned out, and is not nearly such a predominant plant. In these areas, the chalk-downland grasses are re-establishing themselves, anthills are being re-colonised, and the rabbit population is making a noticeable contribution to keeping down the grass during the summer, as compared with areas outside the Reserve. Even inside the small enclosure, where rabbits cannot penetrate, the grass is much longer and ranker by the end of the summer, although this year, nibbling of Pasque Flower heads seemed to be negligible both outside and inside the protected area. Whether this is due to a low population of voles and mice is open to question, but this may be the case, as numbers of Short-Eared Owls in the Valley this year was below average. Rabbit damage appears to have been negligible.

It should be mentioned in conclusion that a Permit is now required to visit the Reserve. These are available from the Berkshire County Secretary; this measure has regrettably had to be introduced because of unauthorised trespass on private land in Juniper Valley, and is in no way intended to stop bona fide visits to the Reserve itself, which is also on private property.

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Fungi of Harpsden Woods

by E. M. Trembath

On October 27th 1973 the Society accepted the invitation of Mrs. V. Vincent of Cray House, Harpsden to hold the annual fungus foray in her beech woods - a new venue for the Society. The weather was perfect and conditions good for foraging. Fungi were plentiful but no rarities were found. The trees, mostly beech but with some mature birch, oak and larch, ensured a reasonable variety of species of fungi. Mrs. Vincent led and Dr. F. B. Hora named the species, explaining the diagnostic features and emphasising how the senses of smell, touch and taste can assist sight in determining the species. He also demonstrated the use of chemicals to dispel doubt where species had similar physical features.

Tea was kindly provided by Mrs. Vincent and her family. Our thanks go to her and to Dr. Hora to whom we owe the success of the outing.

In the following list, the species recorded are grouped according to "Collins Guide to Mushrooms and Toadstools" (M. Lange & F. B. Hora).

ASCOMYCETES

Sphaeriales

Xylaria hypoxylon

BASIDIOMYCETES

Aphyllorphales

Thelephoraceae

Stereum hirsutum

Clavariaceae

Clavaria cristata

Ramaria stricta

Polyporaceae

Piptoporus betulinus

Grifola gigantea

Agaricales

Agaricineae

Hygrophorus eburneus

" psittacinus

Tricholoma saponaceum

" argyraceum

Armillaria mellea

Clitocybe nebularis

dicolor

" inversa

Laccaria amethystina

" laccata

Collybia dryophila

" fusipes

" butyracea

" maculata

" peronata

Oudemansiella mucida

" radicata

Mycena galericulata

" galopus

" pura

Amanita muscaria

" fulva

" citrina

" rubescens

Agaricineae      Pluteus cervinus  
continued      Lepiota rhacodes  
                 "      cristata  
                 Agaricus silvicola  
                 Coprinus comatus  
                 "      picaceus  
                 "      atramentarius  
                 "      micaceus  
                 Lacrymaria lacrymabunda  
                 Psathyrella hydrophila  
                 "      gracilis  
                 Stropharia squamosa  
                 "      aeruginosa  
                 Hypholoma fasciculare  
                 Kuehneromyces capnoides  
                 Conocybe tenera  
                 Inocybe petiginosa  
                 Hebeloma crustuliniforme  
                 Cortinarius cyanopus

Boletineae      Paxillus involutus  
                 Boletus elegans  
                 "      chrysenteron  
                 "      chrysenteron-varicolor

Russulineae      Russula nigricans  
                 "      fellea  
                 "      ochroleuca  
                 "      cyanoxantha  
                 "      mairei  
                 "      graminicola (aeruginea)  
                 Lactarius subdulcis  
                 "      turpis

Gasteromycetales      Phallus impudicus  
                 Lycoperdon perlatum  
                 Scleroderma aurantium

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Note: Amanita solitaria

Amanita solitaria is recorded from a chalk grass slope on the edge of Beechwood, Whitchurch. The record was confirmed by Dr. F. B. Hora.

E. M. Trembath

The Recorder's Report for Botany 1972-73

by B. M. Newman

Records sent in by the following members are gratefully acknowledged:- Mr. P. Andrews (PA); Dr. H. J. M. Bowen (HJMB); Miss L. E. Cobb (LEC); Mrs. M. Hall (MH); Mr. A. Price (AP); Mrs. A. M. Sandels (AMS); Mr. M. Sell (MS); Dr. J. Toothill (JT); Mrs. E. M. Trembath (EMT); Miss J. M. Watson (JMW).

The nomenclature and order are according to the "Flora of the British Isles" by Clapham, Tutin and Warburg. An alien taxon is indicated by an asterisk (\*). English names in common use have been given wherever possible and more recently invented names are put in quotation marks.

List of Members' Records

- Phyllitis scolopendrium (L.) Newm. Hart's-tongue Fern  
Greathouse Wood, Bradfield. (JT)
- Polystichum aculeatum (L.) Roth 'Hard Shield Fern'  
On bank of ditch near Bearwood (HJMB)
- Aconitum anglicum Stapf 'Monkshood'  
Road verge, Bradfield (EMT)
- \*Delphinium ambiguum L. Larkspur  
One white specimen, cornfield near Aston Upthorpe. (MS)
- Ranunculus arvensis L. Corn Buttercup 'Corn Crowfoot'  
Thatcham Marsh, 14.7.73 (JFN)
- \*Adonis annua L. Pheasant's Eye  
30-40 plants in full bloom, some about 2' high, along edges of cornfields near Aston Upthorpe. (MS)
- Papaver hybridum L. Bristly Poppy 'Round Prickly-headed Poppy'  
Fair numbers of plants along edges of cornfields near Aston Upthorpe (MS)
- Papaver argemone L. Pale Poppy 'Long Prickly-headed Poppy'  
Two or three plants near Aston Upthorpe (MS)
- Iberis amara L. Wild Candytuft  
Clumps on the edges of fields, Upper Basildon; Lodge Hill near Bledlow Ridge, NHS walk (MS)
- Cardamine amara L. 'Large Bitter-cress'  
Bank of River Loddon, Arborfield. (PA)
- Erysimum cheiranthoides L. Treacle Mustard  
In a cornfield near the Thames at Mapledurham (HJMB)
- Viola tricolor L. Wild Pansy  
On spoil tips, Whiteknights Park. (HJMB)
- Hypericum humifusum L. 'Trailing St. John's Wort'  
Roadside near Riseley Mill. (JT)
- Hypericum elodes L. 'Marsh St. John's Wort'  
Englemere Pool, Ascot, 1.9.73. (R. Lush per LEC)
- Silene noctiflora L. 'Night-flowering Champion'  
Thatcham Marsh, 21.7.73. NHS walk. (LEC)

- Cerastium arvense L. 'Field Mouse-ear Chickweed'  
Swyncombe Down, 12.5.73, NHS walk (LEC). Masses along the edge  
of the track forming cushions of white, Fair Mile. (MS)
- Montia fontana L. Blinks  
Englemere Pool, Ascot, 1.9.73. (R. Lush per LEC).
- \*Atriplex hortensis L.  
On spoil tips, Whiteknights Park. (HJMB)
- Geranium columbinum L. 'Long-stalked Cranesbill'  
Bottom Farm, Ipsden. (HJMB)
- \*Oxalis corniculata L. Sleeping Beauty 'Procumbent Yellow Sorrel'  
Near Thatcham Church (HJMB); abundant in a lawn at Upper  
Basildon. (MS)
- \*Oxalis europaea Jord. Upright Oxalis 'Upright Yellow Sorrel'  
Garden of 2, Welland Close, Tilehurst. (MS)
- \*Impatiens capensis Meerburgh Orange Balsam  
By the Thames near Pangbourne. (MS)
- \*Impatiens parviflora DC. 'Small Balsam'  
Whiteknights Park between head of lake and Building 3. (JT)
- Sarothamnus scoparius (L.) Wimmer ex Koch Broom  
Colonising Smallmead old tip and a roadside verge near Woodcote.  
(HJMB)
- \*Medicago sativa L. Lucerne, Alfalfa  
Thatcham Marsh, beside the railway. (BMN)
- Melilotus altissima Thuill 'Tall Melilot'  
Thatcham Marsh. (BMN)
- \*Melilotus alba Medic. 'White Melilot'  
Several tall plants in Westwood Glen, Tilehurst. (JMW)
- Potentilla argentea L. 'Hoary Cinquefoil'  
The habitat near Loddon Bridge in a narrow lane parallel to the  
railway, has been destroyed during the construction of the  
Motorway. (AMS)
- \*Potentilla norvegica L.  
One plant near Stitches Green, B. Levy. (HJMB) A few plants  
found in Mutton Copse after tree felling by Dr. B. Levy. (EMT)
- Sanguisorba officinalis L. 'Great Burnet'  
Damp meadow, Sulham. (EMT)
- Rosa rubiginosa L.  
Chalk bank near Mapledurham. (HJMB)
- Saxifraga granulata L. 'Meadow Saxifrage'  
Clumps at intervals in the grass, Lowbury Hill. (MS)
- Drosera rotundifolia L. Sundew  
Englemere Pool, Ascot. 1.9.73. (R. Lush per LEC)
- Drosera intermedia Hayne 'Long-leaved Sundew'  
Englemere Pool, Ascot. 1.9.73. (R. Lush per LEC)
- Daphne laureola L. Spurge Laurel  
Turville Park (Oxon. part); near Mapledurham. (HJMB)
- Viscum album L. Mistletoe  
On Tilia near Englefield Park House, Theale; on Tilia, Crataegus  
and Populus, north side of The Street and east of Hill Farm,  
Mortimer. (JT)

- Hydrocotyle vulgaris L. Pennywort, White-rot  
Englemere Pool, Ascot. 1.9.73. (R. Lush per LEC)
- Anthriscus caucalis Bieb. 'Bur Chervil'  
Still holding on in the old haunt at the base of a tree in the  
Chestnut Walk in Reading Abbey Ruins, but not exactly flourish-  
ing as the plants are very stunted. (AMS)
- Petroselinum segetum (L.) Koch Corn Parsley, 'Corn Caraway'  
Cornfields near Aston Upthorpe. (MS)
- Oenanthe crocata L. 'Hemlock Water Dropwort'  
Thatcham Marsh, 21.7.73. (LEC)
- Mercurialis annua L. 'Annual Mercury'  
In small patch of neglected rough grassland, Basildon. (EMT)
- Euphorbia lathyris L. Caper Spurge  
At least two dozen plants in the gardens of 2, 4 and 6,  
Mansfield Road, Reading. (AP)
- Polygonum bistorta L. Snake-root, Easter-ledges, 'Bistort'  
Thatcham Marsh. 21.7.73. (LEC)
- Parietaria diffusa Mert. & Koch Pellitory-of-the-Wall  
Swallowfield Parish Church. (JT)
- Gaultheria shallon Pursh  
Englemere Pool, Ascot. 1.9.73. (R. Lush per LEC)
- Monotropa hypopitys L. Yellow Bird's-nest  
Three plants in Davenport Wood, Marlow. (MS)
- Vinca major L. Greater Periwinkle  
Roadside, Farley Hill. (JT)
- Cynoglossum officinale L. Hound's-tongue  
On a chalky rabbit scrape near Mapledurham. (HJMB)
- Calystegia sepium ssp. silvatica (Kit.) Maire.  
Hurst. (AMS)
- Cuscuta epithymum (L.) L. 'Common Dodder'  
Englemere Pool, Ascot. 1.9.73. (R. Lush per LEC)
- Atropa belladonna L. Dwaile, Deadly Nightshade  
Near Bottom Farm, Ipsden (HJMB)
- Hyoscyamus niger L. Henbane  
Three plants on Smallmead old tip (HJMB)
- Datura stramonium L. Thorn-apple  
Several plants on wasteland between the Chemistry and Plant  
Sciences Buildings, Whiteknights Park (JT); bank near  
Sutton's railway bridge, London Road, Reading. (AMS)
- Verbascum phlomoides L.  
On spoil heaps in Whiteknights Park. (HJMB)
- Verbascum nigrum L. 'Dark Mullein'  
Abundant on chalk bank, Bottom Farm, Ipsden; on spoil heaps in  
Whiteknights Park. (HJMB)
- Antirrhinum orontium L. Weasel's Snout, Calf's Snout  
Large numbers of fine plants in fields near Tadley, some about  
1 foot high. (MS)
- Kickxia spuria (L.) Dum. Fluellen  
On chalky arable land near Bottom Farm, Ipsden. (HJMB)

Kickxia elatine (L.) Dum.

On chalky arable land near Bottom Farm, Ipsden. (HJMB)

Scrophularia aquatica L. Water Figwort, Water Betony

One plant in Henley Road chalk-pit, Playhatch. (MS)

Digitalis purpurea L. Foxglove

Turville Park (Oxon. part). (HJMB)

Veronica chamaedrys L. f. alba

Near Mapledurham (HJMB)

Veronica polita Fr. 'Grey Speedwell'

On chalky arable land near Bottom Farm, Ipsden. (HJMB)

Melampyrum pratense L. 'Common Cow-wheat'

Nuney Green Woods, 29.7.73. (LEC)

Odontites verna (Bell.) Dum. 'Red Bartsia'

Thatcham Marsh, 21.7.73. (LEC)

Orobanche elatior Sutton 'Tall Broomrape'

On Centaurea scabiosa, Bottom Farm, Mapledurham. (EMT)

Verbena officinalis L. Vervain

Hedge bank near Mapledurham. (HJMB)

Thymus pulegioides L. 'Larger Wild Thyme'

Lodge Hill near Bledlow Ridge (NHS walk). (MS)

Acinos arvensis (Lam.) Dandy Basil-thyme

On Lodge Hill near Bledlow Ridge. (MS)

Legousia hybrida (L.) Delarb. Venus's Looking-glass

Thatcham Marsh, 21.7.73 (LEC). Along edges of cornfields near Aston Upthorpe. (MS)

Adoxa moschatellina L. Moschatel, Townhall Clock, Five-faced Bishop

Beggar's Bridge, Mortimer. (MH). Clearing in centre of Tilehurst. (JW)

Valerianella dentata (L.) Poll.

In a cornfield near the Thames at Mapledurham. (HJMB)

Succisa pratensis Moench Devil's-bit Scabious

Englemere Pool, Ascot. 1.9.73. (R. Lush per LEC)

Helianthus decapetalus L.

Smallmead old tip. (HJMB)

Solidago virgaurea L. Golden-rod

Roadside verge, Farley Hill. (PA)

Zannichellia palustris L. 'Horned Pondweed'

Pond near Pridder's Farm. (HJMB)

Ruscus aculeatus L. Butcher's Broom

Wood near Riseley Mill. (JT)

Ornithogalum umbellatum L. Star-of-Bethlehem

Roadside, Farley Hill. (JT)

Allium ursinum L. Ramsons

Great Chalk Wood. 14.4.73. (LEC) At intervals on both banks of the River Loddon for about two miles downstream from Moor Copse. (JT)

Galanthus nivalis L. Snowdrop

Well established, Arborfield area. (PA) Greathouse Wood, Bradfield. (JT)

Narcissus pseudonarcissus L. Wild Daffodil

A few plants, Shinfield area. (PA)

Iris foetidissima L. Gladdon, Stinking Iris

Large colony on the edge of a wood, Upper Basildon. (MS)

Setcreasea purpurea

A purple-leaved house plant from Mexico (member of Commelinaceae) found beneath a tree at Reading Sewage Plant. (HJMB)

Epipactis purpurata Sm. 'Violet Helleborine'

One large plant on roadside, Fence Wood, Hermitage. NHS walk; one plant, Davenport Wood, Marlow. (MS)

Epipactis phyllanthes G. E. Sm. Isle-of-Wight Helleborine

Ten plants in Lambridge Wood near Henley. (MS)

Ophrys apifera Huds. Bee Orchid

On Lodge Hill, near Bledlow Ridge. (MS)

Miscanthus saccharifer

A large Japanese grass naturalised by gravel pit near Twyford.

A. Munday. (HJMB)

\*Hordeum jubatum L.

Frequent on newly sown verge near Woodcote. (HJMB)

Hordelymus europaeus (L.) Harz 'Wood Barley'

Dean Wood, Woodcote. (EMT)

Milium effusum L. 'Wood Millet'

Turville Park (Oxon. part); Wood above Bottom Farm, Ipsden; Hardwick Wood. (HJMB)

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## The Recorder's Report for Vertebrates 1972-73

by H. H. Carter

### PISCES

Phoxinus phoxinus (L.) Minnow. Normally associated with the fast-flowing upper reaches of rivers, but still abundant in the Thames around the Rymer Weir at Caversham Mill in February 1973.

### AMPHIBIA

Triturus vulgaris (L.) Smooth Newt. Newts thought to be of this species reported at Parkside Road (BTP) and Bradfield (KP) during the year.

T. helveticus (Raz.) Palmate Newt. Still abundant in the Wokefield Common fishpond after its repair and cleaning, 28.4.73.

Bufo bufo (L.) Toad. Present in pond at Parkside Road (BTP); a large female on Whiteknights Road, 28.4.73 (RHS); fewer seen

dead on roads than in most recent years, one in Emmer Green, 23.3.73 and again 1.10.73.

Rana temporaria L. Frog. Bred in the pond in Prospect Park, whence it was re-introduced to the pond in Parkside Road (BTP); one dead on New Lane Hill, 6.11.72 (ZZK); one in the Wokefield Common fishpond, 11.9.73.

## REPTILIA

Anguis fragilis L. Slow Worm. Five in a garden in SW Tilehurst, 24.5.73, one caught by a cat at Woodley, 8.6.73 (RHS).

Lacerta vivipara Jacq. Lizard. Three at the Bell Inn, West Reading, 10.3.73 (DH); several on Wokefield Common, 15.5.73 (RHS).

Natrix natrix (L.) Grass Snake. An overwintered juvenile 25 cm (10 in.) long on a burnt area at Thatcham Marsh, 7.4.73 (ZZK); one at Chestnut Lane, Bearwood, 27.4.73 (RHS); one by a stream on Wokefield Common, 26.4.73; one by an old reservoir at Maidenhead, 11.7.73; one killed in Parkside Road, 20.9.73 (BTP); a juvenile 25-30 cm (10-12 in.) long at Spencers Wood, 1.10.73 (KP).

Vipera berus (L.) Adder. One at Brasshill, 27.5.72 (KP); one dead near Englefield Church, 15.6.73 (ZZK).

## MAMMALIA

### Insectivora

Neomys fodiens Penn. Water Shrew. Remains found in pellets of Strix aluco L. Tawny Owl at Bradfield, autumn 1971 (KP); one dead near Pang at Tidmarsh, 21.9.73 (ZZK).

Sorex araneus L. Shrew. Six records from the Tilehurst area between 14.4.73 and 29.7.73; one at the crossing of Burghfield Road and M4, 26.7.73; one Henley Road gravel pit 25.11.72 (all ZZK); remains in pellets of Strix as above; remains of four in pellet of Tyto alba (Scop.) Barn Owl at nest site by the Pang at Bradfield, 2.8.72 (KP); recorded on many dates in Dogkennel Lane and Harchmoor Lane, Kidmore End, 19.2.73 to 3.5.73; one at Gallowstree Common, 30.6.73.

S. minutus L. Pygmy Shrew. Remains in pellets of Tyto as above; one dead at Chapel Hill, 7.8.73 was partly eaten by hens (ZZK).

Talpa europaea L. Mole. Much fresh working on the Fairmile, 30.12.73; one dead in Sulham Wood, 11.4.73 (both ZZK); scarce in the Cholsey area (Mrs. Whittaker); present at Crowsley but scarce, 20.2.73; in small numbers at Rumerhedge Bottom, 4.3.73; present at Cane End, 17.3.73; abundant at Hinksey near Oxford, 20.2.73.

Erinaceus europaeus L. Hedgehog. Road deaths continue to decrease. Total six dead, two alive, from Tilehurst, Tidmarsh, Beenham, Caversham and Sonning Common.

### Chiroptera

Pipistrellus pipistrellus (Schr.) Pipistrelle. Two roosting in an old bottomless nest box at Chapel Hill in August (ZZK).

Carnivora

Vulpes vulpes (L.) Fox. Thirty-eight records received from areas north, south and west of Reading, and foxes also seen frequently in and near Tilehurst, where they are increasing (ZZK), and around Mortimer (Garth Hunt per ZZK); records from previous years show that foxes also occur, though perhaps less abundantly, to the east of us.

Lutra lutra (L.) Otter. A report received at secondhand per KP of five otters seen in the weir pool at Pangbourne in 1972; tracks seen at Hogmoor Bridge, in the same area, by another contact of this observer, were thought to be of this species.

Meles meles (L.) Badger. Detailed observations at a sett at Allen's Hill, and locations of other setts in the Bradfield area received from KP; a new sett in an open field near Henley Road gravel pit (ZZK); sett at Purley (KP); dead badger at St. Peter's Hill during the summer (Mrs. Topham); one killed on Peppard Road at Bishopsland Farm, 29.9.73 (GT).

Mustela erminea (L.) Stoat. One at Stratfield Park, 29.3.73; one on keeper's gibbet at Combe, 29.4.73 (both ZZK); one seen at Bradfield, 30.6.73 and again, 8.7.73 (KP).

M. nivalis (L.) Weasel. One at Smallmead Farm, 26.11.72; one at Midgham Park, 25.6.73; three on keeper's gibbet at Mortimer, 18.7.73 and one alive there next day (all ZZK).

M. vison Schr. Mink. Tracks found in stream south of Bradfield (KP); one at Calcot Lock, 22.7.73 (Mr. Cossins).

Artiodactyla

Cervus elaphus L. Red Deer. Two at Padworth (Mr. McDermid per KP). (This observer is a member of the British Deer Society.)

Dama dama (L.) Fallow Deer. Two deer probably of this species encountered at night in Crosscroft Wood, 24.3.73; two sets of tracks at Christmas Common, Queen's Wood, 29.12.72; two in Lackmore Wood, 31.3.73; one at Combe Wood, 29.4.73; remains in College Wood, 22.7.73 (all ZZK except the first); one disturbed from overgrown marshy ground by the Pang at Bradfield, an unusual habitat for this species, April 1972 (KP).

Muntiacus reevesi Ogilby. Muntjac. One at Burnt Platt, Kingwood Common, 24.3.73 (ZZK); one killed at Cookham, a male, 2.2.73 (Mr. & Mrs. Horton); a male fawn fatally injured at Nettlebed, 11.2.73 (Mr. Morrish); four records from the Bradfield area, 13.1.73 to 25.6.73 (KP); a male killed at Streatley, 10.4.73 (Mr. Lowder); one in beechwood behind Bozedown Farm (EMT); one in Fence Wood, Hermitage (KP).

Capreolus capreolus (L.) Roe Deer. Common in the area south of Mortimer (BB); three seen by a farmer at Greathouse Woods, Bradfield, Jan. 73; a deer thought to be of this species in Fence Wood; a number at Padworth, one of which was shot (all per KP); one at Great Park Copse, Mortimer, 2.7.73 and 10.8.73; three in Butler's Lands Copse, 10.7.73; tracks in Windabout Copse, 26.7.73 (all ZZK); two at Swallowfield, 20.5.73. Clearly this species is moving into our area from the south in considerable numbers.

Lagomorpha

Lepus capensis Pallas. Brown Hare. Twenty-seven records from

most parts of our area (KP, ZZK); maxima thirty at Inkpen, 29.4.73 (KP), thirteen on Bishopsland Farm, 20.3.73, six each at Manor Farm, 9.12.72 and Lowbury Hill, 4.3.73 (KP).

Oryctolagus cuniculus (L.) Rabbit. Abundant around Pangbourne, maxima eighteen at Path Hill and fifteen at Maidenhatch (EMT); greatly reduced at Sulham, maximum three, but eighteen at Hazeley Heath (ZZK); common in Crowsley Park; altogether about twenty records; several cases of myxomatosis observed.

### Rodentia

Sciurus carolinensis Gmel. Grey Squirrel. Numerous early in the year, but a crash occurred in July and August in the area south and west of Reading, after which few or none could be found in the usual habitats (ZZK); six records from South Oxfordshire, maximum three at Emmer Green on 7.4.73, so some diminution here also.

Muscardinus avellanarius (L.) Dormouse. Found at Purley in 1971 (KP); one seen on a gatepost at Haughurst Hill, 17.9.73 (ZZK).

Rattus norvegicus Berk. Brown Rat. One dead north of Streatley, 19.11.72 (ZZK); one at View Island, Caversham, 4.10.73.

Apodemus sylvaticus (L.) Wood Mouse. One with four juveniles still almost blind at Mortimer, 23.7.73; about five at Maidenhatch, 3.8.73 (both ZZK); remains of one from three pellets of Strix and at least three from five pellets of Tyto beside the Pang at Bradfield in Autumn 1971; one at the Allen's Hill badger sett, 25.2.73 (all KP); one seen entering a barn at Blount's Court Farm, Sonning Common, 16.6.73; trapped at Sonning Common Primary School (Mrs. Arch).

Micromys minutus (Pallas) Harvest Mouse. A skull thought to be of this species (not seen by the Recorder) in a pellet of Tyto as above; a colony found in wet fields between Henley Road gravel pit and Henley Road by RW and PC; a colony found at Juniper Valley by PJD.

Arvicola amphibius (L.) Water Vole. One at Purley, 11.3.73; one at Theale gravel pit, 17.4.73 and 24.4.73; one on the Foudry Brook at Mortimer, 16.8.73 (all ZZK); two skulls in three pellets of Strix and one in five pellets of Tyto as above; one at View Island, 14.2.73.

Microtus agrestis (L.) Short-tailed Vole. A plague of six hundred to one thousand in a plantation of Thuja plicata Arborvitae at Maidenhatch in August (ZZK); the mice had killed most of the young trees by stripping the bark. Three in pellets of Strix and three in pellets of Tyto as above.

Clethrionomys glareolus Schr. Bank Vole. Two in pellets of Strix and one in pellet of Tyto as above.

### Contributors

B. Baker; Peter Cuss; P. J. Dillon; David Hill; Basil T. Parsons; Keith Pritchard; R. H. Smith; Geoffrey Taylor; Mrs. E. M. Trembath; Zbigniew & Zdislaw Karpowicz.

The Recorder's Report for Entomology 1972-73

by B. R. Baker

Order Plecoptera (Stone-flies)

Perlodes microcephala (Pict.)

Two examples of females of this species were discovered at rest on the woodwork of a fisherman's hut by the River Kennet at Woolhampton on 18th April.

Order Odonata (Dragon-flies)

On the occasion of the Society's excursion to Englemere Pond near Ascot on 1st September there was too little sun to induce much dragon-fly flight. However, the following species were seen:-

Aeshna cyanea (Muell.) Southern Aeshna. A single male.

Sympetrum danae (Sulz.) Black Sympetrum. Several examples of both sexes.

Our member Mr. K. I. Thomas has recorded dragon-flies from several localities around Reading and has submitted the following notes:-

Agrion splendens (Harris) Banded Agrion

Purley, 8th June, one male flying around a hedge, not near the river. Hardwick, 21st July, one male. Sulhampstead, 14th July, four males along the Kennet.

Enallagma cyathigerum Charp. Common Blue Damsel-fly

Moor Copse Nature Reserve, 9th June, abundant in the Water Garden, oviposition noted. Still abundant on 23rd June and several on 7th July.

Pyrrosoma nymphula (Sulz.) Large Red Damsel-fly

Moor Copse Nature Reserve, 9th June, two specimens in Water Garden.

Aeshna cyanea (Muell.) Southern Aeshna

Purley, 18th July, one newly emerged specimen on virginia creeper - not near water.

Libellula depressa L. Broad-bodied Libellula

Moor Copse Nature Reserve, 23rd June, one male in Water Garden.

Order Hemiptera (Plant-bugs, Leaf-hoppers, Aphids, etc.)

Ledra aurita (L.)

Pamber Forest, 12th June, a single nymph beaten from oak. This strange-looking insect has been the subject of several mentions in these yearly reports, but we had not previously noted the creature's capacity for jumping. The 1973 example stayed long enough in the beating tray to ensure identification, and then jumped out of sight!

Our President has supplied the following records for this Order:-

Pentatomidae

Eurydema dominulus (Scop.) A male found among imported figs and submitted to the Museum on 20th February by Mr. Nawell. (This species is on the British list but is very local and not known from

our area.)

Acanthosomidae

Cyphostethus tristriatus (F.) Juniper Bug

A female found in an airing cupboard on 19th October and submitted to the Museum by Miss B. Blackburn. In November 1958 Mr. Arthur Price submitted a specimen to us which had been found on a line of washing. (These 'town' records for C. tristriatus are puzzling; its normal habitat is among juniper bushes and in such places, as for example, Aston Upthorpe Downs, it can be readily beaten. An alternative food-plant seems a possibility.)

Miridae

Megalocoleus pilosus (Schrank).

A female on 10th September (EB); no locality given. (This species is to be found over most of England, associated with tansy.)

Reduviidae

Empicoris vagabundus (L.).

A female found at Sonning Common, 2nd August.

Order Hymenoptera (Bees, Ants, Wasps, Saw-flies and Ichneumon-flies)

Siricidae

Sirex juvencus (L.).

A female specimen of this fine 'wood-wasp' was found in the Thames Conservancy's building on 27th March, and submitted to the Museum by Mr. Guard.

Tenthredinidae

Athalia lugens (Klug) female, 2 College Road, Reading,  
17.8.72 (EB)

Dolerus possilensis Cameron female, Nuney Green, 12.5.73 (EB).

Halidamia affinis (Fallén) female, 2 College Road, Reading  
3.6.73 (EB)

Aneugmenus coronatus (Klug) female, 2 College Road, Reading,  
16.6.73 (EB)

Eutomostethus luteiventris (Klug) female, Wokefield Common,  
6.6.73 (HHC)

Priophorus pallipes (Lepelletier) female, Silchester Common,  
-.9.72 (BTP)

Nematus ribesii (Scop.) male, Moor Copse Nature Reserve,  
10.5.73 (HHC).

N. salicis (L.) male, Woolhampton, 25.8.73 (EB)

Ichneumonidae

Probolus culpatorius (L.) female, 2 College Road, Reading,  
29.9.72 (EB)

Aethecerus discolor Wesm. female, Wokefield Common, 15.5.73  
(HHC)

Centeterus opprimator (Grav.) females, 2 College Road, Reading,  
9.10.73 (HHC)

Orotylus mitis (Wesm.) male, 2 College Road, Reading, 18.7.73  
(EB)

Platylabus iridipennis (Grav.) male, 2 College Road, Reading,  
11.8.73 (EB)

Cratichneumon fugitivus (Grav.) male, 2 College Road, Reading  
31.8.72 (EB)

Barichneumon gemellus (Grav.) male, Goring Heath, 21.7.73 (EB)

Ichneumon extensarius L. female, Wokefield Common, 15.5.73 (HHC)

I. deliratorius L. female, Padworth, 18.9.73 (HHC)

Alomya semiflava Steph. Wokefield Common, 11.9.73 (HHC)

Stilbops vetula (Grav.) 2 College Road, Reading, 16.8.71 (EB)

#### Cynipidae

Andricus ostreus (Hartig) female, Sonning Common, 22.4.73 (HHC)

#### Eulophidae

Eulophus pennicornis Nees males, 2 College Road, Reading,  
9.8.73 (EB)

#### Chrysididae

Omalus violaceus (Scop.) female, 2 College Road, Reading,  
30.7.73 (EB)

#### Sphocidae

Passaloecus monilicornis Dahlbom female, Wokefield Common,  
12.8.72 (EB)

Psenulus concolor (Dahlbom) female, 2 College Road, Reading  
26.6.73 (EB)

Ceratophorus lethifer (Shuckard) female, Wokefield Common,  
3.7.71 (EB)

Coelocrabro ambiguus (Dahlbom) female, Goring Heath, 26.8.72  
(EB)

#### Andrenidae

Andrena trimmerana (Kirby) males, 2 College Road, Reading,  
21.4.71 (EB)

A. synadelpha Perkins female, Bishopsland Farm, 4.6.70 (HHC)

#### Colletidae

Prosopis confusa (Nylander) female, Goring Heath, 27.7.71 (HHC)

#### Megachilidae

Osmia leaiana (Kirby) males, 2 College Road, Reading,  
5-9.6.73 (EB)

#### Order Lepidoptera (Butterflies and Moths)

##### Early Appearance of Hibernators

26th February Aglais urticae (L.) Small Tortoiseshell, Dreadnought  
Reach (BTP).

11th March Nymphalis io (L.) Peacock, Caversham.

18th March Genepteryx rhamni (L.) Brimstone, Caversham.

Notes on Immigrants

Colias croceus (Geoffr. in Four x.) Clouded Yellow Butterfly

Only a single specimen recorded, 10th September, near Streatley (EMT)

Vanessa atalanta (L.) Red Admiral

Not recorded until 22nd July when a single specimen was seen at Pamber Forest. Numbers increased in August and September when on the 8th of the latter month six specimens were observed all at one time feeding on scabious. Last recorded on 3rd October, two specimens at Purley and one at Kidmore End (KIT).

General Note on Vanessid Butterflies

The fine hot summer of 1973 did not seem to encourage a visitation by many immigrant Vanessids but was certainly contributory to a fine autumn showing by some of our resident species. On 15th August Mr. W. A. Smallcombe reported that his buddleia bush at that date had upon it two Red Admirals, twelve Peacocks, two Commas and plenty of Small Tortoiseshells - there were additionally Meadow Browns, Small Meadow Browns, and a Small Copper. Mr. B. T. Parsons has commented upon the broods of Small Tortoiseshell caterpillars he observed in Whiteknights Park and Parkside Lane, and Mr. K. I. Thomas, in supplying us with a detailed list of dates for Vanessid and other butterflies, counted twenty-five Small Tortoiseshells on one border of Sedum at Purley on 7th September.

Notes on Immigrant Moths

Acherontia atropos (L.) Death's Head Hawk-moth

1973 produced the best crop of records from the Reading area since 1950; all the finds refer to either larvae or pupae resulting from Death's Heads which were flying unheralded around Reading, probably in early July:-

- 17th Aug. Richfield Avenue allotments. Larva per Mr. H. F. Webb.  
Moth emerged 30th Sept.
- 19th Aug. Richfield Avenue allotments. Larva.  
Moth emerged 4th Oct.
- 19th Aug. Richfield Avenue allotments. Larva. Robert Wood.  
Moth emerged deformed.
- 26th Aug. Tokers Green. Larva per Michael Duerden.  
Moth emerged deformed.
- 10th Sept. Binfield Heath. Pupa dug per Mr. H. D. Belcher.  
Moth emerged 20th Oct.
- 13th Sept. Binfield Heath. Two pupae, one damaged, per Mr. H. D. Belcher. Moth emerged 23rd Oct.
- 17th Sept. Sonning Common. One pupa left at address of HHC.  
Moth emerged 27th Oct., wings did not inflate.

The Death's Head hatches from the pupa during the hours of darkness, and in two instances the exact times can be given from those we had under observation, i.e. 01.15 hrs. and 02.10 hrs.

Notes on Resident Lepidoptera

Euchloe cardamines (L.) Orange Tip

Eggs collected last year from Cruciferae on a hedgebank at Caversham were bred through successfully and produced butterflies from 17th April to 1st May. Wild hatchings would not be expected at so early a date and subsequent records were:- Kidmore End, 18th May; Moor

Copse Nature Reserve, 19th May; Harpsden, 21st May and Purley, 25th May (KIT). Parkside Road, Reading, 27th May and 10th June (BTP).

Strymonidia w-album (Knoch) White-letter Hairstreak

14th July, Padworth. A single specimen observed at close quarters in a locality far away from the known areas for this species around Reading.

Thecla betulae (L.) Brown Hairstreak

As a follow-up to the entry placed in last year's Report, a careful search was made near Baughurst and at Pamber Forest for confirmatory evidence of the presence of this species. Having therefore unsuccessfully sought ova, larvae and adults in these places we must now hold reservations upon my mention of the occurrence of betulae in 1972.

Lysandra coridon (Poda) Chalk-hill Blue

Hardwick, 31st July (KIT). The Recorder also observed this species near Whitchurch, Oxon. on 18th August, by which time most of the butterflies seen, males and females, were well past their best condition.

Celastrina argiolus (L.) Holly Blue

18th and 24th May, single examples seen flying at Caversham.

Hamearis lucina L. Duke of Burgundy Fritillary

21st May, Berkshire Downs (RL).

Apatura iris (L.) Purple Emperor

5th June, Pamber Forest, one larva. In the same locality a female was seen on 26th July when the butterfly flew into thick willow cover. BTP used binoculars to good effect and observed a female iris ovipositing among willows on 31st July.

Argynnis paphia (L.) Silver-washed Fritillary

This species had a splendid season at Padworth and Pamber Forest. We have not previously recorded the dark form of the female var. valesina from Padworth but had much pleasure in seeing it there on the 8th, 18th and 21st July. In the Forest, valesina females appeared to be in equal quantity with type females, an event never before witnessed by the Recorder.

Melanargia galathea (L.) Marbled White

26th June, Gatehampton (BTP); 8th and 21st July, Hardwick (KIT); 26th July, Pamber Forest, a new area for this species, only one specimen seen.

Pararge aegeria (L.) Speckled Wood

Many records received:- Purley, 28th August; Sulham Woods, 16th and 30th June, 14th July; Moor Copse Nature Reserve, 19th and 26th May, and 2nd, 9th and 23rd June; 7th and 25th July, 25th August; Hardwick, 29th August; Warren Bank, Ipsden, 23rd April; Warburg Reserve, 12th May; Pamber Forest, 29th June (KIT); Whitchurch Hill, 15th August, (BTP); On 8th September aegeria was observed in Moor Copse feeding upon ripe plums (HGB).

Sesia apiformis (Clerck) Hornet Clearwing Moth

We have had a colony of this striking-looking moth under observation for some years at Battle Hospital, Reading, where a line of twelve

Black Poplars formed a favoured breeding site. By visiting the trees regularly one could assess the clearwing population by counting the empty pupa cases which remained protruding from the lower parts of the trunks. Unfortunately two of the trees came down on 22nd June and the authorities subsequently felled the rest of the row - it remains to be seen whether the Hornet Clearwing can maintain itself in what remains of the poplar stumps. Emergences of the insect in 1973 (17th June to 22nd July inclusive) totalled nine as against twenty-five examples counted in 1972 for the full emergence period.

Aegeria myopaeformis (Borkh.) Red-belted Clearwing

7th June. Dr. Burtt reports a single specimen seen on the trunk of an apple tree at 10.20 a.m. in the garden of 2 College Road, Reading.

Asthena albulata (Hufn.) White Waved Carpet

1st June at Padworth. Several specimens noted.

Minoa murinata (Scop.) Drab Carpet

1st June at Padworth. Several specimens noted.

Laothoe populi (L.) Poplar Hawk-moth

20th May at Parkside Road, Reading. Wild male assembled to bred female. (BTP)

Gastropacha quercifolia (L.) Lappet moth

18th May, two larvae found at Cutbush Lane, Earley. Hatched males and one female released there on 30th June. (BTP)

Stauropus fagi L. Lobster moth

22nd May, a female found at rest on a beech trunk at Goring Heath (HHC). 1st September on the occasion of the Society's excursion to Englemere Pond one larva was beaten from oak.

Ptilophora plumigera (Schiff.) Plumed Prominent

10th November. Several examples attracted to mercury vapour light operating in the Chilterns (near Turville and near Fawley). One female flying in at 17.40 was a good record (PC, RW, PH).

Orgyia antiqua (L.) Vapourer moth

Laburnum in Redlands Road again defoliated by larvae of this species, many cocoons noted on a house. (BTP)

Phalaena typica L. Gothic moth

31st August. A single example to light at Moor Copse Nature Reserve.

Brachionycha sphinx (Hufn.) Sprawler

2nd and 3rd November. Several examples to light at Moor Copse Nature Reserve, all specimens were males. Peak flight period midnight until 01.30 hrs. (PC, RW, PH).

Order Coleoptera (Beetles)

Lucanus cervus (L.) Stag Beetle

23rd June one male observed at Moor Copse Nature Reserve (KIT).

Pyrochroa coccinea (L.) Black-headed Cardinal Beetle

19th May six examples noted at base of hazel and on surrounding

vegetation at Moor Copse Nature Reserve. Further specimens observed on 26th May and 31st May in the same locality. (KIT)

Order Diptera (True Flies)

The following detailed list relating to this Order has been submitted to the Recorder by our President, Mr. H. H. Carter, and embodies records made on behalf of Dr. E. Burt and Mr. Carter himself.

Nematocera

Tipulidae

Tipula peliostigma Schummel, male, 4 College Road (EB)

Limonia inusta (Meigen), female, Wokefield Common, 11.9.73  
(HHC)

Limnophila fulvonervosa (Schummel), male, Wokefield Common,  
11.9.73. (HHC)

Erioptera griseipennis Meigen, male, 2 College Road (EB)

Ula mollissima Haliday, male, 2 College Road (EB).

This species was not recognised till 1969.

Molophilus flavus Goetghebuer, male, Wokefield Common,  
20.7.73 (HHC)

Psychodidae

Pentaneura carnea (Fabricius), female, Sonning Common,  
28.5.73 (HHC)

Pilaria scutellata Staeger, male, 2 College Road, 6.4.73 (EB)

Pericoma fuliginosa (Meigen), male, Wokefield Common,  
20.7.73 (HHC)

Chironomidae

Prodiamesa olivacea (Meigen), female, Wokefield Common,  
25.9.73 (HHC)

Anatopynia trifascipennis (Zetterstedt), male, 2 College Road,  
13.5.73 (EB)

Tanytus punctipennis Meigen, female, 2 College Road, 24.8.72  
(EB)

Chironomus riparius Meigen, male, 2 College Road, 13.9.72 (EB)

C. nubeculosus Meigen, female, 2 College Road, 11.7.73 (EB)

C. paganus Meigen, male, Aldermaston, 18.8.73 (EB)

Cricotopus bicinctus (Meigen), male, Eldon Square, 26.7.73 (HHC)

Culicidae

Chaoborus crystallinus (Degeer), male, 2 College Road,  
29.7.73 (EB)

Brachycera

Rhagionidae

Atherix ibis (Fabricius), Woolhampton, 5.6.71 (BRB)

Lonchopteridae

Lonchoptera furcata (Fallén), female, 2 College Road,  
22.12.71 (EB)

Cyclorrhapha

Pipunculidae

Eudorylas jenkinsi Coe, male, 2 College Road, 2.11.72 (EB)  
Taken by EB at Checkendon in 1964 but new to Berkshire.

E. obscurus Coe, male, 2 College Road, 1.6.73 (EB)

Syrphidae

Ferdinanda ruficornis (F.), 2 College Road, 25.7.73 (EB)

Trypetidae

Anomoia permunda (Harris), male, 2 College Road, 17.8.72 (EB)

Euribia zoë (Meigen), female, 2 College Road, 29.6.72 (EB)

Agromyzidae

Liriomyza flaveola (Fallén), Wokefield Common, 14.10.72 (EB)

Asteiidae

Asteia amoena Meigen, female, 2 College Road, 10.12.71 (EB).  
This species hibernates indoors.

Tachinidae

Anachaetopsis zetterstedti Ringdahl, male, Goring Heath,  
26.7.73 (HHC)

Loewia phaeoptera Meigen, female, Goring Heath, 26.7.73 (HHC)

Erycia ferruginea (Meigen), females, 2 College Road, 25.7.73  
(EB)

Carcelia tibialis Robineau-Desvoidy, female, 2 College Road,  
8.7.73 (EB)

Zenillia roseanae Brauer & Bergenstamm, 2 College Road,  
24.7.73 (EB)

Calliphoridae

Sarcophaga offuscata Schiner, male, 2 College Road,  
16.7.73 (EB)

Macronychia ungulans (Pandelle), female, Goring Heath,  
26.7.73 (HHC)

Cynomyia mortuorum (L.), female, 2 College Road, 29.8.72;  
male, Wokefield Common, 7.10.72 (both EB). Not new but  
always noteworthy.

Morinia nana (Meigen), male, 2 College Road, 1.9.72 (EB)

Stevenia atramentaria Meigen, female, 2 College Road, 18.6.73  
(EB)

Muscidae

Azelia cilipes Haliday, male, 2 College Road, 31.8.73 (EB)

Graphomya picta (Zetterstedt), male, Woolhampton, 16.8.73  
(HHC). A new county record for Berkshire.

Lophosceles cinereiventris Zetterstedt, females, Goring Heath,  
4.11.72 (EB)

We acknowledge our indebtedness to the Director of Reading Museum for allowing inclusion of the relevant records of specimens in the Museum Collection, and also express our best thanks to the following contributors:- Dr. E. Burtt, Mrs. H. G. Baker, Mr. H. H. Carter, Peter Cuss, Philip Harper, Mr. R. Lewington, Mr. B. T. Parsons, Mr. W. A. Smallcombe, Mr. K. I. Thomas, Robert Wood., Mrs E.M. Trembath.

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WEATHER RECORDS IN 1973

by A. E. Moon

The data refer to Reading University Meteorological Station. Since this is a new site, as mentioned in the summary for 1971, no comparison with an average is yet possible. All temperature readings are in Celsius degrees and rainfall measurements in millimetres which is now standard practice. A "rain day" is a day on which rainfall equals or exceeds 0.2 mm. For the designation of frost and ground frost days see Weather Records in 1961, but using all values below 0.0° Celsius.

STATION - READING UNIVERSITY. HEIGHT ABOVE MEAN SEA LEVEL - 215 ft.

		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
MEAN DAILY TEMPERATURES	MAX.	6.9	7.7	11.0	11.6	16.0	20.5	20.4	22.1	19.6	12.9	9.8	8.3	13.9
	MIN.	1.8	0.9	1.5	3.5	7.7	10.0	11.5	12.7	10.6	5.6	2.6	2.1	5.9
	MEAN.	4.3	4.3	6.3	7.5	11.9	15.3	15.9	17.4	15.1	9.3	6.2	5.2	9.9
	RANGE	5.1	6.8	9.5	8.1	8.3	10.5	8.9	9.4	9.0	7.3	7.2	6.2	8.0
	GRASS MIN.	-1.3	-3.7	-4.7	-1.6	3.8	4.9	7.0	8.7	6.3	1.3	-2.1	-2.7	1.4
EXTREME TEMPERATURES	E. MAX.	10.4	11.5	17.1	17.0	24.8	26.2	26.4	29.1	28.7	19.4	15.4	12.4	29.1
	DATE	23	20	23	26	27	16	5	16	5	5	3	4	August 16
	E. MIN.	-4.0	-4.5	-3.2	-2.2	2.0	4.0	5.9	9.4	4.8	0.1	-3.9	-4.5	-4.5
	DATE	1, 19	17	11	10	2, 7	14	24	8	27	28, 30	17	10	February December
	E. GRASS MIN.	-8.4	-12.1	-10.4	-10.5	-4.2	-4.3	-0.2	3.4	-1.6	-6.7	-10.5	-11.7	-12.1
	DATE	22	15	11	10	2	14	9	25	27	12	17	1	February 15
DAYS WITH FROST		11	11	12	3	0	0	0	0	0	0	10	10	57
" "	GROUND FROST	17	22	26	21	8	6	1	0	3	17	19	21	161
SUNSHINE HOURS	SUM.	34.9	80.9	155.6	165.5	178.6	251.6	191.3	193.3	168.1	101.1	89.9	66.7	1677.5
	% POSS.	13	29	43	40	37	51	39	43	44	31	34	27	37
	DAILY MEAN.	1.13	2.89	5.02	5.52	5.75	8.39	6.17	6.23	5.60	3.26	3.00	2.15	4.59
PRECIPITATION m.m.	AMOUNT	16.6	11.8	9.9	59.3	71.2	51.7	71.1	63.7	45.1	28.4	31.9	52.9	513.6
	RAIN DAYS	12	9	6	16	17	5	8	7	11	9	12	17	129
	MAX. RAIN IN 1 DAY	6.4	6.5	2.2	20.5	13.2	29.4	29.1	25.0	16.6	14.1	9.6	10.0	29.4
	DATE	14	12	24	23	3	19	14	1	20	6	28	7	June 19
LONGEST RUN OF CONSECUTIVE RAIN DAYS		3	3	2	4	6	2	3	5	3	2	4	5	-
LONGEST RUN OF CONSECUTIVE DRY DAYS		8	6	17	6	3	16	8	19	13	9	8	3	-
SNOW OR SLEET DAYS		1	1	1	3	0	0	0	0	0	0	3	0	9
DAYS SNOW LYING		0	0	0	0	0	0	0	0	0	0	0	0	0
VISIBILITY	FOG AT 0900 G.M.T.	4	1	1	0	0	0	0	1	0	4	4	2	17
THUNDERSTORM ACTIVITY	DAYS OF THUNDER	0	0	0	2	2	3	4	2	3	1	1	1	19
	DAYS OF HAIL	0	0	0	0	0	0	0	1	0	0	0	0	1

MONTHLY WEATHER NOTES, 1973

- January This was the driest January since 1964 but the dullest since 1955 and we have to go back to 1964 to find so many sunless days recorded.
- February Sunshine was above average and the month was relatively mild, but the driest since 1965.
- March The driest March since 1961. A drought period of seventeen days ended on 24th and three consecutive completely cloudless days occurred on 21st-23rd. Temperature reached 15.56°C (60°F) for the first time this year on 22nd.
- April A rather cool and sunny month, but the wettest April since 1966. The 23rd was the wettest day of any since June 18th, 1971.
- May Temperature normal but slightly wetter and less sunny than normal.
- June A much better June than 1972 with the average temperature 3.3°C higher than that month. The grass minimum temperature of -4.3°C on 14th was the lowest since at least 1920, when reliable records began at the University. A drought period of sixteen days ended on 19th, which was also the wettest day of any since 10th June 1971.
- July The wettest July since 1968; the 14th was the wettest July day since 22nd, 1967. Heavy falls in short periods included 5.5 mm. in 12 minutes at 22h.30m. (G.M.T.) on 14th, and 3.0 mm. in 6 minutes at 15h. 06m. on 6th, both during thunderstorms.
- August Warmest August since 1959. A drought period of nineteen days ended on 27th. During a thunderstorm on 1st a rainfall of 17.4 mm. fell in 21 minutes at 15h.24m. (G.M.T.).
- September This was the warmest September since 1964, the 5th being the warmest September day since 2nd, 1961. The first autumn ground frost occurred on 12th (-1.0°C).
- October The coolest October since 1964. The 1st was the sunniest October day since 4th, 1957.
- November The driest November since 1964. The first air frost of the winter occurred on 17th and first ice noted on shallow water. Unusually brilliant red sunsets occurred on 8th and 16th.
- December This was the sunniest December since 1967 and the 9th and 31st were the sunniest December days since 2nd, 1961.

ATMOSPHERIC POLLUTION

1973

Measurements of smoke concentration and sulphur dioxide (SO<sub>2</sub>) are summarised in the following table. They constitute the results of daily measurements of smoke and SO<sub>2</sub> pollution by air filter and volumetric method respectively from apparatus installed in the Geography Department, Reading University, at Whiteknights.

Month	Smoke Concentration Microgrammes per cu. m.			Sulphur Dioxide (SO <sub>2</sub> ) Concentration Microgrammes per cu. m.		
	Mean	Highest	Lowest	Mean	Highest	Lowest
January	40	119 18th	3 14th	96	233 10th	19 14th
February	33	96 1st	6 6th, 8th 11th, 12th	69	170 15th	31 6th
March	30	74 10th	2 24th, 31st	78	142 10th	26 12th
April	12	37 25th	0 1st	65	116 25th	32 1st
May	10	39 3rd	0 5th	63	146 2nd, 3rd	25 9th
June	7	14 25th	0 2nd	58	102 8th	25 2nd
July	7	22 31st	2 15th, 19th- 22nd	52	70 31st	31 15th
August	15	50 15th	0 4th, 5th, 6th, 7th	62	115 15th	19 5th
September	18	45 7th, 8th	2 2nd	58	105 15th	26 29th
October	35	138 30th	2 20th	81	199 26th	32 10th
November	41	200 21st	2 12th	84	216 20th	33 12th
December	23	116 31st	2 22nd	59	137 1st	26 16th
Year	23	200 21st Nov.	0 1st April 5th May 2nd June 4th-7th August	69	233 10th Jan.	19 14th Jan. 5th Aug.

Membership

The following changes in membership have occurred since the publication of the Reading Naturalist no. 25:-

Losses through death

Mrs. A. Chandy, Rev. S. E. Chavasse, Mr. Thomas Vear.

Resignations and lapses

Miss J. C. Bateman, J. R. Davies, Miss Abigail Finn, N. J. W. Foat, R. E. Harper, Mr. and Mrs. Harrison, W. Jones, Ian Jones, Mr. and Mrs. B. E. C. Lewis, Miss L. Lynton, Miss A. E. Mayes, Mrs. V. A. Phillips, Mrs. M. C. Reiss, K. Surplice, P. Tarrant, Miss J. Whiteway.

Changes of address

Diserens, Mr. and Mrs. J. N., 113 Redhatch Drive, Earley, Reading  
Highwood, Miss S., 1 East Lodge, Farley Hill, Reading RG7 1UE  
Hora, Dr. F. B., 51 Eastern Avenue, Reading  
Kemp, B. R., B.A., Ph.D., 12 Redhatch Drive, Earley, Reading  
Pearce, Mr. and Mrs. E., 7 Gladridge Close, Earley, Reading RG6 2DL  
Sandels, Mrs. A. M., 3 Churchill House, Hailey Road, Chipping  
Norton, Oxon.  
Sell, M. R. W., 2 Welland Close, Tilehurst, Reading

New Members

Cuss, Peter, 5 Copse Avenue, Caversham, Reading  
Dumbleton, Dr. M. J., 25 Warfield Road, Bracknell, Berks.  
Emeny, Mrs. M. P., White Rose House, Trash Green, Burghfield, Berks.  
Hooper, Philip, 4 Almond Drive, Caversham Park Village, Reading  
Karpowicz, Z., 93 Chapel Hill, Tilehurst, Reading RG3 5BX  
LeMare, Mrs., 56 Highmoor Road, Reading  
LeMare, Miss M., " " " "  
Lomax, Mrs. C. J., 11 Roundhead Road, Theale, Nr. Reading RG7 5DL  
Minton, Mrs. L., 53 Amberley Drive, Twyford, Berks. RG10 9BX  
Sandison, A., Woodlands Green Lane, Woodcote, Reading  
Sandison, Mrs., " " " " "  
Steven, Dr. E., 91 Upper Warren Avenue, Caversham, Reading  
Stirrup, G., 34 Holybrook Crescent, Reading  
Stollery, J., 6 Lea View, Hermitage, Nr. Newbury, Berks.  
Stollery, Mrs. M., " " " " " "  
Thomas, K., 20 Glebe Road, Purley, Reading RG8 8DP  
Warrick, J. P., 3 Ramsbury Drive, Earley, Reading  
Warrick, Mrs., " " " " "  
Wood, Robert, 298 Henley Road, Caversham, Reading  
The Holt School, Wokingham, Berks.

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