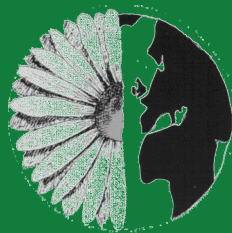


*Benson Environment Survey Team*

**CONSERVATION PLAN  
FOR THE PARISH OF BENSON  
OXFORDSHIRE**



Local Agenda 21 in South Oxfordshire





*Benson Environment Survey Team*

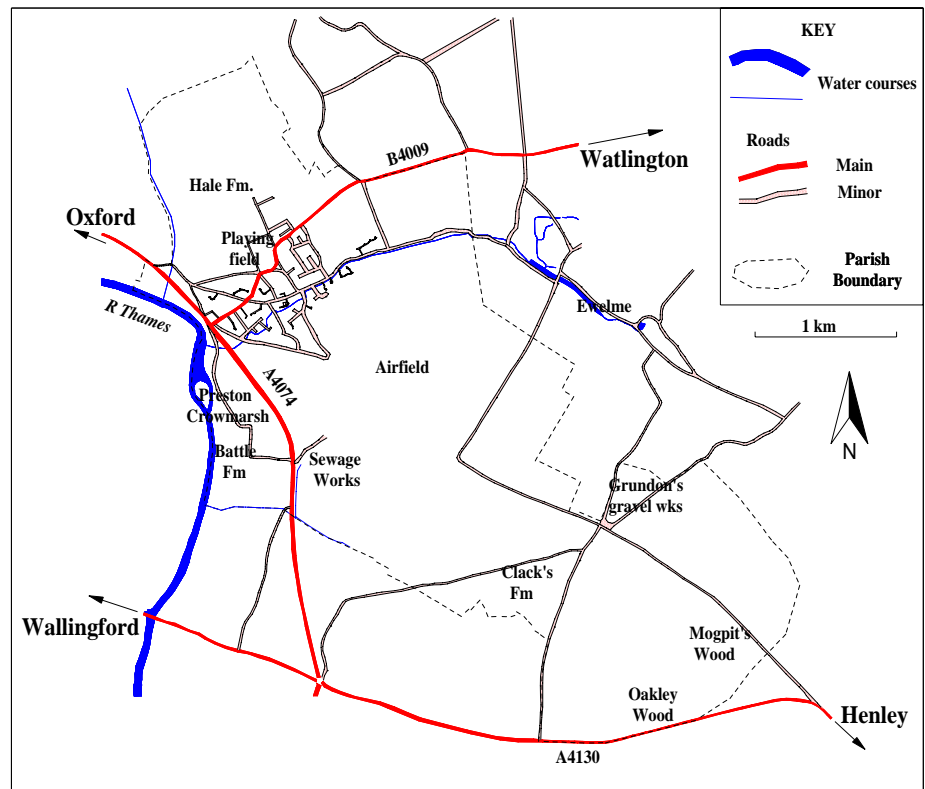
# **CONSERVATION PLAN FOR THE PARISH OF BENSON OXFORDSHIRE**



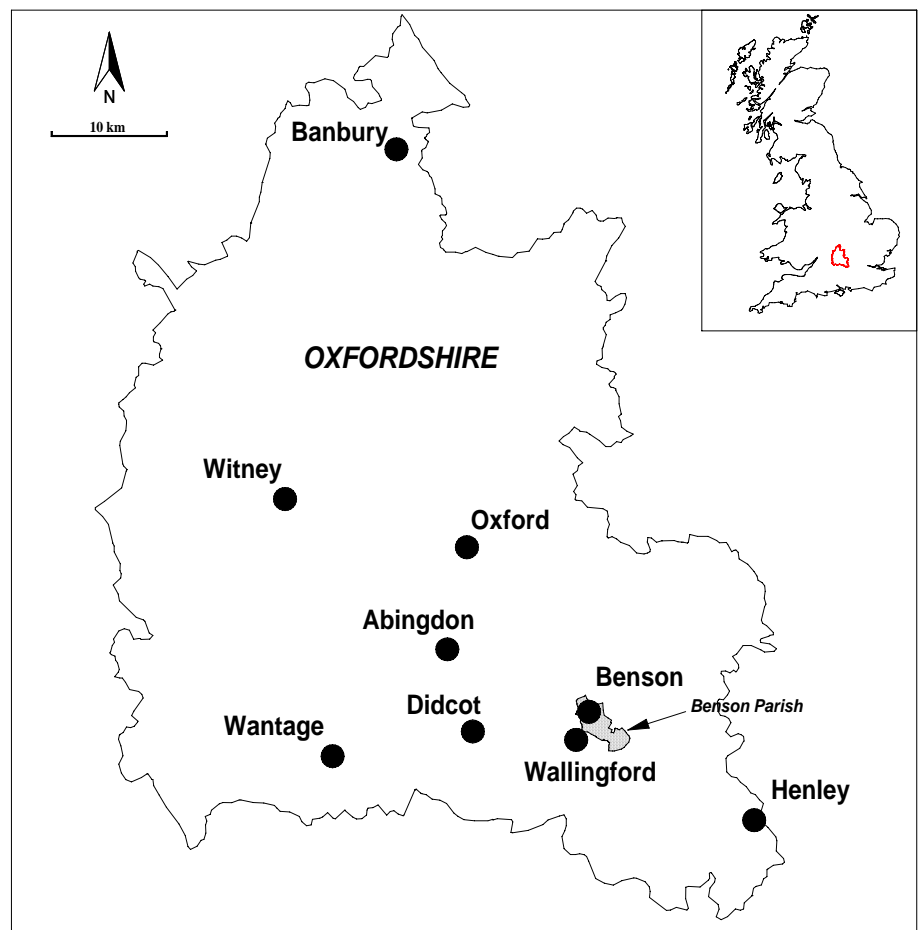
Local Agenda 21 in South Oxfordshire



## Benson Parish



## Benson Location



## Enquiries to Benson Environment Survey Team

Keith Tibbs, Chairman - Tel/fax 01491 838689

Mary Vine, Secretary/Treasurer - Tel 01491 838232

Peter Abbott, David Belcher, Jim Boot, Jacky Bryant, Ian Burles, Paul & Rebecca Cleverley, Iris Chamberlain, Philip and Esther Chamberlain, Peter Clarke, Dougie Cook, Tony Crabbe, Chris Cussens, Hugh Cundall, Don Fletcher, Clytie Jaggard, Louise Jaggard, Peter Keable, Ray Lawrence, Anne Millar, John Phillingham, Tim and Freydis Sharland, Maureen Stevens, Tom Stevenson

Editorial Board: Chris Cussens (Editor), Anne Millar, Keith Tibbs, Mary Vine

## Photographs:

Clive Bosley, Keith Tibbs, Mary Vine

## Artwork:

Freydis Sharland

## Maps:

Reproduced by Tom Stevenson from the Ordnance Survey, Pathfinder 1137 map (SU 69/79) at a scale of 1:25000 with the permission of the Controller of Her Majesty's Stationary Office

© Crown Copyright: Benson Environment Survey Team

45 Preston Crowmarsh, Oxon OX10 6SL

MC88173M0011

Cover Photo: Bluebells in Oakley Wood

Back Cover Photos: BEST picnic, 1999

Ray Lawrence explains in Oakley Wood

Tim and Freydis Sharland survey the hedgerow in Potters' Lane

Dougie Cook investigates fungus

Mary Vine surveys the riverbank

Web site: <http://www.bensonest.fsnet.co.uk>

© Benson Environment Survey Team (BEST)

Printed by Seacourt Press Limited

A Company Registered to ISO 14001 &amp; EMAS Environmental Standard

Printed on paper containing at least 75% post consumer waste + not more than 25% mill broke.

Seacourt Press Limited were selected by BEST to print this report as they have an environmental management system whose performance is reported to the public in accordance with the Community eco-management and audit scheme. The Seacourt Press Environmental Policy is set out below:-

At Seacourt Press we are committed to the prevention of pollution and reducing the impact of our printing activities on the environment. In order to strive towards meeting this commitment during the manufacture and delivery of our products and services we will:

- meet all necessary legislative, regulatory and consent requirements which relate to our business
- keep informed of environmental issues and, in particular, those which are of direct relevance to our business
- continue to raise the awareness of all our employees, the effect of their actions on, and their responsibility to the environment; by communication, discussion and training
- minimise our environmental impact by the operation of suitable waste minimisation and recycling schemes
- manage our building and site in an environmentally sensitive manner
- make use of, wherever practicable, best environmental practice when planning and developing new and existing operations
- operate a thoughtful purchasing policy by selecting wherever practical, materials and services which are less damaging to the environment
- set environmental objectives and targets based on continual improvement, monitor results and review on a regular basis
- establish and maintain an Environmental Management System which continually reduces waste, effluent, emissions and the use of scarce resources.

## CONTENTS

FOREWORD .....	5
PREFACE .....	5
PART 1 - WHERE ARE WE NOW? .....	6
Benson Parish .....	6
Footpaths .....	7
Hedgerows .....	8
Woodlands .....	11
The Riverbank .....	12
Benson Brook .....	13
Public Open Spaces .....	14
The Water Meadow beside the Thames .....	16
Farmland Use .....	16
Cuckoo Pen Nursery .....	16
Environmental Practices .....	17
Climate .....	17
Geology .....	19
Water Sources .....	19
Habitats and Wildlife .....	20
PART 2 - WHERE DO WE WANT TO GO? .....	23
Local Agenda 21 .....	23
People .....	23
Activities .....	23
Natural Resources .....	24
Future actions .....	25
Finally .....	25
GLOSSARY .....	26
Appendix A - Benson Parish Wild Flower, Shrub and Tree List .....	27
Wild Flowers .....	27
Trees and Shrubs .....	30
Other Categories .....	30
Appendix B - Hedgerow Survey Technique .....	30
Appendix C - Fungal Foray in Oakley Wood .....	31
Appendix D - Butterflies (Interim Results) .....	32
Appendix E - Yards, Feet and Inches .....	32
REFERENCES .....	32
INDEX .....	33



## FOREWORD

The Benson Environment Survey Team (BEST) was set up late in 1997 by Hugh Cundall, at the invitation of Benson Parish Council, to prepare a Parish Conservation Plan (PCP) as part of Oxfordshire's nature conservation strategy.

The aims and objectives BEST adopted were:

- to make a record of the habitat, the landscape and the wildlife in the parish of Benson in order that they may be preserved and enhanced;
- to provide a basis for on-going monitoring of the ecology and for remedial or enhancement action in future years;
- to disseminate information and to stimulate interest amongst all members of the village and particularly the young.

Thanks to Hugh Cundall's determination, enthusiasm and powers of persuasion at the outset, BEST has been supported by an active and committed core of members, who have contributed in various ways to the production of this report.

BEST has operated under the auspices of the Bensington Society, which has given great support and encouragement to the group.

It is a source of considerable satisfaction that we have been able to complete this report in Millennium year. Awareness and care for the environment becomes increasingly important - vital even - in the 21<sup>st</sup> century when our lifestyles do so much to threaten the quality of that environment. This report must not therefore be seen as the end of the survey, but as the beginning of a renewed determination to preserve and improve Benson's environment in the future.

## PREFACE

Concern about the environment has become almost as common a topic of conversation as the weather. Air pollution, noise pollution, global warming, extinction of species, agricultural monoculture, waste disposal and road construction are all subjects on which diverse views are held. The effect of population growth in central and south east England is such that pressure on land use is of primary concern.

Agenda 21 and the Oxford bio-diversity challenge have outlined the problems facing the country and produced a 'vision for sustainable living for the people of the county' (Ref 5). Politicians globally, nationally and locally put out grand stratagems and targets to try to stop environmental catastrophes.

Effective conservation measures which allow all living things to flourish are usually initiated locally by people who know the area and are aware of change and conflicting interests. To be effective, they must have knowledge about their own local area, individual habitats and the pressures on these habitats.

This parish conservation plan sets out a profile of the living things of Benson parish and has been the work of the Survey Team, who have studied the area for over a year; it also gives brief outlines of the history of the village and changes which have affected it. The profile is not complete and does not include trees, insects, fungi, lichens, mosses or molluscs (slugs and snails) in any detail. In doing the surveys and listing the species, it was realised how much more should be surveyed and recorded. This will be done and will be outlined in the discussion and plans for the future.

We thank Grundon Ltd and SODC for financial assistance towards printing this report as well as two anonymous donors who have provided generous loans for the balance of costs.

Professional help has been given by BBONT (now BBOWT) especially by Emma Broad and Moira Cullen and also by Dr Peigi Wallace of the Hedgerow Group, CPRE. We also thank:

- Brian Baldwin of the Goring Environmental Group
- The British Trust for Conservation Volunteers (BTCV)
- Janet Welch for woodland survey advice
- John Aldridge for information about the watermill
- CEH Wallingford (formerly the Wallingford Meteorological Station, Institute of Hydrology) for climate data.
- Elizabeth Leppard, Benson Parish Clerk, for parish information

The Editorial Board thanks all members of BEST who contributed in various ways, especially for contributions on their specialist topics. The Brightwell-cum-Sotwell conservation plan of 1998 has been an inspiration to emulate and we thank its editor, John Rodda, for initial encouragement and advice.

This first survey by BEST, a team of about a dozen members, will be expanded and updated so that it remains a piece of up-to-date data for environmental consideration.

BEST acknowledges the help of all agencies listed and the enthusiasm and good humour of the survey members. We thank anyone else who has contributed in any way.



## PART 1 - WHERE ARE WE NOW?

### **Benson Parish**

Until the mid 19<sup>th</sup> Century, farming was the predominant occupation, together with river-based work (fishing, water mill and transport). As roads improved, Benson became a major staging post on the route between London and Oxford. This gave rise to numerous inns and coach repair businesses, which declined when the Great Western Railway arrived. The RAF came in the late 1930s and is now a helicopter base.



Present day Benson parish contains a church, chapel, parish hall, infant and junior schools, library, about a dozen shops, two garages, two pubs, two fast food outlets and a boating marina. It has bus services to Oxford, Wallingford and Goring and to some extent serves as a Thames-based tourist base. The current population is just below 4000, many of whom work in neighbouring towns.

Farming is now carried out in three arable farms; an example of the variety of crops grown on two of these farms is given on page 16.

### **The Parish Boundary**

Benson parish lies to the south east of Oxford, bordering the eastern bank of the River Thames, the village of Benson being 9 miles from the City centre. See map on page 2.

The area of the parish of Benson, which includes Preston Crowmarsh, is 1111.8 hectares and lies between 45m above sea level by the river, rising to 120m in the area at the top of Beggarbush Hill.

The built up area of Benson is surrounded by flat farm land to the north, Benson Aerodrome to the south east (which includes housing for RAF personnel), and rising from the aerodrome on the south east side is a more hilly area of farm and woodland with some scattered houses.

Starting at the Elm Bridge Roundabout, the boundary of Benson parish goes a short distance north west along the A4074 then turns south to the river by the large hedge (boundary with Warborough), then follows the centre of the river to Crowmarsh Battle Farm (Brightwell-cum-Sotwell is on the opposite bank). It then turns south east bordering Crowmarsh Gifford, crosses the A4074 and Clack's Lane to the Icknield Way, south to the A4130, turns east along the A4130 with Turner's Court in Nuffield to the south. The Boundary then leaves the A4130, goes north east, north

and north west around Potter's Farm and north west over Grundon's Gravel Pit (which is part in Benson and part in Ewelme). It then takes an irregular line up to and over the north east of the aerodrome to cross the Benson/Ewelme road (with Fyfield Manor in Benson parish and Lower End Cottages in Ewelme). The line then proceeds north along Tidmarsh Lane (Footpath 14) to the B4009, following the road west to Braze Lane, north west then south west (Kimbar's Orchard and Port Hill House being in Berrick parish). It turns north north west crossing Bridleway 10a (Rokemars is in Berrick parish) goes up to the Berrick/Benson ditch and turning south west along the ditch to the Elm Brook (with Warborough on the opposite side) finally going south along the Elm Brook to the roundabout.

### **Growth of Benson Village**

In the post-war period and in particular in the early 1950s, Bullingdon District Council (now part of SODC) drew up a proposed housing plan on a village by village basis. Benson, with a good selection of shops even then, was earmarked for expansion. A modern sewage system was put in with a sewage-processing farm on the south west edge of the aerodrome. The houses started to be built in the late 1950s and the 60s and 70s saw a doubling of the number of houses and population when the infant school was also built. College Farmyard in the centre of the village became houses, flats and shops and a village centre was created. In the 80s and 90s smaller estates were tucked in remaining land areas and very small new playgrounds were put in two areas - Blacklands and Westfield estate and St Helen's Avenue. This meant the creation of a tightly packed settlement mostly with 2 or 3 bedroom houses. As the families grew, so did the houses and so the house/garden ratio increased as did the number of houses per acre. The quality of the houses varied from estate to estate. Some experienced difficulties with water mains pipes being laid too near the surface, causing freezing problems. As can be seen from the maps on page 19, the village consolidated - some planning was good (new footpaths were created) and some not so good - recreation facilities for the increasing population were forgotten. The brook suffered, in that it was dredged many times and the edges concreted. Planners in the late 1990s were very much more insistent on the quality of the houses and the immediate environment around the houses. The Blacklands and Westfield estate, built in the 60s suffered from open plan front gardens - not very successful. Where future development in Benson will be is in the lap of the gods or at least the builders and landowners who have bought land on the edges of the village - north east and south west. They wait and we watch for future development. One great advantage of the increased number of houses is the numerous small gardens attached to them - many of which have become wild life havens.

### **The Birth of RAF Benson**

There is a story that RAF Benson was dreamed up at a dinner party locally. The tale goes that a government minister, while dining at Ewelme Down House got the idea that the farmland he saw between Benson and Ewelme could be used for an airfield. Despite local protests that the peace and tranquillity of the area would be ruined, the scheme went ahead and work began on the RAF base in 1937, to be completed early in 1939 shortly before the

second world war started. Some of the benefits were soon appreciated. Farmers were compensated for the land they lost at over three times the market value of about £5 per acre. Local hostellers did excellent business, refreshing, feeding and accommodating construction workers and the base provided short and long term employment for many local people.

## Footpaths

The parish of Benson has 25 footpaths in total, shown in the map on page 18. The vast majority of Benson's footpaths are well maintained and signposted. They can be divided roughly into three categories. There are those that provide pedestrian routes and short cuts around the village and down to the river; those that provide pleasant recreational walks, often leading on to walks in surrounding parishes and, thirdly, those that do neither of these. An example of the latter is footpath number 5 in Preston Crowmarsh. This formerly gave access to a ferry across the river, but as there is no longer a ferryboat, this narrow path between two garden fences, comes to an abrupt and watery end after only a few metres.



Other examples are parts of footpaths 19 and 21, which run either side of a scrapyard on the Old London Road at the top of Beggarbush Hill. However, it must be said that having negotiated the unsightly piles of scrap metal, both paths going southwards lead on to the considerably more attractive area around Oakley Wood and on into the parish of Nuffield and miles of lovely countryside beyond. Footpaths 15 and 20, off Beggarbush Hill go nowhere any more, having been cut off by the airfield and by the RAF Benson housing estate. The location of footpath 23 is something of a mystery, as it does not appear on the definitive footpath map.

The Thames path, which is now open for the entire length of the river from its source, runs through Benson. Unfortunately, very little of the stretch that is in the parish actually runs along the riverbank. That is because most of the riverbank in Preston Crowmarsh is privately owned as a result of the houses built along the side of the river. The path along this stretch therefore follows the road from the cruiser station until it crosses the river at Benson lock and out of the parish.

The best footpaths for recreational walks undoubtedly lie at the east and the north of the parish. These give access to longer walks in lovely countryside in Ewelme, Nuffield

and beyond to the east, Berrick Salome and Warborough to the north. More functional is the small network of well signposted and maintained footpaths that run through the village. These provide pedestrian links and short cuts through and between housing developments and down to the river.

At the time that this report was being compiled, negotiations were taking place to obtain the funding for a footpath from Benson village to Ewelme. At the present time, anyone making that journey on foot knows how hazardous it is. The road is narrow and twisting so that any pedestrian has to frequently seek refuge from the traffic on the narrow bank of grass. When the necessary approvals and funding are obtained, the path will provide a safe pedestrian route to and from the village.

People frequently ask what makes a path a public footpath or right of way. Theoretically, a footpath becomes a right of way because the owner 'dedicates' the path to public use. However, the law assumes that if a path is used by the public, without interference, for twenty years or more, the owner intends its dedication for public use. This is the way in which the vast majority of rights of way have been created. It is not true, as often believed, that a path ceases to be a right of way if it is not used for twenty years, as the law takes the view that 'once a right of way, always a right of way'. Local authorities can also create footpaths by agreement with owners of land or by compulsory purchase.

Responsibility for maintenance of Benson's footpaths rests with Oxfordshire County Council. The Parish Council is concerned with ensuring that access to all public rights of way in Benson are preserved, and tries to ensure that all the footpaths are walked periodically in order to assure their continued use. The parish council takes up with the County Council any infringements of these rights. By and large the Parish Council is opposed to the closure, diversion or obstruction of public rights of way. It has occasionally agreed to the diversion of a path in order to provide a better use by the public. The Parish Council and the County Council welcome reports from users of footpaths of any obstructions or other hindrance to the right of way that they may encounter. The Parish Council can provide forms for the purpose of making such reports. It endeavours to maintain an annual record of the state of all the parish footpaths, compiled of information from volunteer walkers. All of the parish footpaths were systematically walked and reported on by two volunteers in 1996.

In an age when traffic is increasing year by year, it is important that footpaths are used and maintained. They provide a welcome and healthy relief from the overcrowded roads by giving access to the gentle countryside of South Oxfordshire, of which Benson is such a vibrant part.



## Hedgerows

### History

Hedgerows are an important part of the English landscape telling us about the history of our countryside and their value to wildlife.

Before 1852, the landscape in the parish was unenclosed with open fields. An 'ancient' hedgerow can be a thin line of woods – all that is left of woodland that has been cleared for cultivation by farmers in the past. These hedges may contain oak or ash trees, and have a large number of species of wildflowers at their base, such as bluebell and wood anemone – flowers typical of old woodland. Some hedgerows are historical 'documents' marking parish or estate boundaries. In 1852 the Inclosure Act for Benson was passed transforming the local landscape and farming operations. Hedgerows were planted across open fields creating a right-angle grid system, which is familiar today. Unfortunately, our countryside has been changing and hedgerows were disappearing rapidly in the 1970s and 1980s. In order to protect them for their historic, wildlife and landscape qualities, they need to be surveyed and studied.

### Why a hedgerow survey?

A hedgerow survey was central to the environmental survey of the parish. It was decided to do the more comprehensive Council for the Preservation of Rural England (CPRE) Hedgerow Survey as opposed to the Parish Plan survey, as the results would be entered on to a national data base by CPRE. This information will enable local planning authorities to make an informed decision as to the value of a threatened hedge and determine whether it may be removed or conserved for the future.

Dr Peigi Wallace of the CPRE (Oxon Branch) has been very supportive and gave the BEST group a training session in April 1998 to enable volunteers to understand the CPRE survey form and to survey in as consistent a way as possible. For a summary of the survey technique, see Appendix B.

In recording the number of different species in a hedgerow, a crude indicator is given as to the age of the hedge and its possible history:-

- A hedge with 1-4 'common' species indicates enclosure or post 1852
- A hedge with 5-7 including some 'less common' species could be pre-enclosure
- A hedge with 8+ species could be regarded as an ancient hedgerow.

### Why are hedgerows important?

Hedgerows offer variety to the landscape and in some cases field delineation.

They form an important habitat for wildlife: plants, animals, birds, insects, butterflies, reptiles etc. providing

food and a place to live. Different species of shrubs in a hedgerow will encourage a variety of wildlife. The density of the hedgerow is important – the denser the hedge the more protection offered. Hedges which are at least one metre deep and two metres high provide the necessary protection for nesting birds. Hedgerows provide 'wildlife corridors', enabling creatures to forage and travel in relative safety; thus connectivity (a measure of how continuous the hedgerow network is in an area; see glossary) is of great importance. Hedgerow trees are important to encourage nesting and are used as song posts to mark territories.

### The Survey

The parish was divided into five (I-V) areas for ease of surveying and data collection (see map, page 18). For any hedges which could not be surveyed from roads or public rights of way, permission was asked of the landowner.

Each group was allocated an area, given a set of CPRE instructions and data collection forms.

The length of each hedge was walked, with 30 metre section(s) selected to record shrubs present and the number of trees by species.

The hedge structure (shape) and hedge dimensions (length, height, width and density) were also recorded.

Associated features such as ditches, banks, floral margins, connectivity, gappiness (for a gap of more than 20 metres, the hedge is counted as two separate hedges) and management were recorded.

An initial cursory survey was done of all 228 prospective hedgerows listed in the parish to establish which hedgerows existed and which should be surveyed. Of these, 104 hedgerows either no longer exist, are planted garden boundaries (eg leylandii, privet hedge or fence) or otherwise did not qualify. These were excluded, leaving 120 hedgerows to be surveyed.

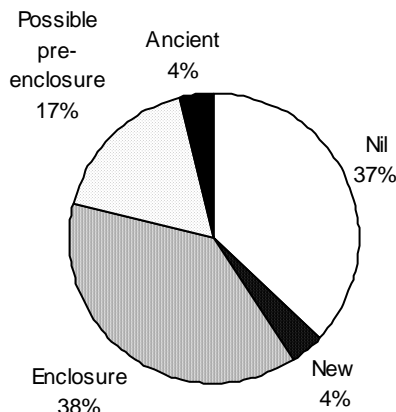
The hedgerows were surveyed by a team of 15 volunteers during 1998 and 1999.



## Analysis

### Age of Hedgerows

The proportions of hedgerow observed for each age/history category are shown in the following chart. The 'Nil' category represents garden boundaries or disappeared hedgerows and the 'New' category shows new hedges planted since 1992. The ancient hedgerows are all in the Mogpits Wood vicinity.



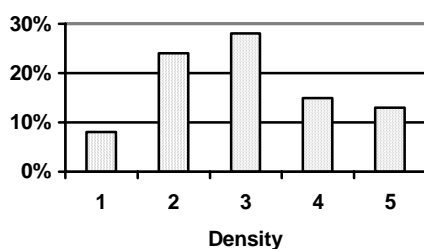
### Hedge Attributes

#### Dimensions

Total length surveyed	32.3 km
Average height	4.9 metres
Average width	2.7 metres

#### Density

Density or the thickness of the vegetation was measured on a scale of 1 to 5 (1 being pretty thin and 5 being quite thick).



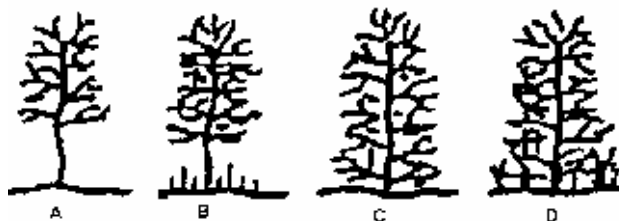
### Ditches, Banks and Margins

Hedgerows can be associated with dry ditches (16%), damp ditches (7%) and wet ditches (13%). Hedgerows can have hedgebanks (24%) and grassy margins (59%). 18% of hedgerows have limited flora, with 9% having a diverse array of flora.

### Hedgerow Structure

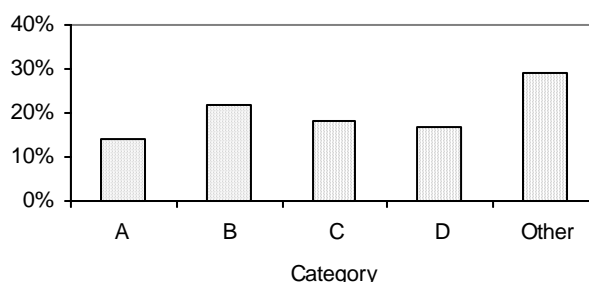
The hedge structure was measured over a range of categories from A to D (see figure below). At one extreme, category A indicates a shrub canopy absent to a height of 0.5m with an open base and at the other extreme, category D indicates that the shrub canopy is dense to

ground level with woody outgrowths on one or both sides e.g. bramble. If a hedgerow did not obviously fit into one category, it was classified as 'Other'.



The prevalence of each category is shown below.

Hedgerow Structure



### Hedgerow Flora

The most common shrubs are hawthorn (80%) and elder (50%), with dog rose (30%) and blackthorn (26%). The figures quoted refer to the percentage of hedgerow samples containing at least one observation.

Elm suckers (29%) are the most common hedgerow tree and if regularly trimmed appear to be living. Any growth which is allowed to continue above the hedge is still attacked by Dutch elm disease when it reaches about 5 metres.

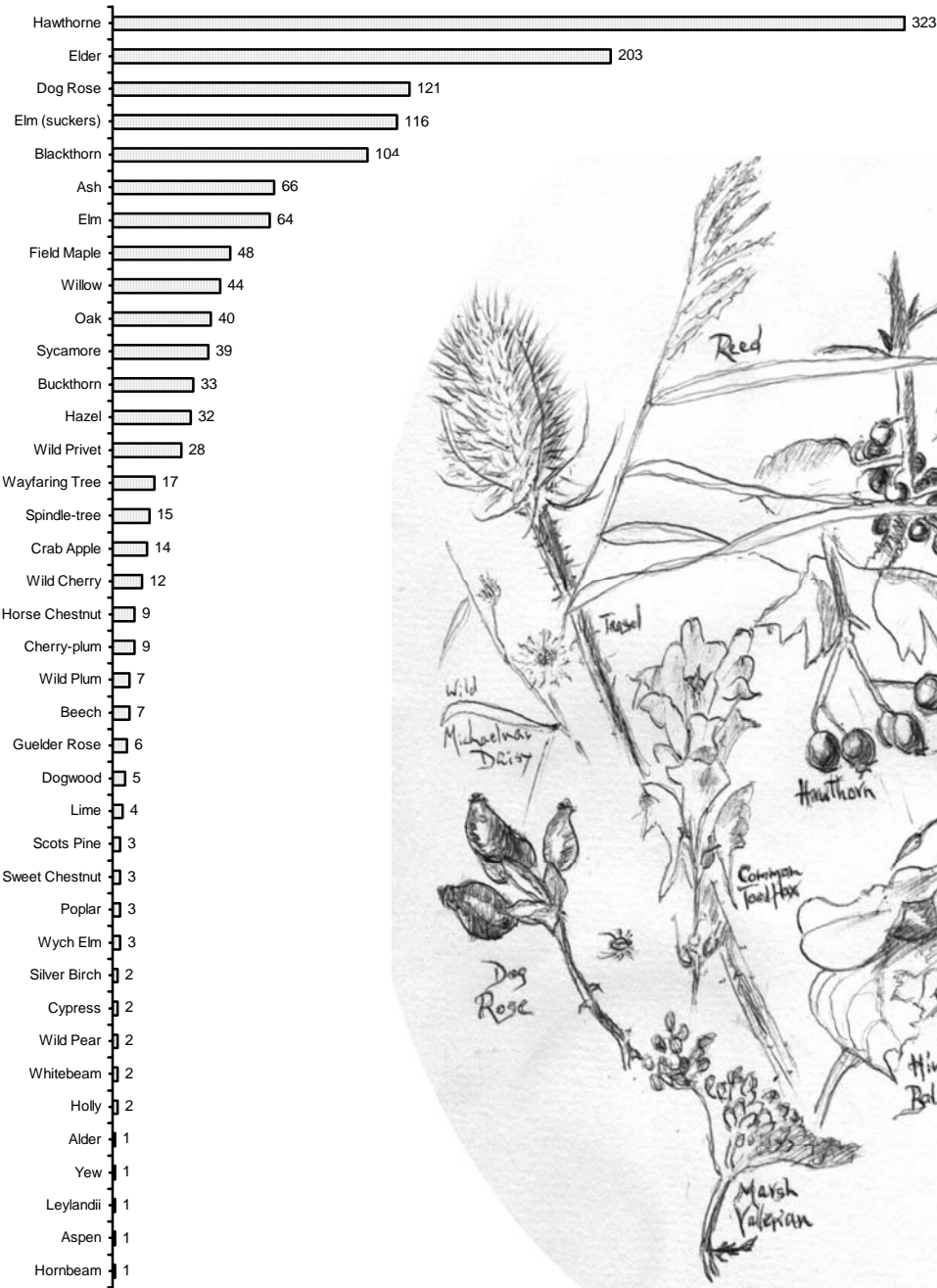
The next most common tree species in hedgerows were elm (16%), ash (16%), field maple (12%), willow (11%), oak (10%) and sycamore (10%). All remaining tree species made up 8% or less. For the full list, see page 10.

Blackberry, burdock, traveller's-joy, woody nightshade, common nettle, ivy, white bryony, cow parsley, ground arum, convolvulus, mugwort, garlic mustard were amongst the most frequently found species of flora at the base of hedgerows. A comprehensive list is to be found in Appendix A, column 6 on page 27.

Orange tip, brimstone, tortoiseshell, red admiral, grizzled skipper butterflies were noted but not recorded.

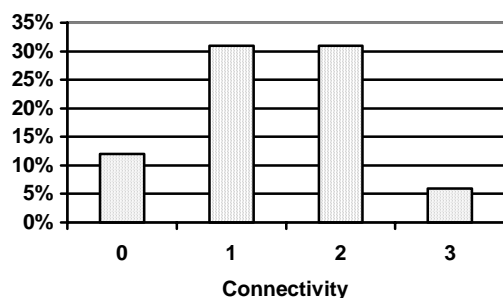
Incidence of Trees and Shrubs Observed

The chart below gives the total no. of 30m samples containing at least one observation.



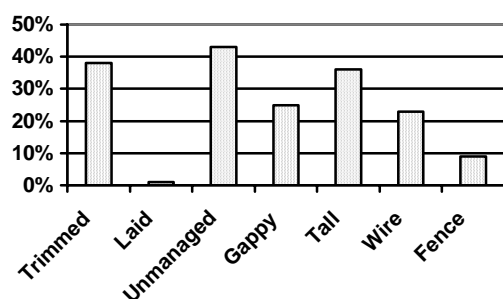
Hedgerow flora by Freydis Sharland

Connectivity (see page 26 for full definition)



### Management

Note that hedges may have at least one of the above characteristics. A couple of willow hedges are managed by pollarding.



### Conclusion

Hedgerow categories 1-4 indicate post Enclosure (1852 or later) the majority of which are in the northern part of the parish, which is the more populated part.

Some of the hedgerows in categories 5-7 form the north east parish boundary and some are associated with bridleways. It can be seen from the map on page 18 that the majority of these hedgerows are in the less populated area of the parish, located in the Oakley Wood area. Hedge nos. 209, 210, 211, 222, 228, 230, 230b, 236, 241, 242, 244, contain oak and ash; and some contain wild cherry which is also found in Oakley Wood. Whereas hedge nos. 226 and 229 do not contain oak but do contain ash and are nearer to Mogpits Wood, which is predominately ash.

New hedgerows have been planted at the south-east end of the parish in the vicinity of Clack's farm. They consist of a large variety of species suited to local environmental conditions. Because these would be categorised in 5-7 group, the indication of pre-Enclosure hedgerows would be a false claim as they have been planted during the past 10 years.

The dead elms on their own provide a wildlife habitat for fungi, insects etc.

A survey of birds in the hedgerows is recorded in a different part of this report – see the Bird Survey on page 20. Wildlife sightings have been recorded on some of the survey sheets but will not be recorded in this part of the

report. Copies of all hedgerow survey sheets are to be lodged in Benson Library and are available for all to peruse.

### Woodlands

Two small woodlands (Oakley Wood and Mogpits Wood) lie within Benson parish and both are in the extreme southern tip of the boundary. They are separated by a single arable field, and were almost certainly part of a much larger wood, as the tree species are identical. Evidence of coppicing in pre-war years is also apparent in both woods.

Untypically, they are oak woods, for the Chilterns area is predominantly beech wood country, serving the furniture trade of High Wycombe and vicinity in years gone by.

Being termed 'oak woods' does not imply that other species are not permitted to flourish there. Ash, cherry and field maple, where they have been able to self-establish, have been left to add diversity of timber species.

Beneath the oaks, ash, cherry and maple are purpose planted hazel, giving a two tier effect which was typical of ancient woodland management. The hazel growing beneath the 'canopy' trees grew straight and tall, reaching for the pools of light between their larger cousins high above and the resulting rods were used for interior wall bracing and the manufacture of sheep hurdles. Splitting rods in two along their length to economise the stocks available was termed wattleing - hence the wattle and daub style of plastering and wattle-hurdle.

Coppicing the oaks resulted in multi-stemmed trees with curved trunks, so much stronger than 'sawn along the length' timbers, when curved beams were required for both house and ship building.

Maps of the parish show that the woods were in existence as long as a thousand years ago.

Where differences between Oakley and Mogpits occur, they are due directly or indirectly to the fact that Oakley Wood is managed and Mogpits is not, being unfenced and open to grazing by cattle. Managed woods attract a greater bio-diversity of flora and fauna than unmanaged woods owing to the differing conditions caused by the coppicing operations. Oakley Wood is particularly rich in flower species. Bluebells, wood anemone, wood sorrel, dog's mercury, greater and lesser stitchwort, yellow archangel and bracken all flourish there in succession each spring time. Over thirty different flowers were recorded by a BEST team of researchers in less than an hour one summer day in 1999 (see page 27, column 7). Where the thinning



out of overgrown hazel has occurred, many species of butterfly have colonised the resulting sunlit areas.

Buzzards and red kites (illustrated) make Oakley Wood their homes at frequent intervals as do jays, greater spotted and green woodpeckers.



Evidence of foxes and badgers can be clearly seen after a fall of snow. Rabbits are present in pest numbers but are now being controlled to safeguard the young trees being planted. Muntjac deer and occasionally roe deer have been spotted at Oakley Wood and these too are discouraged by fencing in the saplings, as deer have a great liking for tree bark.

An area in the vicinity of Oakley Wood is being landscaped (in 1999) following its use as an infill site. The work is expected to take five years.

Mogpits Wood, although less rich in wildlife, contains some species not found at Oakley Wood, but cattle are permitted to shelter there, so much of the flora cannot flourish.

It does however, provide an example to make comparisons between managed and unmanaged woodlands.

Few parishes can boast a bluebell wood among its assets - Benson has two!

An alcoholic beverage that the Chiltern woodsmen frequently imbibed was the result of cheap and plentiful gin, available from the Middle Ages onwards. However the taste of gin was not apparently to their liking and the outcome of their experimentation produced a syrup known as Chiltern Noyau\*. A trial batch of this liqueur was made by a BEST member to a recipe found in a publication of the last century and he used the rest of the team as guinea pigs to sample the result. They went home very happy.

## Fungi in Oakley Wood

A 'fungal foray' was conducted in Oakley Wood in October 1998, resulting in 35 species being observed. The full results are presented in Appendix C (page 31)

## The Riverbank



For many this conjures up the image and brings back memories of the tales of Mr. Toad, Moley and Ratty! The

---

\* Chiltern Noyau

1 pint gin

¼ cup brandy

Rind of ½ fresh orange

2 - 3 lbs young beech leaves

1½ lbs sugar

Add the sugar to the beech leaves in a large mixing bowl. Pour over the gin and brandy and add the orange rind in one or two pieces. Leave covered with cloth for 3 weeks giving a stir occasionally. Filter into bottles. Ready for drinking in 24 hours.

residents of Benson are so fortunate to have the river only a short walk away.

The Benson parish bank is on the north north east side of the river. The river runs southwards, entering Benson parish about 300 metres above the caravan park, through two meadows to the caravan park and marina, and past the Riverside playpool area. This is the only public fishing area of Benson's stretch of the river. From this point, to the end of Preston Crowmarsh and the Battle Farm fields, the riverbank is all privately owned.

The public now has access to Benson lock, by crossing the weir bridge - some 100 metres long. This was made possible by negotiations with the owner of land on the Preston Crowmarsh side when the Thames Path walk was opened in the early 1990s. There is no vehicular access to the lock, and all the lock keeper's requirements have to be carried across by hand or boat.



There are at least five water courses which flow into the Thames on the Benson 'stretch'. The main ones are

1. The Elm Brook which goes under the road at Gurneys garage, giving its name to the Elm Brook Roundabout.
2. The 'village', or Benson brook which flows in at the northerly end of Preston Crowmarsh, having helped to make very picturesque gardens on its way through the village. By the time it actually reaches Preston Crowmarsh it has become an extremely fast flowing stream.
3. The drainage ditch by the marina bridge.
4. The drainage ditch one hundred metres upstream by the stile. Both this and the marina brook have little water at the end of most summers, but in the spring, especially in 1999, they were both flowing well.
5. The fifth is the brook at the southern end of Preston Crowmarsh, which in itself has many smaller streams and dykes joining it as it passes through this little hamlet.

Certainly the spring of 1999 was the time to do a check of all the streams in Benson - wherever you walked there was always the sound of rushing water. The depth of the river on the downstream side of the lock is normally 2 -2.5 metres, but will rise to 4 metres when in flood - a very fast flowing stretch.

Willows dominate the riverbank on the properties in Preston Crowmarsh - most of these have been pollarded to keep them to a manageable size, which also prolongs their life. On the Rivermead area, several large willows are growing on the bank. These give delightful shade for happy picnicking during the summer months. On the marina and caravan park there are virtually no trees along the bank as this has been developed for landing stages of all shapes and sizes.

There is a small water meadow between the marina and the Elm Brook, which is very secluded and a haven for wildlife. It is surrounded by good strong trees (mostly ash, hawthorn, wild rose and willow) and the largest blackberries in the area! By far the most beautiful of the flowers seen on the riverbank is an orange mimulus. Also found is the rare Loddon lily.

There is a variety of wildlife on the river, including, in 1999, a large family of swans. There were seven cygnets but towards the end of the summer there were only six to be seen with the parents. The ever-popular moorhens and ducks are regularly seen, as well as a few Canada Geese in this area, although further downstream large flocks of them are found.

Preston Crowmarsh houses a large rookery\* and a large number of crows inhabit this area. Benson has records of a large number of garden birds, some of which also come down to the river. A pair of kingfishers regularly fly along the river - a truly delightful sight.

A local fisherman reports that the river is cleaner than it has been for a long time. This is evident from the large amount of weed and rushes growing. There are many small fish in this area. Large chub can be seen basking below the water surface in areas protected by overhanging branches. Bleak are to be found near the surface, together with roach and bream. Perch and pike are species that seem to have multiplied with the better river conditions.

A watermill, unused since 1930, is found just below the weir. Until the turn of the last century (1900) it had been used as a corn mill, then it was used for flock and hair preparation by Crowmarsh Mill Wool Company until 1922, eventually being used to generate electricity until 1930. The millstream is still there and the backwater below the mill has recently been dredged clear. Part of one very old wheel still exists, and the other later one would probably turn if the sluices were opened.

Until about 1960, a small flat-bottomed boat provided a ferry crossing approximately 100 metres south from the Rivermead.

\* Mrs Beaton's Recipe for Rook Pie

Take 6 young rooks, ¾ lb. rump steak, ¼ lb. of butter, ½ pint of stock, salt, pepper and paste.

Skin the birds without plucking them by cutting the skin near the thighs and drawing it over the body and head. Draw the birds in the usual manner, remove neck and backs and split the birds down the breast. Arrange them in a deep pie dish, cover each breast with a thin strip of steak and season well. Intersperse small pieces of butter and as much stock as will ¾ fill the dish. Cover with paste, as for veal pie, and bake from 1½ to 2 hours. Glaze with egg when ¾ cooked. Serves 5 or 6.

### Drainage on agricultural land north of Benson

The Elm Brook, running into the Thames, collects water from three main ditches:-

1. The ditch on the boundary with Warborough starts from a spring on Manor Farm, Berrick Salome. The length of this ditch by Benson has been dry twice in the last forty years, for a short time in late summer.
2. The deep ditch running from Roke collects water from several cross ditches and field drains, which collect rising and surface water and does not stop running.
3. The smaller ditch, which is fed from a spring on Hale Farm and areas of quicksand, which runs approximately NE to SE across the centre of Hale Farm.

The fields adjacent to Port Hill, Sunnyside, Blacklands and The Cedars are free draining. Underground water is easily accessible. The depth of water in existing wells depends on the rainfall.

### Benson Brook

The brook accompanies the road from Benson to Ewelme. It is a fast flowing clear brook, which is an attractive feature throughout its length from source in Ewelme to the Thames just over 3 kms away. It enters Benson parish under the road bridge east of Fyfield manor. It runs in a south westerly direction and falls 20 metres in height between there and the Thames. Its total fall is over 50 metres from source to river.

The brook, designated a chalk stream, is spring fed. The main source comes out of the Chilterns chalk on the north side of Ewelme High Street near the school. It flows behind the cottages until it reaches the Kings Pool. The watercress beds were constructed in the 19<sup>th</sup> century and were farmed until about 10 years ago. They are being restored at present. During wet years, Ewelme Common has a wet base near the playing field with springs coming from the same Chiltern aquifer. The water at source is alkaline (pH 8) and at a temperature of about 7°C, which varies very little throughout the year. There are many springs along the brook. The watercress beds now belong to the Chiltern Society (April 2000).



The brook is bridged by 8 roads, 4 estate roads and about 30 house entrances. It also flows under two houses. The length of brook with natural grass banks is now only about 1 km within the parish. Most of its length within Benson has a bank margin of concrete constructed at different

times over the last 30 years. There are over 30 storm drains, which empty from Brook Street. There is a culvert for the brook under the RAF Benson flight path. It is about 200 metres long and was constructed in the 1960s. It deprived walkers of an attractive brookside walk. The brook is easily accessed in Brook Street and from the allotments in St Helen's Avenue. Access is restricted in many places where it flows through or between house gardens. There are over 100 riparian owners. The Environment Agency 'owns' the water but its governance and control is complex and often confused.

The depth of the water varies between 6 and 40 cms depending on the brook width, the rainfall, the season and the profile of the brook bed. There are two mill races, one at the south west end of the watercress beds in Ewelme and one on the north side of the Mill Lane bridge in Benson. Neither mill has functioned for over a hundred years. The flow rate is usually about 6 kms per hour. The brook base is caked calcareous gravel with overlying flints.

During 1976 when the brook dried up, the top end stopped flowing about 2 weeks before the lower end. It was dry for about 8 weeks. Local residents report a shorter drought period in 1921. There is no other record of it ever drying up. It causes little flooding except during exceptionally heavy rainstorms and then only for a short time (hours). It is the lowest point in the valley in which it runs and has carved for itself a well-defined channel. Flooding problems during heavy rain have not been fully solved for the houses at the lower end of Brook Street.

Few plants grow in the brook, as not only is the water fast flowing, but it warms very little during its passage to the river. Its highest recorded daytime temperature was 23°C for a few hours only in July 1998. This was recorded near St Helen's Avenue in a sunny site. There is a diurnal variation in temperature at the lower end only. Conversely, it rarely freezes over, providing one of the few unfrozen waters, attracting heron. When it did freeze in 1964, water continued to flow under the ice. Prolonged cold weather can produce some spectacular and artistic icicles on vegetation on the brook margins.

A survey of the brook was carried out in 1969. Comparing that survey with the one in 1999, the main changes are an increase in the number of houses on the banks (see maps on page 19) and increased concrete edging. This has generally reduced the number of marginal plants and the number of animals needing 'natural' bank privacy. No water vole has been seen in Benson for about 2 years; there are still some in the natural and well-covered area below Ewelme watercress beds. There are fewer fish. The St Helen's Way estate has artificially raised banks. Some houses there are built on rafts for stability. This has destroyed an area of 'unimproved' grass, which was a good habitat for frogs, toads and newts as well as for passerine birds. Herons are not seen so frequently and kingfishers are now rare instead of regular visitors.

There is a small area of marsh adjacent to the brook between the A4074 and Preston Crowmarsh. This is a good habitat for marsh-loving plants and animals including water insects, larvae and snails.

Many gardens along the brook have planted attractive non-native species of trees and water marginal plants, including Asian primulas, hostas and willows. There are now no alders along the brook; this may reflect the alkaline nature of the brook water. There are indications of previous use of herbicides including hormone weedkillers along the banks. This has reduced the number of dicotyledon species on the banks.

**Water plants** - water crowfoot; Watercress, liverworts (at least two sorts); many mosses, just above the water

**Marginal plants** - marsh-marigold, figwort, nettles, willow-herb (2 sorts); comfrey, meadowsweet, yellow iris, water mint, hogweed, purple loosestrife

**Grasses** - include many clumps of pendulous sedge and bulrushes.

**Trees** - crack willow, goat willow, elder, hazel, beech, lime, hawthorn, dogwood

**Insects** - dragonflies, damselflies, mayflies, stone flies, mosquitoes and larvae, water skaters, water beetles, caddis flies, shrimps. Bees visit the bank margins regularly as do many other flying insects

**Mammals** - hedgehogs use the brook frequently

**Amphibians** - frogs, toads, newts are still found

Mallards have increased in numbers and there are many well-fed cats around.

## Public Open Spaces

### The Churchyard

The Churchyard was surveyed between 1990 and 1994 and 138 sorts of native trees, flowers and grasses were found (see Appendix A page 27, column 1 for details). A BEST survey in 1999 showed no diminution in numbers. A plan for the churchyard in future as a nature reserve with appropriate management is being proposed now that the yard is free of builders and encumbrances (April 2000).



### The Allotments

Before the Enclosure Act, open field farming was practised, which needed simple parochial administration and settling of disputes and services. Officials could not

be paid, officialdom was a duty rather than a profession: the constable, the hayward, the pinder and other officials were elected annually.

The countryside was transformed after the Enclosure Act of 1845. The manors had resembled islands of cultivation in a sea of common or unenclosed waste. This was subject to public or quasi-public rights. The modernisation of agriculture ended the older collective methods of farming. Private ownership spread across the waste areas and the commoners of the manor were compensated for their extinguished rights with small holdings and allotments for food, wood, stone and recreation. Such allotments existed mainly for the relief of poverty.

In more recent times The Small Holdings and Allotments Act, 1908; Allotments Act, 1922; Allotments Act, 1950; and the Local Government Act, 1972 have set out the duties of councils with regard to the provision of allotments; the power to acquire land for allotments; the improvement and adaptation of land for allotments; rules and regulations for letting and management of allotments as well as the transfer of allotments to parish councils.

The Parish of Benson has a long history of allotment provision. Recently the numbers have decreased with the pressure of housing, roads and the need to raise funds for parish projects - e.g. Benson Parish Hall. There were allotments upon land at Moorlands and Beggar Bush. The land alongside St Helen's Avenue and the A4074 and the Preston Crowmarsh side of the road support allotments at present.

Approximately 61 allotments were rented in the Parish of Benson as at July 2000.

## Sunnyside

A large grassy area of approximately 3 hectares. The B4009 road follows the SE boundary. A road encircles the other three sides with houses edging the road with their gardens. Hale Road on the NE leads to Hale Farm, and then by wide track to Warborough. The main grass area of Sunnyside is used for football, sometimes cricket, and dog walkers. There is an annual Vintage Cycle Rally starting from the field. The cyclists come from far afield mainly using cycles from the collection of Mr Passey, and often in Edwardian dress to match their machines. There is a pavilion completed in 1997 with help from the Sports Lottery Fund. Four hard tennis courts are operated by the Tennis Club. A children's playground was built on part of the site between the pavilion and the Parish Hall. The Parish Hall itself was built in 1993, and replaced the Village Hall which was opposite the church. Chestnut trees have been planted between the tennis courts and the B4009, and also on the NW edge of the main field, Hedges line the NE and SE sides.

## Rivermead

A riverside plot of approximately 0.3 hectares. It was bought for the village owing to the foresight of a parish council member soon after the first World War.

There is a scout boat hut and a children's paddling pool. A brick shelter was provided by the Benson Women's

Institute. Both this and the boat hut were originally roofed with shingles which have, unfortunately, recently been replaced with plastic coated metal. There are seats by the river and the paddling pool. The bank edge is of willow spiling.

The bank is a favourite haunt of swans who clamber up and preen themselves. There is access from the Preston Crowmarsh road, and a small gate to the cafe and boating area. Hedges are on three sides, and pollarded willows overhang the bank and along the road.

## Other Spaces

**Green Close Playground** lies within the main housing area of Benson at the end of Green Close. It is regularly renovated.

**St. Helen's playground** is a small playground off St. Helen's Avenue and next to a few allotments.

The **Bertie West Field** was bequeathed to the youth of the village in 1980, with access via a narrow path off the Littleworth Road.

The main group of **allotments** has been in use for over 100 years, lying between St Helen's Avenue and the main Oxford road, A4074.

**War memorial triangle** is at the Junction of B4009 Oxford Road and Castle Square. It has very well maintained flower beds.



A **triangle** at the junction of Sunnyside, Littleworth Road and the B4009 is also planted with flowers. A small park-like area planted with trees and grass and with a seat lies at the Junction of Crown Lane and the B4009.

The **river bank** between Rivermead and the water meadows (going upstream) is maintained commercially for caravans, and boat chandlery and hire. It includes a café and shop and an antique shop. There is a pleasant walk along the riverside to Shillingford and beyond. This is part of the **Thames walk**.

**The Royal Air Force, Benson** covers one quarter of the parish. Access is restricted and therefore it could be argued that it is not a public area. However it provides a large and airy vista to the Chiltern hills for those living round its borders. A golf course on the north and west side of the airfield, with clubhouse and car park is open to both service and civilian members. Migrating birds use the



airfield and curlews are heard every year, reminiscent of the Yorkshire and Cumbrian moors.

**The school field** part of the Church lands provides another open space between the C of E Primary School and the Youth Hall. It is used as the school playground and provides a basketball court for the Youth Club, with access from the Oxford road.

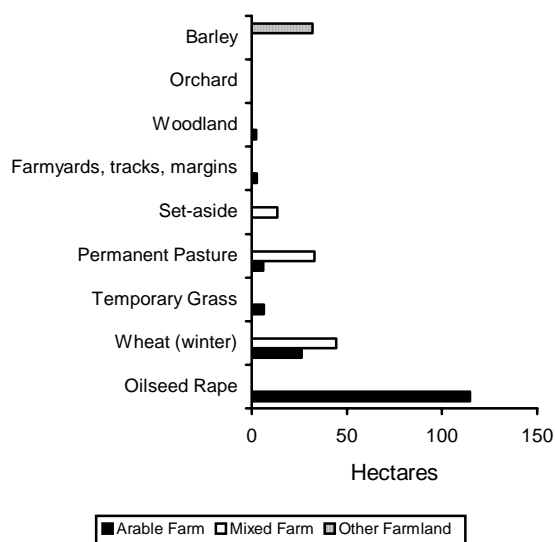
Benson is fortunate in still being surrounded by farmers' fields and having a network of footpaths within the village and out to neighbouring villages so that walkers and cyclists can avoid the busy roads.

### ***The Water Meadow beside the Thames***

The meadows on either side of Elm Brook were surveyed in April 1999 and the list of plants found is given in Appendix A on Page 27. In addition, frog, shrew, yellow snail, banded snail, sundry slugs, rabbits and molehills were noted.

### ***Farmland Use***

The chart below shows the use of farmland as recorded in the 1999 harvest. The data for the arable farm represents only 11% of its area, the remainder of which lies outside the parish, so the crop breakdown shown is not representative of that farm; oilseed rape was the most prevalent crop in the parish in 1999 due to its place in the crop rotation, though it only comprises 11% of the arable farm's cropping.



## ***Cuckoo Pen Nursery***

### ***History***

Cuckoo Pen nursery started life in 1985 on two uncultivated allotments between the A4074 and Preston Crowmarsh. Ian Burles started it single-handed with help from his future wife. His dawn to dusk activities on a very marshy area expanded to other allotments, also uncultivated, between the A4074 and St Helen's Avenue. The brook edge - then a jungle of coarse undergrowth, nettles and brambles included - was cleared so that an attractive brook edge habitat was created. It won a county environmental award in 1994. The nursery (for perennial plants only) is open for business and employs many local people. It regularly wins awards and certificates of merit at national shows. It is an admirable development of a neglected area - many wild flowers suitable for bog and marsh are there and more native species introduced. It is one of the few areas where water voles are still seen.

### ***Why 'Cuckoo Pen'?***

The origin of the term 'Cuckoo Pen' is an intriguing one. A Cuckoo Pen is a thicket, penned in, so that a cuckoo could be kept there. This was in order that the fine weather associated with cuckoos would remain. Unfortunately, the pens were never roofed, so the cuckoos always flew away.

Making cuckoo pens was one of the many foolish actions attributed to the people of Gotham, often called the 'wise men'. This paradox came about when King John wanted to build a royal hunting lodge at Gotham. The locals, appalled at the prospect of their crops being pillaged each time the lodge was used, decided to act foolishly - as though mad - to put off the king's men. The king was warned of the 'mad people' and, as madness was thought to be catching, the lodge was never built.

Another mad action was taken by the man who took pity on his horse who was to carry two bushels of wheat to Nottingham. To help the horse, he carried the bushels of wheat under each arm while riding the horse!



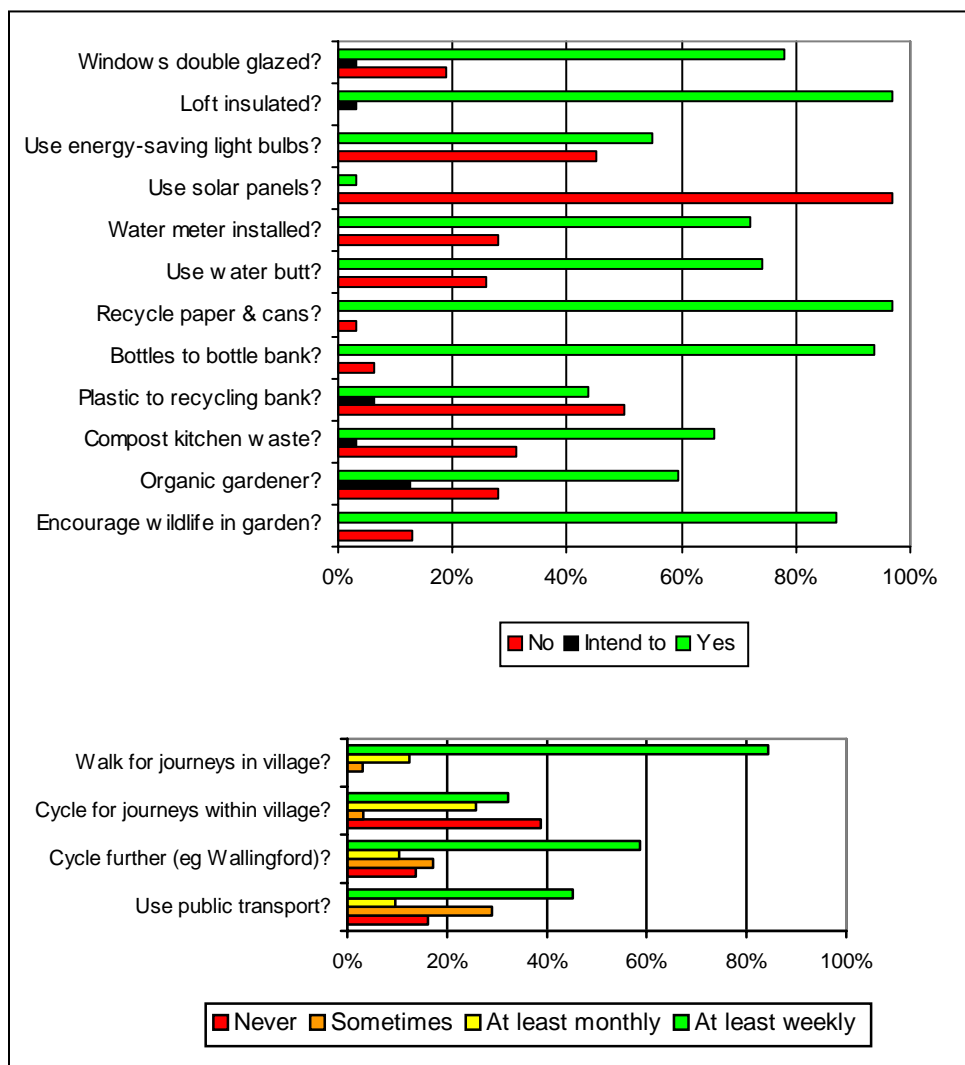
### ***Flora***

The list of plants observed is given in Appendix A (page 27).

## Environmental Practices

Readers of the Benson Bulletin were invited in February 2000 to complete a questionnaire on environmental measures they are taking. The number of responses was 32, which amounts to only about 1.5% of the households of Benson parish; it is not really possible to draw useful conclusions from such a small sample, though it is interesting to note that at least one household makes use of a solar panel. The results are charted on this page.

We have come a long way from the late 1950s, when loft insulation was becoming installed for the first time. These charts indicate that Benson is environmentally minded, though there is still room for improvement.

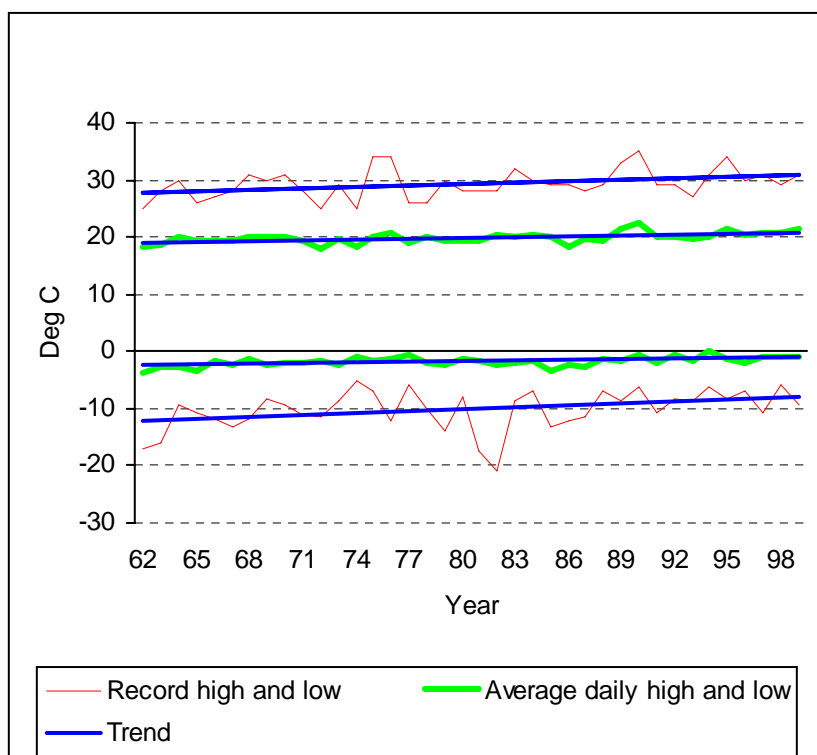


## Climate

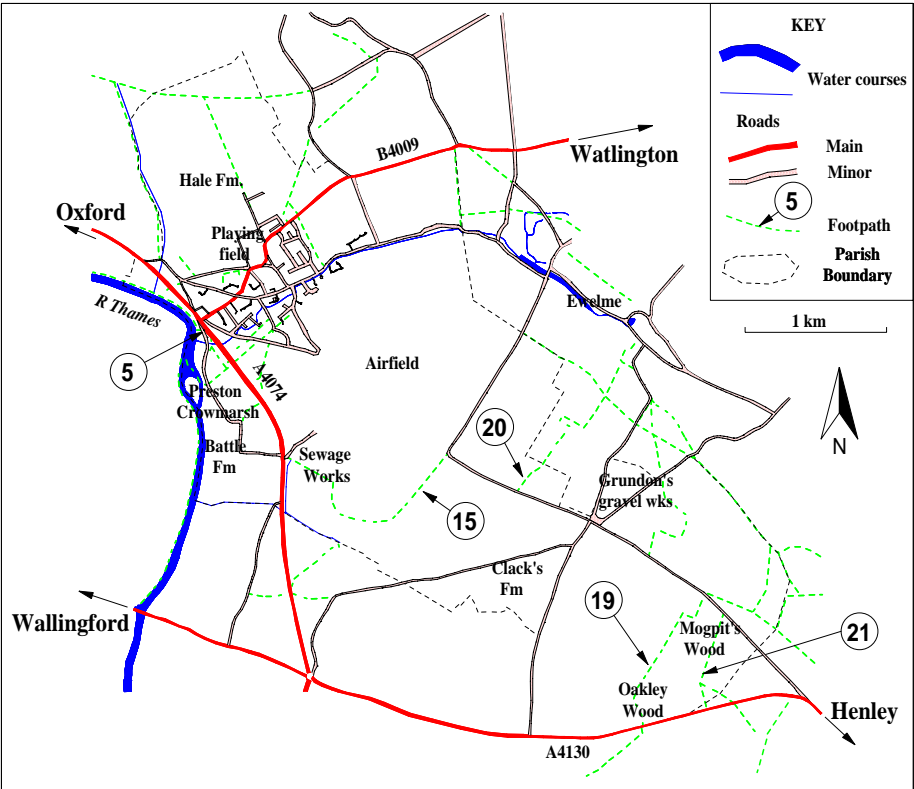
Benson's location in the South Midlands gives its climate a balance of oceanic and continental influences, the two factors which together determine regional climates throughout Britain. Most of the parish lies in a frost hollow, which leads to exceptionally low temperatures at night throughout the year. The meteorological chart shown here has been derived from data provided by CEH Wallingford (which closely adjoins Benson at an altitude of 48 metres) over the period from 1.1.1962 to 31.12.1999.

The figure provides evidence of increasing temperatures as shown by the trend lines (in blue). The 1990s have experienced 7 of the 10 warmest years since 1972. The highest recorded temperature was 35.1°C on 3<sup>rd</sup> August 1990 and the lowest was -21°C on 14<sup>th</sup> January 1982.

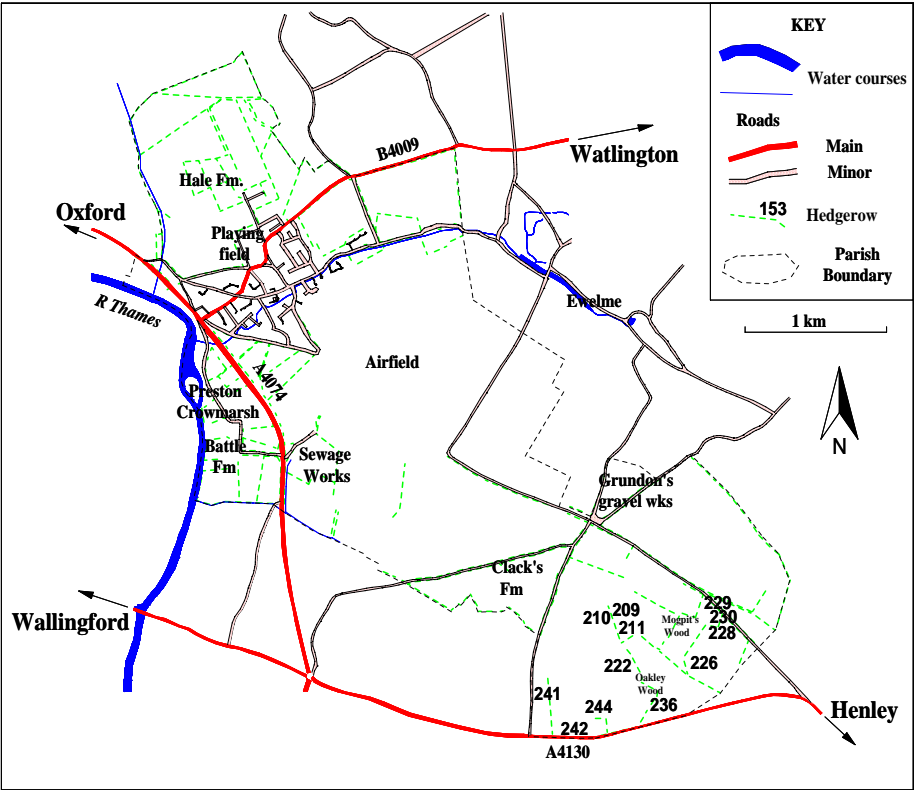
On sunshine, the 'darkest' and 'brightest' years on record were respectively 1981 (1238 hours) and 1990 (1718 hours). The highest and lowest annual rainfall were respectively 1974 (740 mm) and 1996 (445 mm).



Footpaths (see page 7)



Hedgerows (see page 8)

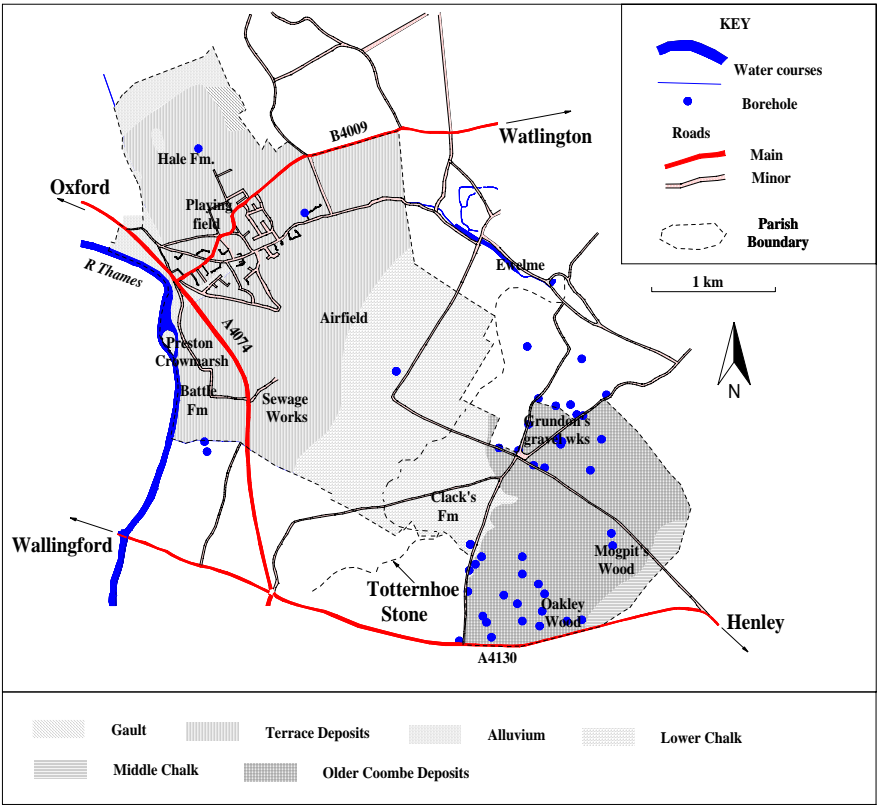


**Geology**

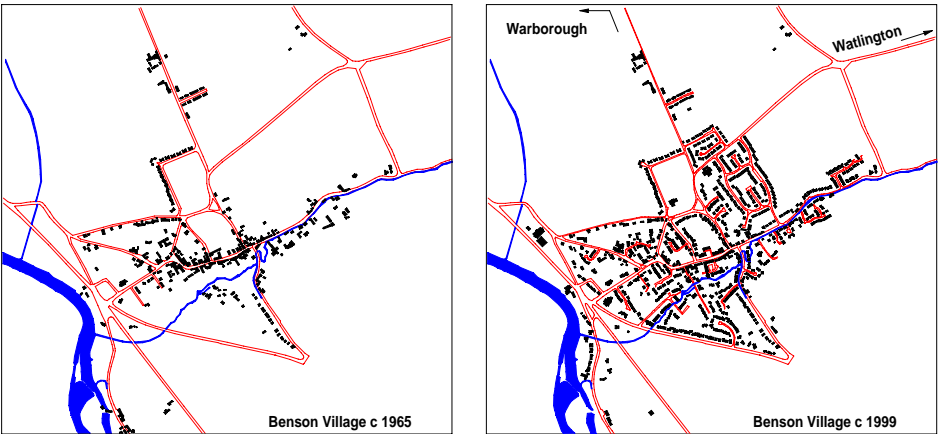
Most of the parish, including the village itself and the bulk of the airfield, lies on river terrace gravel: Beggarbush Hill and the RAF residential area lie on chalk and the south east section, containing Benson's two woodlands, lie on plateau drift gravel.

**Water Sources**

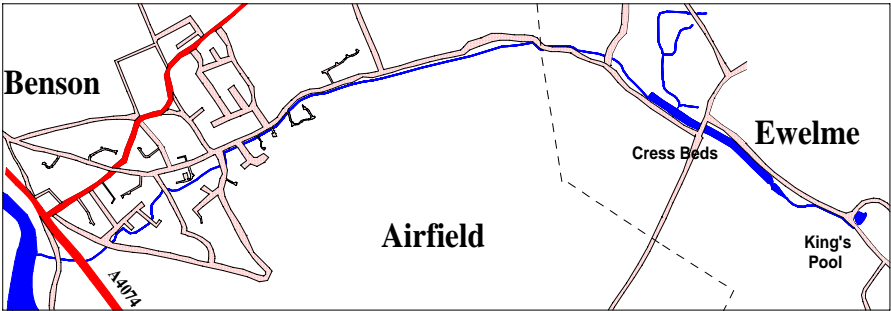
The map shows the bore holes (which include wells) in and around the parish, as well as the principal water courses.



**Housing Development** (see page6)



**The Brook** (see page 13)





## Habitats and Wildlife

### Butterflies

We have not had the opportunity to comprehensively survey butterflies within the parish, though such surveys are in progress; see Appendix D for interim results. The following personal account provides a good insight into the butterflies observed by one of the BEST team during 1998 and 1999:-

*'I considered that the end of September might be the best time to report on butterflies seen in our own garden and around Benson, and on the River Thames.*

*There was an unusual weather pattern in 1999. A hot and sunny very early spring changed suddenly to colder snaps and then heavy rain followed by heat wave temperatures and back to showers and heavy rain. A warm September has kept a few butterflies still active in the garden.*

*On the whole, 1999 as 1998 was very disappointing with so few of our better-known species in evidence. No doubt the weather has contributed to this, but some modern farming methods, weed killing in the gardens and the removal of nettles have played their part. However I have kept an eye open each day. In the early Spring I was glad to see several **orange tips**, both male and female. The latter are not always easy to identify as they appear as ordinary white with some black markings. At the same*



*time the **brimstone**, which always settles with its wings closed (see photo), is quite hard to see on a flower or bush. In flight the male is bright yellow, and the female a paler shade.*

*The buddleias suffered from an early frost, but as soon as they started to bloom, **red admirals**, **peacocks**, and **small tortoiseshells** started to appear, though sadly I only saw one or two **painted ladies**. Some people may remember that in the summer of 1996 there was quite an invasion of these colourful butterflies from the continent. Favourable winds probably brought them.*

*In our upper garden, by the airfield, we have a purple plant. This is a sort of oregano, and it always attracts a large number of **gatekeepers** (**hedgebrowns**) male and female (see photo), also a number of **small blues**. After the plants suffered from rain and wind, these small butterflies*



*disappeared. I have also seen some **small heath** butterflies and a few **commas**. There were periods of up to three weeks in July and August when I saw no tortoiseshells. But later a new batch appeared.*

*Ever present in the vegetable garden are the white and small white, which come to share our greens with us.*

*Various trips up the Thames from Shillingford and up the Thame have produced very few sightings of butterflies, though plenty of large brown dragonflies, and many little blue damselflies have been in evidence.*

*Next year I hope to look further afield in woodlands and paddocks to find **speckled woods**, and **meadow browns**.*

*To sum up I can only say that our butterfly population is diminishing very rapidly and it may be that one day they are a rare sight. How sad for many of us that will be.'*

### Fish

BEST did not carry out a systematic survey of the fish to be found in the river at Benson. The following information was provided by the chairman of Benson & District Angling Society (BDAS), who has a long experience of fishing in the river at Benson. The society was founded in 1927 and now has approximately 50 adult and 20 junior members.

The present-day river appears much cleaner, as the water is clearer, than it used to be. But are appearances deceptive? Benson's anglers have seen a steady decline in the number and variety of fish in the river over the past thirty years or more. It was usual in those days for anglers to regularly catch significant numbers of roach and bream, which are now caught in much smaller numbers, particularly compared with the time before the new weir was built at Benson about twenty five years ago. The anglers put forward a number of possible reasons for the changes that have occurred in the fish population.

The old weir was higher than the present one so that the river was deeper and slower and the growth of rushes more dense. The new weir controls the flow of the water more effectively, preventing flooding further downstream at places like Maidenhead. The level of the river seems to have dropped, as a result, by a foot or more on average. When the river flowed more slowly, often spreading beyond the banks, the fish used to find refuge in the slow, shallow edges of the stream.

The quantity of fish and the variety of species, reflected in the catches landed during angling competitions held by Benson anglers, have changed significantly over the years. Thirty years ago, every competitor would invariably catch lots of different species - dace, chub, bream, perch, bleak. Now a good day's fishing is measured in terms of a few of the anglers catching a small number of quite large fish, compared with everyone catching a large number of small fish in the past. The successful anglers can now expect to catch chub weighing between 2 - 5 lb. or bream between 3 - 6 lb. It is not unknown, however, for anglers to spend 5 hours without a single catch - unheard of thirty years ago.

The following species, albeit in smaller numbers, are still to be found in the river today. Chub, roach, bream, tench, perch, dace, bleak and occasionally, barbel. The other feature is the way in which fish congregate (if that is what fishes do!) in different areas of the river. Every year is different and it is impossible for the anglers to predict where the fish are going to be.

A national survey, carried out by the National Federation of Anglers (FFA), found that stocks of fish are depleted in 97% of rivers in England. The remaining 3% are rivers that had been very badly polluted and have been restocked with fish. With the decline of fish in the rivers, there has been a move of anglers from rivers to lakes.

The fishermen report changes in the bird life that they see when fishing on the river at Benson. Coots and moorhens

have declined in numbers, while the great crested grebe is a relative newcomer to the river locally. The river itself, with the popularity of boating, has become a recreation amenity in the summer months, which may well have its own impact on the inhabitants of the river and its banks.

## Birds

A truly excellent 40 page report entitled 'The Birds of Benson Parish' by Tom Stevenson and Peter Abbott was produced in February 2000. It contains comprehensive statistics of the surveys conducted in 1998 and 1999, as well as beautiful sketches of the birds observed, with interesting descriptions. The reader is referred to the Stevenson/Abbott report for full coverage of Benson's birds. To give a flavour of it, we reproduce below the report's description of one entry and we also list the birds observed in both the garden and (predominantly) hedgerow bird surveys.

### **Nuthatch** *Siita europaea*

Nuthatches nest in holes in trees left by woodpeckers but make the hole smaller by filling it in with mud. They probably breed in the parish in Oakley Wood and possibly in Preston Crowmarsh, favouring mixed or deciduous woodland with large mature trees. The Nuthatch is the only bird which can run both up and down trees. Woodpeckers and Tree Creepers can only run upwards.



Detailed statistics of birds observed are provided in the report. Page 21 provides a simple list of the birds observed in both the garden and hedgerow bird surveys. The Red Kite, now frequently seen in Benson, is omitted from the lists, since it has not been observed in hedgerow or garden. For information on the Red Kite and other such birds in Benson, see the Stevenson/Abbott report.

Users of the web can find full details at  
<http://ourworld.compuserve.com/homepages/stevensonltd/benson.htm>

### Observations listed in decreasing order of frequency

#### **In Gardens**

Blackbird  
 Starling  
 House Sparrow  
 Blue Tit  
 Collared Dove  
 Robin  
 Chaffinch  
 Woodpigeon  
 Dunnock  
 Greenfinch  
 Great Tit  
 Rook  
 Jackdaw  
 Wren  
 Magpie  
 Song Thrush  
 Mallard  
 Long-tailed Tit  
 Coal Tit  
 Goldfinch  
 Gt. Spotted Woodpecker  
 Pied Wagtail  
 Green Woodpecker  
 Carrion Crow  
 Swallow  
 Pheasant  
 Mistle Thrush  
 Grey Partridge  
 Spotted Flycatcher  
 Fieldfare  
 Bullfinch  
 Blackcap  
 Sparrowhawk  
 Kestrel  
 Little Owl  
 Redwing  
 Heron  
 Reed Bunting  
 Jay  
 Red legged Partridge  
 Grey Wagtail  
 House Martin  
 Siskin  
 Nuthatch  
 Black-headed Gull  
 Canada Goose  
 Willow Warbler  
 Moorhen  
 Treecreeper  
 Barn Owl  
 Buzzard  
 Garden Warbler

#### **Elsewhere**

Woodpigeon  
 Blackbird  
 Chaffinch  
 Robin  
 Dunnock  
 House Sparrow  
 Yellowhammer  
 Great Tit  
 Blue Tit  
 Magpie  
 Wren  
 Common Whitethroat  
 Starling  
 Greenfinch  
 Long-tailed Tit  
 Mallard  
 Carrion Crow  
 Blackcap  
 Collared Dove  
 Linnet  
 Goldfinch  
 Great Spotted Woodpecker  
 Turtle Dove  
 Song Thrush  
 Chiffchaff  
 Willow Warbler  
 Corn Bunting  
 Pheasant  
 Moorhen  
 Mistle Thrush  
 Sedge Warbler  
 Great-crested Grebe  
 Sparrowhawk  
 Kestrel  
 Buzzard  
 Stock Dove  
 Little Owl  
 Tawny Owl  
 Kingfisher  
 Skylark  
 Reed Warbler

## Mammals

No detailed survey of mammals has been possible. This requires specialist skills or training, not to mention a great deal of survey time, none of which was available to the BEST team. Nevertheless, BEST members were asked to record which mammals they have seen within the parish

since January 1<sup>st</sup> 1998. The table provides the responses from six BEST members. One other member, not included below, has also seen fallow deer. Additionally, a dead badger was observed within the parish in June 2000

Observer →	A	B	C	D	E	F
Insectivores						
Hedgehog	April	April	April	Yes	Yes	March, April
Shrew				Yes		Yes
Mole	Apr, May		Jan, Feb	Yes	Yes	May, Oct
Bat	Yes		March, April	Yes	Yes	Summer
Carnivores						
Fox	Summer	Autumn	March	Yes	Yes	Sept, Apr
Weasel	April		April	Yes	Yes	Once a month
Stoat			September	Yes		
Mink					Yes	
Hoofed Animals						
Deer	Yes				Yes	
Roe				Yes		Twice in a year
Muntjac			Dec, Jan	Yes		Once a week
Rodents						
Rabbit	Very common	Very common	Very common	Very common	Very common	Very common
Hare	Autumn		February			Yes
Squirrel	Yes	Yes	Daily	Yes	Yes	Daily - early Spring to late Autumn
Vole	Yes?			Yes		
Rat			March	Yes	Yes	
Mouse	Yes	Yes	Yes	Yes	Yes	
Wood mouse			March			2 or 3 times pa

## Deer

Of the six species of deer found generally in the wild in the United Kingdom there is no possibility of the two largest - red or sika - appearing within the parish boundaries. Of the remaining four, there is an established if mobile population of muntjac and roe, occasional visits by fallow and a strong possibility of occasional visits by Chinese water deer. Populations of both fallow and Chinese water deer exist in adjacent parishes and reports of sightings in Benson parish of either of these would be very welcome. The deer are presented here in order of most probable population density.

Muntjac (*Muntiacus reevesi*) 60 cms tall, 110 cms long

The Reeves' or Chinese muntjac escaped from Woburn Park and has since spread and colonised widely throughout the UK. It is the most secretive and shy of all UK deer, occupying dense ground cover, typically bramble thicket in woodland. Unlike other deer, they are only seen in ones or twos. There is an established population in Oakley Wood and surrounding hedge lines, but actual numbers would be very hard indeed to quantify. It is also seen occasionally in parish hedgerows, principally on the western parish boundary in the area of Hale Farm and the line of the brook flowing south towards Elm Bridge.

Roe Deer (*Capreolus capreolus*) 90 cms tall, 125 cms long with antlers

Roe are indigenous to Britain. Locally extinct for many centuries in large parts of southern England, there has been wide re-colonisation in the last 50 years and only re-appeared in the Chilterns and Thames Valley in the last 20 to 30 years. They are well established now both in the Wittenham Woods, as well as the open fields to the west of the parish. Inclined to be solitary, but also in family

groupings. Roe in the parish are probably established in the area of Oakley Wood, but may still be actually resident in the woods to the west, and in the high and wooded areas to the east, only moving into the parish on an irregular basis.

Fallow Deer (*Damus damus*)

Species is generally said not to be indigenous to this country yet has been established from before the Ice Age. Predominantly herds survived in park lands, but the continually rising cost of upkeep and shortage of manpower during two world wars led to lack of repair to surrounding fencing, and the presence of a substantial indigenous population in the western Chiltern woods seems to have resulted from escapes from Stonor Park. Fallow deer have been observed in the vicinity of Hale Farm.

## Stop Press

Shortly before this report was published, BEST learnt of the sighting of what was thought to be a mink. The animal was seen near the brook in a garden close to the centre of the village. This is the first reported sighting of a mink in Benson parish, although several have been seen in Ewelme. BEST will monitor any further indications of a mink population in Benson because of the damage to other wildlife that these predators can cause, and would be pleased to receive reports of any sightings.

## PART 2 - WHERE DO WE WANT TO GO?

'One impulse from a vernal wood  
May teach you more of man;  
Of moral evil and of good,  
Than all the sages can.'

*William Wordsworth*

This part of the report outlines our general ideas and proposals on the local environment. Where specific action is proposed for BEST, the relevant action from the full list of actions on page 25 is given at the foot of the section.

### **Local Agenda 21**

Oxfordshire County Council Agenda 21 (see p 26), held in Benson Library, describes a comprehensive programme for taking the county into the 21<sup>st</sup> century, which fully applies to Benson and its environment. The programme is not reproduced here, though we classify our plans using its categories. SODC is committed to supporting local community nature conservation initiatives through the Agenda 21 programme. The Council has recently developed a Nature Conservation Strategy, and is in the process of working with local people and organisations to bring forward a strategy for the countryside.

### **People**

#### **Community**

Benson is too tidy. There is no common and no park. Sunnyside is small and is needed for too many conflicting interests: sports, children's play, walkers and dogs - not a good mix. New recreation areas are needed for Benson's increased population.



#### **Young People**

Education of young people now is the key to securing the environment in the future. Benson primary school has an environmental group, which is laying the foundations for the future. [Action 1]

### **Activities**

#### **Climate Change**

The climate of Benson is well recorded. It has a central England pattern of weather and is drier and sunnier than surrounding areas - hence the siting of the aerodrome. Today's database will help the climatologists to compare the present with the future.

#### **Buildings and Homes**

Housing in Benson has increased since the 1950s and the population has increased from 1400 to 4000. A hypothetical village envelope has so far kept the village as a compact area with very little development outside the area, apart from the RAF base. However, a significant amount of land in the immediate surround is owned by housing contractors anxious to use their asset. The future of house building in southern England is the subject of debate and so far no one is clear as to what the future holds. Benson needs another appraisal, updating the 1990 one, to find out village hopes and fears.



#### **Land Restoration**

The quarrying for sand and gravel near Oakley Wood is nearly at an end and many of the quarries have been filled with domestic and industrial (mostly building) waste. As the land restoration is now taking place and is a long-term project (up to 20 years), much thought has gone into the restoration. There will be much scrutiny and monitoring of the process by contractors, owners and the public. BEST plans to monitor the changes in flora and fauna as the site hopefully naturalises. [Action 2]



## Waste

The limited data obtained on environmental practices indicate that fewer than half the residents recycle their plastic waste. [Action 3]

## Transport

BEST has not undertaken a survey of road use. The public is increasingly conscious of the use and abuse of roads, with traffic noise as well as speed giving rise to concern. The B4009 now has speed restrictions on it, but we are all too aware of the hazards of crossing it within the village. Concern is felt about the congestion and potential dangers at the southern Preston Crowmarsh/A4074 junction. A traffic survey is needed to inform the debate for and against a northern by-pass with its inevitable housing implications.

Many of Benson's residents are either regular or occasional cyclists. Extra facilities and provisions for cyclists are needed.



Road building in marshy areas requires the construction of causeways. St. Helen's Avenue and over the A4074 are causeway roads, constructed to cross the marshes. Bridges on both those causeways are about 3 metres high. This has an effect on the surrounding land, increasing drainage, so BEST plans to continue to monitor the changes in flora and fauna to check that it returns to its former marshland. [Action 4, 5]

## Natural Resources

### Wildlife

This report reflects the interests and expertise of BEST members and inevitably some surveys are more detailed than others.

Now that the church room and repairs are complete, the churchyard management, on both sides of Church Road, is under consideration. The use of part of the old churchyard as a nature reserve is a likely possibility. This would increase the area of undisturbed habitat within the parish. [Action 6, 7, 8, 9]



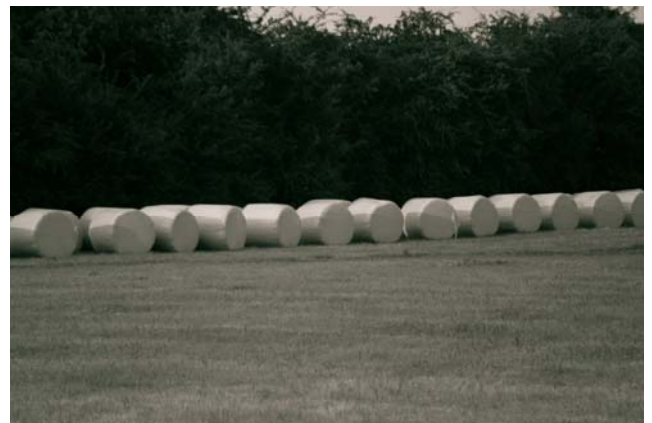
## Water

The Brook has acquired many concrete edges and has become urbanised over the last 30 years. Its future as a natural habitat needs consideration by planners and riparian owners. The example set by the Cuckoo Pen nursery is a good example of habitat management. The water is regularly monitored by the Environment Agency.

The river is an asset to Benson and to all parishes up and downstream. Monitoring of water quality and bank structure is required by all the agencies concerned, particularly the Environment Agency.

## Farming

Both major landowners are farmers and are aware of the effects that their farming practices have on the environment, on the future health of the land and on their economic viability. To divide land into farmed and natural is simplistic and inaccurate. All landscape is anthropogenic, changing over time according to the needs and practices current at the time.



Man-made changes can range from ploughing areas for food production in wartime; altering water levels to ensure water supplies and navigation; to the introduction of rabbits. These were brought over for farming in the 12<sup>th</sup> century by the Normans and escaped - fortunately they have many predators. 'Uncultivated' road verges are cut to increase traffic vision and vary with the use of herbicides.

The airfield, which was originally farmed, is now wasteland as far as farming is concerned. It is of little use

to fauna as it is too open. Birds in numbers are a hazard to aircraft. The flora is limited and is probably part of the national collection of weeds, with the herbage kept low - again for safety reasons.

## Hedgerows and Trees

The thorough and extensive hedgerow survey BEST undertook raised our awareness of hedges, their functions and the fact that most of our hedges are young and limited in species. We cannot create old hedges but can increase knowledge of the value of appropriate mixed hedging as future assets and habitats for wild life generally. Fortunately the parish's main landowners (MOD excluded) are hedgerow literate and have planted mixed hedging - several kilometres - in appropriate places to increase hedgerow continuity. BEST plans to encourage hedgerow planting, help preserve the best hedges and provide hedge maintenance advice.



There are many areas where specific improvements could be made. Many of the hedgerows surveyed could be trimmed, layered or coppiced to prevent them maturing into structureless lines of trees and straggly shrubs. There is an optimum time for this management. 'Gapping up' - filling gaps in hedges - with native shrubs would improve the connectivity and habitat. Hedgerows 10, 5 and 6 on the north west boundary of Benson parish could be replanted. Certain hedgerows, particularly on the parish

boundary, are to be surveyed at regular intervals in the future. [Action 10, 11, 12]

## Future actions

1. We will use our website and other means to stimulate interest in youth conservation projects.
2. We plan to monitor the changes in flora and fauna as the Oakley Wood site hopefully naturalises.
3. We plan to support and work with the local authorities to increase plastic waste recycling.
4. We intend to monitor cycle tracks and footpaths, seeking opportunities for new routes and ensuring that existing routes are well maintained. We shall seek a cycle locking facility in Benson village centre.
5. We plan to continue to monitor the changes in flora and fauna alongside the causeways to check that it returns to its former marshland
6. We plan to encourage and support organic gardening.
7. We plan to build on this report by conducting further surveys on
  - Bees
  - Butterflies and moths
  - Lichens
  - Birds (in 1 km squares)
  - Trees
8. We seek to acquire an area for a nature reserve and help establish a village pond.
9. We plan to monitor the species of flora and fauna in the churchyard to see whether sensitive management alters species numbers and types.
10. We plan to encourage hedgerow planting, help preserve the best hedges and provide hedge maintenance advice.
11. We will continue to increase hedgerow awareness, counter the vandalism of tidiness and continue to monitor the flora and fauna of the hedges
12. We shall seek opportunities for planting more trees and getting significant trees listed.

## Finally

The survey has produced a much better understanding of our local assets and we have 'found' assets of which we were unaware. It has made us aware not only that there is much more to learn but that we must all become conscious of our individual contribution to the use of these assets - especially our personal influence on the future.

## GLOSSARY

Agenda 21	At the UN Conference on Environment and Development in Rio de Janeiro in 1992 the governments of 175 nations, including the UK, signed an action plan for the 21 <sup>st</sup> century called Agenda 21. It is about people and the environment, and sets out what we need to do to sustain life for ourselves and generations to come.
Allotment	Allocation of land parcelled out at an enclosure award - one in each parish (Present meaning - after Enclosure Acts).
Connectivity	This is a measure of how continuous the hedgerow network in an area is. If the hedge is gappy, it is less good as a wildlife corridor. If the gaps are more than 20 metres, the hedge should really count as two. End connections are important in forming a network through which animals can move. For example, a single hedge in isolation is of little use - it has 0 end connections. The shape $\neg$ has one end connection, the shape $\perp$ has two end connections, $\vdash$ has three and so on.
Coppicing	A tree is cut to near ground level every so many years and allowed to grow again from the stool.
Hayward	A person whose duty was to tend the common cattle of a parish within bounds and guard hedges from injury.
Hedgebank	Hedgebanks are created in more than one way:- <ol style="list-style-type: none"> <li>1. Roadside hedges can be planted on a raised bank between two ditches for drainage.</li> <li>2. Hedges alongside ancient tracks build up an accumulation of soil and plant debris at which their bases over many years get higher than the surrounding land.</li> <li>3. Cornish roads are often edged with stone or slate walls. On top of the stone, hedge material is grown to increase the layout of the boundary.</li> <li>4. Hedges grow on river or stream banks (e.g. Elm brook) and the hedge alongside the brook in Brook Street.</li> </ol>
Lynchet	An asymmetric build-up of soil, caused by continual ploughing in one direction, pushing the soil from one side of the ploughed area to the other, which results in a 'step' or 'lynchet' at the field boundary.
Organic	Organic farming or gardening aims to minimise impact on the wider environment by avoiding the use of materials from non-renewable resources, recycling where possible, and keeping the use of chemical pesticides to a minimum.
Pinder	An officer of the manor (later parish) who impounded stray animals.
Pollarding	A tree is cut at 2.5 m - 3.6 m above the ground and allowed to grow again to produce successive crops of wood.
Spiling	Spiling is used to stabilise a bank, such as for river banks or open cast mining. River banks are planted with spiles of willow. Spiles are twigs, 1 cm in diameter or less and about 30 cms long, which are poked into the bank about 30 cms apart. The spiles root and grow. The shoots are kept trimmed to less than 30 cm height and the roots stabilise the bank. Spiling withstands flooding well which non-growing supports do not. It also makes a route for wildlife, especially mammals, to climb in and out of the river.

## Appendix A - Benson Parish Wild Flower, Shrub and Tree List

Observation sites:-

1. St Helen's Churchyard [Roy Maycock 30 June 1990 and 9 October 1994; Roy Maycock and Aaron Woods 14 April 1993].
2. Water Meadow, south east of Elm Brook [Moira Cullen and BEST - April 1999].
3. Water Meadow, in hedgerow boundary along A4074 [Moira Cullen and BEST - April 1999].
4. Cuckoo Pen Nursery - Native Plants growing wild Compiled by Ian Burles, Jan 2000]
5. Cuckoo Pen Nursery - British Wildflowers introduced to the area (by Ian Burles) [Compiled by Ian Burles, Jan 2000]
6. Hedgerow Survey - see page 8.
7. Oakley Wood (snapshot) Survey by BEST - Summer 1999 (one hour survey only)

### Wild Flowers

Source (see above) →	1	2	3	4	5	6	7	Source (see above) →	1	2	3	4	5	6	7
<i>Achillea millefolium</i>	Yarrow	1		4				<i>Carex pendula</i> ; <i>Carex</i>	Sedges	2					
<i>Aconitum napellus</i>	Monkshood			4				<i>nigra</i>							
<i>Aegopodium podagraria</i>	Ground Elder			4		6		<i>Centaurea nigra</i>	Knapweed or Hardheads			4		6	
<i>Aethusa cynapium</i>	Fool's Parsley	1						<i>Centaurea scabiosa</i>	Greater Knapweed			4			
<i>Agrimonia eupatoria</i>	Agrimony					6		<i>Centranthus ruber</i>	Red Valerian	1					
<i>Agrostis stolonifera</i>	Creeping Bent	1						<i>Cerastium fontanum</i>	Common Mouse-ear	1					
<i>Ajuga reptans</i>	Bugle		2	4		6	7	<i>Chelidonium majus</i>	Greater Celandine				4		
<i>Alcea rosea</i>	Hollyhock	1						<i>Circaea lutetiana</i>	Enchanter's Nightshade				4		
<i>Alisma plantago-aquatica</i>	Water-plantain				4			<i>Cirsium arvense</i>	Creeping Thistle	1	2				7
<i>Alliaria petiolata</i>	Garlic Mustard	1		4		6	7	<i>Cirsium vulgare</i>	Spear Thistle	1				6	7
<i>Allium ursinum</i>	Ramsons				5			<i>Clematis vitalba</i>	Traveller's-joy					6	
<i>Allium vineale</i>	Wild Onion	1						<i>Conium maculatum</i>	Hemlock				4		
<i>Anemone nemorosa</i>	Wood Anemone					6		<i>Conopodium majus</i>	Pignut					6	7
<i>Angelica sylvestris</i>	Wild Angelica				4			<i>Convallaria majalis</i>	Lily-of-the-Valley				5		
<i>Anisantha sterilis</i>	Barren Brome	1						<i>Convolvulus arvensis</i>	Field Bindweed	1		4			
<i>Anthriscus sylvestris</i>	Cow Parsley	1		3	4		6	<i>Cotoneaster horizontalis</i>	Wall-spray	1				6	
<i>Apium nodiflorum</i>	Fool's Watercress				4			<i>Crepis capillaris</i>	Smooth Hawk's-beard	1					7
<i>Aquilegia vulgaris</i>	Columbine					5		<i>Crocus sp.</i>	Garden Crocus	1					
<i>Arctium minus</i>	Burdock				4		6	<i>Crocus speciosus</i>	Bieberstein's Crocus	1					
<i>Arenaria serpyllifolia ssp. Serpyllifolia</i>	Thyme-leaved Sandwort	1						<i>Cymbalaria muralis</i>	Ivy-leaved Toadflax	1					
<i>Armeria maritima</i>	Thrift					6		<i>Dactylis glomerata</i>	Cock's-foot	1					
<i>Armoracia rusticana</i>	Horseradish					6		<i>Daucus carota</i>	Wild Carrot					6	
<i>Arrhenatherum elatius</i>	False Oat-grass	1						<i>Digitalis purpurea</i>	Foxglove	1		4			
<i>Artemisia vulgaris</i>	Mugwort				4		6	<i>Dipsacus fullonum</i>	Teasel	1		4		6	
<i>Arum italicum</i>	Large Cuckoo Pint				4			<i>Elytrigia repens</i>	Common Couch	1					
<i>Arum maculatum</i>	Lords and Ladies	1		3	4		6	<i>Endymion non-scriptus</i>	Bluebell	1			5	6	
<i>Aubrieta deltoidea</i>	Aubretia	1						<i>Epilobium</i>	Willow-herb					6	
<i>Avens</i>	Geum					7		<i>Epilobium angustifolium</i>	Rosebay Willow-herb			4		6	7
<i>Ballota nigra</i>	Black Horehound	1				6		<i>Epilobium ciliatum</i>	American Willow-herb	1					
<i>Bellis perennis</i>	Daisy	1	2					<i>Epilobium hirsutum</i>	Great Willow-herb	1		4		6	
<i>Bryonia cretica</i>	White Bryony	1		4		6		<i>Epilobium montanum</i>	Broad-leaved Willow-herb	1					
<i>Buddleia davidii</i>	Butterfly Bush				4			<i>Equisetum palustre</i>	Marsh Horsetail				4		
<i>Calamintha sylvatica</i>	Common Calamint				4			<i>Erophila verna</i>	Common Whitlowgrass	1					
<i>Caltha palustris</i>	Marsh-marigold		2			5		<i>Euphorbia amygdaloides</i>	Spurge					6	
<i>Campanula latifolia</i>	Giant Bellflower					5		<i>Euphorbia peplus</i>	Petty Spurge	1					
<i>Campanula trachelium</i>	Nettle-leaved Bellflower					5		<i>Fallopia convolvulus (or Bilderdykia convolvulus)</i>	Black-bindweed	1				6	
<i>Capsella bursa-pastoris</i>	Shepherd's-purse	1						<i>Festuca rubra</i>	Red Fescue	1					
<i>Cardamine flexuosa</i>	Wavy Bitter-cress	1						<i>Filipendula ulmaria</i>	Meadowsweet		2	3	4		
<i>Cardamine hirsuta</i>	Hairy Bitter-cress	1						<i>Forsythia x intermedia</i>	Forsythia	1					
<i>Cardamine pratensis</i>	Cuckooflower	1	2		4			<i>Fragaria vesca</i>	Wild Strawberry	1			4		



Source (see above) →		1	2	3	4	5	6	7	Source (see above) →		1	2	3	4	5	6	7	
<i>Fumaria officinalis</i>	Common Fumitory	1							<i>Lythrum salicaria</i>	Purple Loosestrife						4	6	7
<i>Galanthus nivalis</i>	Snowdrop	1			5				<i>Mahonia japonica</i>	Mahonia	1							
<i>Galium aparine</i>	Cleavers	1		3		6	7		<i>Malva moschata</i>	Musk Mallow					4		6	
<i>Galium odoratum</i>	Sweet Woodruff				4				<i>Malva neglecta</i>	Dwarf Mallow	1							
<i>Galium verum</i>	Lady's Bedstraw	1		4					<i>Malva sylvestris</i>	Common Mallow	1		4					
<i>Geranium</i>	Crane's-bill					6	7		<i>Medicago lupulina</i>	Black Medick	1							
<i>Geranium molle</i>	Dove's-foot Crane's-bill	1			6				<i>Melica uniflora</i>	Wood Melick							7	
<i>Geranium phaeum</i>	Dusky Crane's-bill				4				<i>Mentha aquatica</i>	Water Mint					4			
<i>Geranium pratense</i>	Meadow Crane's-bill				5				<i>Menyanthes trifoliata</i>	Bogbean			3					
<i>Geranium pusillum</i>	Small-Flowered Crane's-s-bill	1							<i>Mercurialis annua</i>	Annual Mercury	1							
<i>Geranium pyrenaicum</i>	Hedgerow Crane's-bill	1			5	6			<i>Mercurialis perennis</i>	Dog's Mercury	1		4		6	7		
<i>Geranium robertianum</i>	Herb Robert	1		4		7			<i>Mycelis muralis</i>	Wall Lettuce	1							
<i>Geum rivale</i>	Water Avens				4				<i>Myosotis arvensis</i>	Field Forget-me-not	1				6	7		
<i>Geum urbanum</i>	Wood Avens	1		4	6				<i>Myosotis scorpioides</i>	Water Forget-me-not				4				
<i>Glechoma hederacea</i>	Ground-ivy	1	2	4	6				<i>Myosotis sylvatica</i>	Wood Forget-me-not						6		
<i>Hedera helix</i>	Ivy	1		3	4				<i>Myriophyllum</i>	Milfoil						6		
<i>Heracleum sphondylium</i>	Hogweed	1		3	4	6			<i>Narcissus cv.</i>	Garden Daffodil	1							
<i>Hesperis matronalis</i>	Dame's Violet				4				<i>Origanum vulgare</i>	Marjoram					5			
<i>Hieracium</i>	Hawkweed					6			<i>Oxalis acetosella</i>	Wood Sorrel						6		
<i>Hippuris vulgaris</i>	Marestail				4	6			<i>Oxalis corniculata var. atropurpurea</i>	Procumbent Yellow-sorrel	1							
<i>Holcus lanatus</i>	Yorkshire-fog	1				7			<i>Papaver dubium ssp.</i>	Long-headed Poppy	1							
<i>Hordeum murinum</i>	Wall Barley	1							<i>Dubium</i>									
<i>Humulus lupulus</i>	Hop				4	6			<i>Papaver dubium ssp.</i>	Yellow-sapped Poppy	1							
<i>Hyacinthoides hispanica</i>	Spanish Bluebell	1							<i>Lecocqii</i>									
<i>Hypericum perforatum</i>	St John's Wort				4	6	7		<i>Papaver rhoeas</i>	Common Poppy						6		
<i>Hypochaeris radicata</i>	Cat's-ear	1							<i>Parietaria judaica</i>	Pellitory-of-the-wall	1							
<i>Ilex aquifolium</i>	Holly	1		3					<i>Pastinaca sativa</i>	Wild Parsnip						6		
<i>Iris foetidissima</i>	Stinking Iris	1			4	5			<i>Pentaglottis sempervirens</i>	Green Alkanet	1				5	6		
<i>Iris pseudacorus</i>	Yellow Iris		2		4				<i>Petasites hybridus</i>	Butterbur				4				
<i>Juncus inflexus</i>	Hard Reeds		2						<i>Peucedanum palustre</i>	Milk Parsley						6		
<i>Knautia arvensis</i>	Field Scabious					6			<i>Pilosella aurantiaca</i>	Orange Hawkweed		2						
<i>Lactuca serriola</i>	Prickly Lettuce	1							<i>Pimpinella saxifraga</i>	Burnet-saxifrage	1							
<i>Lactuca virosa</i>	Great Lettuce					6			<i>Plantago lanceolata</i>	Ribwort Plantain	1	2				6		
<i>Lamiastrum galeobdolon</i>	Yellow Archangel					7			<i>Plantago major</i>	Broad leaved Plantain							7	
<i>Lamium album</i>	White Dead-nettle	1			6				<i>Plantago major</i>	Greater Plantain	1	2						
<i>Lamium amplexicaule</i>	Henbit Dead-nettle	1							<i>Plantago media</i>	Hoary Plantain	1							
<i>Lamium maculatum</i>	Spotted Dead-nettle	1							<i>Poa annua</i>	Annual Meadow-grass	1							
<i>Lamium purpureum</i>	Red Dead-nettle	1		3	4	6			<i>Poa trivialis</i>	Rough Meadow-grass	1							
<i>Lapsana communis</i>	Nipplewort	1			6				<i>Polygonatum hybrida</i>	Solomon's Seal						5		
<i>Lathyrus pratensis</i>	Meadow Vetchling					6			<i>Polygonatum multiflorum</i>	Solomon's-seal						6		
<i>Leontodon hispidus</i>	Rough Hawkbit					6			<i>Polygonum aviculare</i>	Knotgrass							7	
<i>Leucanthemum vulgare</i>	Ox-eye Daisy	1		4	6				<i>Polygonum aviculare</i>	Knotgrass	1							
<i>Leucojum aestivum</i>	Snowflake				5				<i>Polygonum bistorta</i>	Bistort						5	6	
<i>Linaria vulgaris</i>	Common Toadflax					6			<i>Potentilla erecta</i>	Tomentil		2						
<i>Lolium perenne</i>	Perennial Rye-grass	1							<i>Potentilla fruticosa</i>	Shrubby Cinquefoil		2						
<i>Lonicera periclymenum</i>	Honeysuckle					6	7		<i>Potentilla reptans</i>	Creeping Cinquefoil	1		4		6			
<i>Lotus corniculatus</i>	Birdsfoot-trefoil				4				<i>Primula elatior</i>	Oxlip				4				
<i>Lychnis flos-cuculi</i>	Ragged Robin				4				<i>Primula veris</i>	Cowslip						6		
<i>Lycopus europaeus</i>	Gypsywort				4				<i>Primula veris x vulgaris</i>	False Oxlip				4				
<i>Lysimachia nummularia</i>	Creeping Jenny	1							<i>Primula vulgaris</i>	Primrose	1		4		6			

Source (see above) →		1	2	3	4	5	6	7	Source (see above) →		1	2	3	4	5	6	7
<i>Prunella vulgaris</i>	Self-Heal	1			4				<i>Stachys</i>	Woundwort							6
<i>Prunus lusitanica</i>	Portugal Laurel	1							<i>Stachys palustris</i>	Marsh Woundwort					4		
<i>Pseudofumaria lutea</i>	Yellow Corydalis	1							<i>Stachys sylvatica</i>	Hedge Woundwort					4		
<i>Pulicaria dysenterica</i>	Fleabane				4				<i>Stellaria holostea</i>	Greater Stitchwort	2			5	6	7	
<i>Ranunculus acris</i>	Buttercup				4				<i>Stellaria media</i>	Chickweed					6		
<i>Ranunculus bulbosus</i>	Buttercup Bulbous (Meadow)	1	2						<i>Symphytum officinale</i>	Comfrey				4			
<i>Ranunculus ficaria</i>	Lesser Celandine	1	2		4	6			<i>Tamus communis</i>	Black Bryony					6		
<i>Ranunculus repens</i>	Creeping Buttercup	1	2		4	6			<i>Tanacetum parthenium</i>	Feverfew	1			4			
<i>Ribes uva-crispa</i>	Gooseberry	1							<i>Taraxacum officinale</i>	Dandelion	1	2		4	6		
<i>Rorippa nasturtium-aquaticum</i>	Watercress					6			<i>Teucrium scorodonia</i>	Wood Sage					5		
<i>Rosa rubiginosa</i>	Eglantine (Sweet Briar)					6			<i>Trifolium campestre</i>	Hop Trefoil					6		
<i>Rubus fruticosus</i>	Bramble	1		3	4	6			<i>Trifolium dubium</i>	Lesser Trefoil	1						
<i>Rubus idaeus</i>	Raspberry				4	7			<i>Trifolium pratense</i>	Red Clover	1						
<i>Rumex acetosa</i>	Common Sorrel	1	2			6	7		<i>Trifolium repens</i>	White Clover	1						
<i>Rumex acetosella</i>	Sheep's Sorrel					7			<i>Tripleurospermum</i>	Mayweed (Daisy)					6		
<i>Rumex obtusifolius</i>	Broad-leaved Dock	1		3	4	6			<i>maritima</i>								
<i>Rumex pulcher</i>	Fiddle Dock	1							<i>Trisetum flavescens</i>	Yellow Oat-grass	1						
<i>Rumex sanguineus</i>	Wood Dock	1							<i>Triticum aestivum</i>	Wheat	1						
<i>Sagina procumbens</i>	Procumbent Pearlwort	1							<i>Tussilago farfara</i>	Coltsfoot				3	4	6	
<i>Salvia pratensis</i>	Meadow Clary					5			<i>Typha latifolia</i>	Great Reedmace					5		
<i>Salvia verbenaca</i>	Wild Clary	1							<i>Ulex europaeus</i>	Gorse					6		
<i>Scrophularia auriculata</i>	Water Figwort				4				<i>Urtica dioica</i>	Common Nettle	1	2	3	4	6		
<i>Scrophularia nodosa</i>	Common Figwort					7			<i>Valeriana officinalis</i>	Valerian					4		
<i>Senecio jacobaea</i>	Common Ragwort	1			4				<i>Verbascum nigrum</i>	Dark Mullein					4		
<i>Senecio squalidus</i>	Oxford Ragwort				4				<i>Verbena officinalis</i>	Vervain					4		
<i>Senecio vulgaris</i>	Groundsel	1							<i>Veronica arvensis</i>	Wall Speedwell	1						
<i>Silene alba</i>	White (Field) Champion					6	7		<i>Veronica beccabunga</i>	Creeping Brooklime					4		
<i>Silene dioica</i>	Red Champion				4	7			<i>Veronica chamaedrys</i>	Germander Speedwell	1	2		4	6	7	
<i>Silene vulgaris</i>	Bladder Champion					6			<i>Veronica filiformis</i>	Slender Speedwell	1			4			
<i>Sisymbrium officinale</i>	Hedge Mustard	1							<i>Veronica hederifolia</i>	Ivy-Leaved Speedwell	1						
<i>Solanum dulcamara</i>	Bittersweet (Woody Nightshade)	1		4	6	7			<i>Veronica persica</i>	Common Field-speedwell	1				6		
<i>Solanum nigrum</i>	Black Nightshade	1							<i>Veronica polita</i>	Grey Field-speedwell	1						
<i>Sonchus</i>	Sow Thistle					6	7		<i>Veronica serpyllifolia</i>	Thyme-Leaved speedwell	1						
<i>Sonchus asper</i>	Prickly Sow-thistle	1							<i>Vicia cracca</i>	Vetch			3		6	7	
<i>Sonchus oleraceus</i>	Smooth Sow-thistle	1	2						<i>Viola arvensis</i>	Field Pansy					6		
									<i>Viola odorata</i>	Sweet Violet	1			4	6		
									<i>Viola riviniana</i>	Common Dog Violet				4			



## Trees and Shrubs

Source (see above)		1	2	3	4	5	6	7	Source (see above)		1	2	3	4	5	6	7
<i>Acer campestre</i>	Field Maple						6		<i>Prunus spinosa</i>	Blackthorn						4	6
<i>Acer pseudoplatanus</i>	Sycamore	1			4		6		<i>Pyrus pyraeaster</i>	Wild Pear						6	
<i>Aesculus hippocastanum</i>	Horse-chestnut						6		<i>Quercus robur</i>	Pedunculate Oak	1					6	
<i>Aesculus x carnea</i>	Red Horse Chestnut				4				<i>Rhamnus carthaticus</i>	Buckthorn						6	
<i>Alnus glutinosa</i>	Alder						6		<i>Rosa canina</i>	Dog Rose			3	4		6	7
<i>Betula pendula</i>	(Silver) Birch	1					6		<i>Salix caprea</i>	Goat (Pussy) Willow			4			6	7
<i>Carpinus betulus</i>	Hornbeam						6		<i>Salix fragilis</i>	Crack Willow					4		
<i>Catanea sativa</i>	Sweet Chestnut						6		<i>Sambucus nigra</i>	Elder	1			4		6	
<i>Cornus sanguinea</i>	Dogwood						6		<i>Sorbus Aria</i>	Whitebeam						6	
<i>Corylus avellana</i>	Hazel						6	7	<i>Sorbus aucuparia</i>	Rowan	1						
<i>Crataegus monogyna</i>	Hawthorn	1	2		4		6		<i>Taxus baccata</i>	Yew	1					6	
<i>Cupressocyparis leylandii</i>	Leylandii						6		<i>Tilia x vulgaris</i>	Lime	1					6	
<i>Cupressus</i>	Cypress						6		<i>Ulmus glabra</i>	Wych Elm						6	
<i>Euonymus europaeus</i>	Spindle-tree						6		<i>Ulmus procera</i>	Elm						6	
<i>Fagus sylvatica</i>	Beech						6		<i>Viburnum lantana</i>	Wayfaring Tree						6	
<i>Fraxinus excelsior</i>	Ash				4		6	7	<i>Viburnum opulus</i>	Guelder-rose						6	
<i>Ilex aquifolium</i>	Holly						6		<b>Other Categories</b>								
<i>Ligustrum lucidum</i>	Wild (glossy) privet						6		Source (see above)		1 2 3 4 5 6 7						
<i>Malus sylvestris</i>	Crab Apple						6		?	Grasses - foxtail			2				
<i>Pinus sylvestris</i>	Scots Pine						6			meadow grass and							
<i>Populus</i>	Poplar						6			others							
<i>Populus tremula</i>	Aspen						6		?	Mosses			2				
<i>Prunus avium</i>	Wild Cherry						6	7	?	Fungus - Fairy Ring						7	
<i>Prunus cerasifera</i>	Cherry Plum						6		<i>Pteris aquilina</i>	Bracken						6	7
<i>Prunus domestica</i>	Wild Plum						6										

## Appendix B - Hedgerow Survey Technique

The following extract is taken from Reference 4.

Allow one or more sheets for each hedge; don't put two or more hedges on one sheet unless they are clearly 'one hedge'. If a hedge has more than a 20m gap in it, renumber it (for example, use 171a, 171b etc.) and start a new sheet for each segment.

On each sheet (see below), fill in the location, including starting and finishing Grid References, hedge number (from map supplied) and direction in which you are walking.

Walk each hedge, starting a few metres away from the gateway to allow for possible disturbance:

1. Drop a marker, pace out approximately 30 metres (a metre is a 'giant stride') and drop a second marker. Walk back identifying all the species present. Tick each species present in the first column on the sheet. NB Climbing plants such as ivy, bramble, wild clematis, black or white bryony etc. do not count for the purpose of hedge dating, but should be noted on the lower half of the sheet since they often reveal other information about the hedge. In order that the surveys may be statistically comparable with other areas, it is important to keep the 30m hedge length. If possible, several lengths should be done for each hedge chosen at random (i.e. don't just pick out the good bits!)
2. Pace out a further 30 metres, preferably some distance from the first and repeat the process.
3. If the hedge is long enough, repeat the process for columns three and four.
4. Estimate the approximate length of the hedge, write it on the sheet and mark the hedge on your working map now.

**Many hedges can be surveyed from roads or public rights of way, but when you need to go on private land, please make sure you have the permission of the owner and respect the Country Code.**

## Appendix C - Fungal Foray in Oakley Wood

All observations are dated 14.10.1998. They were conducted by the Oxfordshire Fungal Survey, whose brief is to complete the entire fungal mapping of Oxfordshire.

Species collections	Medium	Association	Collector	Identifier
<b>Ascomycota</b>				
<b>Leotiales</b>				
<i>Trochila ilicina</i>	leaf	<i>Ilex aquifolium</i>	ALW	ALW
<b>Xylariales</b>				
<i>Xylaria hypoxylon</i>	stump	<i>Quercus sp.</i>	ALW	ALW
<b>Basidiomycota</b>				
<b>Agaricales</b>				
<i>Clitocybe clavipes</i>	soil	<i>Corylus avellana</i>	AM	MRW
<i>Clitocybe odora</i>	soil	<i>Quercus sp.</i>	AM	MRW
<i>Gymnopus confluens</i>	soil	<i>Quercus sp.</i>	AM	MRW
<i>Gymnopus dryophilus</i>	soil	<i>Quercus sp.</i>	MRW	MRW
<i>Gymnopus erythropus</i>	soil	<i>Quercus sp.</i>	MRW	MRW
<i>Gymnopus fusipes</i>	stump		ALW	ALW
<i>Gymnopus peronatus</i>	soil	<i>Corylus avellana</i>	ALW	ALW
<i>Hypholoma fasciculare</i>	stump		AM	AM
<i>Laccaria laccata</i>	soil	<i>Quercus sp.</i>	MRW	MRW
<i>Lacrymaria velutina</i>	soil, grassy		MRW	MRW
<i>Lepista inversa</i>	soil, litter		AEH	MRW
<i>Lyophyllum decastes</i>	soil, grassy	<i>Graminae</i>	AM	MRW
<i>Macrolepiota konradii</i>	soil	<i>Quercus sp.</i>	ALW	ALW
<i>Macrolepiota rhacodes var. hortensis</i>	soil	<i>Betula pendula</i>	AM	MRW
<i>Marasmiellus ramealis</i>	twig	<i>Corylus avellana</i>	ALW	ALW
<i>Marasmius oreades</i>	soil, grassy	<i>Graminae</i>	MRW	MRW
<i>Mycena galopus</i>	soil	<i>Corylus avellana</i>	MRW	MRW
<i>Mycena pura</i>	soil	<i>Corylus avellana</i>	MRW	MRW
<i>Rhodocollybia butyracea</i>	soil	<i>Fraxinus excelsior</i>	AEH	AEH
<b>Boletales</b>				
<i>Xeroromus chrysenteron</i>	soil	<i>Quercus sp.</i>	AEH	AEH
<b>Cortinariales</b>				
<i>Crepidotus variabilis</i>	twig		ALW	MRW
<i>Inocybe adaequata</i>	soil	<i>Quercus sp.</i>	AEH	MRW
<b>Lycoperdales</b>				
<i>Lycoperdon nigrescens</i>	soil	<i>Betula pendula</i>	AEH	MRW
<i>Lycoperdon perlatum</i>	soil	<i>Corylus avellana</i>	AM	AM
<i>Lycoperdon pyriforme</i>	branch		AEC	AEH
<b>Phallales</b>				
<i>Phallus impudicus</i>	soil	<i>Quercus sp.</i>	AEH	AEH
<b>Russulales</b>				
<i>Lactarius cemicarius</i>	soil	<i>Quercus sp.</i>	AEH	MRW
<i>Lactarius quietus</i>	soil	<i>Quercus sp.</i>	ALW	ALW
<i>Russula atropurpurea</i>	soil	<i>Quercus sp.</i>	AM	MRW
<i>Russula ochroleuca</i>	soil	<i>Fraxinus excelsior</i>	ALW	ALW
<i>Russula xerampelina</i>	soil	<i>Quercus sp.</i>	MRW	MRW
<b>Stereales</b>				
<i>Stereum gausapatum</i>	branch	<i>Quercus sp.</i>	MRW	MRW
<i>Stereum hirsutum</i>	branch		MRW	MRW

### Key to Initials

AEC=A.E. Clark ; AEH=A.E. Hills; ALW=A.L. Warland; AM=A Millar; MRW=M.R. Warland

## Appendix D - Butterflies (Interim Results)

The butterfly survey is getting under way during 2000. This Appendix contains a sample of the data collection sheet, as well as a list of the butterflies observed to date, since April 2000.

### Sample Data Collection Sheet

#### BEST Butterfly survey

**Observer** Tom Stevenson

**Route** Footpath from Sands Way down to Roke then follow road towards Berrick Salome. Turn left on footpath towards Warborough then back towards village past Hale Farm.

DATE	7:5:2000	14:5:2000	29:5:2000	4:6:2000	11:6:2000
WEATHER	Sunny calm	Sunny calm	Sunny Breezy	Sunny Breezy	Sunny Breezy
Small Tortoiseshell	9	12	0	0	0
Peacock	4	2	1	0	0
Misc. White	10	34	2	4	0
Orange Tip	7	11	0	0	0
Speckled Wood	1	4	0	0	3
Large White	1	1	0	0	0
Brimstone	1	1	0	0	0
Green-veined White	0	1	0	0	0
Small White	0	0	2	2	0
Totals	33	66	4	6	3

Notes:

Survey of 29:5:200 followed two days of cold wet weather, which may have affected numbers.

### List of Butterflies Observed to date

Brimstone	Holly Blue	Red Admiral
Comma	Large White	Small Heath
Common Blue	Meadow Brown	Small Tortoiseshell
Essex Skipper	Orange Tip	Small White
Gatekeeper	Painted Lady	Speckled Wood
Green-veined White	Peacock	

## Appendix E - Yards, Feet and Inches

This report uses metric measurements throughout. The approximate conversions below are for those who prefer imperial measurements. They are given for the measures quoted in this report.

Metric	Imperial	Metric	Imperial	Metric	Imperial
1 cm	0.4 ins	2 metres	78.7 ins	3 kms	1.9 miles
6 cm	2.4 ins	3 metres	9.8 feet	6 kms	3.75 miles
30 cms	1 foot	4 metres	13.1 feet	31.7 kms	19.8 miles
40 cms	16 ins	5 metres	16 feet	0.3 hectares	0.75 acres
60 cms	2 feet	20 metres	22 yards	3.4 hectares	8.5 acres
90 cms	3 feet	30 metres	33 yards	1111 hectares	2747 acres
1 metre	39.4 ins	45 metres	150 feet		
110 cms	3.6 feet	120 metres	390 feet		
125 cms	4.1 feet	1 km	5/8 mile		

## REFERENCES

1. Benson Parish Appraisal (Feb 1992) Parish Council Appraisal Committee. Chaired by Tony Crabbe
2. Benson A Village Through its History. (Dec 1999) Edited by Kate Tiller. Published by The Bensington Society
3. The Birds of Benson Parish (Feb 2000) Tom Stevenson and Peter Abbott
4. Hedgerow Survey Field Handbook. CPRE Oxfordshire Branch
5. Oxfordshire Agenda 21. Taking Oxfordshire into the 21<sup>st</sup> Century. A vision for sustainable living from the people of Oxfordshire. (Oxfordshire County Council 1997)



# INDEX

This index contains the full list of flora and fauna reported in this survey.

- Amphibians
  - Frog, 14, 16
  - Newt, 14
  - Toad, 14
- Birds
  - Blackbird, 21
  - Blackcap, 21
  - Bullfinch, 21
  - Bunting
    - Corn, 21
    - Reed, 21
  - Buzzard, 11, 21
  - Chaffinch, 21
  - Chiffchaff, 21
  - Coot, 20
  - Crow, Carrion, 13, 21
  - Curlew, 16
  - Dove
    - Collared, 21
    - Stock, 21
    - Turtle, 21
  - Duck, 13
  - Dunnoek, 21
  - Fieldfare, 21
  - Flycatcher, Spotted, 21
  - Goldfinch, 21
  - Goose, Canada, 13, 21
  - Grebe, Great-crested, 21
  - Greenfinch, 21
  - Gull, Black-headed, 21
  - Heron, 14, 21
  - Jackdaw, 21
  - Jay, 11, 21
  - Kestrel, 21
  - Kingfisher, 13, 14, 21
  - Kite, Red, 11
  - Linnnet, 21
  - Magpie, 21
  - Mallard, 14, 21
  - Martin, House, 21
  - Moorhen, 13, 20, 21
  - Nuthatch, 21
  - Owl
    - Barn, 21
    - Little, 21
    - Tawny, 21
  - Partridge
    - Grey, 21
    - Red legged, 21
  - Pheasant, 21
  - Redwing, 21
  - Robin, 21
  - Rook, 13, 21
  - Siskin, 21
  - Skylark, 21
  - Snipe, 14
  - Sparrow, House, 21
  - Sparrowhawk, 21
  - Starling, 21
  - Swallow, 21
  - Swan, 13, 15
  - Thrush
    - Mistle, 21
    - Song, 21
  - Tit
    - Blue, 21
- Coal, 21
- Great, 21
- Long-tailed, 21
- Treecreeper, 21
- Wagtail
  - Grey, 21
  - Pied, 21
- Warbler
  - Garden, 21
  - Reed, 21
  - Sedge, 21
  - Willow, 21
- Whitethroat, Common, 21
- Woodpecker, 21
- Great Spotted, 11, 21
- Green, 11, 21
- Woodpigeon, 21
- Wren, 21
- Yellowhammer, 21
- Bracken, 11, 30
- Butterflies
  - Admiral, Red, 32
  - Blue
    - Common, 32
    - Holly, 32
    - Small, 20
  - Brimstone, 9, 32
  - Brown, Meadow, 32
  - Comma, 20, 32
  - Gatekeeper, 20, 32
  - Heath, 20
    - Small, 32
  - Orange Tip, 9, 20, 32
  - Painted Lady, 20, 32
  - Peacock, 20, 32
  - Red Admiral, 9, 20
  - Skipper
    - Essex, 32
    - Grizzled, 9
  - Speckled Wood, 32
  - Tortoiseshell, 9
    - Small, 20, 32
  - White, 20
    - Green-veined, 32
    - Large, 32
    - Small, 20, 32
- Fish
  - Barbel, 20
  - Bleak, 13, 20
  - Bream, 13, 20
  - Chub, 13, 20
  - Dace, 20
  - Perch, 13, 20
  - Pike, 13
  - Roach, 13, 20
  - Tench, 20
- Fungi. *See Appendix C*
- Grasses, 14, 30
  - Bulrush, 14
  - Hard Reeds, 28
  - Sedge, 27
    - Pendulous, 14
- Insects
  - Bee, 14
  - Caddis Fly, 14
  - Damselfly, 14, 20
  - Dragonfly, 14, 20
  - Mayfly, 14
  - Mosquito, 14
  - Shrimp, 14
  - Stone Fly, 14
  - Water Beetle, 14
  - Water Skaters, 14
- Mammals
  - Badger, 12, 22
  - Bat, 22
  - Deer, 22
    - Fallow, 22
    - Muntjac, 12, 22
    - Roe, 12, 22
  - Fox, 12, 22
  - Hare, 22
  - Hedgehog, 14, 22
  - Mink, 22
  - Mole, 16, 22
  - Mouse, 22
    - Wood, 22
  - Rabbit, 12, 16, 22
  - Rat, 22
  - Shrew, 16, 22
  - Squirrel, 22
  - Stoat, 22
  - Vole, 22
    - Water, 14, 16
  - Weasel, 22
- Mosses, 14, 30
- Slugs and Snails, 16
- Trees
  - Alder, 14, 30
  - Apple, Crab, 30
  - Ash, 8, 9, 11, 13, 30
  - Aspen, 30
  - Beech, 11, 14, 30
  - Birch, Silver, 30
  - Blackthorn, 9, 30
  - Buckthorn, 30
  - Butterfly Bush, 27
  - Cherry, 11
    - Wild, 11, 30
  - Chestnut, 15, 30
  - Cypress, 30
  - Dogwood, 14, 30
  - Elder, 9, 14, 30
  - Elm, 9, 11, 30
    - Suckers, 9
  - Wych, 30
  - Guelder-rose, 30
  - Hawthorn, 9, 13, 14, 30
  - Hazel, 11, 14, 30
  - Holly, 28, 30
  - Hornbeam, 30
  - Horse-chestnut, 30
  - Leylandii, 30
  - Lime, 14, 30
  - Maple, 11
    - Field, 11, 30
  - Oak, 8, 9, 11
    - Pedunculate, 30
  - Pine, Scots, 30
  - Plum
    - Cherry, 30
  - Wild, 30
  - Poplar, 30
  - Rose
    - Dog, 9, 13, 30
  - Spindle-tree, 30
  - Sweet Chestnut, 30
  - Sycamore, 9, 30
  - Wayfaring Tree, 30
  - Whitebeam, 30
  - Wild Privet, 30
  - Willow, 9, 11, 13, 14, 15
    - Crack, 14, 30
    - Goat, 14
    - Pussy, 30
  - Yew, 30
- Wild Flowers
  - Agrimony, 27
  - Alkanet, Green, 28
  - Anemone, Wood, 8, 11, 27
  - Angelica, Wild, 27
  - Archangel, 11
  - Archangel, Yellow, 28
  - Arum, Ground, 9
  - Aubretia, 27
  - Avens
    - Water, 28
    - Wood, 28
  - Barley, Wall, 28
  - Bedstraw, Lady's, 28
  - Bellflower
    - Giant, 27
    - Nettle-leaved, 27
  - Bent, Creeping, 27
  - Bindweed
    - Black, 27
    - Field, 27
  - Birdsfoot-trefoil, 28
  - Bistort, 28
  - Bitter-cress
    - Hairy, 27
    - Wavy, 27
  - Bittersweet, 29
  - Black Horehound, 27
  - Blackberry, 9, 13
  - Bluebell, 8, 11, 12, 27
    - Spanish, 28
  - Bogbean, 28
  - Bramble, 29
  - Brimstone, 20
  - Brome, Barren, 27
  - Brooklime, Creeping, 29
  - Bryony
    - Black, 29
    - White, 9, 27
  - Bugle, 27
  - Burdock, 9, 27
  - Burnet-saxifrage, 28
  - Butterbur, 28
  - Buttercup
    - Bulbous, 29
    - Creeping, 29
  - Calamint, Common, 27
  - Campion
    - Bladder, 29
    - Red, 29

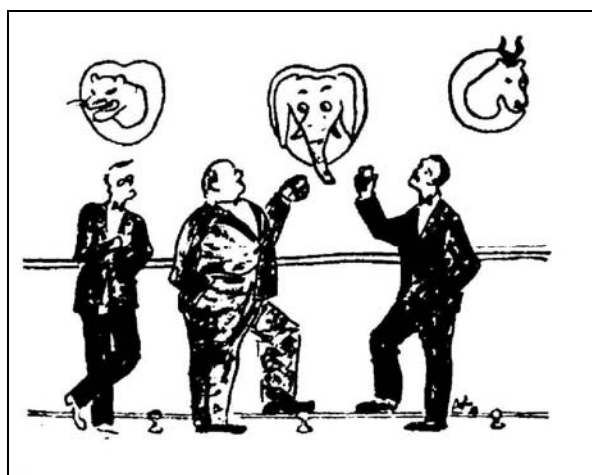
- White, 29
- Carrot, Wild, 27
- Cat's-ear, 28
- Celandine
  - Greater, 27
  - Lesser, 29
- Chickweed, 29
- Cinquefoil
  - Creeping, 28
  - Shrubby, 28
- Clary
  - Meadow, 29
  - Wild, 29
- Cleavers, 28
- Clover
  - Red, 29
  - White, 29
- Cock's-foot, 27
- Coltsfoot, 29
- Columbine, 27
- Comfrey, 14, 29
- Convolvulus, 9, 27
- Corydalis, Yellow, 29
- Cotoneaster, Wall, 27
- Couch, Common, 27
- Cowslip, 28
- Crane's-bill, 28
  - Dove's-foot, 28
  - Dusky, 28
  - Hedgerow, 28
  - Meadow, 28
  - Small-flowered, 28
- Creeping Jenny, 28
- Crocus
  - Bieberstein's, 27
  - Garden, 27
- Crowfoot, Water, 14
- Cuckoo Pint, Large, 27
- Cuckooflower, 27
- Daffodil, Garden, 28
- Daisy, 27, 28
- Dandelion, 29
- Dead-nettle
  - Henbit, 28
  - Red, 28
  - Spotted, 28
  - White, 28
- Dock
  - Broad-leaved, 29
  - Fiddle, 29
  - Wood, 29
- Dog-violet, Common, 29
- Eglantine, 29
- Elder, Ground, 27
- Fescue, Red, 27
- Feverfew, 29
- Figwort, 14
  - Common, 29
  - Water, 29
- Fleabane, 29
- Forget-me-not
  - Field, 28
- Water, 28
- Wood, 28
- Forsythia, 27
- Foxglove, 27
- Fumitory, Common, 28
- Geum, 27
- Gooseberry, 29
- Gorse, 29
- Ground-ivy, 28
- Groundsel, 29
- Gypsywort, 28
- Hardheads, 27
- Hawk's-beard, Smooth, 27
- Hawkbit, Rough, 28
- Hawkweed, 28
  - Orange, 28
- Hemlock, 27
- Herb Robert, 28
- Hogweed, 14, 28
- Hollyhock, 27
- Honeysuckle, 28
- Hop, 28
- Horseradish, 27
- Hosta, 14
- Iris
  - Stinking, 28
  - Yellow, 14, 28
- Ivy, 9, 28
- Knapweed, 27
  - Greater, 27
- Knotgrass, 28
- Laurel, Portugal, 29
- Lettuce
  - Great, 28
  - Prickly, 28
  - Wall, 28
- Lily, Loddon, 13
- Lily-of-the-valley, 27
- Liverwort, 14
- Loosestrife, Purple, 14, 28
- Lords and Ladies, 27
- Mahonia, 28
- Mallow
  - Common, 28
  - Dwarf, 28
  - Musk, 28
- Marestail, 28
- Marjoram, 28
- Marsh Horsetail, 27
- Marsh-marigold, 14, 27
- Mayweed, 29
- Meadow-grass
  - Annual, 28
  - Rough, 28
- Meadowsweet, 14, 27
- Medick, Black, 28
- Melick, Wood, 28
- Mercury
  - Annual, 28
  - Dog's, 11, 28
- Milfoil, 28
- Mimulus, 13
- Mint, Water, 14, 28
- Monkshood, 27
- Mouse-ear, Common, 27
- Mugwort, 9, 27
- Mullein, Dark, 29
- Mustard
  - Garlic, 9, 27
  - Hedge, 29
- Nettle, 9, 14, 20, 29
- Nightshade
  - Black, 29
  - Enchanter's, 27
  - Woody, 9
- Nipplewort, 28
- Oat-grass
  - False, 27
  - Yellow, 29
- Onion, Wild, 27
- Oregano, 20
- Oxlip, 28
- Pansy, Field, 29
- Parsley
  - Cow, 9, 27
  - Fool's, 27
- Parsley, Milk, 28
- Parsnip, Wild, 28
- Pearlwort, Procumbent, 29
- Pellitory, Of-the-wall, 28
- Pignut, 27
- Plantain
  - Broad Leaved, 28
  - Greater, 28
  - Hoary, 28
  - Ribwort, 28
- Poppy
  - Common, 28
  - Long-headed, 28
  - Yellow-sapped, 28
- Primrose, 28
- Primula, Asian, 14
- Ragged-robin, 28
- Ragwort
  - Common, 29
  - Oxford, 29
- Ramsons, 27
- Raspberry, 29
- Reed-mace, Great, 29
- Rye-grass, Perennial, 28
- Sage, Wood, 29
- Sandwort, Thyme-leaved, 27
- Scabious, Field, 28
- Self-heal, 29
- Shepherd's-purse, 27
- Snowdrop, 28
- Snowflake, 28
- Solomon's-seal, 28
- Sorrel
  - Common, 29
  - Procumbent Yellow, 28
  - Sheep's, 29
  - Wood, 11, 28
- Sow-thistle
  - Prickly, 29
  - Smooth, 29
- Speedwell
  - Common Field, 29
  - Germander, 29
  - Grey Field, 29
  - Ivy-leaved, 29
  - Slender, 29
  - Thyme-leaved, 29
  - Wall, 29
- Spurge, 27
  - Petty, 27
- St John's-wort, 28
- Stitchwort, 11, 29
- Strawberry, Wild, 27
- Teasel, 27
- Thistle
  - Creeping, 27
  - Sow, 29
  - Spear, 27
- Thrift, 27
- Toadflax
  - Common, 28
  - Ivy-leaved, 27
- Tomentil, 28
- Traveller's-joy, 9, 27
- Trefoil
  - Hop, 29
  - Lesser, 29
- Valerian, 29
  - Red, 27
- Vervain, 29
- Vetch, 29
- Vetchling, Meadow, 28
- Violet
  - Dame's, 28
  - Sweet, 29
- Watercress, 13, 14, 29
  - Fool's, 27
- Water-plantain, 27
- Wheat, 29
- Whitlowgrass, Common, 27
- Willow-herb, 14, 27
  - American, 27
  - Broad-leaved, 27
  - Great, 27
- Woodruff, Sweet, 28
- Woundwort, 29
  - Hedge, 29
  - Marsh, 29
- Yarrow, 27
- Yorkshire-fog, 28



**Keith Tibbs walks a Benson footpath**

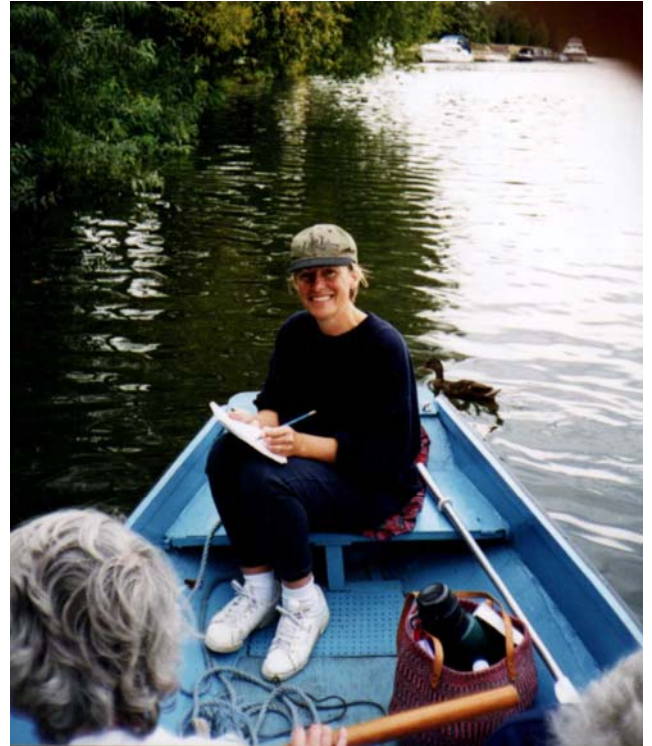


**Wood anemones in Oakley Wood**



**Conservation 1900** (by the late Dr Andrew Millar)





Whether or not you can tell the difference between Lady's Bedstraw and Enchanter's Nightshade, BEST would love to hear from you.

We meet on the first Tuesday of each month and encourage new members to work with us on all aspects of the activities described in this report.

See page 3 within for contact details.





Whether or not you can tell the difference between Lady's Bedstraw and Enchanter's Nightshade, BEST would love to hear from you.

We meet on the first Tuesday of each month and encourage new members to work with us on all aspects of the activities described in this report.

See page 3 within for contact details.