SUFFOLK HEDGEROW SURVEY

1998 - 2012



Guy Ackers

SUFFOLK

HEDGEROW

SURVEY

1998 TO 2012

GUY ACKERS

SUFFOLK COASTAL DISTRICT COUNCIL GREENPRINT FORUM

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FOREWORD

Earl of Cranbrook

Patron, Suffolk Naturalists' Society and President, Suffolk Wildlife Trust

SUFFOLK is a largely rural county and, in our rich and varied agrarian landscape, hedges are deeply significant monuments of land use and farming practice. As field boundaries, hedges are of great antiquity. Francis Pryor's meticulous excavations at Flag Fen in Cambridgeshire¹ peeled back the overlying peat to reveal Bronze Age farms of rectilinear fields bounded by ditch and bank, certainly with a thorn hedge on top. Later, at Yaxley, Norman Scarfe² has shown how the Roman road cuts obliquely, and unconformably, through a pre-existing hedged landscape. Here, the rectangular field system survives to this day, established by our Iceni predecessors who farmed this land. Rich in conservation value, ancient hedgerows support the greatest diversity of plants and animals. Species-rich hedgerows, defined as those averaging 5 or more native woody species per 30 metre length³, are generally recognised to have been in existence before the Enclosure Acts of 1720-1840. A notable finding of this remarkable survey is that, in Suffolk, 20,179 landscape hedges (52.7% of those surveyed) comprise 8 or more woody species, and 11,940 (31.2%) others contained 5 – 7 species: a sum of 32,119 hedges (83.9%) that are probably at least three and possibly twenty centuries in age.

These figures are among many statistics contained in this remarkable report. It arose from the Suffolk Coastal District Council Local agenda 21, Hedgerow Working Group. Over 12 years, some 2000 volunteers surveyed 44, 984 field boundaries (of which 5788 had no hedge). The survey unit was the civil parish: of 479 parishes in the county, 317 participated. For analytical purposes, the county was divided into 32 Landscape Assessment types, such as Ancient Plateau, Rolling Estate Clayland, Rolling Valley Farmland; ten of these lacked hedges. The rarest hedgerow tree was small-leaved lime (17 parishes); black poplar was found in 29 parishes. Such intriguing data are recorded in compendious tables, lists and diagrams, and maps provide pictorial summaries.

But the report is also a hands-on manual. It contains clear descriptions of the methodology that became established practice across all surveys. The Forms and diagrams used are reproduced. More than that, the story unfolds from the first field trials in Parham in 1998, through 21 training session run at two or three per year until 2010, some attended by over 100 people, assisted by 5-6 trainers on each occasion with up to 30 specimens of expected trees and bushes displayed. A Project Committee was formed, and a twice-yearly newsletter produced. The logistics were formidable, and the enthusiasm of attending volunteers was unbounded.

Throughout these 12 years, the inspiring genius of Guy Ackers has maintained the impetus and secured results. The achievement belongs to the hundreds of participants, but this report on the present distribution and condition of Suffolk hedgerows is a monument to Guy's drive and energy.

Great Glemham 31st July 2012

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¹ F. Pryor, 1991. Flag Fen: prehistoric fenland centre. Chapter 4, especially p. 61, plate 36.

² N. Scarfe, 2002. *Suffolk landscape*. Page 34, Plate 15)

³ http://www.buglife.org.uk/conservation

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1: INTRODUCTION

The origins of the Project started at the Rio Earth Summit in 1992 when over 170 nations attended for 3 days to discuss how to save the planet. The United Kingdom delegates reported back to Government who eventually decided that County Councils should be responsible for compiling their Biodiversity Action Plan (BAP) based on priorities in the areas of flora, fauna, habitat and landscape, amongst others. At this very early stage, 162 Local Biodiversity Partnerships were set up in England and Wales accounting for 943 prioritised species and 56 habitats.

It was also agreed that District Councils would compile their own Local Agenda 21 to list their priorities for the 21st century and it was towards this aim that the SCDC Hedgerow Working Group was later set up.

For many years during the Whitehall Agricultural Policy days of the 60's and early 70's, farmers were encouraged and financially rewarded to increase the productivity of their land, allied to the need to use larger machinery. This inevitably resulted in the removal of many landscape hedgerows and ditch systems. It would certainly appear to be one factor in the dramatic reduction in the numbers of many, once common wildlife flora and fauna species. In some areas for example, where landscape hedges and ditches had been removed the incidence of seasonal wind erosion of soil, or water logging had increased and communities now realise the value of these historic assets.

Unfortunately many of the landscape hedges which remain are kept narrow, again to minimise the area lost to agriculture and because of a mechanized cutting regime. Some of these, although still a feature in the landscape, are of little value to wildlife.

Well managed landscape hedgerows and ditches provide invaluable corridors and connectivity for wildlife and the only real control until 1977 was through the Environment Agency which had responsibility for hedgerows and watercourses and would approve their removal. The Agency however never had the resources to record the losses and many have disappeared in previous decades, as can be seen from aerial photograph archives, tithe maps from the 1830's, etc.

Until the Hedgerow Regulations came into force from the 1st June 1977 (SI No.1160), produced by the Department of the Environment, local authorities, although clearly having concerns, had no control over the removal of hedgerows. That legislation, which was subsequently amended in an attempt to rectify a number of issues, has clearly brought considerable protection, particularly to landscape hedgerows which are species rich or of historical importance. By the time the legislation was introduced, much of the loss had already occurred and there have in fact been relatively few applications for hedgerow removal under the new provisions.

Although it is evident that many hedgerows were removed, because the activity was not subject to any regulation, there is no record of what remained. This is one reason why the

Suffolk Coastal District Council, Environmental Forum (to give it the full title) Greenprint Forum (for short), was set up on 6th February 1996 in the SCDC Council Chamber to involve communities and interest groups in Local Agenda 21, which at the initiation was the prime purpose of the Forum. Mr. Chris Opperman – BBC Radio Suffolk cut the tape and a series of working parties was set up there and then because the Forum did not want to become a talking shop but needed to do something practical using the experience of the members of the Forum who came from a variety of backgrounds within the District. As the prime landscape and habitat issue, that was agreed upon, happened to coincide with an SBP priority, the hedgerow survey fell naturally into place and was immediately launched in SCDC. Since the early days, the Forum has expanded and widened its interest and influence over an immense spectrum of green issues. The Hedgerow Survey continued to flourish until the data capture process, resulting from the local surveyor volunteer work, was completed at the end of 2011, (after 12 years of continuous management by the Committee). Surveyor volunteers wanted to remain amateurs in many cases which meant they only did it for love. The coordinators and surveyors shared the same emotions and rewards. It helped to appreciate slow and small achievements which provided great pleasure. Its doing the work that mattered.

The following targets and objectives of the survey were given by the Greenprint Forum to the Working Group:-

to survey all landscape hedgerows in the parishes (according to the criteria listed by the SBP), to establish a biological record as a benchmark to measure future changes,

to gain more support for farmers and landowners

to raise awareness of Local Agenda 21

to encourage voluntary community activity and involvement

to help arrest the decline in wildlife and habitat and to encourage other parish projects.

The ethos from Rio was clearly adopted by local communities who needed to tackle the workload with volunteer residents doing the work, spearheaded by the voluntary Working Group to inspire, encourage and help in every possible way to get the surveys started. An obvious and essential aspect of the survey was to recruit the cooperation from landowners and farmers in order to obtain access to their land for many of the hedgerows to be surveyed. On the clear understanding that none of our work was to be of a qualitative nature, especially in regard to hedgerow management, cutting regimes, timing, etc, but that only quantitative records would be made relating to the hardwood species of trees and shrubs, cooperation and help was forthcoming from the vast majority of landowners and farmers. Qualitative words such as good, bad, poor, well maintained, cut badly did not exist in our vocabulary.

The Working Group drafted a guidance pack to enable any community or group to recruit support, get the necessary training and undertake hedgerow surveys in accordance with the specified needs of the County Biodiversity Action Plan landscape habitat priority listing. The actual survey record form was inherited from the SBP hedgerow working party from which our MO and protocol evolved. The draft was trialled in Parham parish in September 1998 and proved successful with minor adjustments.

By 1999, some 40 parish surveys were launched and as more talks and presentations were made to Parish Councils, tree warden meetings, evening get-togethers by wildlife groups and societies, WI, Round Table, gardening, horticultural and allotment associations, etc across the width and breadth of the County, so the Project started to take off.

The survey involved first of all giving a number to each landscape hedgerow in the parish which pairs of voluntary surveyors were to survey. Scale 1:5000 maps were provided. (The definition of a landscape hedgerow being all those on field boundaries across the length and breadth of the entire parish excluding those in towns, villages, private gardens, copse, thicket, woods and forest). In deciding whether to survey the hedgerow, it helped surveyors also to determine that the hedgerow acted as a landscape feature, or a wind or snow break, or a means of containment for cattle and animal stock, or for the definition of boundaries on the ground of field and land holdings and a means of wildlife habitat as a corridor for wildlife to move between habitats or as a habitat in its own right. The surveyors walked the length of the hedgerow to assess its character and note any variations. They surveyed the hedgerow in detail, identifying all the hardwood species present and noting the structure of the hedgerow and how it related to the immediate surroundings. The surveyors were trained observers and are not hedgerow management consultants and were asked not to judge, or comment on how well hedgerows were managed.

Some of the data was not in the public domain to start with but with the advent of Google Earth and other Internet facilities most data now is, excluding the species richness of the hedgerows and their hardwood species content. The structure of the hedgerow and the land use on both sides are not also. Hence the need for confidentiality of some of the data. The record was in a form set up by English Nature, MAFF and the Suffolk Biodiversity Records Centre (SBRC) and is currently being downloaded to SBRC where it will become part of the County Record and will also be available to local authorities where there is a proven 'need to know' and a service level agreement in operation. Eventually, our data will form part of the SBRC GIS mapping system. Shortly after the Working Group got started, the modus operandi and landowner protocol appealed greatly to the EN and MAFF members of the SBP and the working group was asked to take on the responsibility for the entire county, thus increasing the workload from 119 parishes to 470 but still within the same time frame. This launched the Suffolk Hedgerow Survey which then became a full blown project. Over time, all the 6 District Landscape Officers (or equivalent) became members of the Project Management Team, starting with BDC in 2002, followed by MSDC in 2007 and WDC, then St Eds BC and Forest Heath shortly after that. Staff in SCDC were already members of the Greenprint Forum from 1996 and two immediately volunteered to join the Working Group with other members from FWAG, RSPB, SCC and SWT.

A newsletter was produced twice a year by two members of the Project Committee for participants so that they could be aware of how other surveys were progressing. It was also copied to every Parish Council in Suffolk, initially through the good offices of the Suffolk Association of Local Councils (SALC) who sent their own work to Parish Councils and generously enclosed our own newsletters. A more commercial process was developed as numbers and volume increased but eventually in 02/08 when all 6 Districts were on board, distribution of the newsletters was shared accordingly and proportionately by them. In all, 24 newsletters were written, edited and distributed. The newsletters

had regularly updated histories of the progress of every parish survey with details of the coordinators to encourage them to contact neighbouring surveys to compare notes and generally network among themselves. Special interest articles, notes elaborating guidance and discussions on problems and queries raised by the teams were additional features. As these newsletters were sent to every parish clerk, regardless of whether their parish was participating or not, they would normally become an agenda item and acted as a prompt to the councillors to further decide if they wanted to take part.

The Rio conference became in reality the first major 'wake up' call to make an effect on global concern. In the UK, and in Suffolk specifically, the following examples of species and habitat losses had been registered in a publication "Suffolk's Changing Countryside" 1995

- 86% of Sandlings Heath lost in the last 60 years
- 10% of ancient woodlands lost in the last 65 years
- 96% of species rich grassland lost in the last 50 years
- 30-80% of hedgerows lost in the last 60 years
- 20 species of farmland birds in serious decline (1970-90)
- 30% decline in plant species diversity in the arable landscape in 12 years from 1978-90, (National Countryside Survey 1990)
- 13 hectares of saltmarsh eroding annually
- 84 species of wild flower then extinct
- 21 species of butterfly then extinct
- 4 species of dragonfly then extinct.

According to BBC Research Archives, thousands of miles of hedgerows in England and Wales were destroyed in the 1960's and early 70's. In the second half of the 20th century, land was ploughed, drained, cleared and 'improved' with chemical fertilizers and weed killers with the result that many of our ancient meadows and grassland were abandoned, especially acid grassland to the edge of extinction. The UK Biodiversity Steering Group reckoned on the loss of 97% of lowland semi natural grassland in England and Wales in the 50 year period ending in 1984. Roadside verges, markedly alongside hedgerows were kept 'tidy' by the local authority and landowners' lengthman who scythed their edges and ditches thus cutting back any attempt at wildlife refuge developing.

95% of wild flower meadows disappeared, 50% of moths have disappeared and 3 species of bumblebees are lost. All this in a scenario whereby over 80% of Suffolk is farmland, so maybe Rio was the signal to sit up and make a difference and the hedgerow survey acted as the catalyst to energise local enterprise, using local social ventures, led by local voluntary community working for the ultimate local benefit and use of the data recorded. It also happened to "massively enhance" the databank for our client in the Ipswich Museum, which had been the original goal.

2: SUMMARY OF FINDINGS

- 1. 52.7% of all landscape hedgerows surveyed in Suffolk are species rich, that is, with 8 and more different species of hardwood trees and bushes. There were 20179 of them.
- 2. 31.2 % of all landscape hedgerows surveyed in Suffolk are in the mid range of specie richness, that is, with 5, 6 and 7 species. There were 11940 of them.
- 3. 16.1% of all landscape hedgerows surveyed in Suffolk are in the low range of specie richness, that is, with 4 or less species. There were 6176 of them.
- 4. 317 parishes in Suffolk participated in the survey out of a total of 479 in the county.
- 5. Approximately 2400 volunteers actively helped in their parish survey.
- 6. The Project Management Team plus a few additional experienced helpers trained 1395 volunteers at 20 half-day sessions between 2000 and 2010 at 6 main locations.
- 7. Talks and presentations were given to 99 parish launch meetings with approx 1485 volunteers in attendance. There were innumerable local meetings also attended.
- 8. 300+ audit and statistics reports were sent to parish hedgerow survey coordinators at the completion of their surveys.
- 9. 275 parish surveys included records of 5788 field boundaries with 'no hedge accounting for 21 (13%) on average per parish.
- 10. 41 parishes surveys failed to record 'no hedge' in 275 boundaries.
- 11. 22 of the Landscape Character Assessment (LCA) types were recorded as having landscape hedgerows. A further 10 LCA's were not recorded with landscape hedgerows.
- 12. Considerable synergy was established between parish results from within the same LCA for species richness in clayland and sandland types.
- 13. No synergy at all was found between parishes in any of the farmland LCA's.
- 14. No synergy was established between parishes in the same landscape definitions of Ancient, Plateau, Rolling, Undulating or Estate.
- 15. There was no significant variation in species and frequencies between sandland parishes in the East and West of the county, indicating that salinity did not have any effect.
- 16. Only 19 parishes recorded Spurge Laurel
- 17. 29 parishes recorded Black Poplar
- 18. 17 parishes recorded Small Leaved Lime.
- 19. 18 parishes recorded species rich hedgerows with 20 and more different species, 24 species being the maximum, (Waldringfield).
- 20. There were 31 rare and accidental species recorded
- 21. 121 different species of hardwood trees and shrubs were recorded.
- 22. Significant variations between species frequency depended largely upon soil type. Some demonstrated a cliff effect after the top 8-12 species, trailing off into long tails of low numbers. Others had little or no cliff effect with short tails of low counts. Interpretation is indicative of soil type being a key factor.
- 23. 183 parish surveys included reports for Veteran Trees of which Oaks were the highest at 1146. There were 27 species of trees in all recorded as veterans, the next highest with Ash at 140 records down to 1 veteran Wild Pear.

Readers in Parish Councils and parish hedgerow survey Coordinators may refer to the District Summary files at the appendix to see their data in brief and in the Parish Tables Results and Statistics for more detailed data in their own parish and in relation to other parishes in the same peer group.

District officers may see their own District results in broad detail and detailed parish results at the appendix. There are also detailed tables within the text of the Chapters to avoid constant interruptive reference to the back of the report to sift through the appendices.

All completed survey packs including the master maps are now kept at the Suffolk Biodiversity Records Centre [SBRC] in the Ipswich Museum.

3: METHOD.

A; General features

The first priority was to recruit volunteers to act as hedgerow surveyors with one or two joint volunteers to act as parish hedgerow survey coordinator. The launch presentations at local parish meetings via the parish council in many cases attracted large numbers attending, ranging from half a dozen up to as many 50 and more. The importance of volunteers being residents from within the parish was emphasized and that the coordinator should most surely be a resident, possibly a parish councilor, tree warden or environmental group leader, well known within the parish and having been a resident for as many years as possible. Volunteers from the Suffolk Wildlife Trust, WI members who volunteered for their 2000 millennium square kilometre survey, Woodland Trust, Country Landowners Association, CPRE, Friends of the Earth, RSPB, NT, parish and district council members, together with landowners and farmers, all offered to help by filling in the Feedback Form handed out at the meetings, in order for us to gain their understanding of what was required from volunteers and what work was involved.

A very high proportion of Feedback Forms was received but those not returned confirmed that some of the audience, though "interested in wildlife and the countryside" did not realize that they were expected actually to get out of their arm chairs and literally walk alongside hedgerows and do real work. It should be said at this stage that volunteers in the majority of cases were senior citizens and younger people in paid work were the exception. It soon became evident also, that most volunteers were very hard working in local community and social activities, many of whom had survey experience and had become multi skilled as opportunities for voluntary work arose within the parish. As a broad brush assessment, it appeared that 95% of parish work was done by 5% of the community and the other 95% of the people did not step forward. As the adage goes, if you want some work done, ask a busy person.

To the majority of volunteers who stayed the course, the requirement of a minimum of 5-6 half days per year, May to October was appealing, seen to be an opportunity to make a contribution to the heritage of the landscape hedgerows in their parish and with the view of getting to parts of the parish they seldom if ever had seen. This type of work had never been done before (on a parish, District and county wide basis) and it was seen to be the best way forward to record the inheritance for future generations. In Rio terminology, it would provide the all important 'indicators' from which future development could be measured. In the UK terminology, we used the term 'benchmark' which had a full meaning and many made the connection to a kind of 2nd millennium doomsday record.

It was also appreciated that accuracy and consistency were key words required from the client and the fact that training was offered, before they started surveying, put many minds at ease. In fact, as most became involved with the survey, they soon finished their initial task and came back for more, such was the value they saw of their contribution of time and dedication.

Over time, it became obvious to the project management team that volunteers were highly dedicated with extraordinary stamina and willingness to take on board the complications of species identification to a great extent of thoroughness. The intricacy of the method advised originally by the hedgerow group of the SBP required 30 metre samples to be taken from each landscape hedgerow, sufficient to cover the variations of hardwood trees and shrub species, hedge structure and landscape connections (see over for the survey form in use). In order to do this, surveyors needed to walk the full length of the hedgerow and then return again to the selected 30 metre length/s for surveying, using the four columns headed a,b,c and d, thereafter returning to the end of the hedgerow a second time before moving on to the next. This became an elaborate, time taking and tiring method which also mistakenly omitted some species not seen in the 30 metre sample/s, though technically they were asked to record any 'strays' in the 'comments box'.

By January 2002, we became aware that most surveyors were surveying the entire hedgerow length which was argued as being more efficient, quicker, easier and more accurate in that every different specie was recorded. The columns of boxes for ticking the structure and connections became multiple choice, thus trapping every variation.

It was at this time that a major change in circumstance came about, wholly outside our area of influence. It needs to be mentioned that the "Hedge Hunt" in its infancy stage (that we originally inherited from the SBP) was shaped around the requirements of the Countryside Stewardship Scheme (CSS) and the records seen to be able to help and support applicants for grant aid under that scheme. This had been an additional incentive for landowners and farmers to allow access to their land for surveyors to enter and make the records. The major change referred to above was that the country had the awful task of eradicating the foot and mouth epidemic which apart from closing down large areas of the county for access, (thus delaying the progress of the project) prompted the demise of MAFF and the start up for Defra.

Under the new regime, the CSS was withdrawn, though those farmers working under the original scheme were allowed to continue until the 10 year mandatory period had elapsed but new applications were not allowed. This heralded the newer process of Single Payment (SPS), Entry (ELS) and High Levels (HLS) of Stewardship schemes currently ongoing with a whole new raft of data requirements in support of applications. Most of the data records produced by the hedgerow survey still matched the new requirement but with some exclusions. Shortly after this major change, Defra introduced its own hedgerow survey scheme which was more complicated, lengthy and seemingly unappealing to volunteers and the Project Committee who soon realized that the change would annul much of the previous 3-4 years good work done by parish surveys and in any case, would no longer serve to provide the data the client needed at SBRC. As 'the rat was already in the bottle', it was decided to proceed as before, much to the relief of everyone involved with the project.

However, we took this as an opportunity to review where we were in the project and made minor alterations to the survey form to account for new adjustments to agricultural policy, such as the introduction of 3 and 6 metre buffer strips in 2005, closer conformity to the illustrations for structure and the wording on the survey form and the inclusion of extra species in the list on the form, such as beech, hornbeam, etc. Adjustments were also made to the matrix on the survey form for the recording of tree species and the so called 'Green Card', which was a handout for surveyors and coordinators to give to landowners when asking for access. This document had been specifically designed and written by a farmer in the west of the county who had experienced the farm being surveyed and could express the level of cooperation required with a certain degree of empathy. See at Appendix. We were mindful of the fact that any change did not invalidate any work previously done by surveyor teams and that the new data, such as it was, would add value.

The handout "How to survey a hedge" explained to surveyors what was involved and what was needed for the records, how the hedgerow was to be examined, making records for trees under the headings of new (still in defenders, guards, netting, etc), standard (single and multi stemmed, ie coppiced), pollard, dead (still erect) and veteran (13'9" minimum girth at chest height). It was emphasized that veterans need not be pollarded though most were. Guidance included how to record the hedgerow structure and the landscape connection, ie. the use of land immediately adjacent to the hedgerow on both sides. Separate detail was requested for banks, ditches and ponds in the hedgerow and to ignore species remote from the line of the hedgerow.

Trees were defined as species that had been allowed to grow on above the average height of the hedgerow, without attempting to estimate heights other than a hedgerow with an average height well above 15 feet, (eves of an average house) when it became recorded as a hedgerow of tall trees. A 'line of trees' was specific to regimental planting of trees such as Lombardy Poplars, avenues of Limes and breckland pines. A belt of trees up to a maximum of 15 to 20 metres in depth would be accepted as a hedgerow but anything wider would be disregarded as a hedgerow. It was explained that such wide hedgerows may need to be surveyed on both sides. Where hedgerows billowed out into a copse or thicket, mostly at field corners, again these were to be disregarded at the point of the hedgerow changing structure.

A hedgerow was deemed to exist as <u>one hedgerow</u> even though it shared more than one field enclosure and could continue as one, even with bends and dog-legs continuously until it was interrupted by a road junction, village, town or parish boundary or it became a hedge to a private garden. One hedgerow therefore could share more than one field.

Care was advised regarding hedgerows alongside woods and forest as it was necessary to distinguish between the species at the edge of the wood burgeoning out across the edge and a separate and deliberate planting of species to form a hedge apart from the edge of the wood.

Surveyors were asked by their coordinator to survey field boundaries numbered (by the coordinator) on a large scale map (1:5000) in their agreed area. They were given an extract of the map showing their area of survey and a supply of survey forms to complete as agreed at their training.

* The objective was to make a simple record, which gave an accurate statement of the range of species and character of the hedge by recording details of all the <u>hardwood species of trees</u> and <u>bushes only</u>. It was not to be a full botanical survey

** They needed to be able to read a map to ensure they survey the 'correct' hedge with the correct number.

Having located the right hedge, they walk the full length, noting the structure and other characteristics for landscape connections, banks, ditches, fencing, etc.

- * Write down an accurate record of what they find with a tick under column A for bushes and trees, using additionally the N,S,P,D and V columns for trees, as appropriate.
- * If the hedgerow was hugely long, (as some are, e.g. along roads leading from the parish boundary into the town or village) or changes significantly, it would be appropriate to split the hedge into two parts and fill in two forms giving the second the same number adding the suffix 'A'.

The 'comments box' was a valuable add-on for explanatory notes, sketches and special records to add to the word picture for interpretation when the data is downloaded onto the client's data bank. Surveyors took pride in recording non project information, such as the presence of dormice, stag beetles, species of wild flowers and birds, badger setts and fox earths, we even had a Neolithic flint mine. In the Hessett survey, all of 389 comments boxes had an accurate elevation profile sketch of the hedgerow end on from one edge of the landscape connection to the edge on the other side.

Instructions were also given on how to find the hedgerow, the name and AA road number, the point of the compass when walking along the hedgerow, the exact location of where the hedgerow started and finished, house and place names, the pub, church, the river bridge and the parish boundary. There were notes regarding 'noisy farmer's dogs', the inevitable bull in a field, cows with calves to be avoided, shooting on going, impenetrable areas hiding hedgerows round ponds and craters, quagmires, silage pits and hostile gamekeepers, electrified fences and over inquisitive horses. Two surveyors were frightened out of their wits by a hidden double shot bird scarer, two metres from them on the other side of the hedgerow.

On one occasion, a team may have wandered slightly 'off piste' to survey a hedgerow when the gamekeeper came diagonally across a large field in a 4x4 truck to warn them off the land as they would disturb the pheasants. The surveyor, who also happened to be the tree warden and a qualified environmentalist pointed out that his vehicle had sent swarms of pheasants and other forms of wildlife flying in all directions where as their quiet, calm and once only visit to the hedgerow caused no such disturbance. They were still nevertheless told to 'go away' or words to that effect!

In 1997-8 as the survey started to get underway on a county-wide basis, we received a special request from the author of the EN Report No. 366, titled "Estimating the length of hedgerows in Suffolk". The author had had a lifetime career in aerial photographic reconnaissance in the Royal Air Force and during retirement had photographed 24 tetrads of land evenly spaced across the county. The idea was for us to survey on the ground the land covered by the tetrads so that the evidence we obtained could be compared with the observations made from the aerial photos. Unfortunately, matters did not pan out that way as much depended upon our ability to get access from the landowners and further complicated by the fact that most tetrads were formed from parts of two or more adjoining parishes. The final outcome was that only a very few tetrads were completely covered. Once all the parish records are downloaded onto the client's database, then it may be possible for some comparison work to be done.

SUFFOLK HEDGEROW SURVEY

SURVEY FORM

RECORDER PARISH											
DATE Hedge number											
Mid-point grid reference											
All Hedgerow Species	Hedge Sample		Hedgerow Trees (#)			s (#)		Hedge Structure			
	A	В	С	D	N	S	P	D	V		tick
Ash										Newly planted	
Beech										Remnant	
Blackthorn										Laid	
Bramble										Regularly trimmed	
Crab-apple										Periodically trimmed	
Rose Species										Overgrown/low trees [no undergrowth]	
Dogwood										Overgrown to ground	
										[mature with undergrowth]	
Elder										Overgrown & spreading [mature with bushy	
										[mature with bushy outgrowth at base]	
Elm										Line of trees	
Guelder Rose										Coppiced hedge	
Hornbeam											
Field Maple										Landscape connections	
Hawthorn										Side 1	2
Hazel										Grass verge	
Holly										Unploughed headland	
Ivy										Ploughed headland	
Lime										Gardens	
Oak										6 metre buffer strip	
Old Mans Beard										3 metre buffer strip	
Plum										Woodland	
Poplar										Grassland	
Spindle										Road	
Sycamore										Track	
Wayfaring tree										Other [please specify]	
Willow											
Other (list*)											
Totals		_									
Particularly look	c for an	d recor	d kev c	onserv	ation sr	ecies:	small le	afed li	me ser	vice tree, black poplar and sp	ırge laurel

Adjacent Features	Comments
Banks	
Ditches	
Ponds (presence/absence)	
Other [specify]	

Please make sure any entry of Hedgerow Trees also appears in the species section.

The Green Card referred to on page 11 for distribution to farmers and landowners was as below:

THE SUFFOLK HEDGEROW SURVEY

Dear Landowner

- Please may we visit your hedgerows, when they are in leaf, to survey them?
- We have received training in hedgerow survey techniques & will not damage your hedgerows or anything surrounding them & will honour any stipulations you make regarding access to sensitive areas.
 - The aim is to record all hedgerows; their age, condition & content, in all 470 parishes in Suffolk.
- This comprehensive record will be lodged in each parish & with the Suffolk Biological Records
 Centre
- The data being collected will enable the creation of a comprehensive map of Suffolk's hedgerows.
- The survey results are for the use of the community & the landowner & may also be used alongside a whole range of other datasets, by Natural England [formerly English Nature] & local councils to better inform them on the state of the environment.
- The data collection DOES NOT tie into any form of new control or legislation.
- The data collected in this survey may in the future help landowners obtain more support for hedgerow planting & management from local & national sources.
- With the help of landowners & volunteers, this project will result in an invaluable gift to the future generations that will be interested in our countryside long after we have gone.

Background

- Landowners' permission to visit hedges is vital to the success of this project. The initial impetus came from the Earth Summit Message from the Rio Conference in 1992 which set an agenda for the 21st. Century & led to Local Action Plans outlined in Local Agenda 21. On the ground this project began with the hedgerow Sub-Group of Suffolk Coastal District Council's Greenprint [Environmental] Forum. The Group developed a uniform hedgerow survey methodology which has already been used in well over 300 parishes & is now supported by the 6 District Councils covering rural Suffolk.
- First a map of a parish, or survey area, is prepared on which all hedges are identified & numbered. A team of trained volunteers completes a detailed sheet for each hedge by surveying its whole length. They record the number of hardwood tree & shrub species present [helpful in dating the hedge] also the presence of hedgerow trees [including veterans] indicators of character & treatment unique to the area & historical styles of management, which in turn has implications for the habitat offered by the hedge. The survey is not intended to provide a full botanical record, but the Suffolk Record Office is already finding, from completed surveys, a direct correlation between species rich hedgerows & the range wildlife which they support.
- Your permission to visit & survey hedges in your ownership would therefore be greatly appreciated You may even decide, as many landowners have already done, to join the survey team as a surveyor.
- Should you need any further information please contact:
- Guy Ackers [The Chairman of the Suffolk Hedgerow Survey Project Group] Ambleside Cottage,
 Valley Farm Road, Melton, Woodbridge, IP12 1LJ Tel: 01394 383264 e-mail
 guyackersmelton@rmplc.co.uk
- This leaflet has been prepared with the help of Alice Kramers Pawsey
- [Farmer & landowner of Lavenham]

HOW TO SURVEY A HEDGE

☐ Walk the length of the hedge	
Is it the same throughout?	
[If so you will only need one - or possibly two 30 metre samples –use columns A & B on the form]	
[If it is variable you may need more samples-columns C & D]	
[If there is a major change you may need to treat it as two hedges and	
complete a separate form for each - the second could be numbered 1a _j	1
☐ In each 30-metre sample identify all hardwood species present.	
[Most species you will need are listed on the survey form]	
[Include hedgerow trees in the second set of columns, N ewly planted,	
<u>S</u> tandards, <u>P</u> ollards, <u>D</u> ead trees & <u>V</u> eteran trees* - show which colum	n
they appear in e.g. 'A' & remember any hedgerow tree you identify mu	<u>ust</u>
also be entered in the species columns]	
* To determine if a tree is a veteran [Use a piece of string 4.2 metres low with a pin attached one end, pin to tree at chest height. If the string with not go round the tree & meet the pin - the tree is large enough to be a veteran tree]	
☐Show the structure of the hedge	
[See diagrams overleaf - If yours doesn't fit, draw a sketch of its shape]	/ .
☐Show landscape connections	
[Grass verge, ploughed / unploughed, headland, track,	
gardens, woodland, road]	
□Show adjacent features [Ponds, ditches banks etc.]	
☐ Make Sure to put the hedge Number, your name, survey date and parish name on the form	d
☐ Return all your completed forms to your co-ordinator.	

Hedge Structure

	Cross section	Side view	<u>Notes</u>
Coppiced	-		The trees have been cut low to the ground
Remnant		Summer Winter	Only a few shrubs or trees remain. There are more gaps than hedge. The hedge remnants may have been cut/pollarded.
Laid			Laid within last few years: a good solid boundary managed in a traditional fashion.
Well managed _	AU		Minimum 2m high x 1 ¹ /2m wide.
Regularly trimmed	٣	NITE TO THE PROPERTY OF THE PR	Less than 2m high x 1 ¹ /2m wide resulting in inadequate wildlife cover.
Overgrown wit no undergrowt			The hedge has become a low line of low trees.
Mature with undergrowth			The hedge has been allowed to grow.
Mature with bushy out growths at base			The hedge is spreading onto verge and field margin.

3: METHOD

B; Coordinators, Surveyors and the Modus Operandi. [MO]

The first MO was drafted and field trialled at Parham in 1998, compiled and written in great haste and based upon the only available information from the SBP, enhanced by a wider interpretation by the compiler who offered to do it. In the circumstances it was a brave effort but with hindsight, not of any great value or use for the simple reason that it had been written as a 'cover all' for every type of parish, with all their variances and special features, to cover every imaginable exigency and consequently finished up by being a huge document of some 60+ pages of A4. The document was sent to every Parish Council clerk and to other conservationists known to the Working Group members. It clearly fell on deaf ears and probably ended up in the waste paper bin. This may well have been the main reason why a previous selected Parish Council turned down our offer to launch the survey for them though the Parish Council chairman strongly denied any chance of the survey being 'allowed' in his parish nor on his landholding (which virtually covered the entire parish!). And we thought we were doing him a favour!

This had been a tough lesson on how not to do it. Consequently, presentations and talks to Parish Councils and other groups became the norm and these met with considerable success and enthusiasm. People were saying how nice it was to be asked to help and volunteers signed up readily and in good numbers. Finding a parish survey coordinator was a different and more difficult task. Some did actually volunteer but many had to be targeted or simply appointed by the Parish Council, mostly quite happily but a few rather reluctantly. This again stemmed from the daunting task of reading the MO.

By year 2000, we made the first revision (titled "Guidance for Coordinators") and over time brought it to within a reasonable task of some 14 pages by eliminating all the draft letters, posters, agendas for meetings and many other themes and 'add ons' to cover most eventualities. This revised document met with more understanding and clarity and was appreciated as a means to help and guide the coordinators rather than to confuse.

By 2006, the Guidance for Coordinators was backed up by a single sheet of A4 titled "Coordinators Checklist" and this did the trick nicely and remained as the main document for Coordinators till the end of the Project in December 2011.

Likewise, the Guidance for Surveyors suffered the same misfortune as for the Coordinators as it was originally drafted very much along the same lines (and volume). There were of course many aspects of the Coordinator's role that did not need to be elaborated in the Surveyor's pack thus reducing the volume somewhat but it still looked a very daunting prospect. The effect was lessened by the tone and content of the launch talks and presentations which helped to allay many fears and doubts. The 'Guidance for Surveyors' was backed up by the 'Surveyors Checklist'. Separate single page papers were available for Coordinators, 'calculating Grid References' and 'Map Numbering'. These are reproduced on the following pages but the original Guidance's are not.

Map numbering was pivotal to a successful survey in a parish and the Coordinator needed to do this before calling the surveyors to a meeting to discuss territories for them to work in. At this

meeting, copies of the maps, appropriate to the patch that each surveyor was to work in, were handed over with sufficient blank survey forms to cover their task. This ensured there was no chance of overlap, duplication or field boundaries being missed altogether. Subsequent audits of completed surveys (some, many years later) immediately showed whether the process had been properly organised or not. Where the numbering had not been done, (or 'left to the surveyors to do as they walked round their patch', etc), so chaotic were the results, requiring a great deal of sorting, renumbering and occasionally sending back to the coordinator to sort out with their local knowledge. Unpopular as can be imagined.

Map numbering in fact was a simple and straight forward process, taking not more than half an hour, even for the largest of parishes. The paper reproduced on the following page illustrates how it was recommended to be done.

One parish ended up with four sets of hedgerows, all with the same sequence of numbers, 1,23 and so on, up to 25 and more. In most cases, the completed survey forms were delivered with the working map and it was therefore easier to allocate a prefix letter (S12 for Smith, B12 for Barbara, etc) rather than re-numbering maps and forms. Previously, we established with the client that this method was compatible with their system.

Calculating the mid-point grids was another difficult and confusing task for the Coordinator after the completed survey forms had been handed in. "Eastings before Northings" were usually well understood, though some surveys disregarded this rule and their data had to be corrected at the time of audit. In many cases the coordinates were 100 metres out due to selection of the wrong 'bottom left hand corner' of the 100 metre square. All the maps (bar a very few) were in the correct scale (1:5000) but sometimes only the 1 kilometre lines were drawn, whereas 100 metre lines were needed and a lot more helpful for the inexperienced. Occasionally, there were no numbers at all against the coordinate lines but merely a 4 figure 'ghosted' reference in the middle of a 1 kilometre square. We asked coordinators to use at least 6 figures and at best 8, bringing accuracy for a hedgerow down to 10 metres and to our astonishment, coordinates occasionally started to come in with 12 figures, moreover, done by the surveyors. This heralded the advent of GPS and some surveyors had a hand held satnav which they took round their territory as they did the survey. In many cases, the coordinator asked to be excused from this task altogether whereupon the work was done at the time of the audit.

In order to achieve one of the main parts of the Project mission, namely, the location of the species rich hedgerows, the mid-point grid was an essential issue. It was fortunate and a reflection of good planning, that we insisted also upon a 'master map' for each completed parish survey as this served as a belt and braces back-up. (See comments later in this section of the report under c, Mapping)

This subsequently became even more important as the brief changed since originally predicated in that it was requested that not only the species rich hedgerows should be recorded and located but all the other landscape hedgerows, of lesser species richness, as well. Fortunately our MO had already provided for every landscape hedgerow to be surveyed, so the Project continued unabated and unaltered.

COORDINATORS CHECK LIST

- [1] Number all boundaries on the master map. Do this preferably with a surveyor/s to make it more enjoyable and possibly to get one of the surveyors to take on an area. [See Guidance on map numbering]
- NB. At an early stage, let Parish Council know you are doing the survey, they have been repeatedly advised of the project, so it should come as no surprise. They do not have to become involved, but of course they are welcome and a contribution towards hire of the village hall and other minor administrative costs would be appreciated. They are also very helpful in identifying landowners.
- [2] Head up blank survey sheets with boundary number and 10-12 figure map reference of the mid point of the hedge. More fun to do this with helpers also. [See details of how to calculate grid references in "Guidance for Surveyors"]
- [3] Advertise if necessary with posters at local shop, parish rooms, church, bus stop etc. and flyers to local community can help, if you do not have enough helpers already. An article / promotion in a local magazine is also helpful.
- [4] Use a poster to get local village hall venue set up for the public to attend if necessary. A Hedgerow Working Group member will be pleased to give launch presentation if required.
- [5] Shortly afterwards, get groups of volunteers together to plan the areas for each to survey and issue relevant survey sheets and cutting from map of their area (photocopy the master)
- [6] If required, organise a training session, 2 hours sufficient, Working Group members and Local Tree Officer can often help.
- [7] Best to start survey from footpaths, bridleways, roads, common land, playing fields and churchyards to get experience. This then presents no problem if hedge needs a re-visit as each surveyor gets more confidence.
- [8] News spreads fast around the parish that "locals" are doing a good job. This often encourages more to join the project.
- [9] When all public access hedges have been done, ask a "friendly" landowner/farmer for permission to survey his hedges. Best to select one who is known locally as environmentally minded. This helps the process when more landowners need to be approached. Leave any known sticklers to last. Use the green cards and write letters of confirmation. Where there is an absentee landlord, it is helpful to ask for a reply in writing so that copy of his/her agreement can be shown to the tenant. It is nice to write a letter of thanks afterwards.
- [10] Immaculate conduct of the surveyors is essential. Do whatever a landowner asks regarding avoidance of no-go areas, nesting pheasants, crop spraying, harvesting etc.

NB [Surveyors must not offer landowners advice on hedgerow management]

- [11] Do not attempt to identify hedges with binoculars from public areas but some will be obvious. You may get more co-operation from landowners if they are asked to outline their ownership on your map [They can also often help regarding names & contact details of neighbouring landowners].
- [12] A scrapbook or small display of tree and hedge specimens is interesting and a record of local historical or archaeological "finds", unusual flora and fauna adds interest. Display in the church, village hall or pub generates support and interest.
- [13] Never hesitate to ask for help, guidance, more survey sheets maps etc. You can also seek advice from other co-ordinators their details are given in the newsletter.

SURVEYORS CHECKLIST

1. Know the name and details of your parish survey coordinator, liaise with him/her frequently and agree upon the territory you wish to survey. Agree with one or two other surveyors to form your team for the survey.

Collect a piece of map from the coordinator, together with sufficient blank survey sheets for you to use on your part of the survey. Check that the hedges are numbered. It can be very helpful if you patrol your territory in advance so as to ensure you are happy with the details and can record where boundaries do not have hedgerows.

- 2. To start with work only from footpaths, bridleways, common land, roads, tracks, lanes, playing fields etc, avoiding the need to enter private land until later. **DO NOT** attempt to identify hedges with binoculars. Avoid hedgerows in private gardens, towns, villages, copse, thicket, woods and forest.
- 3. Hedges will be numbered logically to enable you and others to retrace your steps, complete mapping etc later. Where a hedge is shared with a neighbouring surveyor, (seldom) speak with them and agree who does what. If a hedge is on a parish boundary, speak to your coordinator to find out who does what.
- 5. Arrange days with your team to get outdoors, take your piece of map, survey sheets and a pencil, preferably on a clip board with a plastic cover in case of rain.

Walk the full length of the hedge, recording everything as you go. Use the comments box to help paint a word picture about the hedge and record anything of interest, feature etc that is not listed on the survey form.

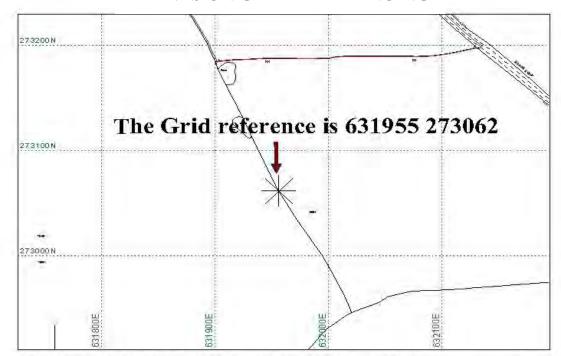
- 4. Expect to do fewer hedges to start with, more later. Keep all the survey sheets until you have finished your whole workload because as you become more proficient you may wish to return to an earlier hedge to make adjustments. Do not guess, ask for help.
- 5. When you are ready to move onto private land check with your coordinator that agreement has been obtained for surveyors to enter his land, unless you are ale to pick this up on your way round the public access areas. To start with, permission would have been obtained from a 'friendly' landowner known to be conservation minded, interested in the environment and possibly well known to a PC member or the coordinator. If you find a hedge that is not numbered, check with the coordinator and number sequentially, i.e., 147, 147a, but do not repeat an existing number twice. The midpoint map reference is entered later by the coordinator.
- 6. Continue with the survey, trying not to revisit a hedge twice on private land, therefore do it as thoroughly as possible and get it right first time.
- 7. Immaculate conduct at all times is essential. Do whatever the landowner asks of you such as no-go areas, avoidance at nesting times for pheasants, crop spraying, harvesting etc.
- 8. If asked, NEVER COMMENT ON QUALITY OF HEDGES OR OFFER ADVICE on farm condition, practice or management. Remember you are there to record what you see according to the requirements of the survey form, on the day in question, do not take note of what it was like last week, year, nor how you think it may look like in 5 years time. Record as a snapshot in time and enjoy it, have fun.

MAP NUMBERING - A COORDINATORS GUIDE

- 1. If you have one sheet that covers your entire parish, please go to para. 4.
- **2.** If you have two or more sheets for the entire parish, find where they meet and temporarily join them together to produce one large map.
- **3.** Mark on the smaller piece where they join. Sometimes during the printing, a map gets slightly distorted when matching to the other piece. Ensure the coordinates match in the centre first and this spreads any error equally to each side. (If you have a huge parish needing say 4 or more sheets, you may have to divide the parish in two parts to avoid the master map being too large to handle.)
- **4.** Lay out the map on a large flat surface, kitchen table is fine, and start numbering every field boundary on the map. Start at 6 o'clock and move round clockwise until you finish up where you started. Do not number garden, town, village, copse, wood or forest boundaries, only the landscape ones.
- **5.** Field boundaries with hedges are normally marked by a solid thin black line and there may be one each side of a road, track, lane etc. If a track has dotted lines on one or both sides then this denotes that it is a field boundary (or merely just a track) it does not have a hedge but it does need numbering. Blue or mauve dotted lines denote a ditch, drain or dyke and do not need a number. Number only where the black thin line is solid. A hedgerow can share more than one field so long as it is not interrupted by a road or a private property. If so, moving on, the hedgerow gets a new number.
- **6.** Job done. No need to have an intimate knowledge of the countryside and its hedges, just simply number everything in sight. It will be the job of the surveyor to determine whether the line you have numbered is a hedge or not. If not, he should be asked to <u>return a survey sheet in the normal way, headed up correctly but with a diagonal line across the sheet and "no <u>hedge" written in the Comments box.</u></u>
- 7. When you have your first meeting with the teams, ask them to opt for their territories. With scissors cut off their territory from your **spare** map and get them to copy the numbers onto their piece from your master copy. You can do this in advance of course if you like. Check they have done it correctly.
- **8.** In the selection of their territory be advised to agree their limit along a road, track, lane etc. DO NOT cut up the map along the coordinates as this causes confusion about who does what and some boundaries get missed or duplicated.

NB for later. When you get the sheets back from the surveyors, colour code the full length of the hedge on your master map and mark on the map with a large black cross, those numbered boundaries where there is no hedge. (See Coordinators Guidelines)

HINTS ON GRID REFERENCING



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Grid Referencing

Some of you have told us you are still struggling with entering the grid references on your survey forms.

The enlarged map extract above may help.

To give the reference of the **asterisk** in the centre of a hedgerow on the map above:

Firstly look at the figures on the vertical lines at the foot of the map [*The Easting*] and find the line to the left of it - 631900E

You will notice that the asterisk is a little more than half way across the grid square it is in [to help you judge where, imagine the square is further divided by 10 vertical lines] The **Easting** for the asterisk is mid way between the 5^{th} . & 6^{th} imaginary lines and the reference therefore is: **631955**.

Secondly look at the figures on the horizontal lines at the left hand side of the map and find the line below the asterisk - 273000N [The Northing]

You will notice the asterisk is almost two thirds of the way up the square it is in [to help you judge where, imagine the square is divided by 10 horizontal lines] The **Northing** of the asterisk is just above the 6^{th} . imaginary line and the reference is therefore $2730\underline{62}$.

The complete grid reference is 631955, 273062

There were two additional parts of the Coordinator's role that needed special mention and emphasis, touched upon in the text of the Guidance notes but with hindsight probably needed some elaboration, based on the experiences and outcome of many surveys.

Firstly was the question of landowners' cooperation to allow surveyors access to their land. To some coordinators, this became a bit of a hurdle because the owners of the land were not known to them, there were for sure some absentee landlords with tenant farmers, there were known to be active shoots on some land where access was jealously guarded and some had had unfortunate experiences with earlier survey type intrusions, trespassers, criminal damage, fly tippers and a lot more.

The way in was often via the Parish Council when a councillor was either a landowner himself or who knew one or two in the parish and were prepared to put in a good word for the Project. Similarly, some WI members were farmers' wives and they helped a great deal also. The best initial contact was to obtain interest and cooperation from a 'friendly' farmer and better still, one to be known as actively working in a conservation and environmental fashion. It was best that the first access agreements came from these friendly farmers as good news spread round the parish quickly, whereas early refusals would become known and further attempts would be thwarted. In many cases it was simply a case of cold canvassing, knocking on doors, spreading the news about the survey starting in the parish with local publicity in the church magazine, PC newsletter, posters in the village shop, community hall, garage, pub, etc and with small flyers left in piles where the local residents would pick them up and respond.

The Project Team provided draft articles for magazines and draft posters for display and over time the cumulative effect was to draw out interest from landowners and farmers when it no longer became a surprise to be asked but almost an inevitability. At an early stage the 'green card' and a 'benefits leaflet' were left for the farmers to read or enclosed in a brief letter sent by the coordinator asking for an audience to discuss the question. Handled discretely and diplomatically, in the vast majority of cases (well over 95%), agreement for access was forthcoming but often with 'conditions' such as to avoid, shooting days, harvest, crop spraying, no-go areas specifically mentioned, certain times of the year, near to the farmyard area, telephone first before starting, etc.

Compliance of course was essential and seldom did any team get ordered off the land though there was one case where a surveyor when talking to the farmer attempted to tell him he was maintaining his hedgerows in a completely wrong way, he should do this and that and was shown the way out in consequence. All this in spite of the landowner protocol we had outlined and insisted upon at training and every other opportunity. Some people never learn. During the latter part of the Project when the success of the Project was becoming well known across the county, some farmers and their workers would volunteer to help with the surveying, joining the teams and generally being of great help and use. One or two from about 2010 actually offered to be the coordinator and surveyor and polished off the parish in no time at all.

There were two cases where the farmer had serious reservations about disturbances caused by the surveyors and consequently drove them slowly along the hedgerows in their cross country 4 x 4 vehicles while the surveyors did the recording from the back seat!

In all, there were probably less than 20-30 landowners who refused access in the whole county. In two cases, the land was up for sale and the vendors did not want any complications during the sale. In all the other cases, no realistic or plausible reason was forthcoming. These were mainly from very large landholdings and huge estates, where it was not possible to speak to the owner and all representations were made through the land agent, estate manager or gamekeeper. Real problems arose from estates in the hands of trustees where it was just 'too difficult' to get anywhere. It was our policy not to argue the toss or enter into any form of disagreement, conflict or controversy but in so doing point out with clarity what benefits would be lost to them then and later.

Denial was further complicated when the landowner owned most if not all the land in the parish and was also the Parish Council chairman. Sometimes winning is knowing something about losing and never start a battle when you know you cannot win.

Secondly, a task for the coordinator was to maintain contact with the volunteer surveyors and push them along where surveying was slow or threatened to stall altogether. (This role applied equally to the Project Management team when Coordinators needed to be pushed as well). Over the 12 years that the Project operated, we encountered just about every possible explanation and 'excuse' from surveyors and coordinators that could be imagined plus a few more.

There had been seemingly, just about every year, some major parish, District, County or national event and new venture to cause delays and at worst to drain our volunteer resources away to other seemingly more urgent work. Mentioned already was the foot and mouth epidemic, soon after the Project really got going. Then we had the Millennium celebrations, followed by the Golden Jubilee, Village Plans drained our teams seriously, followed by Asian bird flu, blue tongue, the orchard survey, otter survey, turkey flu, exclusion zones spreading up all over the county for one reason or another and so on. There was obviously nothing we could do to avoid these and patiently waited the return to normal surveying.

On a more personal basis, we had the full and rich tapestry of life to contend with as it affected individual volunteers and teams. We had marriage, divorce, separations, babies, redundancies at work, new jobs, changes in shift patterns, illness, knee and hip operations galore, family relations, too busy, living abroad for 6 months of the year, house building, moving home, loss of contact due to the computer, phone disconnected, and so on.

Delays of course were inevitable from individuals but the one main problem we faced was when a coordinator stalled and for some reason it had a domino effect on the teams, who stalled also. They felt that support from the team leader failed and they were wrong footed by it, with a feeling of inadequacy which meant that the whole survey in the parish stalled with them. On occasions, the coordinator totally stopped but did not advise us, so time went by without getting a plausible explanation from them, saying what they thought we wanted to

hear rather than the bad news that simply no further progress would be made. There were cases when we found out what the true state of the survey was and we were able to recruit a new coordinator to revitalize the teams and make a re-start. We had many explanations of which two were "we have 30% of our houses in the parish are second homes" and "we have only 90 residents, half of whom are in care homes and the other half should be!"

On a few occasions, surveyors' work had been lost either by the surveyor or by the coordinator and it was a difficult task to get them to go back and do it all over again. You don't give a drowning man a glass of water. There was one celebrated case where the survey results had gone missing and the Parish Council wanted to run a risk assessment over a planning application for 550 houses to be built on Greenfield land on the village boundary. The damage to species rich hedgerows was imagined but they needed evidence so in this case willingly went about re-doing the survey.

Another difficult role for the coordinator was to maintain enthusiasm and stamina during the long, cold, wet months of winter after leaf fall until spring the following year. In many cases by the time teams had been working for 5-6 months previously, they had established a strong social bond as many new friendships were made and they continued to meet up in each others' homes during the winter months. In less fortunate parishes where the residents were scattered far and wide and there was no real village 'centre', matters were not so good and it was here that the coordinator needed to provide the focal point to keep the teams together. In some cases, volunteers did not want to, or were not able to join forces (due to work commitments, personal preferences, etc) and remained solitary workers, doing so at their own pace and without the need to keep pace with another team member. To each his own and this was accepted as we had really no other choice but we had to watch the results to ensure the 'accuracy and consistency' dictum from the client.

Volunteers came from all walks of life, many of whom were retired professional people and more women than men. There were relatively few younger people mainly because of work commitments and families to look after. We had officers from the fire service and the police, politicians, emergency ward sisters and nurses, artisans from most trades, post graduate environmentalists and conservationists, local authority and county council staff members, parish chairs, clerks and councillors, tree wardens, village historians, school and tertiary education teachers, peers of the realm, Ordnance Survey pensioners, geologists, even a micro biologist, as well as farmers, landowners, farm workers, small holders, owners of private nature reserves and very many members of the Suffolk Wildlife Trust, the National Trust and the RSPB. We also had retired GP's, members of the clergy, bee keepers, landscape architects and entomologists, not to forget one dendrochronologist.

We were asked if school children could join and help but after the first trials it soon became evident that powers of concentration and maintenance of interest fell away after an hour or so and observation was necessary on a one to one basis, which practically was not possible.

3: METHOD.

C; Mapping

When a coordinator advised us that they were ready to take up the role and that they had every prospect of recruiting at least 2 teams of surveyors, this acted as the trigger to get the maps ordered forward. Duplicate sets were printed by their appropriate District office, in A1 or A0 size, with as many as necessary to cover the entire parish. We tried to get pale 100 metre lines drawn with coordinate numbers for each line and darker lines for the 1 kilometre squares. There were some variations in quality and content of the maps, depending upon the programming of the printer in the District offices. The best showed every possible detail with coloured conventional signs for woods, forest, dykes and water ways, etc. Others less so unfortunately, but sufficient for the task.

Numbered and copied working maps given to the surveyors were as described in the previous chapter. How next the maps were used was central to the surveying process. The working maps marked with numbers all the field boundaries of which on average, some 13% were not hedgerows. Nevertheless, each of these required a survey form, fully completed with the midpoint grid and 'no hedge' entered in the 'comments box'. 78% of surveyors conformed to this procedure, see later chapter. These were also marked with a broad black cross over the line of the hedge on the working map.

The theory was that once the 'no hedge' boundaries were accounted for, more efficient planning of subsequent routes for surveying could be made and the remaining hedgerows were then surveyed and marked off on the working map. This helped to keep a count of work done for the surveyor teams and graphically showed outstanding hedges to be worked.

If during the survey, new or different hedges appeared on the ground, so the surveyor recorded them and added them to the working map, making a note to advise the coordinator at the time of handover of all completed work. This ensured that the map changes were transferred on to the 'master map' held by the coordinator. This happened frequently as many farmers and landowners have planted new hedgerows fairly extensively in parts of Suffolk in recent years and these may not have been picked up by OS surveyors or shown on reprinted editions of the maps.

One problem that needed careful working with the maps concerned landscape hedgerows on the parish boundary because the line of any hedgerow was partially or fully obscured by the heavier and broader line showing the boundary. In some cases it is suspected that a few hedgerows may have been missed out unless, as suggested, surveyors checked via their coordinator that the neighbouring parish surveyors had not duplicated them. To add some confusion to an already difficult problem, many parish boundaries careered across open land with no seeming logic and on several occasions, parish boundaries shown on the map did not coincide with reality, due to earlier boundary changes made in the system.

When the surveyors' task was completed, the survey forms and working maps were given back to the coordinator for mapping to be done on the master map. The mapping procedure completed by the coordinator covered checking that the numbers on the map coincided with the numbers on the survey forms, adding detail of extra hedgerows, confirming that 'no hedge' boundaries were recorded with a cross on the master map, calculated the midpoint grid if not already shown and entered their own checklist of completed surveyor tasks.

Thereafter, the coordinator made the colour coding of surveyed hedgerows for the entire parish. This was one of, if not, the most important procedure in the mapping context. The method required all landscape hedgerows to be coloured according to their species richness. The convention adopted was that the hedgerows with 4 or less different species should be coloured in red to denote a low count ratio. The hedgerows with 5, 6 and 7 different species were coloured blue to denote the mid ratio of species richness and finally, the hedgerows with 8 different species or more were coloured green to denote them as 'species rich' hedgerows. This definition of a species rich hedgerow was imported with the survey form from the SBP at the start of the Project.

When the master map was completely colour coded, it gave an immediate and transparent image of the status and distribution of the three ratios of hedgerows. Moreover the colour contrast between red and green brought out into relief the incidence of species rich hedgerows at a single glance which after all was one of the prime objectives to be achieved for the client. The blue hedgerows 'filled the background' in between but the green hedgerows illustrated also at a single glance where there was connectivity in the hedgerow network, where there were gaps, where there were those invaluable corridors for wildlife to move between habitats and where there were possibly priority lengths that could be planted or replanted to complete any interruptions in the connectivity. Likewise, where there were red hedgerows and it was thought they could make better connections in the corridor, the species frequencies would give a guide for the species to be used for gap filling.

At a stroke therefore, the master map served the initial purpose of the client's objective and laid the groundwork for the local community in the parish to target areas for improvement by landowners should they wish to do so. The point was made repeatedly, that this was in no way meant to be obligatory but merely as an advisory instrument, based upon local evidence, as possibly a prima facie priority for replanting and that the species frequency emanating from the survey would guide which species could be planted with the optimum opportunity of growing on and by exception therefore those species which should be avoided maybe to lessen mortality of the new planting. The completed master map and all completed survey forms were then delivered to the Project Team for audit.

Copies of the colour coded master map were kept by most coordinators in the parish and either lodged with the parish council clerk, the village historian, tree warden and local environmental working groups. It was also a popular idea to put the map on the notice board inside the village Community Hall and it was often used to illustrate the survey at a presentation by the coordinator and teams to the parish council and community residents at the conclusion of the survey.

D; Training

Of all the responsibilities of members of the Project management team, the role as trainers was among the most important. Training of volunteers, both surveyors and coordinators was essential to establish the protocol and methodology throughout the Project county-wide and to ensure the code for 'accuracy and consistency'.

Training fell into three main areas, namely;

- 1, Twice yearly full scale training days at county level
- 2. Local teach-ins at parish level
- 3, On the job training.

Main Annual Events.

The main events were held on the first and third Saturday in May every year, starting in year 2000, when it was a bit new to us all and consequently we spent too much time on the introduction and theory and not enough time on practical field experience, actually doing the survey and getting used to the method.

The first session was at Thornham Field Study Centre when 90 volunteers attended in the excellent conference centre facilities provided for us by kind permission of the Henniker family. The session was opened by the author and designer of the survey form who was a member of the SBP from Otley College.

After 90 minutes it was realised that there was little enough time remaining before departure for some to get out among the hedgerows to practice the method and to get some instruction on the elements of species identification. Nevertheless, we had very good vibes and some letters and emails thanking us for the session with confirmation that some teams had made a start on their parish surveys already within a week or two of the meeting. It was immediately realised by the Committee that things needed sharpening up considerably and all future sessions took less than 30 minutes, leaving at least 2 hours for the practical side of the training outdoors.

Twenty one training days were run with two or three per year until the final session in May 2010, by which time it was expected that no further new surveys were likely to start. Little did we know that new launches were to start up in 2011, two of which as late as October (and completed within 4 weeks).

Thornham Magna continued to be a major venue with their excellent 'Thornham Walks' adjacent, providing a huge choice of landscape hedgerows for volunteers on which to practice. We used Thornham for 7 years, Lackford Lakes (SWT) for 3 years, Hadleigh Country Park twice, Clare Country Park and Needham Market once each and Foxburrow Farm (SWT) 7 times.

After the first session in year 2000, we realised the importance of doing it (under instruction initially and observation thereafter), was by far the best way of "helping the volunteers to

learn" rather than telling them as 'teachers' in a classroom which we interpreted would not be a good idea. It turned out that we were correct in this method and we reaped tremendous rewards consequently. Without exception, volunteers came to us at the end of the session saying how much they had enjoyed the day, learned a lot, more confident in identification skills and much less daunted by the methodology and protocol. In many cases, volunteers from the same parish, teamed up there and then, got their coordinator organised and made arrangements in their diaries for a joint effort for the first day of surveying, to get their project off the ground. After one such occasion, some 33 parish surveys took off within two weeks of the training day.

The sessions were extremely popular and were attended by numbers ranging from 56 to 110, the latter putting the 'trainers' under some strain as we preferred to have groups of not more than 10-12 in order to give quality, face to face training. We usually had 5 or 6 trainers on any one day which meant that on the crowded days, they had much larger groups to keep together and keep focussed. The trainers were either committee members and/or had been a parish survey coordinator themselves and/or were qualified and professional conservationists and environmentalists in their working jobs.

The logistics for each session were considerable and needed close control and planning. Getting the numbers from coordinators started about 2 months before the due date and getting the documentation together, the maps of the locality in which the session was to be, refreshments, ordering the accommodation up to one year ahead and arranging payment of the fees, transport of visual aids and projection equipment, all took a great deal of time and effort. The necessary trainers were put on stand-by at least two to three months in advance, subject to numbers attending.

Publication of the agenda and the allocation of groups of volunteers to each trainer in advance had to be planned, so that there would be no surprises on the day. Up to 30 specimen branches of trees and bushes most commonly seen were collected and displayed for volunteers to see and handle to get familiarity with identification. Advice for car parking, route directions and joining instructions for everyone attending had to be prepared and mailed out to all candidates up to 10 to 14 days in advance, with the inevitable apologies on the one hand and additional numbers at very short notice on the other hand. It was to the credit of the performance of Committee members and trainers that there were no major problems encountered throughout the 10 year period.

The 4 images overleaf illustrate some of the sessions indoors and outside which outline the one single factor which could not be planned, namely the weather, which ranged from shirt sleeve order to wellington boots and penetrating, long spells of rain. In one year the winter seemed never to end and we were at our wits end seeing that up to 3 days before the first May session, the leaves had hardly started to come out. In fact we just made it but the Ash and Oaks were still dormant.









Local Teach-in Events.

Twenty local teach-in field events had to be organised for those parish survey teams that were not able to attend the more formal training sessions in May. These were attended variably by 4 to 20+ volunteers and went along very much the same lines as the full training day sessions, but very relaxed and informal as everyone knew everyone which made it a social occasion for the volunteers and a lot easier for the trainer of which there was usually one but on a few occasions two of us, to split the group into two. The 30 minute briefing took place in the kitchen, parlour, conservatory, front room or in the garden of one of the volunteers and conveniently, close buy, there were one or two good hedgerows where the method could be demonstrated and practiced.

The logistics for these were less demanding but to ensure the process went as smoothly as possible, no short cuts or half measures were taken and the volunteers received as full a session as though they had attended the annual session. The response from the teams was instantaneous and they reported back within a few days to say that surveying in earnest had started and the take up from local tech-ins was as successful as that from the annual events.

On The Job Training.

Inevitably, there were always some volunteers, for a mass of perfectly acceptable causes, not able to attend at the last minute either of the previous sets of sessions, or not at all, due to heavy commitments in their diaries. The only recourse was therefore to get them to attend teams already working and follow the methodology and protocol as they conducted their surveys, joining in wherever they felt a growing confidence in their ability to do the identification and recording. Being 'helped to learn' by volunteers who themselves had gone through the same treatment would have allowed errors and deviations to creep in, particularly in the realms of 'accuracy and consistency'. At the annual events, a few do's and don'ts were always discussed as there was sufficient time for questions and answers during and at the end of the practical field training. In the course of on the job training, some of these points may have been overlooked or simply did not arise. Two such issues regularly arose.

The first concerned the definition of 'hardwood' species of trees and shrubs. The original survey record form listed Old Mans Beard as a species in the main column to be recorded which raised the question of the validity of this. It had to be recognised therefore that we were expected to record this specie of Clematis needed and we were able to confirm that when over ten years old, the wood is hard and the core of this host plant was the habitat for a minute beetle specie. This raised questions regarding honeysuckle, black and white bryony, vines, hops deadly and woody nightshade and creepers of all sorts. In the interests of 'consistency' it was interpreted that only Old Mans Beard would be recorded and should surveyors wish to record the others, then the 'comments box' was the place to make their notes. During the audits it was seen that this 'rule' had not been closely followed and it was suspected that it may have been as a result that the issue had not been raised during on the job training.

The second area for clarification was that of pine, fir and conifers in that they were generally regarded as soft woods. It was interpreted that these trees formed an important range of species occurring regularly in landscape hedgerows and were of sufficient size, landscape value, habitat and meeting many of the criteria which defined a hedgerow (especially in lines of trees and on the Breckland) that they should be recorded and so long as everyone acted accordingly, it would be seen that we were all doing it wrongly or correctly, as the case may be.

E; Landscape Character Assessment (LCA) types.

From the very start of the Project, when completed surveys started to be received, (the first being Parham in 08/98, followed by Kesgrave in 10/00, Eyke in 12/01, Shimpling in 01/02, Felixstowe in 07/02), so statistics started to build on the ratios of low (4 and less species), mid (5, 6 & 7) and species rich (8 and more) categories of hedgerows. After all, this was one of the main objectives of the Project. The data was accumulated on a county wide basis which shortly became known as the 'County Norm'.

The first and subsequent published county norms were as follows:

June 2004	Low ratio = 19.1%	mid ratio = 31.7%	species rich ratio = 49.1%
June 2006	17.4%	31.7%	= 50.9%
May 2011	16.7%	31.5%	51.7%
Dec 2011	17.5%	30.1%	52.3%

In one respect it can be assumed that the 'consistency' (that word again) throughout the piece had been maintained pretty closely and in part may have confirmed the diligence of the surveyors as the correlation is so very close. There is of course no such thing as an average parish. So, the data could be regarded as academic and as the Project progressed, the validity of the county norm became less significant as in no way could one parish set of results be analysed and compared with others. Over time the county norm became more of a set of ballpark figures, giving an indication maybe of trends and an idea of what to expect from a more definitive analysis based on more meaningful criteria.

It was at this stage that the Landscape Officer in Babergh District Council, (a member of our Project Committee) and a member of the Suffolk Landscape Officers Group (SLOG), recommended that the LCA categorization of parishes could be the most appropriate and most valued method for setting up future statistical analysis of parish survey results.

Suffolk County Council ran a project to describe landscapes in detail to assess character and qualities that make up the different landscape areas of the county based initially on Government guidance's. The results were aimed to be used as supplementary planning assistance to plan landscape management guidelines. They were therefore primarily aimed at professional users working in the fields of development planning control and land management in their Local Development Framework documents. Led by SCC in partnership with Reading University and private consultants, Steven Warnock and Mark Diacana, they used Countryside Agency guidelines and methodology, developed by the Living Landscape Project, in 2003-6 when the work was done by trained surveyors mostly from local authorities and countryside management project personnel. There has been subsequently a level 2 assessment update in 2008.

There are 31 different types in Suffolk, mainly in the clayland, sandland and farmland landscapes and these were subdivided into ancient, estate, rolling, undulating, plateau and other minor explicit variations. The original purpose of the study was to provide guidance for Local Authority planning processes as described above and it has been envisaged for example, that

the data could also contribute to the validity of any Environmental Risk Analysis that the District planners and local Parish Councils may adopt in their deliberations.

It just so happened that after examination, the LCA types fell perfectly into the pattern we were seeking for the analysis of parish survey statistics and rather than re-invent a new wheel, we adopted the LCA discipline so that all parishes falling within the same LCA category formed a peer group from which synergies and correlations may arise. In the summer of 2008, all the parish survey results already received were re calculated and assembled into their relevant LCA type and it was seen immediately that we had the perfect tool for the assessment of species rich hedgerows, how they inter-reacted with the proportions of other parish results in the same LCA peer group and importantly, to what extent the landscape and soil type contributed to any correlations. It was never at any stage envisaged that this comparison should form any type of league table or performance quantum. By 2010, the correlation between parish results in the clayland and sandland types was so close that it became almost predictable how the analysis of the next parish results would turn up. The following tables illustrate these points.

LANDSCAPE CHARACTER ASSESSMENT SUMMARY

LCA	4 and less	5,6 & 7	8 and more
	%	%	%
Ancient Estate Clayland	12.5	30.2	57.3
Ancient Estate Farmland	28.2	37.3	34.4
Ancient Plateau Clayland	8.7	24.0	67.2
Ancient Rolling Farmland	14.1	30.8	55.1
Estate Sandland (W)	37.9	31.6	30.5
Estate Sandland (E)	30.0	35.0	31.0
Planned Fenland	nil	15.4	84.6
Plateau Estate Farmland	31.1	42.2	26.7
Plateau Clayland	9.9	28.2	61.9
Plateau Farmland	23.4	32.1	44.5
Rolling Estate Chalkland	16.6	31.5	51.9
Rolling Estate Clayland	17.6	26.6	55.7
Rolling Estate Farmland	11.3	32.3	56.4
Rolling Estate Sandland	24.8	39.9	35.2
Rolling Valley Clayland	12.5	26.4	61.1
Rolling Valley Farmland	16.8	34.5	48.6
RVF and Furze	22.2	39.3	38.4
Settled Chalkland	62.1	31.0	6.7
Undulating Ancient Farmlan	d 6.7	26.9	66.4
Undulating Estate Farmland	13.1	27.3	59.6
Valley Meadow and Fen	20.1	42.5	37.3
Wooded Chalk Slopes	13.6	47.7	38.6
	2.4		

LCA types not recorded

Coastal Dunes and Shingle Ridges Urban

Coastal Levels Valley Meadowlands

Open Coastal Fens Wooded Fens

Saltmarsh and Intertidal flats Wooded Valley Meadow

Settled Fenland Wooded Valley Meadow & Fens

DISTRIBUTION OF LCA'S IN DISTRICTS

LCA type	F/H	St. Eds.	MSDC	BDC	WDC	SCDC	Total
Ancient Estate Clayland			7	5	8	30	50
Ancient Estate Farmland				10			10
Ancient Plateau Clayland		6	20	5	14		45
Ancient Rolling Farmland			10	21		17	48
Estate Sandland (W)	3	3					6
Estate Sandland (E)					1	33	34
Plateau Estate Farmland	1	7		1	8	9	26
Plateau Clayland			25		3	7	35
Plateau Farmland	1			4			5
Rolling Estate Chalk	1						1
Rolling Estate Clayland			3			1	4
Rolling Estate Farmland			2	1			3
Rolling Estate Sandland					2	7	9
Rolling Valley Clayland					1	1	2
Rolling Valley Farmland			5	7			12
Rolling Valley Farmland & I	Furze		2		6		8
Settled Chalk	1						1
Undulating Valley Farmland		6		4			10
Undulating Estate Farmland	1	9					10
Wooded Chalk Slopes	1						1
Total	6 (+3)	31	74	58	43	105	317
Total No of Parishes							317

In regard to soil type, the following table gives all the evidence ever needed to confirm that very considerable synergy exists for species richness in the clayland and sandland peer groups.

Looking at the species rich hedgerows in clayland, [between the 5 different types of ancient estate, ancient plateau, plateau, rolling estate and rolling valley], the range is between 55.7 and 67.2%. Although it is not arithmetically correct to make an average from averages, the mean is in the region of 60.0% +/- 5 to 7%. What is more, the distribution of clayland is in 5 of the 6 Districts in the County

It is well known that clay based soils support very well flora species in terms of quality growth and variety but these aspects are to be discussed in a later chapter of this report. The fact is that clayland data is entirely reliable. (Please see the map at the appendix)

Likewise but to a more narrow extent, sandland based soil types provide even closer synergy within the peer groups of which basically there are two, namely estate and ancient estate. Here there is a range for the species rich hedgerows of 31.0 to 35.2% but the distribution of the sandland type is in only two Districts with the vast majority in SCDC.

We were hoping to get sufficient data from the sandland LCA's in Forest Heath and St Eds to enable comparison to be made between the east and west sandlands in the county. There was a suggestion that the salinity in the soil and air in the east, especially at or near to the eastern seaboard may have an effect on the species richness and on the species frequency. It goes without saying that where there had been tidal flooding, the effect upon hedgerows was really very marked especially in Dunwich and Walberswick parishes. The data captured in the west sandlands is sparse to say the least and we had hoped that other parishes would be able to survey their hedgerows but in the end, only 6 parishes with the sandland type (3 in Forest Heath and 3 in St Eds) produced data on 248 hedgerows. Even so, in the soil type table below, the difference between the east and west species rich data is 0.5% and we can take it that salinity probably does not have an effect on the species richness even if it does affect the <u>number</u> of hedgerows. The species frequency is discussed later in this report.

LANDSCAPE CHARACTER ASSESSMENT TYPES SOIL TYPE ANALYSIS

CLAYLAND	4 and less	5,6 and 7	8 and more
Ancient Estate Clayland	12.5	30.2	57.8
Ancient Plateau Clayland	8.7	24.0	67.2
Plateau Clayland	9.9	28.2	61.9
Rolling Estate Clayland	17.6	26.6	55.7
Rolling Valley Clayland	12.5	26.4	61.1
FARMLAND			
Ancient Estate Farmland	28.2	37.3	34.4
Ancient Rolling Farmland	14.1	30.8	55.1
Plateau Estate Farmland	31.1	42.2	26.7
Plateau Farmland	23.4	32.1	44.5
Rolling Estate Farmland	11.3	32.3	56.4
Rolling Valley Farmland	16.8	34.5	48.6
Rolling Valley Farmland & Furze	22.2	39.3	38.4
Undulating Estate Farmland	13.1	27.3	59.6
Undulating Ancient Farmland	6.7	26.9	66.4

SANDLAND

Estate Sandland (E)	34.0	35.0	31.0
Estate Sandland (W)	37.9	31.6	30.5
Rolling Estate Sandland	24.8	39.9	35.2

In regard to Farmland LCA types of which there are no less than 9 different types, it will come as no surprise that there is absolutely no correlation or synergies apparent in or between any of them. The species rich ratio ranges from 26.7% to 66.4%, in other words similar at the weakest of a sandland type to the richest of the clayland type. Considering the huge variety of uses made of farmland and its treatment and management, this may not be surprising. Apart from this, there is also to consider the range of soil types in farmland. Some is situated in the middle or the edges of the clayland escarpment running through the county from the Waveney to the Essex border, some on the edge of the sandland and on London clay, chalkland, crag and loam. Added to this is the use ranging between arable, grazing, heathland, amenity etc and taking into account the use of herbicides and insecticides, it would be expected that there is no correlation.

Landscape types. Having explored the soil type content of the LCA's, landscape qualities of the LCA's were also examined, variously described as ancient, plateau, rolling and estate. We omitted undulating as there was not too much data available from this landscape type. From the table below it can be seen that some types are duplicated, eg <u>ancient estate</u> whereas some are single. eg <u>plateau</u>. Taking out the duplicated types, there are still 15 remaining types but the ranges of species richness for the four landscape types are as follows

Ancient	34.4 to 67.2%
Plateau	26.7 to 67.2%
Rolling	35.2 to 61.1%
Estate	26.7 to 59.6%

It can be assumed therefore that landscape alone does not play any part towards correlation or consistency of species richness, though it may in other respects. Species frequency will be discussed later.

LANDSCAPE CHARACTER ASSESSMENT TYPES LANDSCAPE ANALYSIS

ANCIENT	4 and -	5,6 & 7	8 and +
Ancient Estate Clayland	12.5	30.2	57.3
Ancient Estate Farmland	28.2	37.3	34.4
Ancient Plateau Clayland	8.7	24.0	67.2
PLATEAU			
Ancient Plateau Clayland	8.7	24.0	67.2
Plateau Estate Farmland	31.1	42.2	26.7

Plateau Farmland 23.4 32.1 44.5 ROLLING Rolling Estate Clayland 17.6 26.6 55.7 Rolling Estate Farmland 11.3 32.3 56.4 Rolling Estate Sandland 24.8 39.9 35.2 Rolling Valley Clayland 12.5 26.4 61.
Rolling Estate Clayland17.626.655.7Rolling Estate Farmland11.332.356.4Rolling Estate Sandland24.839.935.2
Rolling Estate Clayland17.626.655.7Rolling Estate Farmland11.332.356.4Rolling Estate Sandland24.839.935.2
Rolling Estate Farmland11.332.356.4Rolling Estate Sandland24.839.935.2
Rolling Estate Sandland 24.8 39.9 35.2
C
Rolling Valley Clayland 12.5 26.4 61.
Rolling Valley Farmland 16.8 34.5 48.6
Rolling Valley F and Furze 22.2 39.3 38.4
ESTATE
Ancient Estate Clayland 12.9 30.2 57.3
Ancient Estate Farmland 28.2 37.3 34.4
Estate Sandland (E) 34.0 35.0 31.0
Estate Sandland (W) 37.9 31.6 30.5
Plateau Estate Farmland 31.1 42.2 26.7
Rolling Estate Clayland 17.6 26.6 55.7
Rolling Estate Farmland 11.3 32.3 56.4
Undulating Estate Farmland 13.1 27.3 59.6

Regardless of how we looked at all the data, the one remaining and convincing result is that over half the landscape hedgerows in the county are species rich. If any further factual evidence is needed to show that Suffolk is the Greenest County, we should like to know what. The range between parishes of course is very wide with species rich hedgerows ranging from Nacton with nil, Aldringham 5.2%, Ramsholt 5.4%, Mildenhall 6.9% and at the top of the range, Burgate with 87.0%, Fressingfield 90.3%, Cowlinge 90.4% and Gedding 93.5%.

Undoubtedly, the LCA analysis was the correct way forward for tabulating the results and the best formula we could come up with. In addition to the county map showing the LCA analysis for every parish, we were also given by SBRC an alpha listing of every parish LCA type which allowed a method of double checking that we had put the parishes in the correct peer group. It has to be said that the allocation of the statistics to each parish LCA became a tad difficult in a parish where there were two or more LCA types allocated to it. In these cases we had to look at the master map and judge in which LCA area, the majority of hedgerows had been surveyed.

To test this method, painstakingly, hedgerow data was divided as best as possible between the two (or more) LCA types to get results as accurate as possible. With a very few minor exceptions, the results for the different LCA's were not indicative sufficiently to confirm the need to spit the parish data. The exceptions were between Chalkland and Farmland in the cases for Dalham and Mildenhall and for Moulton between Clayland and Farmland. (see the parish tables for Forest Heath District at the appendix).

Capel St Mary was another borderline parish where there was a very clear division between Ancient Estate Farmland and Ancient Estate Clayland. The LCA summary table shown above gives an overall species richness for these two types as 34.4% as against 57.3% (res:) and the parish would have been a candidate for split LCA data had it not been for the fact that the vast majority of the survey work had been done on the farmland area and that the clayland area was significantly smaller. In many other cases, the delineation between two LCA's was clear enough on the map as the line had to be drawn somewhere but the interface between two very different types such as clayland and farmland would not normally be along an exact line, as merging of the soils would have taken place over eons of time, thus blurring the edges. In the case of Capel St Mary, and to a lesser extent for Stratford St Andrew, the line between the two soil types fitted exactly the contour of the A12. Whether this was by design or accident it was not debated.

As stated above, we agreed that the LCA categorisation of parish results was the best way forward and it was adopted ever thereafter to the end of the data capture part of the Project.

This data formed an important part of the audit and statistics report sent to most parish hedgerow survey coordinators following the delivery of their completed surveys. There were two further references made in the statistics though not part of the formula, which had a discreet modulating influence (more of an explanation) on each individual parish. These were

- A, density of hedgerows, expressed as kilometres per square kilometre
- B, parish area, expressed in hectares.

Densities are shown as a figure between 0 to 9, where 9 was the highest possible. Numerically, the top quartile started at 5.0 with the ten highest in the county being Athelington 8.57, Whitton 8.18, Bedfield 8.02, East Bergholt 7.51, Ubbeston 7.47, Tuddenham St Martin 7.39, Linstead Parva 7.31, Weybread 7.20, Syleham 7.17 and Thwaite 7.12.

This data reflects the great scenic landscape value and health of the hedgerow network and depending upon the richness of it, so also would flourish the flora and fauna, using the hedgerows as host plants, for nesting, feeding, refuge and as corridors between habitats. There is no direct link between density and species richness based on these two sets of figures.

Consider therefore the ten parishes with the lowest density, such as Wangford 0.22, Santon Downham 0.24, Wordwell 0.39, Ickworth 0.57, West Stow 0.79, Gedgrave 0.87, Orford 0.89, Capel St Andrew 0.95, Lakenheath 1.22 and Brandon 1.31. The landscape hedgerows in these parishes really become so very important, due to their scarcity and the role they play in the environment in the parish. This means that what few hedgerows they have, they really do need to be cherished.

If we now add to the equation, the area of the parish, the true density comes alive and enhances the word image of what the parish looks like.

Parish area is shown as a figure in hectares with the vast majority ranging between 400 and 1200. There are the inevitable exceptions at the extremes such as in the **largest** Lakenheath 4920 ha, Mildenhall 3934, Beck Row 2849, Icklingham 2735, Eriswell 2694, Sutton 2496 and Westleton 2245. Putting together the percentage of species rich hedgerows for 3 of these parishes the factors are:

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Mildenhall 3934 ha. Species rich % 15.4 (plateau farmland)
Sutton 2496 ha Species rich % 45.5 (estate sandland)
Westleton 2245 ha Species rich % 35.1 (estate sandland)
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One of the above appears to buck the trend with Mildenhall having the bottom end of species richness for the peer group which is 44.5%.

Moving on to the **smallest** parish areas such as Whitton 118 ha, Lt Finborough 130, Debach 187, Flowton 199, Bulge 220 and Flixton [E] 243, these parishes compare with their species rich ratios as follows:

Whitton	118 ha	Species rich % 36.2	(rolling estate farmland 56.4%)
Debach	187 ha	Species rich % 48.1	(ancient estate clayland 57.3%)
Flowton	199 ha	Species rich % 57.8	(rolling valley farmland 48.6%)
Flixton	243 ha	Species rich % 8.3	(plateau estate farmland 26.7%)

Clearly there is no correlation between area, small or large, and species richness neither since Whitton's county peer group shows 56.4% and Flixton's county peer group is 26.7%.

We need to work on the calculus for all three factors, namely species richness, area and density to see if there is any reliable connection and trend worthy of note, as it seems there should be.

F; Veteran trees.

As may be seen on the survey form in Method section [page 15] one of the categories for trees that we had to report on was the number of different species that fell within the very demanding criteria for a veteran tree. In the mind's eye of most surveyors, being mostly long standing parish residents, memories are cast back to years gone by, many to their early youth, when some trees seemed to have always been there as features in their experiences in the countryside. People have lived with trees and loved them greatly throughout their lives and it came hard to many when they actually had to decide within very tight parameters whether they should be recorded as true veterans or not.

The simple criterion was that a veteran tree had to have a minimum girth of 4.2 metres, measured at 1.5 metres above ground level (waist height for most). Such factors as height, pollarding or species were not determinants. In some cases 'very old' hawthorns for example, were detailed in the 'comments box' as being veterans as they were very, very old, knarled and twisted, but wrongly recorded as veterans and were eliminated from this status during audits.

They also had to be <u>in the hedgerow</u>, not alongside or near to. As a result, many of the true veterans would almost certainly have been boundary markers for landholdings, manor or parish boundaries and therefore would be of great interest, value and importance for the historical aspects arising there from simply due to their impressive age, if not for any other reason.

The completion of tree data on record forms cannot be guaranteed to any great extent as it appeared during audits that some surveyors, even whole parish records, sometimes failed to record veteran status and tree data and others somewhat sketchily. The tables below detail what veterans were recorded by species and number where known:-

Oak	1142	Lime	10	Pine	3
Ash	140	Beech	6	Cherry	2
Field Maple	49	Crab Apple	4	Cedar	2
Willow	35	Black Poplar	4	Hazel	1
Elm	26	Crack Willow	4	Holly	1
Sycamore	21	Turkey Oak	4	Plane	1
Poplar	16	Alder	3	Walnut	1
Hornbeam	12	Sweet Chestnut	3	Spruce	1
Horse Chestn	ut 11	Yew	3	Pear	1

183 parish surveys recorded veteran trees, 38 of which recorded only one. At the other end of the scale the high counts were found in Bentley 73, Nayland & Wissington 63, Waldringfield 56, Arwarton 47, Charsfield 43, Stoke x Nayland 38, Grundisburgh 36 and Somerleyton 34. The highest number of different veteran species in one parish was in Bentley and Grundisburgh with 9.

134 parish surveys did not record any veteran trees. It is not known if there were nil returns or that simply they were not identified and recorded. The method advised for measurement was

arbitrary but practical but from experience, access to the entire circumference of such a large tree, in a hedgerow, is often difficult and sometimes downright hazardous.

From the above, veteran Oaks romp ahead with a very healthy count. The recent infection by disease to the species is of concern and may have serious consequences on the veteran population if not eradicated or at least controlled. The best example of how a species can be so seriously affected by a predator or disease is the common Elm where we only have 26 recorded in 183 parishes.

The only other notable records for veterans are the 4 Black Poplars and Crab Apples and the Wild Pear which, being so unusual, was confirmed by a reliable observer.

The veteran Oak below technically is not in the hedgerow and would not normally be counted or recorded. It is to be found in the grounds of Thornham Walks where we held so many happy and enjoyable training sessions for so very many volunteers. It is located by the final hedgerow that we used for training and it attracted a great deal of interest being the highlight of the field work before returning to the conference centre for questions and summing up before final dispersal.

There was one interesting anecdote arising from a parish in Waveney DC where the parish survey coordinator was concerned over the absence of veteran records coming forward from the surveyor teams. So much so, that the local village historian was asked if she knew anything about what could possibly have been the cause. Being a young lady in her 90's with a remarkable memory, she recalled that the USAF colonel in charge of the bomber station in the parish during the 39-45 war had been overly concerned regarding his B17 bombers returning from operations with large amounts of foliage caught up in their undercarriages. Consequently he had ordered that all tall trees within a radius of the airfield should be cut down, not only on the flight path, but overall.





G. Commentary on tables at the Appendix

The Project realised very soon after the start of the surveying in 1998 that a massive amount of raw data would be made available and very many useful benefits could be assembled by using the data in a circumspect and objective manner, without expressing opinion of a critical, qualifying or in derogatory terms. It is the first time that such a comprehensive survey of this data has ever been assembled on a Parish-District-County basis and we decided to make as much significant analysis as possible before passing the completed surveys on to the client. The following analyses and many of those above will be outside the terms of reference for the Project but could be of great value to landowners, farmers, Parish Councils, village historians, tree wardens, tree planting groups, local environmental and conservation residents in the community, private nature reserve owners and enthusiasts, to name but a few. We insisted upon the caveat that where data is not in the public domain, so it remained that way, in order to maintain commitments to landowners regarding confidentiality of such data as we obtained.

G; 1 1998-2012 Hedgerow Survey Files. There are 6 sets of tables covering a summary of all the parish overall results for each of the Districts. This includes <u>all</u> parishes regardless of whether they participated in the survey or not. Those which did not join the Project are highlighted in black with white text with no other details listed.

	Parish	Status According to Diary	Notes	Survey on Database	Survey to SBRC	4 species or less	5, 6 or 7 species	8 or more species	Total H/Rows	Date Audited
ES	Aldeburgh	completed		Yes	Yes	53	22	19	94	10.08
ES	Alderton	completed		Yes	Yes	23	18	14	55	10.10
	Aldringham									
ES	cum Thorpe	completed		Yes	Yes	60	50	6	116	12.06
AEC	Badingham	completed		Yes	Yes	45	82	161	288	11.09
	Capel St. Andrew	no survey							0	

For the parish surveys which produced results, the data listed covers from left to right,

The LCA acronym,

Parish name,

Status,

Whether the survey data has yet been downloaded on to the client data base,

Delivery to the client,

The number of hedgerows surveyed in the three categories of richness (4 species and less, 5,6 and 7 species, and 8 and more, 'species rich'),

The total number of hedgerows surveyed

And the date the completed survey was audited and report written back to the parish hedgerow survey coordinator.

Depending upon the size of the District, two or more sheets will be found to accommodate all the parishes. The final line on the last sheet gives a bottom line set of totals which will check against the figures listed in the 'District Analysis' table below. The data is factual evidence, tempting though as it may be, not intended nor of any great significance should the data be used as any form of performance indicator or league table.

DISTRICT ANALYSIS

DISTRICT	No of	4 AND LESS	5,6 & 7	8 AND MORE (species	TOTAL
	Parish	es		rich)	
SCDC	105	2595	4289	5258	12142
WDC	43	581	1301	2181	4063
BDC	58	1385	2619	4411	8415
MSDC	74	1080	2742	6650	10472
St Eds. BC	31	463	902	1552	2917
F/H DC	6	72	87	127	286
TOTAL	317	6176	11940	20179	38295
COUNTY	NORM	<u>[</u>			
		16.1%	31.2%	52.7%	

G; 2 Parish results listed in peer groups.

There are 23 tables listing all the individual parish survey results, under their specific Landscape Character Assessment type peer group in which they are categorised, listed under their District Council area. The numbers of tables again depends upon the number of parishes in the District and the variety of LCA types in the District. The numbers of tables are as follows:

Babergh DC	3 tables
Forest Heath DC	2
Mid Suffolk DC	5
St Eds. BC	3
Suffolk Coastal DC	7
Wavenev DC	3

The data listed from the left is

Parish name

Number of low count hedgerows

Percentage of all hedgerows

Cumulative total

The above display, repeated for mid range and species rich hedgerows, followed on the right Cumulative total of all hedgerows

Cumulative percentages for all three ranges of hedgerows

Parish		%	Total	5-	%	Total		%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
	4-			7			8+				Total	4	5-7	8+
Acton	16	11.5	16	59	42.4	59	64	46.0	64	139	139	11.5	42.4	46.0
Alpheton	11	8.5	27	44	34.1	103	74	57.4	138	129	268	10.1	38.4	51.5
Boxford	14	13.1	41	24	22.4	127	69	64.5	207	107	375	10.9	33.9	55.2

It can be seen that when data is shown in this manner, the cumulative data is recalculated for every line, as each new line of data is added. In this manner, each percentage for every parish can be compared with the cumulative averages as the data builds and the bottom line gives the final status for the entire peer group.

It is in the peer groups mentioned previously, such as Clayland and Sandland where the correlation within each peer group is quite amazing, that true synergy develops whereas in the farmland peer groups there is little or no synergy.

These tables are listed primarily for the use of parish survey coordinators and their teams to see the wider canvass and show their overall results and how their efforts have gone towards building the overall sets of records. Apart from the audit and statistics report sent at the completion of their survey, this is the only feedback most will have had and they are deserving of the full report to illustrate and re-confirm their great effort and achievement in making such a considerable voluntary donation of time and effort to record the heritage and inheritance for future generations of the landscape hedgerows in their parish.

G; 3 Special listings

At the start of the Project we were predicated to record spurge laurel, black poplar and small leaved lime as special entries being regarded as 'key conservation species'. These have been extracted from the survey record forms and listed together with the parish in which they were found (in the hedgerows). As this data is not currently in the public domain, it will be necessary for enquiries for this data to be made direct to the SBRC in order not to breach confidentiality with landowners. The on-going black poplar survey and work done by tree preservation officers may be examples of this need.

At the same time, whilst conducting this analysis, the audits also extracted details of where there were hedgerows with very high counts of different species. The audit and statistics reports back to the coordinators listed numbers of hedgerows with 14 and more to underline to the volunteers and parish councillors, the abundance of richness in their parish.

In the case of this Report, in order to avoid a massive listing, parishes with hedgerows with 20 or more species have been extracted, with their numbers, at the appendix. Waldringfield is notably the highest with 24 species and Trimley St Mary with 23.

G; 4 Rarities and accidentals

The audit and statistics analysis reports started as late as 2007 but most previously completed surveys were reviewed with the few exceptions of where coordinators in the very early days before the turn of the century, had delivered their packs direct to SBRC. It took a few years to recognise the absences from our records and we conducted a trawl with SBRC to ensure we had captured all the missing data. The situation was further exacerbated by the computer crash in 2002 when some of the hard drive could not be recovered. We are now satisfied that we have all the data that was lost or missing on disc and backed up!

During this analysis we very quickly realised that the local squirrels, jays, magpies and blackbirds had been very busy transplanting species into landscape hedgerows from garden and urban sources. Being hardwood species, the surveyors quite rightly recorded them with the result that we have a most intriguing and unexpected list of 121 species across the county with some very unusual and even rare trees and bushes. Of special interest we thought that Fern Leafed Beech, Purging and Sea Buckthorn, Medlar, Black Italian Poplar (hybrid?), Redwood, Scoloar's Tree and Tree of Heaven were the most unusual. Again for reasons of confidentiality, we have only listed the parishes in which these rarities and accidentals were recorded.

G; 5 Hardwood species.

This is a full listing of all the hardwood species recorded in the 38200 landscape hedgerows that were surveyed. The total of 121 is somewhat surprising <u>for hedgerow species</u> and it was decided to leave the record for Christmas Tree for old times sake. At one of the early training days, the question was raised by a tree warden whether we should be recording pines and fir trees as some regarded them officially as soft wood. Our view was that they were important and significant species meeting the definition of 'what is a hedgerow?' and all agreed to include them in the Project. It was thought that if we all acted in the same way, 'accuracy and consistency' (those words again) would be achieved, but if we all were inaccurate, then the matter applied to everyone and the client would see this.

H; Commentary on maps at the appendix.

H; 1 Species Richness. We had to be mindful of the OS copyright issue in regard to the use of maps, so for this report, we are only using two County maps showing the parish outlines to illustrate the points raised in the text and tables in the report. In both cases, a county wide image so very clearly supports the data and the summary of findings.

In the text referring to the landscape Character Assessment types and the chapter on soil type, we have shown statistically the evidence collated in regard to correlation and synergies between peer groups in the 5 Clayland types and the 2/3 Sandland types. We wished to make the point that species richness in the various peer groups was constant but very different when compared with soil types.

This map shows the distribution of parishes with 50% and more of their hedgerows being species rich (having 8 and more species). These are coloured green on the map.

The map also shows the distribution of parishes with 30% and less of their hedgerows being species rich and these are coloured yellow.

It is a remarkable fact that the parishes with 50% and more are nearly all in Clayland types and those with 30% and less are in Sandland types. The colour coding of this map helps to a very great extent in proving the statistic visibly.

We did not wish to complicate the map by indicating farmland soil types, so these parishes have been left white together with the non participating parishes. There are a few wild cards on the map where the match with soil type is not exact but the overall trend is emphatically clear to see.

H; 2 Completed parishes. The statement that 317 parishes completed the survey as stated in the Summary of Findings is totally accurate; the additional District Performance table likewise. It was thought that an image to illustrate the status and distribution of completed parish surveys, viz a viz non participating parishes, on a county wide basis may be helpful in appreciating the size and extent of the Project, helping to show the proportion and spread across the county. It also demonstrates the degree of 'take up' in the east of the county compared with the west. The fully completed parishes are coloured green and the part completed are blue. Non participating parishes are left in white.

The map will also help to give to coordinators and surveyors the broader picture and scope of the Project and how and where their efforts fit in to the overall scheme of things.

I; Species Frequency Charts.

Having established where the landscape hedgerows are located, plotted them on the parish master map and analysed the data into LCA's and the three species richness ratios, [as yet another beneficial spin-off using the raw data], we have extracted the degrees by which the frequency of each species occur.

We have used the same x and y axes in all the charts and the frequencies are in percentages of the total number of hedgerows in the parish in order to compare like with like throughout the full range of 12 frequency charts. The charts are listed in no special order but are as they came off the drawing board.[1] In simplistic terms, the histograms fall fairly neatly into two main parts, firstly between 9 and 15 regular occurring species, followed by the tail of moderately scarce and infrequent species ranging between 20 and 40 species. There are exceptions.

[1] acknowledgements to Paul Wigens, Bredfield)

In order of appearance in the appendix:

<u>Ancient Estate Clayland</u>. A normal curve for the first 13 species and then dropping away to a tail of 21 species.

Ancient Rolling Farmland. A steep curve for the first 15 species, followed by a tail of 22 species.

<u>Estate Sandland</u>. As may be expected, a chaotic curve for the first 7 down to 40%, then a couple at 20% followed by the longest tail in the group with 47 different species.

<u>Ancient Rolling Farmland</u>. The first 15 in a regular curve followed by 30 species at 20% and less.

<u>Plateau Estate Farmland</u>. The first 10 species above 40% ending in a steep cliff followed by 30 species at 20% and less.

Rolling Estate Chalkland. 13 species in a gentle curve down to 20% after which 14 species in a short tail. This may be one of the exceptions but the sample size was small.

Rolling Estate Clayland. 11 species above 20% in a flat curve followed by a very long tail of another 40 species of which 23 species are in ones and twos.

Estate Sandland (West). Hawthorn is hugely dominant with 11 other species above 20% with a tail of 29 more species. There are some differences between the two Estate Sandland frequencies in that there are only 7 species above 20% in the East (the same as in the West but in a different order). The status of the species in the West is much more regular and consistent when compared with that in the East. Although the sample size from the west is quite small, it would appear that the LCA type supports the same range of species in both sub sets but with different frequencies.

Rolling Valley Famland with Furze. This is almost a perfect distribution curve, starting rather low at 63% with 11 species above 20% followed by a perfect tail of another 24 species.

<u>Rolling Valley Farmland</u>. 11 species between 70% and 40% shows a high front loaded curve followed by a short cliff of 1 specie at 25% and then a long tail of 37 species. This frequency really could not be more different from the RVF+F type above.

<u>Undulating Estate Farmland</u>. 14 species between 84% and 20% followed by a rich tail of another 32 species. The first part of the curve shows that this LCA type supports very well its population of the high frequency species.

Rolling Estate Sandland. For a Sandland type, there is an unexpected high number of 14 species above 20% (compared with 7 in Estate Sandland) followed by another 26 species in a regular tail of which 12 are above 5%. There are only 9 parishes in this 'small' LCA comprising SCDC with 7 and WDC with 2 accounting for 1102 hedgerows only, which should be sufficient to form reliable trends.

We do also have some frequency data for Plateau Clayland, Undulating Ancient Farmland, Ancient Plateau Clayland and Ancient Estate Farmland on numeric bases which were calculated early in the Project before the importance was realised of having percentages on the vertical axis. These charts are available on request.

We only recorded hardwood species for this analysis even though many surveyors decided to record softwood and others such as fern, hops, honeysuckle, nettle, bindweed, bracken, nightshades, vines and the bryonies, all of which were eliminated though many were recorded in the 'comments box'.

These charts have already been used extensively in parishes where gap filling, planting and replanting of hedgerows have been made. Most of the long established landowners and farmers know only too well which species are best to use. However 'young' parish councils, tree wardens, environmental and tree planting groups, schools, hobby farmers and residents owning small areas of land wishing to make their own private nature reserves (of which there are legions), etc have asked us which species they should plant as whips, bare rooted and potted plants.

The charts have enabled them to see which species are listed in the above 20% category and are therefore most likely to survive and grow on. Exciting and fun though it may be to plant exotics and rarities, when they die in front of you, mostly due to soil and landscape conditions, it becomes less fun and very disappointing. On large scale hedgerow planting, of which there are many new examples across the entire county, the cost of plant material is not insignificant though often a lot less than the cost of land preparation, staking, defending, mulching and labour. In making a start, it therefore helps to get the species right.

It will also help most, if the planting is kept for the priority issues in the parish, 'confirmed by the master map <u>from the parish viewpoint</u>) to avoid indiscriminate planting of lower environmental value, since it is unlikely that funding would be available for all cases.

In a broader sense, taking the matter of planting to the fulfilment of hedgerow corridor management, having the colour coded master map in one hand (to see where the continuity is interrupted and needs closing), with the listing of the 'above 20%' species relevant to the parish in the other hand, a very useful contribution to the living landscape can be made from these species frequency charts. As before, in so many cases, this is yet another spin-off benefit arising from the records which were not listed per se in the mandate for the Project but nevertheless emerge as major contributors to parish hedgerow welfare for community use, [but not being mandatory in any sense, of course].

J; Hedge Boundary data.

We went to great lengths over the period of 12 years to record where the landscape hedgerows are and what species of hardwood trees and bushes were in them. Other sundry data such as structure and connections on both sides was also recorded. It just so happens that from the start of the Project, we also asked surveyors in particular and coordinators in general to record where there were field and parish boundaries where there was no hedge. Surveyors were asked to raise a survey form for each 'no hedge' boundary and when they handed in their results to coordinators, for the latter to record it on the master map with a large black cross on the line of the hedgerow. We required the grid mid-point of the boundary to be recorded together with the number of the boundary given to it by the coordinator before the working maps and blank forms were handed out to the surveyor teams.

In the Guidance notes for surveyors, should they find an un-numbered hedgerow or boundary missed by the coordinator, surveyors were asked to draw in the line of the hedgerow or boundary on their working map, give it a unique number, complete the survey form and move on to the next hedge, etc.

For several reasons these instructions were not fully carried out in every case but they were in sufficient numbers however to give a very good trend as what to expect if the results were extrapolated to cover the parishes where the process had not been done. As the pie charts illustrate overleaf, 275 parish surveys (87%) recorded their 'no hedge' data, leaving 41 parishes (13%) not doing so, (out of the total 316/317 parishes that conducted the survey).

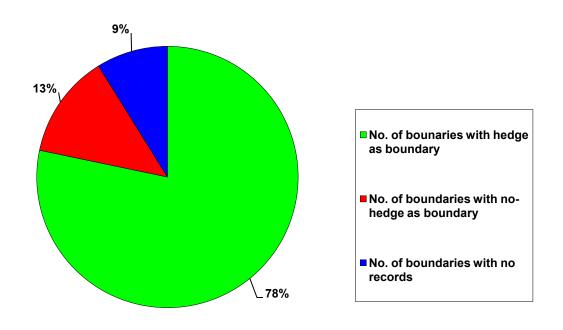
In total, throughout the entire Project 44,984 field boundaries were surveyed of which 5,788 were recorded as having 'no hedge' with a further very rough count of 3,982 boundaries that were not surveyed mainly due to access being denied, difficulty in getting near enough, etc.

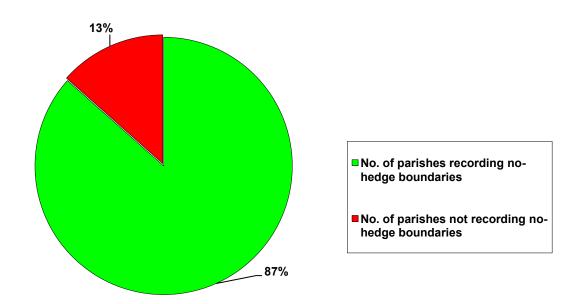
The overall outcome of this analysis is that we have established the location of approx 5,788 plus 3,982 = 9,770 boundaries with no hedgerow some of which may very well interrupt the corridor effect of the hedgerows and their continuity through the parish and onwards into neighbouring parishes (which is the important point).

Corridors on a north-south axis can provide suitable and convenient routes for local migrations of birds mainly (but other animals as well) where shelter and food further south is sought by UK resident birds such as song thrush, blackbirds, robins, finches, etc during the winter months, only to return in the spring back to their home territory.

People who feed garden birds in the winter are sometimes surprised to realise that the robin that reared young in their garden in the summer is not the same robin they feed in the winter. These connective corridors are not the established national and international migration routes much talked about in spring and autumn, but are of a more local and topical nature and nevertheless just as important.

As the countywide network of completed surveys come together so the landscape hedgerow network acts as the motherboard on which so many building blocks rise up for a massively wide and varied range of flora and fauna wildlife. Now that it is known where there are no hedgerows, so it may be possible to plug those gaps to help complete better connectivity.





K; Publicity.

This is the one area in which none of the Project Committee members were well experienced and with the benefit of hind sight this probably affected our early progress. It is now easy to see this and we could have realised that we should have recruited a Committee member qualified in public relations, public affairs and media communication to get the publicity on the right track from an early start.

The first indication that we were not getting the message across (initially to the parishes in SCDC) was that we had very little feedback from the first publication of the Guidance Pack and modus operandi to the Parish council clerks. Mailing hard copies of these simply was not good enough and we suspected that many fell upon deaf ears.

There then followed a tedious, time taking, thorough but very enjoyable program of personal visits by engineered invitation to parish council/public attended meetings, initially in the District but latterly across the county to a vast range of like minded, local groups of environmentally energised residents. (In the region of 1500+). During the first 2 to 3 years these talks, presentations and survey launches numbered approx 10 to 15 per year but as the Project gathered momentum, the number of visits increased to 30+ per year. There are records of 99 such visits to community halls, schools, churches and church halls and other public venues but this is on the conservative side because so many others were to the homes of residents, libraries, District offices, reading rooms, meeting houses and so on.

As the Project started to show signs of real progress, it was soon realised that much was going on behind the scenes by personal recommendation between groups such as the SWT, WI, RSPB, Tree Wardens, gardening clubs, etc who had received a presentation from us and talked to others, virtually doing the job of publicity for us. In this matter, personal recommendation became very important and productive.

The first media opportunity was given by Lesley Dolphin of BBC Suffolk Radio when we met at a hedgerow in Foxburrow Farm in 1998 and talked on air about what we were attempting to do. In 2004 we had an agonising 5 hours in Chilton hanging around on the coldest day in May on record to give a series of interviews with Richard Daniel of the Anglia Regional BBC TV series run by Alan Titchmarsh which on screen lasted for about 2 minutes!

We had displays mounted at the Suffolk Show annually (as guests in the SCC tent) where publicity material was handed out to would-be interested visitors from all parts of the county. We had two colour leaflets which were very well designed, one for general information and the other to give details of benefits arising from the survey, aimed mainly at landowners and farmers to encourage their access approval to the surveyor teams but also to show what value there was on a 'what's in it for me' basis, which often was the first question we had to answer.

The Suffolk Association of Local Councils (SALC) was very helpful in helping with our publicity. They had regular mailings to all parish councils affiliated to SALC and they agreed

to enclose our newsletters which started in September 2000. This arrangement continued for 4-5 years until all the Districts had representatives on the Project Committee, at which stage the Districts dispatched the newsletters to their own parishes. SALC also ran a series of District conferences in 2002 and 2003 for parish council chairs at which we were invited to give a 20-30 minute talk on the Project and from which we collected many interested responses resulting in positive survey action.

In 2003 we decided to take direct action by writing to all parish councils with a very simple questionnaire asking them for their interest in the Project, what they felt they could do to get interest levels raised in their communities, what additional information they needed and if they would like to have a talk presentation delivered by a Project team member. The response was very good indeed with a high count of parishes wanting further information and giving agreement to take the issue further to an agenda item for their next PC meeting. On the flip side, we also received definite rejections of interest which although disappointing, did at least show where there was no further need for asking or time taking chasing for feedback. In overall terms the questionnaire was a useful milestone in the history of the Project. It is interesting also to record that in some cases, where a rejection had been received at the time of asking, years later (often after a change in the membership of a parish council) enquiries from a new council engineered interest and eventual participation in their parish survey. Again with hindsight, with some means of knowing where parish councils experienced large scale changes in councillors (or parish clerk), it might have produced a higher degree of participation later in the course of the Project, after all it lasted for 12 years.

Twice a year from an early start, we conducted 'phone rounds' to ensure every active parish survey coordinator was spoken to deliberately at least twice a year (in addition to their receiving the newsletters). This gave us and them an opportunity to talk about progress, how the surveyor teams were getting on, estimates of hedgerows surveyed and targets for completion. Every conversation was recorded in the Project diary, up dated daily for every conceivable event and piece of information (and indeed the content of almost every email sent and received) and summarised every month for each District.

The diary became the 'Hansard' for the Project, (edited by the Project Admin manager) from which condensed highlights were reproduced in the newsletters for all to see. This acted as a great fillip for the relevant coordinator and a bit of a wake-up call for neighbouring parish surveys which may have been lagging behind or on the point of stalling.

On three occasions we had additional opportunities to spread the word on BBC Suffolk Radio, firstly when Karen Kenny wanted to run the presentation and secondly we had two windows with Mark Murphy, but unfortunately these phone interviews were held at 6.30am when it is suspected not a lot of volunteers would have been all that motivated in listening.

One of our more productive sessions was at Trinity Park when we were asked to have a 'market stall' in June 2007 at the WI Eastern Federation AGM and to give a talk to the 1000 members present. As a result we had 45 enquiries during a one hour break and over 30 parish surveys got underway. The talk went very well (for only 20 minutes) which was an interesting

challenge in accuracy, brevity and clarity, moreover being followed by Ann Widdecombe, insisted minds were kept focussed.

Similar market stalls were exhibited at several LSP annual general meetings held at Trinity Park and at Snape and on one occasion at the Suffolk Biodiversity Partnership conference held at Wantisden, all of which produced a high level of interest and several enquiries leading on to parish surveys starting up.

Tree warden conferences were held throughout the 12 year period and those held by BDC, WDC, SCDC and St. Eds. BC led on to members volunteering to be parish survey coordinators. This route was an ideal opportunity since many were members of the parish council and all had direct links with landowners and farmers which helped in obtaining agreement for access to the survey teams. This overcame any problems with species identification as most acted as surveyors also and being local residents were known well by the volunteers and vice versa.

In 2010, we were elected as Green Community Hero by the Suffolk Greenest County project which was offered by the Project committee to be shared by the 2400 volunteers as a means of celebration of the Project successes. This prodigious award was well received and provided an added injection of stimulant for lagging parish surveys and a final boost for new entrant parishes to join the project with just enough time remaining to complete their survey before the Project closed down at the end of 2011.

The Project Committee was not overly enthused by the thought of running a face book, Twitter account or U Tube but in 2005 we decided to open a website as a link from the SCDC web pages. We were helped by the web officer to accommodate our entry and it was useful to be able to refer enquirers to the website, not only so that they could read up about the hedgerow project but also navigate a route in to the wider issues emanating from the Greenprint Forum and the District Council.

In summary, it can be seen that our efforts on publicity were a bit sketchy and amateurish and in many cases somewhat slow in coming forward. Opportunities were undoubtedly missed which a Professional would have seen or anticipated and thus our publicity was not a match to the inspiration and leadership that other aspects of the Project provided.

A form of 'reflected' publicity could have materialised from post graduates and others working on theses for PhD and other qualifications arising from enquiries we received from them for technical advice and data sets for:

Harper Adams University College on the county hedgerow status in January 2012

Malvern Hills AONB for the decline of trees in hedgerows in September 2011

Norfolk Wildlife Trust Education Manager on our Guidance, protocol and MO in March 2010

KCL on Dedham AONB Ecological Connectivity in November 2008

Durham CC Landscape Officer in Jan 2000 on the county project.

Sundry requests for studies by post graduates on the Stour valley, the Sandlings, Hedgelink, etc.

After their initial enquiry and some interviews we received no further advice or acknowledgement from them and could only assume that their mentors had advised the candidates against further work due to the size, complexity and extensive research necessary to build a decent case for their thesis. If there had been any reliable feedback, we would have followed up and added value to our publicity.

L. Appendices

1998 - 2012 HEDGEROW SURVEY FILES BABERGH DISTRICT COUNCIL

Last updated 12/02/12

	Parish	Status According to Diary	Notes	Survey on Database	Survey to SBRC	4 species or less	5, 6 or 7 species	8 or more species	Total H/Rows	Date Audited
ARF	Acton	Complete		No	Yes	16	59	64	139	02.05
APC	Aldham	Complete		No	Yes	3	11	23	37	10.11
ARF	Alpheton	Complete		No	Yes	11	44	74	129	09.02
AEF	Arwarton	Complete		No	Yes	66	55	15	136	12.11
	Assington	No survey								
AEF	Belstead	Complete		No	Yes	22	45	14	81	10.06
AEF	Bentley	Complete		No	Yes	126	138	155	419	12.11
	Bildeston	No survey								
ARF	Boxford	Complete		No	Yes	14	24	69	107	02.03
	Boxted	No survey								
RVF	Brantham	complete		No	YES	9	8	7	24	12.11
	Brent Eleigh	No survey								
ARF	Brettenham	Complete		No	Yes	13	55	71	139	02.08
	Bures St. Mary	No survey								
APC	Burstall	Complete		No	Yes	16	35	80	131	05.11
AEF	Capel St. Mary	Complete		No	Yes	38	83	55	176	11.09
AEC	Chattisham	Complete		No	Yes	19	38	63	120	05.06
AEF	Chelmondiston	Complete		No	Yes	15	45	47	107	01.09
RVF	Chelsworth	Complete		No	Yes	14	31	33	78	12.11
ARF	Chilton	Complete		No	Yes	15	31	15	61	02.08
	Cockfield	No survey								

	Parish	Status According to Diary	Notes	Survey on Database	Survey to SBRC	4 species or less	5, 6 or 7 species	8 or more species	Total H/Rows	Date Audited
AEC	Copdock [with Washbrook]	Complete		No	Yes	30	120	226	376	04.03
PF	East Bergholt	Complete		No	Yes	14	45	79	138	03.11
ARF	Edwardstone	Complete		No	Yes	0	8	70	78	12.11
APC	Elmsett	Complete		No	Yes	14	56	164	234	03.08
	Freston	No survey								
	Glemsford	No survey								
ARF	Great Cornard	Complete		No	Yes	8	22	56	86	11.08
	Great Waldingfield	No survey								
ARF	Groton	Complete		No	Yes	4	11	71	86	07.11
RVF	Hadleigh	Complete		No	Yes	56	107	148	311	11.10
AEF	Harkstead	Complete		No	Yes	36	48	40	124	07.10
UAF	Hartest	Complete		No	Yes	11	32	169	212	08.11
PF	Higham	Complete		No	Yes	21	13	7	41	12.11
APC	Hintlesham	Complete		No	Yes	25	56	140	221	11.09
	Hitcham	No survey								
AEF	Holbrook	Complete		No	Yes	29	18	10	57	11.09
PF	Holton St. Mary	Complete		No	Yes	17	26	40	83	04.03
ARF	Kersey	Complete		No	Yes	62	125	81	268	06.06
RVF	Kettlebaston.	Complete		No	Yes	15	52	81	148	12.10
ARF	Lavenham	Complete		No	Yes	11	39	92	142	12.10
UAF	Lawshall	Complete		No	Yes	6	36	146	188	10.11
ARF	Layham	Complete		No	Yes	39	96	237	372	05.10
ARF	Leavenheath	Complete		No	Yes	7	17	65	89	07.11
ARF	Lindsey	Complete		No	Yes	13	54	51	118	07.10
	Little Cornard	No survey								
	Little Waldingfield	No survey								
ARF	Long Melford	Complete		No	Yes	25	81	158	264	10.03
ARF	Milden	Complete		No	Yes	3	7	74	84	11.11
ARF	Monks Eleigh	Complete		No	Yes	36	68	143	247	09.10
ARF	Nayland with Wissington	Complete		No	Yes	16	44	107	167	03.11

	Parish	Status According to Diary	Notes	Survey on Database	Survey to SBRC	4 species or less	5, 6 or 7 species	8 or more species	Total H/Rows	Date Audited
	Nedging with Naughton	No survey								
	Newton	No survey								
REF	Pinewood	Complete		No	Yes	7	24	33	64	10.03
ARF	Polstead	Complete		No	Yes	58	85	127	270	04.11
ARF	Preston St Mary	Complete		No	Yes	9	38	73	120	10.09
AEC	Raydon	Complete		No	Yes	10	22	65	97	11.10
	Semer	No survey								
ARF	Shelley	Complete		No	Yes	11	19	51	81	09.11
ARF	Shimpling	Complete		No	Yes	16	61	213	290	01.03
AEF	Shotley	Complete		No	Yes	49	39	12	100	12.11
UAF	Somerton	Complete		No	Yes	13	21	16	50	12.10
PF	Sproughton	Complete		No	Yes	92	114	148	354	05.06
UAF	Stanstead	Complete		No	Yes	1	3	12	16	11.11
RVF	Stoke By Nayland	Complete		No	Yes	12	30	102	144	11.11
RVF	Stratford St. Mary	Complete		No	Yes	3	7	10	20	01.12
PEF	Stutton	Complete		No	Yes	69	97	43	209	11.12
RVF	Sudbury	Complete		No	Yes	12	25	21	58	07.11
AEF	Tattingstone	Complete		No	Yes	60	77	79	216	10.04
	Thorpe Morieux	No survey								
	Wattisham	No survey								
AEC	Wenham Magna	Complete		No	Yes	21	12	29	62	07.11
AEC	Wenham Parva	Complete		No	Yes	9	13	31	53	07.11
APC	Whatfield	Complete		No	Yes	9	16	65	90	11.11
AEF	Wherstead	Complete		No	Yes	29	33	41	103	05.07
	Woolverstone	No survey								
					Totals	1385	2619	4411	8415	

1998 - 2012 HEDGEROW SURVEY FILES FOREST HEATH DISTRICT COUNCIL

	Parish	Status According to Diary	Notes	Survey on Database	Survey to SBRC	4 species or less	5, 6 or 7 species	8 or more species	Total H/Rows	Date Audited
	Barton Mills	No survey								
	Beck Row Kenny Hill &	-								
	Holywell Row	No survey								
ES	Brandon	Complete		No	Yes	7	16	5	28	05.01
ES	Cavenham	Complete		No	Yes	14	12	23	49	12.11
UEF	Dalham	Complete		No	Yes	3	8	29	40	11.11
WCS	Dalham	Complete		No	Ye	6	21	17	44	11.11
	Elveden	No survey								
	Eriswell	No survey								
	Exning	No survey								
	Freckenham	No survey								
	Gazeley	No survey								
	Herringswell	No survey								
	Higham	No survey								
	Icklingham	No survey								
	Kentford	No survey								
	Lakenheath	No survey								
SC	Mildenhall	Complete		No	Yes	18	9	2	29	11.11
PF	Mildenhall	Complete		No	Yes	11	0	2	13	11.11
REC	Moulton	Complete		No	Yes	9	17	28	54	05.11

FOREST HEATH CONTINUED

	Parish	Status According to Diary	Notes	Survey on Database	Survey to SBRC	4 species or less	5, 6 or 7 species	8 or more species	Total H/Rows	Date Audited
PEF	Moulton	Complete		No	Yes	0	3	9	12	05.11
	Newmarket									
ES	Red Lodge	Complete		No	Yes	4	1	12	17	11.10
	Santon Downham	No survey								
	Tuddenham St. Mary	No survey								
	Wangford	No survey								
	Worlington	No survey								
					Totals	72	87	127	286	

1998 - 2012 HEDGEROW SURVEY FILES MID SUFFOLK DISTRICT COUNCIL

LCA	Parish	Status According to Diary	Notes	Survey on Database	Survey to SBRC	4 species or less	5, 6 or 7 species	8 or more species	Total H/Rows	Date Audited
ARF	Akenham	Complete		No	Yes	4	7	7	18	01.11
AEC	Ashbocking	Complete		No	Yes	10	47	113	170	01.11
	Ashfield cum Thorpe	no survey								
	Aspall	No survey								
	Athelington	No survey								
PC	Bacton	Complete		No	Yes	10	49	152	211	12.08
	Badley	No survey								
PC	Badwell Ash	Complete		No	Yes	14	20	68	102	08.11
	Barham	No survey								
APC	Barking	Complete		No	Yes	7	32	184	223	12.11
	Battisford	No survey								
RVF	Baylham	Complete		No	Yes	8	33	78	119	06.11
PC	Bedfield	Complete		No	Yes	8	9	8	25	08.10
	Bedingfield	No survey								
ARF	Beyton	Complete		No	Yes	22	38	57	117	04.05
APC	Botesdale	Complete		No	Yes	1	14	79	94	12.11
	Braiseworth	No survey								
RVC	Bramford	Complete		No	Yes	32	36	74	142	12.07
RVF&F	Brome & Oakley	Complete		No	Yes	30	21	33	84	12.07
PC	Brundish	Complete		No	Yes	7	38	79	124	12.04
APC	Burgate	Complete		No	Yes	0	18	120	138	02.10
ARF	Buxhall	complete		No	No	25	41	72	138	02.09

LCA	Parish	Status According to Diary	Notes	Survey on Database	Survey to SBRC	4 species or less	5, 6 or 7 species	8 or more species	Total H/Rows	Date Audited
REF	Claydon	Complete		No	Yes	5	21	42	68	01.11
AEC	Coddenham	Complete		No	Yes	20	50	130	200	04.04
APC	Combs	Complete		No	Yes	4	12	54	70	06.11
PC	Cotton	Complete		No	Yes	12	41	132	185	06.09
AEC	Creeting St. Mary	Complete		No	Yes	4	34	38	76	07.11
	Creeting St. Peter	No survey								
	Crowfield	No survey								
	Debenham	No survey								
PC	Denham	Complete		No	Yes	22	56	53	131	01.12
ARF	Drinkstone	Complete		No	Yes	6	11	59	76	06.11
	Earl Stonham	No survey								
APC	Elmswell	Complete		No	Yes	8	8	28	44	01.12
PC	Eye	Complete		No	Yes	17	41	94	152	11.11
ARF	Felsham	Complete		No	Yes	24	52	272	348	10.10
	Finningham	No survey								
RVF	Flowton	Complete		No	Yes	3	16	26	45	03.10
	Framsden	No survey								
PC	Fressingfield	Complete		No	Yes	8	16	224	248	10.11
ARF	Gedding	Complete		No	Yes	0	3	43	46	10.10
	Gipping	No survey								
PC	Gislingham	Complete		No	Yes	16	53	141	210	12.11
AEC	Gosbeck	Complete		No	Yes	9	15	138	162	11.11
APC	Great Ashfield Tetrad	Complete		No	Yes	13	26	40	79	02.03
	Great Blakenham	No survey								
	Great Bricett	No survey								
	Great Finborough	No survey								
	Harleston	No survey								
APC	Haughley	Complete		No	Yes	26	86	157	269	10.07
	Helmingham	No survey								
AEC	Hemingstone	Complete		No	Yes	1	9	10	20	01.12

		Status		Survey	Survey		5, 6 or	8 or		
		According		on	to	4 species	7	more	Total	Date
LCA	Parish	to Diary	Notes	Database	SBRC	or less	species	species	H/Rows	Audited
	Henley	No survey								
ARF	Hessett	Complete		No	Yes	29	73	79	181	01.12
	Hinderclay	No survey								
	Horham	No survey								
REC	Hoxne	Complete		No	Yes	12	31	129	172	03.11
	Hunston	No survey								
	Kenton	No survey								
	Langham	No survey								
AEC	Laxfield	Complete		No	Yes	19	51	195	265	09.08
RVF	Little Blakenham	No survey		No	Yes	24	18	17	59	01.12
	Little Finborough	No survey								
APC	Mellis	Complete		No	Yes	3	18	101	122	11.10
PC	Mendham & Withersdale St	Complete		No	Yes	25	56	120	201	06.09
PC	Mendlesham	Complete		No	Yes	18	163	248	429	02.08
	Metfield	No survey								
PC	Mickfield	Complete		No	Yes	6	6	45	57	09.11
REC	Monk Soham (Eastern part of									
	Tetrad)	Complete		No	Yes	11	22	35	68	10.08
REC	Monk Soham (Western part of									
	Tetrad)	Complete		No	Yes	-	-	-	-	10.08
APC	Needham Market	Complete		No	Yes	1	10	23	34	10.11
APC	Nettlestead	Complete		No	Yes	6	11	103	120	08.10
	Norton	No survey								
PC	Occold	Complete		No	Yes	19	47	59	125	11.07
RVF	Offton	Complete		No	Yes	20	44	53	147	06.08
	Old Newton with Dagworth	No survey								
	Onehouse	No survey								
	Palgrave	No survey								
AEC	Pettaugh	Complete		No	Yes	16	35	19	70	01.12
ARF	Rattlesden	Complete		No	Yes	47	127	129	303	01.11

LCA	Parish	Status According to Diary	Notes	Survey on Database	Survey to SBRC	4 species or less	5, 6 or 7 species	8 or more species	Total H/Rows	Date Audited
	Redgrave	No survey								
PC	Redlingfield	Complete		No	Yes	2	13	28	43	01.12
APC	Rickinghall Inferior	0		NI.		44	0.7	0.7	4.45	44.40
APC	Rickinghall Superior	Complete Complete		No No	Yes Yes	11 9	37 22	97 64	145 95	11.10
APC		Complete		No	Yes	41	96	41	178	09.10
APC	Ringshall	•		INO	162	41	90	41	170	09.10
	Rishangles Shelland	No survey								
APC		No survey		No	Yes	2	10	110	123	12.07
	Somersham	Complete		_	Yes	3				
PC PC	Southolt	Complete		No No	Yes	4	12 77	35 96	51 219	01.11
PC	Stoke Ash	Complete		NO	Yes	46	11	96	219	08.10
D.C.	Stonham Aspal	No survey		NI.			0.4	50	77	05.44
PC	Stonham Parva	Complete		No	Yes	4	21	52	77	05.11
	Stowlangtoft	No survey								
	Stowmarket	No survey								
	Stowupland	No survey								
	Stradbroke	No survey								
	Stuston	No survey								
PC	Syleham	Complete		No	Yes	26	47	206	279	01.12
	Tannington	No survey								
PC	Thorndon	Complete		No	Yes	3	21	47	71	10.10
	Thornham Magna	No survey								
APC	Thornham Parva	Complete		No	Yes	2	7	81	90	12.11
	Thrandeston	No survey								
ARF	Thurston	Complete		No	Yes	79	70	147	296	09.05
	Thwaite	No survey								
ARF	Tostock	Complete		No	Yes	8	24	30	62	01.11
APC	Walsham le Willows	Complete		No	Yes	5	66	169	240	11.08
	Wattisfield	No survey								
PC	Westhorpe	Complete		No	Yes	5	15	98	118	10.10
APC	Wetherden	Complete		No	Yes	14	36	133	183	10.10
	Wetheringsett cum Brockford	No survey								

		Status According		Survey	Survey to	4 species	5, 6 or	8 or more	Total	Date
LCA	Parish	to Diary	Notes	Database	SBRC	or less	species	species	H/Rows	Audited
PC	Weybread	Complete		No	Yes	30	55	126	211	10.11
REF	Whitton	Complete		No	Yes	13	17	17	47	01.11
PC	Wickham Skeith	Complete		No	Yes	2	12	43	57	01.07
	Wilby	No survey								
APC	Willisham	Complete		No	Yes	4	31	71	106	01.07
PC	Wingfield	Complete		No	Yes	38	147	186	371	12.10
	Winston	No survey								
RVF&F	Woolpit	Complete		No	Yes	28	45	33	106	09.11
PC	Worlingworth	Complete		No	Yes	24	55	193	272	11.06
APC	Wortham	Complete		No	Yes	17	42	174	233	10.11
PC	Wyverstone	Complete		No	Yes	11	34	82	127	11.09
APC	Yaxley	Complete		No	Yes	19	35	131	185	11.09
					Totals	1080	2742	6650	10472	

	T		I		T				
	Status According		Survey on	Survey to	4 species	5, 6 or 7	8 or more	Total	Date
Parish	to Diary	Notes	Database	SBRC	or less	species	species	H/Rows	Audited
Aldeburgh	completed		Yes	Yes	53	22	19	94	10.08
Alderton	completed		Yes	Yes	23	18	14	55	10.10
Aldringham cum Thorpe	completed		Yes	Yes	60	50	6	116	12.06
Badingham	completed		Yes	Yes	45	82	161	288	11.09
Bawdsey	completed		Yes	Yes	9	6	6	21	12.10
Benhall	completed		Yes	Yes	15	63	79	157	12.06
Blaxhall	completed		Yes	Yes	38	85	70	193	03.09
Blythburgh	completed		Yes	Yes	12	19	39	70	10.09
Boulge	completed		Yes	Yes	16	12	26	54	10.08
Boyton	completed		Yes	Yes	27	32	7	66	12.07
Bramfield	completed		Yes	Yes	18	55	109	182	09.10
Brandeston	completed		Yes	Yes	94	151	55	300	09.11
Bredfield	completed		Yes	Yes	8	102	207	317	12.03
Brightwell	completed		Yes	Yes	41	53	16	110	06.10
Bromeswell	completed		Yes	Yes	42	38	20	100	06.09
Bruisyard	completed		Yes	Yes	8	23	6	37	10.06
Bucklesham	completed		Yes	Yes	75	57	21	153	10.09
Burgh	completed		Yes	Yes	23	36	19	78	10.04
Butley	completed		Yes	Yes	12	27	19	58	12.10
Campsea Ashe	completed		Yes	Yes	14	26	41	81	10.10
Capel St. Andrew	no survey							0	
Charsfield	completed		Yes	Yes	35	95	116	246	02.11
Chediston	no survey							0	
Chillesford	completed		Yes	Yes	14	26	24	64	12.10
Clopton	completed		Yes	Yes	6	10	102	118	01.12
Cookley	no survey						_	0	_
Cransford	completed		Yes	Yes	33	101	95	229	01.11
Cratfield	completed		Yes	Yes	8	29	45	100	10.11
Crettingham	no survey							0	
Culpho	completed		Yes	Yes	5	13	10	28	12.09

LCAParishto DiaryNotesDatabaseSBRCor lessspeciessAECDallinghoocompletedYesYes1072AECDarshamcompletedYesYes825AECDebachcompletedYesYes1612Denningtonno surveyresYes4146PCEarl SohamcompletedYesYes725RECEastoncompletedYesYes938PEFEykecompletedYesYes4331PEFFalkenhamcompletedYesYes1042RESFarnhamcompletedYesYes1624RESFelixstowecompletedYesYes5849ESFoxhall (see Brightwell)completedYesYesSeeBrightwellPCFramlinghamcompletedYesYes38133ESFristoncompletedYesYesSee Orford	8 or more species	Total H/Rows	Date Audited
AEC Darsham completed Yes Yes 8 25 AEC Debach completed Yes Yes 16 12 Dennington no survey </th <th>117</th> <th>199</th> <th>02.05</th>	117	199	02.05
AEC Debach completed Yes Yes 16 12 Dennington no survey	42	75	02.03
Dennington no survey Yes Yes 41 46 PC Earl Soham completed Yes 7 25 REC Easton completed Yes Yes 9 38 PEF Eyke completed Yes Yes 43 31 PEF Falkenham completed Yes Yes 10 42 RES Farnham completed Yes Yes 16 24 RES Felixstowe completed Yes Yes 58 49 ES Foxhall (see Brightwell) completed Yes Yes See Brightwell PC Framlingham completed Yes Yes 38 133 ES Friston completed Yes Yes 42 62	26	54	10.08
ES Dunwich completed Yes Yes 41 46 PC Earl Soham completed Yes 7 25 REC Easton completed Yes Yes 9 38 PEF Eyke completed Yes Yes 43 31 PEF Falkenham completed Yes Yes 10 42 RES Farnham completed Yes Yes 16 24 RES Felixstowe completed Yes Yes 58 49 ES Foxhall (see Brightwell) completed Yes Yes See Brightwell PC Framlingham completed Yes Yes 38 133 ES Friston completed Yes Yes 42 62	20	0	10.00
PC Earl Soham completed Yes 7 25 REC Easton completed Yes Yes 9 38 PEF Eyke completed Yes Yes 43 31 PEF Falkenham completed Yes Yes 10 42 RES Farnham completed Yes Yes 16 24 RES Felixstowe completed Yes Yes 58 49 ES Foxhall (see Brightwell) completed Yes Yes See Brightwell PC Framlingham completed Yes Yes 42 62	43	130	10.08
REC Easton completed Yes Yes 9 38 PEF Eyke completed Yes Yes 43 31 PEF Falkenham completed Yes Yes 10 42 RES Farnham completed Yes Yes 16 24 RES Felixstowe completed Yes Yes 58 49 ES Foxhall (see Brightwell) completed Yes Yes See Brightwell PC Framlingham completed Yes Yes 38 133 ES Friston completed Yes Yes 42 62	87	119	10.08
PEF Eyke completed Yes Yes 43 31 PEF Falkenham completed Yes Yes 10 42 RES Farnham completed Yes Yes 16 24 RES Felixstowe completed Yes Yes 58 49 ES Foxhall (see Brightwell) completed Yes Yes See Brightwell PC Framlingham completed Yes Yes 38 133 ES Friston completed Yes Yes 42 62	58	105	02.09
PEFFalkenhamcompletedYesYes1042RESFarnhamcompletedYesYes1624RESFelixstowecompletedYesYes5849ESFoxhall (see Brightwell)completedYesYesSeeBrightwellPCFramlinghamcompletedYesYes38133ESFristoncompletedYesYes4262	6	80	12.01
RES Farnham completed Yes Yes 16 24 RES Felixstowe completed Yes Yes 58 49 ES Foxhall (see Brightwell) completed Yes Yes See Brightwell PC Framlingham completed Yes Yes 38 133 ES Friston completed Yes Yes 42 62	34	86	07.02
RESFelixstowecompletedYesYes5849ESFoxhall (see Brightwell)completedYesYesSeeBrightwellPCFramlinghamcompletedYesYes38133ESFristoncompletedYesYes4262	48	88	06.11
ES Foxhall (see Brightwell) completed Yes Yes See Brightwell PC Framlingham completed Yes Yes 38 133 ES Friston completed Yes Yes 42 62	14	121	07.02
PCFramlinghamcompletedYesYes38133ESFristoncompletedYesYes4262	17	0	07.02
ES Friston completed Yes Yes 42 62	133	304	05.11
	53	157	08.08
Completed Tes Tes Oct Offord	33	0	00.00
ARF Great Bealings completed Yes Yes 35 47	18	100	12.03
AEC Great Glemham completed Yes Yes 12 59	220	291	06.10
ARF Grundisburgh completed Yes Yes 21 49	63	133	06.11
AEC Hacheston completed Yes Yes 14 25	55	94	12.11
ARF Hasketon completed Yes Yes 24 42	59	125	10.10
ES Hemley completed Yes Yes 19 29	5	53	04.06
AEC Heveningham completed Yes Yes 6 13	47	66	12.11
ES Hollesley completed Yes Yes 26 33	21	80	10.05
Hoo no survey		0	10.00
PC Huntingfield completed Yes Yes 3 4	24	31	02.12
ES Iken completed Yes Yes 9 17	40	66	09.10
AEC Kelsale - cum- Carlton completed Yes Yes 14 60	139	213	04.11
ES Kesgrave completed Yes Yes 5 13	10	28	10.00
PC Kettleburgh completed Yes Yes 44 77	77	198	09.10
PEF Kirton completed Yes Yes 63 98	63	224	09.02
AEC Knodishall completed Yes Yes 52 58	46	156	04.07
ES Leiston completed Yes Yes 89 74	100	263	07.06

LCA	Parish	Status According to Diary	Notes	Survey on Database	Survey to SBRC	4 species or less	5, 6 or 7 species	8 or more species	Total H/Rows	Date Audited
AEC	Letheringham (see Easton)	completed		Yes	Yes	9	31	59	99	11.10
PEF	Levington	completed		Yes	Yes	36	33	6	75	02.07
	Linstead Magna	no survey							0	
	Linstead Parva	no survey							0	
ARF	Little Bealings	completed		Yes	Yes	18	26	19	63	10.02
AEC	Little Glemham	completed		Yes	Yes	10	24	27	61	05.10
AEC	Marlesford	completed		Yes	Yes	9	17	58	84	07.05
ES	Martlesham	completed		Yes	Yes	35	39	23	97	08.00
ARF	Melton	completed		Yes	Yes	33	47	57	137	02.06
AEC	Middleton	completed		Yes	Yes	54	114	100	268	12.08
	Monewden	no survey							0	
PEF	Nacton	completed		Yes	Yes	22	19	0	41	12.01
ES	Newbourne	completed		Yes	Yes	21	21	19	61	10.07
ES	Orford	completed		Yes	Yes	27	14	7	48	07.08
AEC	Otley	completed		Yes	Yes	29	139	121	289	10.06
AEC	Parham	completed		Yes	Yes	59	131	59	249	08.98
AEC	Peasenhall & Sibton	completed		Yes	Yes	1	8	18	27	05.11
ARF	Pettistree	completed		Yes	Yes	18	29	56	103	04.05
ARF	Playford	completed		Yes	Yes	34	44	22	100	11.03
ES	Purdis Farm (see Brightwell)	completed		Yes	Yes	See	Brightwell		0	
ES	Ramsholt	completed		Yes	Yes	68	2	4	74	07.08
	Rendham	no survey							0	
PEF	Rendlesham	completed		Yes	Yes	18	11	4	33	08.09
ES	Rushmere St Andrew	completed		Yes	Yes	12	24	10	46	12.03
AEC	Saxmundham	completed		Yes	Yes	5	9	16	30	09.11
PC	Saxtead	completed		Yes	Yes	4	10	72	88	09.11
ES	Shottisham	completed		Yes	Yes	4	6	6	16	04.11
AEC	Sibton (see Peasenhall)	completed		Yes	Yes	0	18	55	73	05.11
ES	Snape	completed		Yes	Yes	80	60	32	172	11.04
RES	Sternfield (see Benhall)	completed		Yes	Yes	See Benhall			0	
AEC	Stratford St Andrew	completed				12	21	41	74	06.11

		Status		Survey	Survey			8 or		
		According		on	to	4 species	5, 6 or 7	more	Total	Date
LCA	Parish	to Diary	Notes	Database	SBRC	or less	species	species	H/Rows	Audited
PEF	Stratton hall (see Levington)	completed		Yes	Yes				0	
ES	Sudbourne	completed		Yes	Yes	17	20	13	50	03.10
ES	Sutton	completed				23	26	41	90	07.11
AEC	Sweffling	completed		Yes	Yes	30	92	106	228	01.08
ARF	Swilland	completed		Yes	Yes	7	26	35	68	11.08
AEC	Theberton and Eastbridge	completed		Yes		13	61	234	308	02.11
AEC	Thorington (see Bramfield)	completed		Yes	Yes	29	63	87	179	08.10
PEF	Trimley St Martin	completed		Yes	Yes	31	67	44	142	10.05
RES	Trimley St Mary	completed		Yes	Yes	22	44	47	113	06.10
ARF	Tuddenham St Martin	completed		Yes	Yes	18	39	53	110	02.08
PEF	Tunstall	completed		Yes	Yes	0	2	5	7	01.12
AEC	Ubbeston	completed		Yes	Yes	9	35	147	191	12.06
ARF	Ufford	completed		Yes	Yes	11	32	46	89	08.08
ES	Walberswick	completed		Yes	Yes	22	17	8	47	01.10
ES	Waldringfield	completed		Yes	Yes	33	51	64	148	08.11
	Walpole (see Cookley)	no survey							0	
	Wantisden	no survey							0	
ES	Wenhaston	completed		Yes	Yes	51	90	203	344	05.08
ARF	Westerfield	completed		Yes	Yes	22	20	13	55	07.09
ES	Westleton	completed		Yes	Yes	66	32	53	151	10.10
AEC	Wickham Market	completed		Yes	Yes	72	101	91	264	04.07
ARF	Witnesham	completed		Yes	Yes	15	90	195	300	11.09
ARF	Woodbridge	completed		Yes	Yes	33	44	55	132	07.09
AEC	Yoxford	completed		Yes	Yes	21	44	128	193	12.10
	•	•			Totals	2595	4289	5258	12142	

1998 - 2012 HEDGEROW SURVEY FILES ST. EDMUNDSBURY BOROUGH COUNCIL

Parish	Status According to Diary	Notes	Survey on Database	Survey to SBRC	4 species or less	5, 6 or 7 species	8 or more species	Total H/Rows	Date Audited
Ampton	No survey					•	•		
Bardwell	Complete		No	Yes	2	5	14	21	01.12
Barnardiston	No survey								
Barnham	No survey								
Barningham	Complete		No	Yes	12	17	13	42	08.10
Barrow	No survey								
Bradfield Combust with	-								
Stanningfield	No survey								
Bradfield St. Clare	No survey								
Bradfield St George	No survey								
Brockley	No survey								
Bury St Edmunds	Complete		No	Yes	6	10	25	41	09.11
Cavendish	No survey								
Chedburgh	Complete		No	Yes	5	17	43	65	10.06
Chevington	Complete		No	Yes	5	7	25	37	03.11
Clare	No survey								
Coney Weston	Complete		No	Yes	4	13	31	48	09.10
Cowlinge	Complete		No	Yes	0	4	38	42	09.08
Culford	Complete		No	Yes	19	11	13	43	11.11
Denham	No survey								
Denston	No survey								
Depden	Complete		No	Yes	6	44	59	109	03.07
Euston	No survey								
Fakenham Magna	Complete		No	Yes	17	24	20	61	07.10

LCA	Parish	Status According to Diary	Notes	Survey on Database	Survey to SBRC	4 species or less	5, 6 or 7 species	8 or more species	Total H/Rows	Date Audited
	Flempton	No survey			02.110	0.1000	орослос	Ороспос		7 10.0.100 0.
PEF	Fornham All Saints	Complete		No	Yes	19	24	13	56	11.10
	Fornham St. Genevieve	No survey								
PEF	Fornham St. Martin	Complete		No	Yes	26	18	5	49	01.09
	Great Barton	No survey								
UEF	Great Bradley	Complete		No	Yes	6	20	133	159	10.11
	Great Livermere	No survey								
UEF	Great Thurlow	Complete		No	Yes	10	30	64	104	07.11
	Great Welnetham	No survey								
	Great Wratting	No survey								
	Hargrave	No survey								
UEF	Haverhill	Complete		No	Yes	6	14	25	45	11.09
	Hawkedon	No survey								
	Hawstead	No survey								
	Hengrave	No survey								
APC	Hepworth	Complete		No	Yes	37	65	44	146	12.11
	Honington & Sapiston									
	[2]	No survey								
PEF	Hopton	Complete		No	Yes	40	72	53	165	01.09
UEF	Horringer	Complete		No	Yes	18	41	66	125	12.10
UAF	Hundon	Complete		No	Yes	8	23	36	67	09.08
	Ickworth	No survey								
ES (W)	Ingham	Complete		No	Yes	41	21	9	71	11.05
PEF	Ixworth	Complete		No	Yes	6	20	38	64	12.09
	Ixworth Thorpe	No survey								
UEF	Kedington	Complete		No	Yes	7	6	15	28	03.11
PEF	Knettishall	Complete		No	Yes	5	10	4	19	11.09

LCA	Parish	Status According to Diary	Notes	Survey on Database	Survey to SBRC	4 species or less	5, 6 or 7 species	8 or more species	Total H/Rows	Date Audited
2071	Lackford	No survey	110100	Dutubuco	OBINO	01 1000	ороско	Оросіос	11/11/01/0	rtaartoa
UEF	Lidgate	Complete		No	Yes	37	46	75	158	06.08
	Little Bradley	No survey								
	Little Livermere	No survey								
	Little Saxham	No survey								
UEF	Little Thurlow	Complete		No	Yes	27	55	94	176	12.03
	Little Welnetham	No survey								
UEF	Little Wratting	Complete		No	Yes	6	8	8	22	10.10
APC	Market Weston	Complete		No	Yes	12	23	55	90	09.10
	Nowton	No survey								
UEF	Ousden	Complete		No	Yes	14	44	79	137	12.10
	Pakenham	No survey								
	Poslingford	No survey								
	Rede	No survey								
	Risby	No survey								
	Rushbrooke with Rougham	No survey								
	Stansfield	No survey								
APC	Stanton	Complete		No	Yes	14	28	132	174	01.11
	Stoke by Clare	No survey								
	Stradishall	No survey								
APC	Thelnetham	Complete		No	Yes	14	20	59	93	11.11
	Timworth	No survey								
	Troston	No survey								
	West Stowe	No survey								
	Westley	No survey								
	Whepstead	No survey								
UAF	Wickhambrook	Complete		No	Yes	34	162	264	460	01.09

LCA	Parish	Status According to Diary	Notes	Survey on Database	Survey to SBRC	4 species or less	5, 6 or 7 species	8 or more species	Total H/Rows	Date Audited
	Withersfield	No survey								
	Wixoe	No survey								
	Wordwell	No survey								
					Totals	463	902	1552	2917	

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LCA	Parish	Status According to Diary	Notes	Survey on Database	Survey to SBRC	4 species or less	5, 6 or 7 species	8 or more species	Total H/Rows	Date Audited
PEF	Ashby see Somerleyton	completed		No	Yes					09.09
RVF	Barnby	completed		No	Yes	19	32	33	84	11.03
APC	Barsham	completed		No	Yes	17	45	135	197	11.10
APC	Beccles	completed		No	Yes	8	35	14	57	05.09
	Benacre	No survey							0	
PEF	Blundeston	completed		No	Yes	1	10	1	12	12.10
AEC	Blyford	completed		No	Yes	1	4	2	7	01.11
APC	Brampton & Stoven	completed		No	Yes	9	27	70	106	12.10
APC	Bungay	completed		No	Yes	35	47	60	142	04.11
RVF	Carlton Colville	completed		No	Yes	4	8	15	27	06.11
PEF	Corton	completed		No	Yes	23	39	49	111	09.08
	Covehithe	No survey							0	
	Ellough	No survey							0	
PEF	Flixton (E) see Blundeston	Completed		No	Yes					12.10
APC	Flixton (W)	Completed		No	Yes	2	9	15	26	12.10
AEC	Frostenden	completed		No	Yes	39	27	6	72	08.10
	Gisleham	No survey							0	
RES	Halesworth	completed		No	Yes	22	31	23	76	10.09

LCA	Parish	Status According to Diary	Notes	Survey on Database	Survey to SBRC	4 species or less	5, 6 or 7 species	8 or more species	Total H/Rows	Date Audited
AEC	Henstead & Hulver	completed		No	Yes	23	36	19	78	10.04
PEF	Herringfleet see Somerleyton	completed		No	Yes					09.09
AEC	Holton	completed		No	Yes	13	48	78	139	12.11
	Homersfield	No survey							0	
APC	Ilk St Andrew	Completed		No	Yes	7	58	134	199	02.09
APC	Ilk St John	completed		No	Yes	3	5	39	47	01.11
APC	Ilk St Lawrence	completed		No	Yes	6	20	37	63	11.11
	Ilk St Margaret	No survey							0	
RVF	Kessingland	completed		No	Yes	0	25	27	52	10.10
PEF	Lound	completed		No	Yes	1	20	8	29	12.10
PEF	Lowestoft	completed		No	Yes	47	37	19	103	07.11
	Mettingham	No survey							0	
RVF	Mutford	completed		No	Yes	53	98	61	212	08.04
RVF	North Cove	completed		No	Yes	21	31	32	84	12.03
	Oulton	No survey							0	
APC	Redisham	completed		No	Yes	4	22	47	73	09.09
RES	Reydon	Completed		No	Yes	35	89	106	230	12.04
APC	Ringsfield & Weston	completed		No	Yes	12	51	244	307	02.08
	Rumburgh	No survey							0	
RVF	Rushmere	completed		No	Yes	27	41	18	86	12.03
	South Elmham St James	No survey							0	
APC	South Elmham St Cross	completed		No	Yes	22	42	162	226	09.10
APC	South Elmham St Peter	completed		No	Yes	3	19	23	45	11.11
PC	South Elmham St Michael	completed		No	Yes	0	7	28	35	08.11
PC	South Elmham All Saints. Nich	completed		No	Yes	15	59	73	147	07.11
	Shadingfield	No survey							0	
RVC	Shipmeadow	completed		No	Yes	10	11	29	50	07.11
AEC	Sotherton	completed		No	Yes	4	4	21	29	01.11
AEC	Sotterley	completed		No	Yes	20	53	144	217	12.10
	South Cove	No survey							0	
ES	Southwold	completed		No	Yes	10	5	3	18	11.03
	Spexhall	No survey		No	Yes				0	

LCA	Parish	Status According to Diary	Notes	Survey on Database	Survey to SBRC	4 species or less	5, 6 or 7 species	8 or more species	Total H/Rows	Date Audited
	Uggeshll	No survey							0	
AEC	Wangford with Henham	completed		No	Yes	4	11	15	30	02.11
APC	Westhall	completed		No	Yes	14	54	172	240	12.11
	Willingham	No survey							0	
PC	Wissett	completed		No	Yes	32	96	195	323	12.10
	Willingham	No survey							0	
	Worlingham	No survey							0	
AEC	Wrentham	completed		No	Yes	15	45	24	84	06.06
<u> </u>	total					581	1301	2181	4063	

BDC ANCIENT PLATEAU CLAYLAND UNDULATING ANCIENT FARMLAND PLATEAU ESTATE FARMLAND

Parish	4-	%	Total	5-	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
				7							Total	4-	5-7	8+
ANCIENT														
PLATEAU														
CLAYLAND														
Aldham	3	8.1	3	11	29.7	11	23	62.2	23	37	37	8.1	29.7	62.2
Burstall	16	12.2	19	35	26.7	46	80	61.1	103	131	168	11.3	27.4	61.3
Elmsett	14	6.0	33	56	23.9	102	164	70.1	267	234	402	8.2	25.4	66.4
Hintlesham	24	10.9	57	56	25.3	158	140	63.3	407	220	622	9.2	25.4	65.4
Whatfield	9	10.0	66	16	17.7	174	65	72.2	472	90	712	9.3	24.4	66.3
UNDULATING														
ANCIENT														
FARMLAND														
Hartest	11	5.2	11	32	15.1	32	169	79.7	169	212	212	5.2	15.1	79.7
Lawshall	6	3.2	17	36	19.1	68	146	77.7	315	188	400	4.2	17.0	78.7
Somerton	13	26.0	30	21	42.0	89	16	32.0	331	50	450	6.7	19.8	73.5

Parish	4-	%	Total	5-	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
				7							Total	4-	5-7	8+
Stanstead	1	6.2	31	3	18.7	92	12	75.0	343	16	466	6.7	19.7	73.6
PLATEAU														
ESTATE														
FARMLAND														
Stutton	69	33.0	69	97	46.4	97	43	20.6	43	209	209	33.0	46.4	20.6

BDC

SUFFOLK HEDGEROW SURVEY ANCIENT ESTATE CLAYLAND PLATEU FARMLAND ROLLING VALLEY FARMLAND

Parish		%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
	4-										Total	4-	5-7	8+
Chattisham	19	15.8	19	38	31.7	38	63	52.5	63	120	120	15.8	31.7	52.5
Copdock &	30	8.0	49	120	31.9	158	226	60.1	289	376	496	9.9	31.8	58.3
Washbrook														
Raydon	10	10.3	59	22	22.7	180	65	67.0	354	97	593	9.9	30.3	59.7
Wenham Magna	21	33.9	80	12	19.4	192	29	46.8	383	62	655	12.2	29.3	58.5
Wenham Parva	9	17.0	89	13	24.5	205	31	58.5	414	53	708	12.6	29.0	58.5
PLATEAU														
FARMLAND														
East Bergholt	14	10.1	14	45	32.6	45	79	57.2	79	138	138	10.1	32.6	57.2
Higham	21	51.2	35	13	31.7	58	7	17.1	86	41	179	19.6	32.4	48.0
Holton St Mary	17	20.5	52	26	31.3	84	40	48.2	126	83	262	19.8	32.1	48.1
Sproughton	92	26.0	144	114	32.2	198	148	41.8	274	354	616	23.4	32.1	44.5
ROLLING														
VALLEY														
FARMLAND														
Brantham	9	37.5	9	8	33.3	8	7	29.2	7	24	24	37.5	33.3	29.2
Chelsworth	14	17.9	23	31	39.7	39	33	42.3	40	78	102	22.5	38.2	39.2

Parish		%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
	4-										Total	4-	5-7	8+
Hadleigh	56	18.0	79	107	34.4	146	148	47.6	188	311	413	19.1	35.3	45.6
Kettlebaston	15	10.1	94	52	35.1	198	81	54.7	269	148	561	16.8	35.3	47.9
Stoke by Nayland	12	8.3	106	30	20.8	228	102	70.8	371	144	705	15.0	32.3	52.6
Stratford St Mary	3	15.0	109	7	35.0	235	10	50.0	381	20	725	15.0	32.4	52.5
Sudbury	12	20.7	121	25	43.1	260	21	36.2	402	58	783	15.4	33.2	51.3

SUFFOLK HEDGEROW SURVEY - BDC ANCIENT ESTATE FARMLAND - ROLLING ESTATE FARMLAND

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum. Total	Accum% 4-	Accum.% 5-7	Accum.% 8+
Arwarton	66	48.529 4	66	55	40.4411	55	15	11.029 4	15	136	136	48.5294	40.4411	11.0294
Belstead	22	27.160 4	88	45	55.5555	100	14	17.283 9	29	81	217	40.5529	46.0829	13.3640
Bentley	12 6	30.071	214	13 8	32.9355	238	15 5	36.992 8	184	419	636	33.6477	37.4213	28.9308
Capel St Mary	38	21.590	252	83	47.1590	321	55	31.250 0	239	176	812	31.0344	39.5320	29.4339
Chelmondiston	15	14.018	267	45	42.0560	366	47	43.925	286	107	919	29.0533	39.8258	31.1207
Harkstead	36	29.032	303	48	38.7096	414	40	32.258 0	326	124	1043	29.0508	39.6931	31.2559
Holbrook	29	50.877	332	18	31.5789	432	10	17.543 8	336	57	1100	30.1818	39.2727	30.5454
Shotley	49	49.000	381	39	39.0000	471	12	12.000	348	100	1200	31.7500	39.2500	29.0000
Tattingstone	60	27.777	441	77	35.6481	548	79	36.574 0	427	216	1416	31.1440	38.7005	30.1553
Wherstead	29	28.155	470	33	32.0388	581	41	39.805 2	468	103	1519	30.9414	38.2488	30.8097
ROLLING														
ESTATE FARMLAND														
Pinewood	7	10.9	7	24	37.5	24	33	51.6	33	64	64	10.9	37.5	51.6

SUFFOLK HEDGEROW SURVEY BDC ANCIENT ROLLING FARMLAND

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
											Total	4-	5-7	8+
Acton	16	11.5	16	59	42.4	59	64	46.0	64	139	139	11.5	42.4	46.0
Alpheton	11	8.5	27	44	34.1	103	74	57.4	138	129	268	10.1	38.4	51.5
Boxford	14	13.1	41	24	22.4	127	69	64.5	207	107	375	10.9	33.9	55.2
Brettenham	13	9.3	54	55	39.5	182	71	51.0	278	139	514	10.5	35.4	54.1
Chilton	15	24.6	69	31	50.8	213	15	24.6	293	61	575	12.0	37.0	51.0
Edwardstone	0	0	69	8	10.3	221	70	89.7	363	78	653	10.5	33.8	55.6
Gt Cornard	8	9.3	77	22	25.6	243	56	65.1	419	86	739	10.4	32.9	56.7
Groton	4	4.6	81	11	12.8	254	71	82.6	490	86	825	9.8	30.8	59.4
Kersey	62	23.1	143	125	46.6	379	81	30.2	571	268	1093	13.1	34.7	52.2
Lavenham	11	7.8	154	39	27.4	418	92	64.8	663	142	1235	12.4	33.8	53.7
Layham	39	10.5	193	96	25.8	514	237	63.7	900	372	1607	12.0	32.0	56.0
Leavenheath	7	7.9	200	17	19.1	531	65	73.0	965	89	1696	11.8	31.3	56.9
Lindsey	13	11.0	213	54	45.7	585	51	43.2	1016	118	1814	11.7	32.2	56.0
Long Melford	25	9.5	238	81	30.7	666	158	59.8	1174	264	2078	11.4	32.0	56.5
Milden	3	3.6	241	7	8.3	673	74	88.1	1248	84	2162	11.1	31.1	57.7
Monks Eleigh	36	14.6	277	68	27.5	741	143	57.9	1391	247	2409	11.5	30.7	57.7
Nayland Wiss	16	9.6	293	44	26.3	785	107	64.1	1498	167	2576	11.4	30.5	58.1
Polstead	58	21.5	351	85	31.5	870	127	47.0	1625	270	2846	12.3	30.6	57.1
PrestonStMary	9	7.5	360	38	31.6	908	73	60.8	1698	120	2966	12.1	30.6	57.2
Shelley	11	13.6	371	19	23.4	927	51	63.0	1749	81	3047	12.2	30.4	57.4
Shimpling	16	5.2	387	61	21.0	988	213	73.4	1962	290	3337	11.6	29.6	58.8

SUFFOLK HEDGEROW SURVEY FOREST HEATH DC ALL LCA TYPES

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
ECTATE											Total	4-	5-7	8+
ESTATE														
SANDLAND(w)														
Brandon	7	25.0	7	16	57.1	16	5	17.9	5	28	28	25.0	57.1	17.9
Cavenham	14	28.6	21	12	24.5	28	23	46.9	28	49	77	27.3	36.4	36.4
Red Lodge	4	23.5	25	1	5.9	29	12	70.6	40	17	94	26.6	30.9	42.6
UNDULATING														
ESTATE														
FARMLAND														
Dalham	3	7.5	3	8	20.0	8	29	72.5	29	40	40	7.5	20.0	72.5
		, , ,										,,,,		,
SETTLED														
CHALKLAND														
Mildenhall	18	62.1	18	9	31.0	9	2	6.9	2	29	29	62.1	31.0	6.9

SUFFOLK HEDGEROW SURVEY FOREST HEATH DC ALL LCA TYPES page 2

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
											Total	4-	5-7	8+
ROLLING														
ESTATE														
CLAYLAND														
Moulton	9	16.6	9	17	31.5	17	28	51.9	28	54	54	16.6	31.5	51.9
WOODED														
CHALK														
SLOPES														
Dalham	6	13.6	6	21	47.7	21	17	38.6	17	44	44	13.6	47.7	38.6
PLATEAU														
ESTATE														
FARMLAND														
Moulton	0	O	0	3	25.0	3	9	75.0	9	12	12	NIL	25.0	75.0
PLATEAU														
FARMLAND														
Mildenhall	11	84.6	11	0	0	0	2	15.4	2	13	13	84.6	Nil	15.4

SUFFOLK HEDGEROW SURVE MSDC

ROLLING VALLEY FARMLAND & FURZE

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
											Total	4-	5-7	8+
Baylham	8	6.7	8	33	27.7	33	78	65.5	78	119	119	6.7	27.7	65.5
Bramford	32	22.5	40	36	25.3	69	74	52.2	152	142	261	15.3	26.4	58.2
Flowton	3	6.6	43	16	35.5	85	26	57.8	178	45	306	14.1	27.7	58.2
Lt.	24	40.7	67	18	30.5	103	17	28.8	195	59	365	18.4	28.2	53.4
Blakenham														
Offton	20	13.6	87	74	50.3	177	53	36.0	248	147	512	17.0	34.6	48.4
ROLLING														
VALLEY														
FARMLAND														
& FURZE														
Brome	30	35.7	30	21	25.0	21	33	39.2	33	84	84	35.7	25.0	39.2
&Oakley														
Woolpit	28	26.4	58	45	42.5	66	33	31.1	66	106	190	30.5	34.7	34.7

SUFFOLK HEDGEROW SURVEY MSDC PLATEAU CLAYLAND

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
											Total	4-	5-7	8 +
Bacton	10	4.7	10	49	23.2	49	152	72.0	152	211	211	4.7	23.2	72.0
Badwell Ash		13.7	24	20	19.6	69	68	66.6	220	102	313	7.7	22.0	70.3
	14													
Bedfield	8	32.0	32	9	36.0	78	8	32.0	228	25	338	9.5	23.1	67.5
Brundish	7	5.6	39	38	30.6	116	79	63.7	307	124	462	8.4	25.1	66.5
Cotton	12	6.5	51	41	22.1	157	132	71.3	439	185	647	7.9	24.3	67.9
Denham	22	16.8	73	56	42.7	213	53	40.5	492	131	778	9.4	27.4	63.2
Eye	17	11.2	90	41	27.0	254	94	61.8	586	152	930	9.7	27.3	63.0
Fressingfield	8	3.2	98	16	6.5	270	224	90.3	810	248	1178	8.3	22.9	68.8
Gislingham	16	7.6	114	53	25.2	323	141	67.1	951	210	1388	8.2	23.3	68.5
Mendham	25	12.4	139	56	27.8	379	120	59.7	1071	201	1589	8.7	23.8	67.4
Mendlesham	18	4.1	157	163	38.0	542	248	57.8	1319	429	2018	7.8	26.9	65.3
Mickfield	6	10.5	163	6	10.5	548	45	78.9	1364	57	2075	7.9	26.4	65.7
Occold	19	15.0	182	47	37.0	595	59	47.0	1423	125	2200	8.3	27.0	64.7
Redlingfield	2	4.7	184	13	30.2	608	28	65.1	1451	43	2243	8.2	27.1	64.7
Southolt	4	7.8	188	12	23.5	620	35	68.6	1486	51	2294	8.2	27.0	64.8
Stoke Ash	46	21.0	234	77	35.2	697	96	43.8	1582	219	2513	9.3	27.7	63.0
Stonham Parva	4	5.2	238	21	27.3	718	52	67.5	1634	77	2590	9.2	27.7	63.1
Syleham	26	9.3	264	47	16.8	765	206	73.8	1840	279	2869	9.2	26.7	63.0
Thorndon	3	4.2	267	21	29.6	78.6	47	66.2	1887	71	2940	9.1	26.7	63.2
Westhorpe	5	4.2	272	15	12.7	801	98	83.0	1985	118	3058	8.9	26.2	64.9

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
											Total	4-	5-7	8+
Weybread	30	14.2	302	55	26.1	856	126	59.7	2111	211	3269	9.2	26.2	64.6
Wickham	2	3.5	304	12	21.0	868	43	75.4	2154	57	3326	9.1	26.1	64.8
Skeith														
Wingfield	38	10.2	342	147	39.6	1015	186	50.1	2340	371	3697	9.2	27.5	63.3
Worlingworth	24	8.8	366	55	20.2	1070	193	70.9	2533	272	3969	9.2	27.0	63.8
Wyverstone	11	8.6	377	34	26.8	1104	82	64.6	2615	127	4096	9.2	27.0	63.8

SUFFOLK HEDGEROW SURVEY MSDC ANCIENT ROLLING FARMLAND ROLLING ESTATE FARMLAND

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
											Total	4-	5-7	8 +
Akenham	4	22.2	4	7	38.9	7	7	38.97	7	18	18	22.2	38.9	38.9
Beyton	22	18.8	26	38	32.5	45	57	48.7	64	117	135	19.3	33.3	47.4
Buxhall	25	18.1	51	41	29.7	86	72	52.1	136	138	273	18.7	31.5	49.8
Drinkstone	6	7.9	57	11	14.5	97	59	77.6	195	76	349	16.3	27.8	55.9
Felsham	24	7.0	81	52	14.9	149	272	78.1	467	348	697	11.6	21.3	67.0
Gedding	0	0	81	3	6.5	152	43	93.5	510	46	743	10.0	20.5	68.6
Hessett	29	16.0	110	73	40.3	225	79	43.6	389	181	924	11.9	24.3	63.7
Rattlesden	47	15.5	157	127	41.9	352	129	42.6	718	303	1227	12.8	28.7	58.5
Thurston	79	26.7	236	70	23.6	422	147	49.6	865	296	1523	15.5	27.7	56.8
Tostock	8	12.9	290	24	38.7	446	30	48.4	895	62	1585	15.4	28.1	56.5
ROLLING														
ESTATE														
FARMLAND														
Clayton	5	7.4	5	21	30.9	21	42	61.7	42	68	68	7.4	30.9	61.7
Whitton	13	27.6	18	17	36.2	38	17	36.2	59	47	115	15.7	33.0	51.3

SUFFOLK HEDGEROW SURVEY MSDC ANCIENT PLATEAU CLAYLAND

Accum% Accum.% **Parish** 4-% Total 5-7 **%** Total 8+ % Total **Total** Accum. Accum.% 4-5-7 8+ **Total** 32 82.5 223 3.1 7 3 1 14.3 32 184 184 223 14.3 82.5 **Barking** 7 14 **Botesdale** 1 1.0 8 14.9 46 79 84.0 263 94 317 2.5 14.5 83.0 **Burgate** 0 0 18 13.0 64 120 87.0 383 138 455 1.8 14.1 84.2 8 4 6.0 12 12 17.0 76 54 77.0 437 70 525 2.3 14.5 83.2 **Combs Elmswell** 8 18.2 20 8 18.2 84 28 63.6 465 44 569 3.5 14.8 81.7 13 33 32.9 50.6 505 79 648 5.1 17.0 77.9 **Gt.Ashfield** 16.5 26 110 40 917 6.4 21 4 72.2 Haughlev 26 10.0 59 86 32.0 196 157 58.0 662 269 **Mellis** 3 2.4 62 18 14.7 214 101 82.8 763 122 1039 6.0 20.6 73.4 5.9 **Needham Market** 63 10 29.4 224 23 67.6 786 34 1073 20.9 73.2 1 29 6 5.0 69 11 9.2 235 103 85.8 889 120 1193 5.8 19.7 74.5 Nettlestead **Rickinghall Inferior** 7.6 80 37 25.5 272 97 66.9 986 145 1338 6.0 20.3 73.7 11 RickinghallSuperior 9.5 22 23.2 67.3 95 6.2 20.5 73.3 9 89 294 64 1050 1433 41 96 53.9 23.0 1091 178 8.1 24.2 67.7 Ringshall 23.0 130 390 41 1611 7.7 Somersham 3 2.0 133 10 8.0 400 110 89.0 1201 123 1734 23.1 69.3 **Thornham Parva** 2 2.2 135 7.7 407 81 90.0 1282 90 1824 7.9 22.3 70.3 6.8 Walsham le Willows 2.1 140 66 27.5 473 169 70.4 1451 240 2064 22.9 70.3 14 7.6 154 36 19.7 509 133 72.7 1584 183 2247 6.9 22.7 70.5 Wetherden Willisham 3.8 29.2 158 31 540 71 66.0 1655 106 2353 6.9 70.3 4 22.9

Wortham

Yaxley

17

19

7.3

10.3

175

194

42

35

18.0

18.9

582

617

174

131

74.7

70.8

1829

1960

233

185

2586

2771

6.8

7.0

22.5

22.3

70.7

70.7

SUFFOLK HEDGEROW SURVEY MSDC ANCIENT ESTATE CLAYLAND ROLLING ESTATE CLAYLAND

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
											Total	4-	5-7	8+
Ashbocking	10	5.9	10	47	27.6	47	113	66.6	113	170	170	5.9	27.6	66.5
Coddenham	20	10.0	30	50	25.0	97	130	65.0	243	200	370	8.1	26.2	65.7
Creeting St	4	5.2	34	34	44.7	131	38	50.0	281	76	446	7.6	29.4	63.0
Mary														
Gosbeck	9	5.5	43	15	9.3	146	138	85.2	419	162	608	7.1	24.0	68.9
Hemingstone	1	5.0	44	9	45.0	155	10	50.0	429	20	628	7.0	24.7	68.3
Laxfield	19	7.2	63	51	19.2	206	195	73.5	1024	265	893	7.1	23.1	69.9
Pettaugh	16	22.8	79	35	50.0	241	19	27.1	643	70	963	8.2	25.0	66.8
ROLLING														
ESTATE														
CLAYLAND														
Hoxne	12	7.0	12	31	18.0	31	129	75.0	129	172	172	7.0	18.0	75.0
Monk Soham	11	16.2	23	22	32.3	53	35	51.5	164	68	240	9.6	22.1	68.3
E&W														

SUFFOLK HEDGEROW SURVEY SCDC PLATEAU ESTATE FARMLANDS PLATEAU CLAYLANDS

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
											Total	4-	5-7	8 +
CampseaAshe	14	17.3	14	26	32.1	26	41	50.6	41	81	81	17.3	32.1	50.6
Eyke	43	53.7	57	31	38.7	57	6	7.5	47	80	161	35.4	35.4	29.2
Falkenham	30	28.3	87	42	39.6	99	34	32.0	81	106	267	32.6	37.1	30.3
Kirton	63	28.1	150	98	43.7	197	63	28.1	144	224	491	30.5	40.1	29.2
Levington	36	48.0	186	33	44.0	230	6	8.0	150	75	566	32.9	40.6	26.5
Nacton	22	53.6	208	19	46.4	249	0	0	150	41	607	34.2	41.0	24.7
Rendlesham	18	54.5	226	11	33.2	260	4	12.1	154	33	640	35.3	40.6	24.1
Trimley St.	31	21.8	257	67	47.2	327	44	31.0	198	142	782	32.9	41.8	25.3
Martin														
Tunstall	0	0	257	2	28.6	329	5	71.4	203	7	789	32.6	41.7	25.9
PLATEAU														
CLAYLANDS														
Brandeston	94	31.1	94	151	50.3	151	55	18.3	55	300	300	31.3	50.3	18.3
Cratfield	8	9.7	102	29	35.3	180	45	54.9	100	82	382	26.7	47.1	26.2
Earl Soham	7	5.8	109	25	21.0	205	87	73.1	187	119	501	21.8	40.9	37.3
Framlingham	38	12.5	147	133	43.7	338	133	43.7	320	304	805	18.3	42.0	39.7
Huntingfield	3	9.7	150	4	12.9	342	24	77.4	344	31	836	17.9	40.9	41.1
Kettleburgh	44	22.2	194	77	38.9	419	77	38.9	421	198	1034	18.8	40.5	40.7
Saxtead	4	4.6	198	10	11.6	429	72	83.7	493	86	1120	17.7	38.3	44.0

SUFFOLK HEDGEROW SURVEY SCDC ESTATE SANDLANDS

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
											Total	4-	5-7	8+
Aldeburgh	53	56.3	53	22	23.4	22	19	20.2	19	94	94	56.3	23.4	20.2
Alderton	23	41.8	76	18	32.7	40	14	25.4	33	55	149	51.0	28.8	22.1
Aldringham	60	51.7	136	50	43.7	90	6	5.2	39	116	265	51.2	34.0	14.7
Blythburgh	10	24.4	46	11	26.8	101	20	48.8	59	41	306	47.7	33.0	19.3
Boyton	27	41.0	173	32	48.0	133	7	11.0	66	372	372	46.5	35.7	17.7
Brightwell	41	37.2	214	53	48.1	186	16	14.5	82	110	482	44.4	38.6	17.0
Fox, P.Farm														
Bromeswell	42	42.0	256	38	38.0	224	20	20.0	102	100	582	44.0	38.5	17.5
Bucklesham	44	39.6	300	47	42.3	271	20	18.0	122	111	693	43.3	39.1	17.6
Butley	12	20.7	312	27	46.5	298	19	32.7	141	58	751	41.5	39.7	18.7
Chillesford	14	21.9	326	26	40.6	324	24	37.5	165	64	815	40.0	39.7	20.2
Dunwich	41	31.5	367	46	35.4	370	43	33.0	208	130	945	38.8	39.2	22.0
Friston	42	26.7	409	62	39.4	432	53	33.8	261	157	1102	37.1	39.2	23.7
Hemley	19	35.8	428	29	54.7	461	5	9.4	266	53	1155	37.1	39.9	23.0
Hollesley	26	32.5	454	33	41.2	494	21	26.2	287	80	1235	36.8	40.0	23.2
Iken	9	13.6	463	17	25.7	511	40	60.6	327	66	1301	35.5	39.3	25.1
Kesgrave	5	17.8	468	13	46.4	524	10	35.7	337	28	1329	35.2	39.4	25.3
Leiston	89	33.8	557	74	28.1	598	100	38.0	437	263	1592	35.0	37.6	27.4
Martlesham	35	36.7	592	39	40.2	637	23	23.7	460	97	1689	35.0	37.7	27.2
Newbourne	21	34.4	613	21	34.4	658	19	31.1	479	61	1750	35.0	37.6	27.4
Orford &	27	56.0	640	14	29.0	672	7	14.0	486	48	1798	35.6	37.4	23.0
Gedgrave														

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
											Total	4-	5-7	8+
Ramsholt	68	91.9	708	2	2.7	674	4	5.4	490	74	1872	37.8	36.0	26.2
Rushmere St	12	26.1	720	24	52.2	698	10	21.7	500	46	1918	37.5	36.4	26.1
Andrew														
Shottisham	4	25.0	724	6	37.5	704	6	37.5	506	16	1934	37.4	36.4	26.2
Snape	80	46.5	804	60	34.9	764	32	18.6	538	172	2106	38.2	36.3	25.5
Sudbourne	17	34.0	821	20	40.0	784	13	26.0	551	50	2156	38.1	36.4	25.5
Sutton	23	25.5	844	26	28.8	810	41	45.5	592	90	2246	17.6	36.1	26.3
Walberswick	22	46.8	866	17	36.2	827	8	17.0	600	47	2293	37.7	36.1	26.2
Waldringfield	33	22.3	899	51	34.4	878	64	43.2	664	148	2441	36.8	36.0	27.2
Wenhaston	51	41.8	950	90	26.1	968	203	59.1	867	344	2785	34.1	34.7	31.1
Westleton	66	43.7	1016	32	21.2	1000	53	35.1	920	151	2936	34.6	34.0	31.3

SUFFOLK HEDGEROW SURVEY SCDC ANCIENT ROLLING FARMLAND

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
											Total	4-	5-7	8+
Boulge	8	10.8	8	23	31.1	23	43	58.1	43	74	74	10.8	31.1	58.1
Bedfield	8	2.5	16	102	32.1	125	207	65.3	250	317	391	4.1	32.0	63.9
Burgh	23	30.8	39	36	46.0	161	19	24.0	269	78	469	8.3	34.3	57.4
Culpho	5	17.8	44	13	46.4	174	10	35.7	219	28	497	8.8	35.0	56.1
Gt. Bealings	35	35.0	79	47	47.0	221	18	18.0	297	100	597	13.2	37.0	49.7
Grundisburgh	21	15.8	100	49	36.8	270	63	47.4	360	133	730	13.9	37.0	49.3
Hasketon	24	19.2	124	42	33.6	312	59	47.2	419	125	855	14.	36.5	49.0
Lt. Bealings	18	28.6	142	26	41.3	338	19	30.2	438	63	918	15.5	36.8	47.7
Melton	33	24.1	175	47	34.3	385	57	41.6	495	137	1055	16.6	36.5	46.9
Pettistree	18	17.5	193	29	28.1	414	56	54.3	551	103	1158	15.7	35.7	47.6
Playford	34	34.0	227	44	44.0	458	22	22.0	573	100	1258	18.0	36.4	45.5
Swilland	7	10.2	234	26	38.2	434	35	51.4	608	68	1326	17.6	36.5	45.8
Tuddenham St	18	16.3	252	39	35.4	523	53	48.2	661	110	1436	17.5	36.4	46.0
Martin														
Ufford	11	12.4	263	32	35.9	555	46	51.7	707	89	1525	17.2	36.4	46.4
Westerfield	22	40.0	285	20	36.0	575	13	23.0	720	55	1580	18.0	36.4	45.6
Witnesham	15	5.0	300	90	30.0	665	195	64.3	915	300	1880	16.0	35.4	48.7
Woodbridge	33	25.0	333	44	33.3	709	55	41.6	970	132	2012	16.5	35.2	48.2

SUFFOLK HEDGEROW SURVEY SCDC ANCIENT ESTATE CLAYLAND

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
											Total	4-	5-7	8+
Badingham	45	15.6	45	82	28.5	82	161	55.9	161	288	288	15.6	28.5	55.9
Blythburgh	2	6.9	47	8	27.6	90	19	65.5	180	29	317	14.8	28.4	56.8
Bramfield	18	9.9	65	55	30.2	145	109	59.9	289	182	499	13.0	29.1	57.9
Charsfield	135	14.2	200	95	38.6	240	116	47.1	405	346	845	23.6	28.4	47.9
Clopton	6	5.1	206	10	8.5	250	102	86.4	507	118	963	21.4	26.0	52.6
Cransford	33	14.4	239	101	44.1	351	95	41.5	602	229	1192	20.0	29.4	50.5
Dallinghoo	10	5.0	249	72	36.2	423	117	58.8	719	199	1391	17.9	30.4	51.7
Darsham	8	10.6	257	25	33.3	448	42	56.0	761	75	1466	17.5	30.5	51.9
Debach	16	29.6	273	12	22.2	460	26	48.1	787	54	1520	18.0	30.2	51.8
Gt. Glemham	12	4.0	285	59	20.0	519	222	76.0	1009	293	1813	15.7	28.6	55.6
Hacheston	14	14.9	299	25	26.6	544	55	58.5	1064	94	1907	15.7	28.5	55.8
Heveningham	6	9.1	305	13	19.7	557	47	71.2	1111	66	1973	15.5	28.2	56.3
Kelsale	14	6.6	319	60	28.1	617	139	65.3	1250	213	2186	14.6	28.2	57.2
Knodishall	53	33.3	372	58	37.2	675	46	29.5	1296	157	2343	15.9	28.8	55.3
Letheringham	3	6.6	375	19	42.2	694	23	51.1	1319	45	2388	15.7	29.1	55.2
Lt. Glemham	10	16.4	385	24	39.3	718	27	44.2	1346	61	2449	15.7	29.3	55.0
Marlesford	9	10.7	394	17	20.2	735	58	690	1404	84	2533	15.5	29.0	55.4
Middleton	54	20.1	448	114	42.5	849	100	37.3	1504	268	2801	16.0	31.0	53.7
Otley	29	10.0	477	139	48.1	988	121	41.8	1625	289	3090	15.4	32.0	52.5
Parham	57	23.0	534	130	54.0	1118	57	23.0	1682	244	3334	16.0	33.5	50.4
Peasenhall	1	3.7	535	8	29.6	1126	18	66.6	1700	27	3361	15.9	33.5	50.6
Saxmundham	5	16.6	540	9	30.0	1135	16	53.3	1716	30	3391	15.9	33.5	50.6

SUFFOLK HEDGEROW SURVEY SCDC ANCIENT ESTATE CLAYLANDS Page 2

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
											Total	4-	5-7	8+
Sibton	0	0	540	18	24.6	1153	55	75.3	1771	73	3464	15.6	33.3	51.1
Stratford St	12	16.2	552	21	28.4	1174	41	55.4	1812	74	3538	15.6	33.2	51.2
Andrew														
Sweffling	30	13.1	582	92	40.0	1266	106	46.5	1918	228	3766	15.4	33.6	50.9
Theberton &	13	4.2	595	61	19.8	1327	234	76.0	2152	308	4074	14.6	32.4	52.6
Eastbridge														
Thorington	16	13.4	611	39	32.7	1366	64	53.8	2216	119	4193	14.6	32.5	52.8
Ubbeston	9	4.7	620	35	18.3	1401	147	76.9	2363	191	4384	14.1	32.0	53.9
Wickham Mkt.	72	22.3	692	101	30.3	1502	91	34.5	2454	264	4648	14.9	32.3	52.8
Yoxford	21	10.9	713	44	22.8	1546	128	66.3	2582	193	4841	14.8	31.9	53.3

SUFFOLK HEDGEROW SURVEY ST EDS BC

UNDULATING ANCIENT FARMLAND UNDULATING ESTATE FARMLAND

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
											Total	4-	5-7	8 +
Chedburgh	5	7.7	5	17	26.1	17	43	66.1	43	65	65	7.7	26.1	66.1
Cowlinge	0	0	5	4	9.5	21	38	90.4	81	42	107	4.7	19.6	75.7
Depden	6	5.5	11	44	40.3	65	59	54.1	140	109	216	5.1	30.1	64.8
Hundon	8	11.9	19	23	34.3	88	36	53.7	176	67	283	6.7	31.1	62.2
Wickhambrook	34	7.4	53	162	35.3	250	264	57.4	440	460	743	7.1	33.6	59.2
UNDULATING														
ESTATE														
FARMLAND														
Great Bradley	6	3.7	6	20	12.6	20	133	83.6	133	159	159	3.7	12.6	83.6
Great Thurlow	10	9.6	16	30	28.8	50	64	61.5	197	104	263	6.1	19.0	74.9
Haverhill	6	13.3	22	14	31.1	64	25	55.2	222	45	308	7.1	20.8	72.1
Horringer	18	14.4	40	41	32.8	105	66	52.8	288	125	433	9.2	24.2	66.5
Kedington	7	25.0	47	6	21.4	111	15	53.6	303	28	461	10.2	24.1	65.7
Lidgate	37	23.4	84	46	29.1	157	75	47.5	378	158	619	13.6	25.4	61.1
Little Thurlow	10	9.6	94	30	28.8	187	64	61.5	442	104	723	12.0	25.9	61.1
Little Wratting	6	27.3	100	8	36.3	195	8	36.3	450	22	745	13.4	26.2	60.4
Ousden	14	10.2	114	44	32.1	239	79	57.7	529	137	882	12.9	27.1	60.0

SUFFOLK HEDGEROW SURVEY ST EDS BC PLATEAU ESTATE FARMLAND ANCIENT ESTATE FARMLAND

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
											Total	4-	5-7	8+
Bury St	6	14.6	6	10	24.4	10	25	61.0	25	41	41	14.6	24.4	61.0
Edmunds														
Coney Weston	4	8.3	10	13	27.1	23	31	64.6	56	48	89	11.2	25.8	62.9
Fornham All	19	33.9	29	24	42.8	47	13	23.2	69	56	145	20.0	32.4	47.6
Saints														
Fornham St	26	53.0	55	18	36.7	65	5	10.2	74	49	194	28.3	33.5	38.1
Martin														
Hopton	40	24.2	95	72	43.6	137	53	32.1	127	165	359	26.5	38.2	35.4
Ixworth	6	9.4	101	20	31.2	157	38	59.4	165	64	423	23.9	37.1	39.0
Knettishall	5	26.3	106	10	52.6	167	4	21.0	169	19	442	24.0	37.8	38.2
ANCIENT														
ESTATE														
FARMLAND														
Chevington	5	13.5	5	7	18.9	7	25	67.5	25	37	37	13.5	18.9	67.5

SUFFOLK HEDGEROW SURVEY ST EDS BC ANCIENT PLATEAU CLAYLAND ESTATE SANDLAND (W)

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
											Total	4-	5-7	8 +
Bardwell	2	9.5	2	5	23.8	5	14	66.6	14	21	21	9.5	23.8	66.6
Barningham	12	28.6	14	17	40.5	22	13	30.9	27	42	63	22.2	34.9	42.9
Hepworth	37	25.3	51	65	44.5	87	44	30.1	71	146	209	24.4	41.6	34.0
Market Weston	12	18.8	63	23	25.5	110	55	61.1	126	90	299	21.1	36.8	42.1
Stanton	14	8.0	77	28	16.1	138	132	75.9	258	174	473	16.3	29.2	54.5
Thelnetham	14	15.0	91	20	21.5	158	59	63.4	317	93	566	16.1	27.9	56.0
ESTATE														
SANDLAND (west)														
Culford	19	44.2	19	11	25.6	11	13	30.2	13	43	43	44.2	25.6	30.2
Fakenham	17	27.9	36	24	39.3	35	20	32.8	33	61	104	34.6	33.7	31.7
Magna														
Ingham	41	57.8	77	21	29.6	56	9	12.7	42	71	175	44.0	32.0	24.0

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
											Total	4-	5-7	8 +
Barnby	19	22.6	19	32	38.1	32	33	39.3	33	84	84	22.6	38.1	39.3
Carlton Colville	4	14.8	23	8	29.6	40	15	55.5	48	27	111	20.7	36.0	43.2
Kessingland	0	0	23	25	48.0	65	27	52.0	75	52	163	14.1	39.9	46.0
Mutford	53	25.0	76	98	46.2	163	61	28.8	136	212	375	20.3	43.5	36.3
North Cove	21	25.0	97	31	37.0	194	32	38.1	168	84	459	21.1	42.3	36.6
Rushmere	27	31.4	124	41	47.7	235	18	20.9	186	86	545	22.7	43.1	34.1

SUFFOLK HEDGEROW SURVEY WDC PLATEAU ESTATE FARMLAND

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
											Total	4-	5-7	8+
Ashby	See	Somerle	eyton											
Blundeston	1	8.3	1	10	83.3	10	1	8.3	1	12	12	8.3	83.3	8.3
Corton	23	22.1	24	39	37.5	49	42	40.3	43	104	116	20.9	42.2	37.0
Flixton (E)	See	Blun	deston											
Herringfleet	See	Some	rleyton											
Lound	1	3.4	25	20	68.9	69	8	26.7	51	29	145	17.2	47.6	35.2
Lowestoft	47	45.6	72	37	35.9	106	19	18.4	70	103	248	29.0	42.7	28.2
Somerleyton	36	24.5	108	78	53.0	184	33	22.4	103	147	395	27.3	46.6	26.1

SUFFOLK HEDGEROW SURVEY WDC ANCIENT PLATEAU CLAYLANDS

Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
											Total	4-	5-7	8+
Barsham	17	8.5	17	45	22.8	45	135	68.5	135	197	197	8.5	22.8	68.5
Beccles	8	14.0	25	35	61.4	80	14	24.6	149	57	254	9.8	31.5	58.7
Brampton &	9	8.5	34	27	25.5	107	70	66.0	219	106	360	9.4	29.7	60.8
Stoven														
Bungay	35	24.6	69	47	33.1	154	60	42.2	279	142	502	13.7	30.7	55.6
Flixton (W)	2	7.7	71	9	34.6	163	15	57.7	294	26	528	13.4	30.9	55.7
St Andrew Ilk	7	3.5	78	58	29.1	221	134	67.3	428	199	727	10.7	30.4	58.9
St John Ilk	3	6.4	81	5	14.6	226	39	82.9	467	47	774	10.5	29.2	60.3
St Lawrence Ilk	6	9.5	87	20	31.7	246	37	58.7	504	63	837	10.4	29.4	60.2
Redisham	4	5.4	91	22	30.1	268	47	64.4	551	73	910	10.0	29.4	60.5
Ringsfield	12	3.9	103	51	16.6	319	244	79.4	795	307	1217	8.5	26.2	65.3
&Weston														
St Cross S.E.	22	9.7	125	42	18.6	361	162	71.7	957	226	1443	8.7	25.0	66.3
St Peter S.E.	3	6.6	128	19	42.2	380	23	51.1	980	45	1488	8.6	25.5	65.9
Westhall	14	5.8	142	54	22.5	434	172	71.6	1152	240	1728	8.2	25.1	66.6

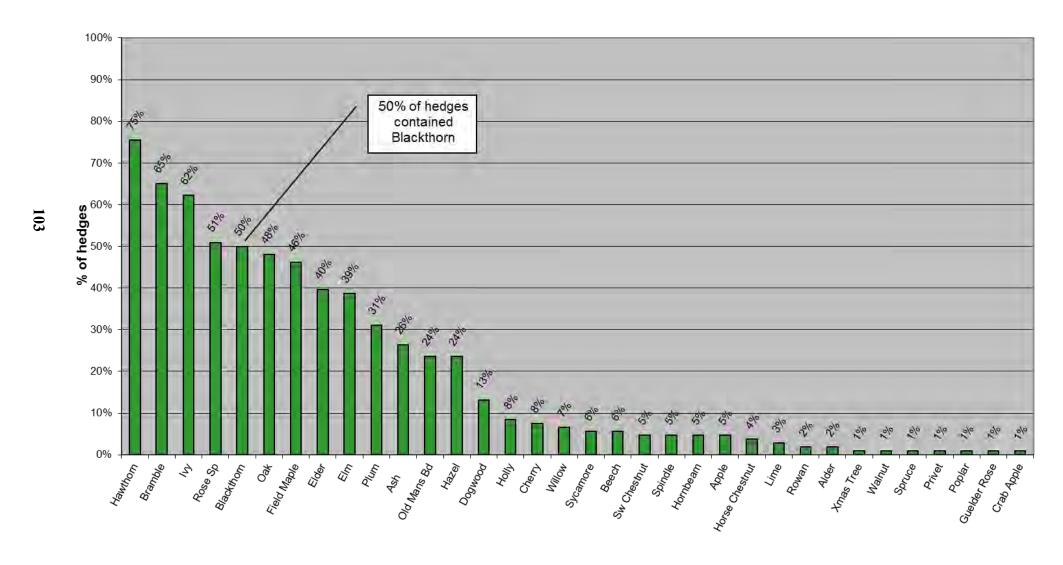
SUFFOLK HEDGEROW SURVEY WDC ANCIENT ESTATE CLAYLAND

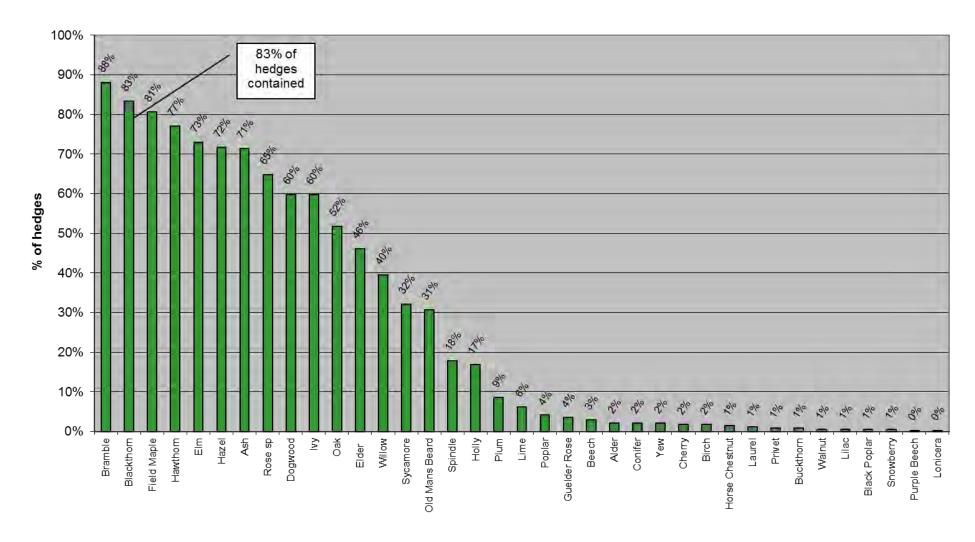
Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
											Total	4-	5-7	8 +
Blyford	1	14.3	1	4	57.1	4	2	28.6	2	7	7	14.3	57.1	28.6
Frostenden	39	54.1	40	27	37.5	31	6	8.3	8	72	79	50.6	39.2	10.1
Henstead &	18	14.4	58	43	34.4	74	64	51.2	72	125	204	28.4	36.3	35.3
Hulver														
Holton	13	9.3	71	48	34.5	122	78	56.1	150	139	343	20.7	35.6	43.7
Sotherton	4	13.8	75	4	13.8	126	21	72.4	171	29	372	20.3	33.9	46.0
Sotterley	20	9.2	95	53	24.4	179	144	66.4	315	217	589	16.1	30.4	53.5
Wangford	4	13.3	99	11	36.6	190	15	50.0	330	30	619	16.0	30.7	53.3
Wrentham	15	17.8	114	45	53.6	235	24	28.6	254	84	703	16.2	33.4	50.3

SUFFOLK HEDGEROW SURVEY WDC ESTATE SANDLANDS PC, RVC AND RES

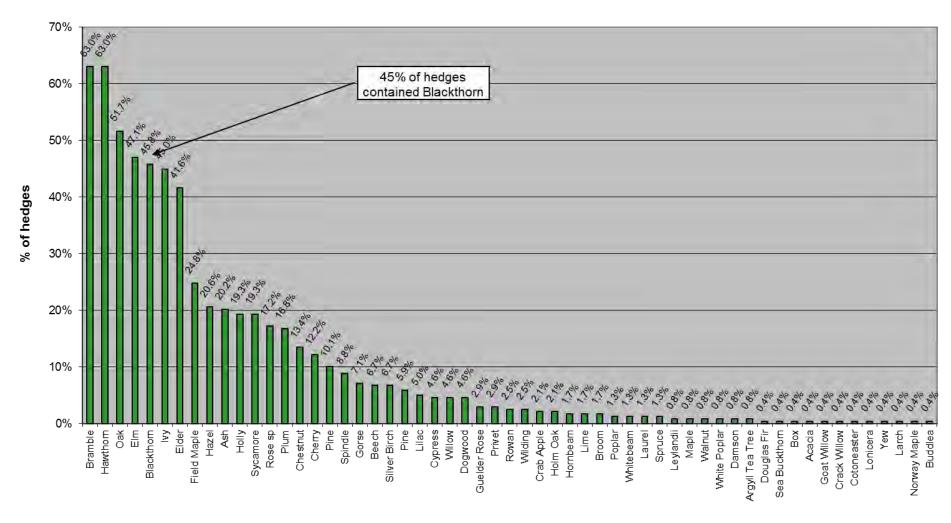
Parish	4-	%	Total	5-7	%	Total	8+	%	Total	Total	Accum.	Accum%	Accum.%	Accum.%
ESTATE											Total	4-	5-7	8+
SANDLANDS														
Southwold	10	55.5	10	5	27.7	5	3	16.6	3	18	18	55.5	27.7	16.6
PLATEAU														
CLAYLAND														
All Saints St	15	10.2	15	59	40.1	59	73	49.7	73	147	147	10.2	40.1	49.7
Nicholas														
St Michael	0	0	15	7	20.2	66	28	80.0	101	35	182	8.2	36.3	55.5
South Elmham														
Wissett	32	9.9	47	96	29.7	162	195	60.4	296	323	505	9.3	32.1	58.6
ROLLING														
VALLEY														
CLAYLAND														
Shipmeadow	10	20.0	10	11	22.0	11	29	58.0	29	50	50	20.0	22.0	58.0
ROLLING														
ESTATE														
SANDLAND														
Halesworth	22	28.9	22	31	40.8	31	23	30.2	23	76	76	28.9	40.8	30.3
Reydon	35	16.3	60	89	38.2	120	106	45.5	129	233	309	19.4	38.8	41.7

Suffolk Hedgerow Survey - Ancient Estate Clayland Species frequency



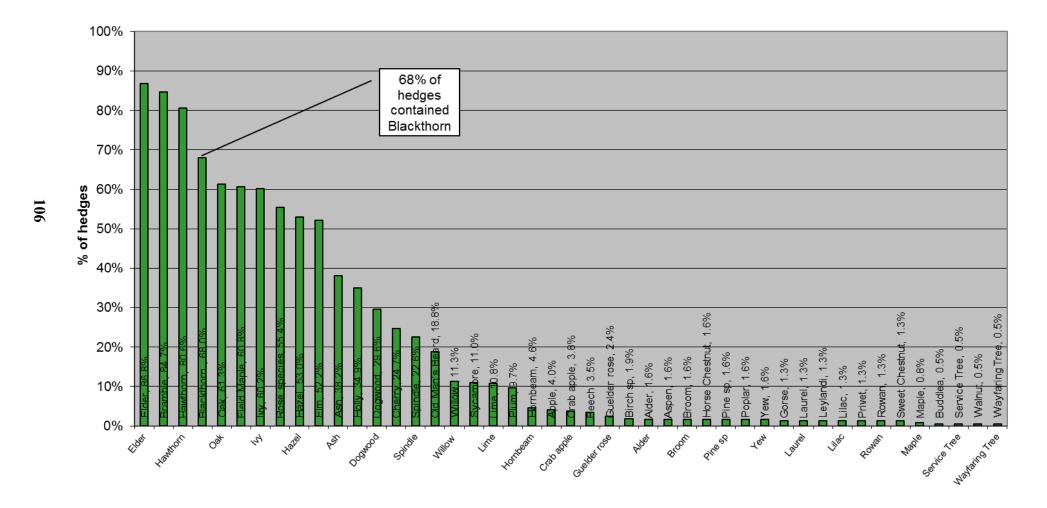


Suffolk Hedgerow Survey - Estate Sandlands Species Frequency

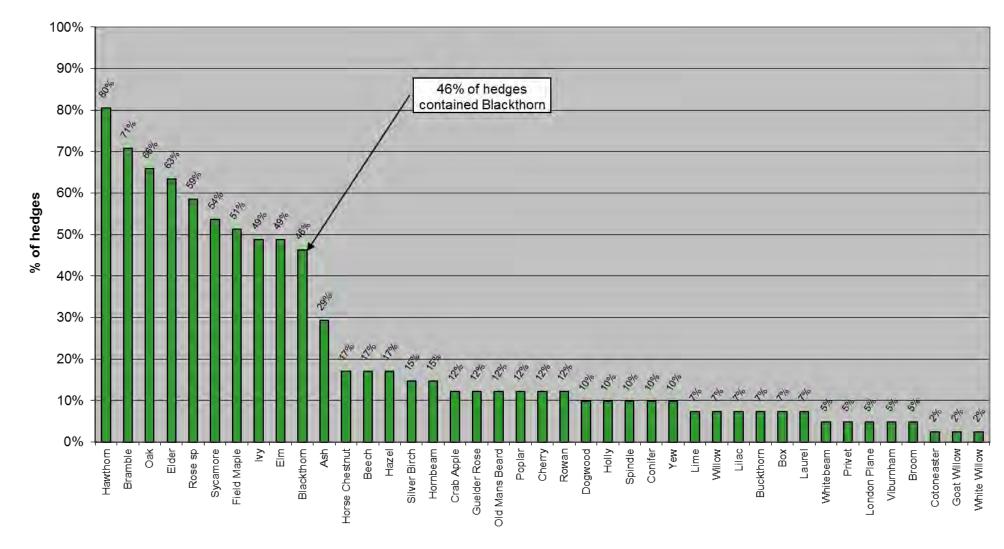


SUFFOLK HEDGEROW SURVEY Species Frequency - Ancient Rolling Farmland

(where species occurs in more than 1 hedge)

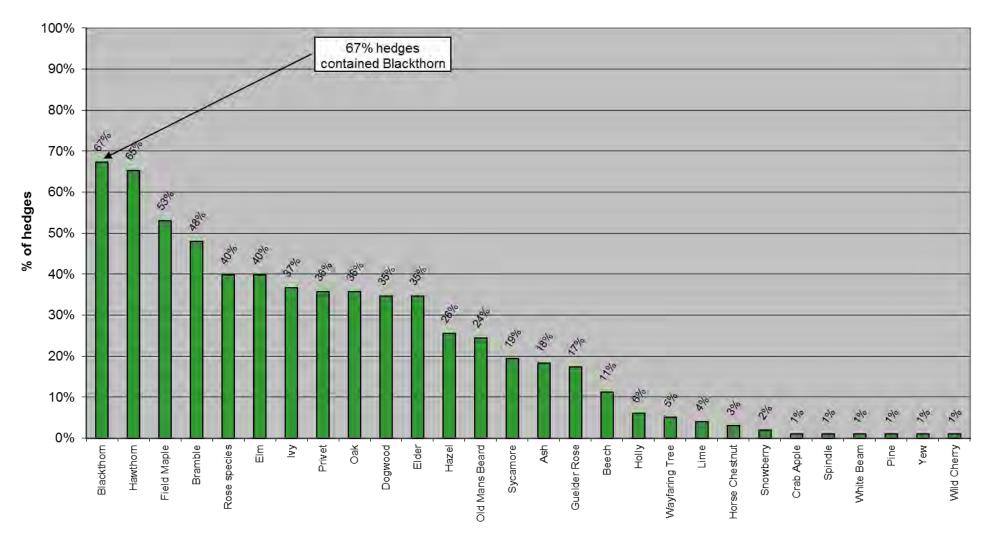


Suffolk Hedgerow Survey - Plateau Estate Farmland Species Frequency



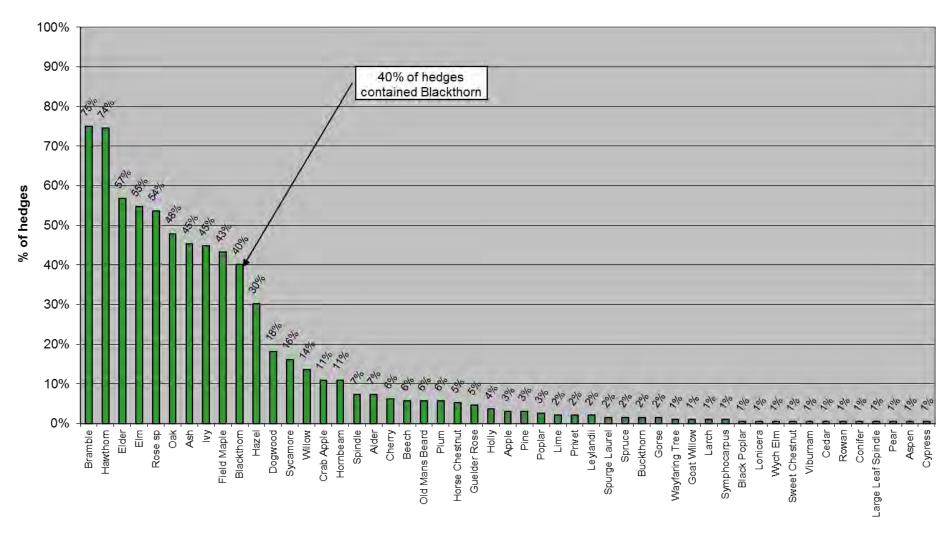
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Suffolk Hedgerow Survey - Rolling Estate Chalkland Species Frequency

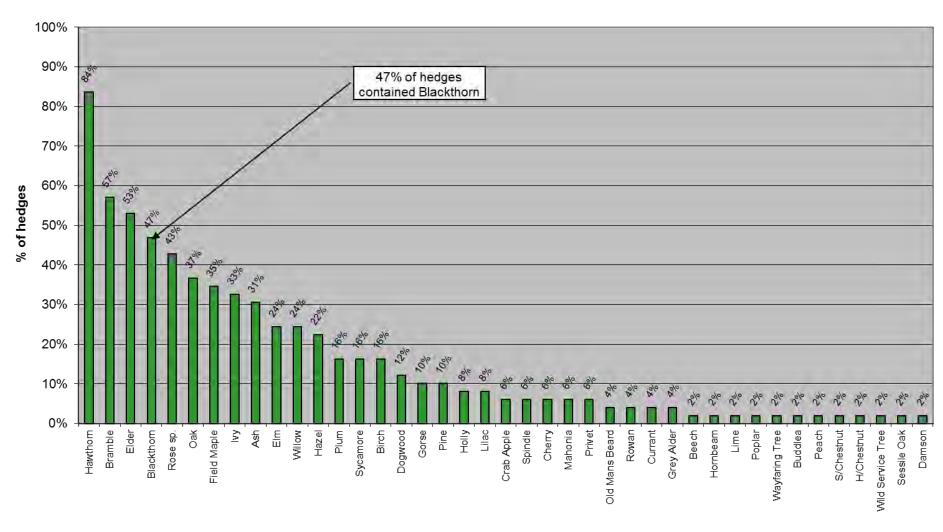


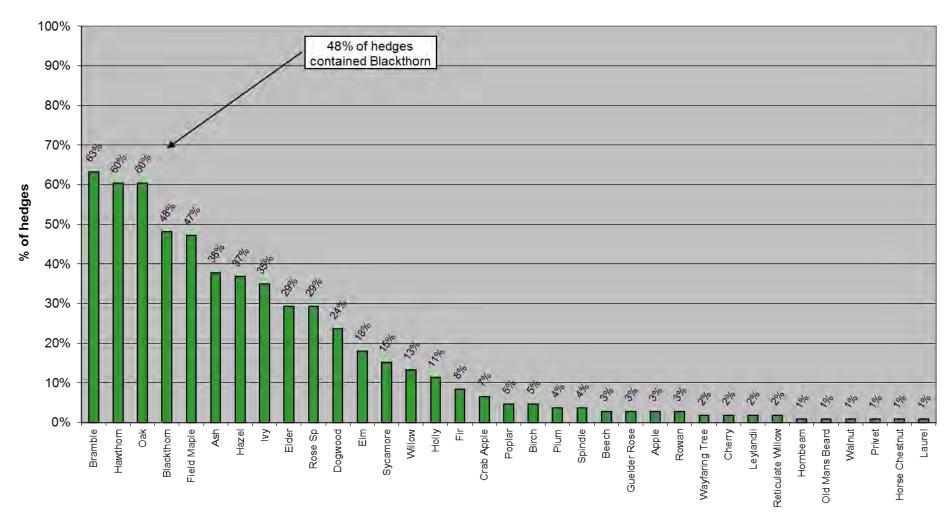
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Suffolk Hedgerow Survey - Rolling Estate Clayland Species Frequency

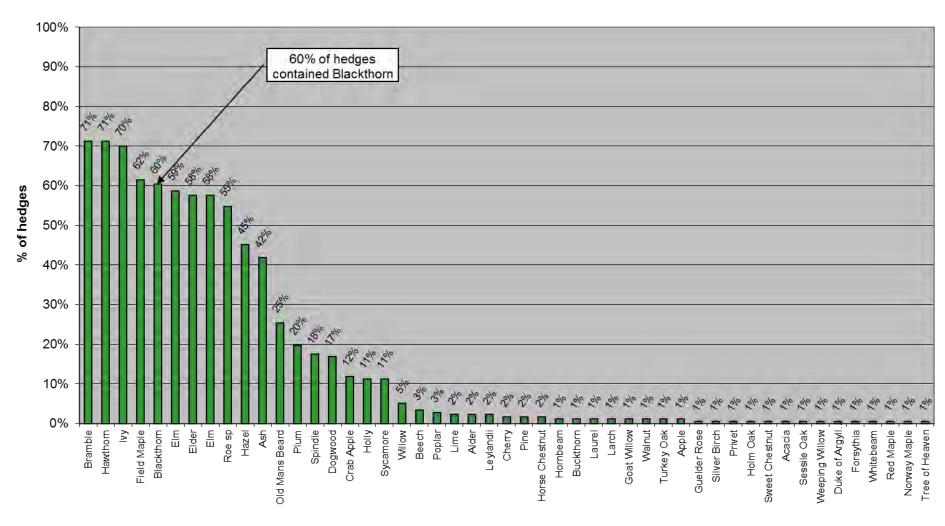


Suffolk Hedgerow Survey - Rolling Estate Sandland (West Suffolk) Species Frequency

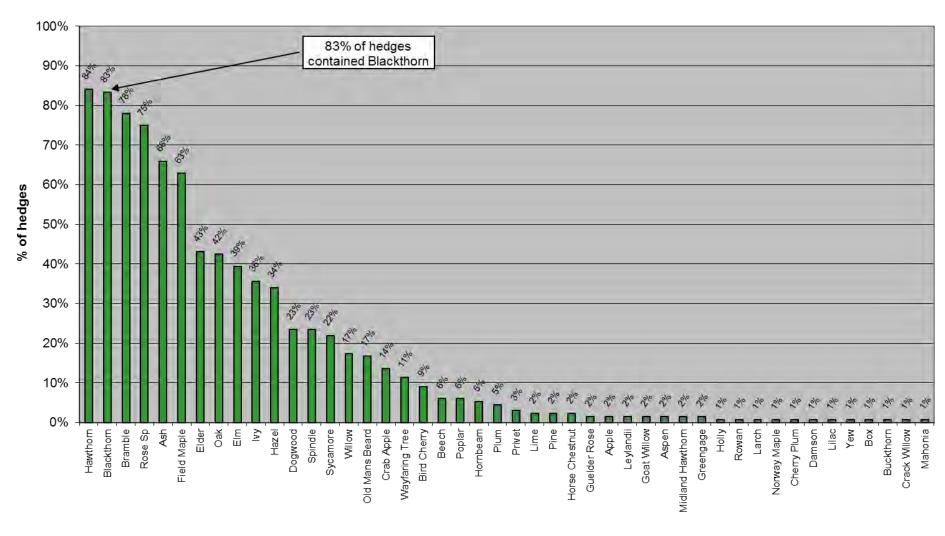




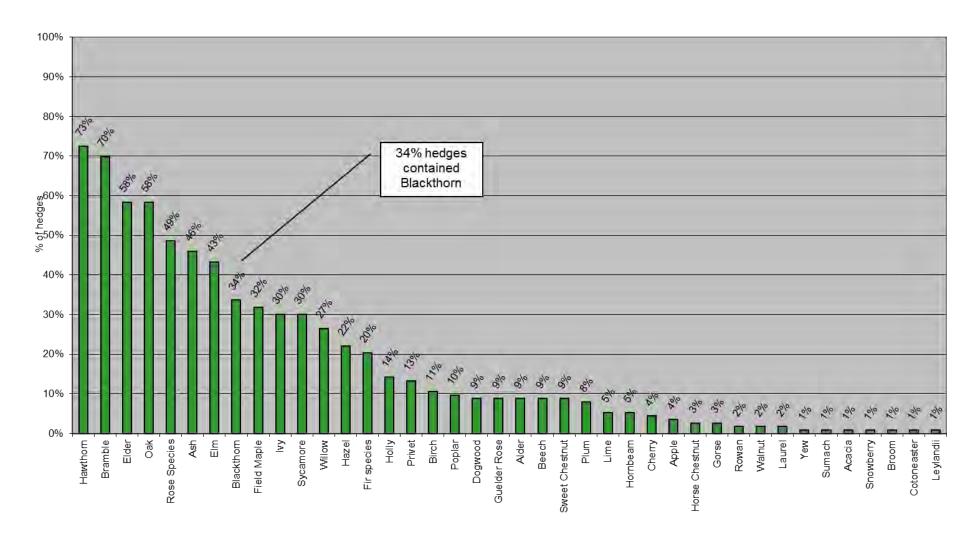
Suffolk Hedgerow Survey - Rolling Valley Farmlands Species Frequency



Suffolk Hedgerow Survey - Undulating Estate Farmland Species Frequency



Suffolk Hedgerow Survey - Rolling Estate Sandland Species Frequency



SUFFOLK HEDGEROW SURVEY ANCIENT &, SPECIAL LISTING REQUESTED

SPURGE LAUREL

Alderton, Alpheton, Aldham, Badingham, Barking, Burstall, Coddenham, Creeting St Mary, Kelsale, Nettlestead, Ousden, Ringshall, St Cross South Elmham, St Michael South Elmham, Shipmeadow, Syleham, Thurston.

BLACK POPLAR

Arwarton, Bentley, Brandeston, Bungay, Cotton, Cransford, Darsham, Farnham, Felsham, Fressingfield (3), Gedding, Hadleigh (2), Hartest, Henstead, Hoxne, Ilketshall St Andrew, Iken, Lawshall, Milden, Nettlestead, Rattlesden, St Michael South Elmham, Saxtead, Sproughton, Stutton, Syleham, Thelnetham, Wetherden

SMALL LEAVED LIME

Bentley, Burstall, Cransford, Drinkstone, Edwardstone, Gt. Bradley, Groton, Hartest, Hessett, Milden, Monks Eleigh, Needham Market, Polstead, Rattlesden, Sotterley, Thorington, Wetherden

HIGHLY SPECIES RICH (PARISH) HEDGEROWS 20+ DIFFERENT SPECIES.

Barsham	21	Clopton	20	Drinkstone	22
Earl Soham	22	Edwardstone	21	Elmsett	21
Felsham	20	Harkstead	20	Layham	20
Preston St Mary	20	Raydon	21	Reydon	21
Shipmeadow	22	Theberton	20,21,22	Trimley St Mary	23
Waldringfield	20, 23, 24	Westhorpe	22	Woolpit	20

SUFFOLK HEDGEROW SURVEY HARDWOOD SPECIES

Acacia Elder Pine – Caucasian

Acacia - False Elder - Box Pear

AlderElmPear - WildAlder - GreyElm - WychPine - ScotsAlder - ItalianElm - Smooth LeavedPlane - London

Apple Eucalyptus Plum Ash Field Maple Poplar

Ash – Small Leafed Forsythia Poplar – Black
Aspen Gooseberry Poplar – Grey
Barberry Gorse Poplar – Balsam
Bay Greengage Poplar – Black Italian

Beech Hawthorn Poplar - White

Beech - CopperHawthorn - MidlandPrivetBeech - Fern LeafedHawthorn - RedRedwoodBirch - DownyHazelRose SpeciesBirch - SilverHollyRowan

Blackthorn Hornbeam Scholar's Tree
Box Ivy Snowberry
Bramble Laburnham Spindle

Broom Larch Spindle – Large Leafed

BuckthornLaurelSpruceBuckthorn - AlderLaurel - CherrySumachBuckthorn - SeaLaurel - SpurgeSycamoreBuckthorn - PurgingLeylandiTree of HeavenBuddleaLilacViburnhum

Butchers Broom Lime – Large Leaved Walnut

CedarLime – Small LeavedWayfaring TreeCherry – BirdLoniceraWhitebeamCherry – PlumMahoniaWild ServiceChestnut – HorseMapleWildingChestnut – SweetMaple - FieldWillow

Christmas Tree Maple – Norway Willow - Almond
Cotoneaster Maple – Red Willow – Crack
Crab Apple Medlar Willow – Cricket Bat

CurrantMulberryWillow – GoatCypressOakWillow – ReticulateDamsonOak – HolmWillow – WeepingDaphneOak – SessileWillow – White

Dogwood Oak – Turkey Yew

Duke of Argyll Tea Old Mans Beard

SUFFOLK HEDGEROW SURVEY RARITIES AND ACCIDENTALS WITH LOCATIONS

Alder - grey Leavenheath
Alder - Italian Bentley, Syleham

Berberis Bentley
Beech - fern leafed Hartest
Birch - downy Cratfield

Box Elder Needham Market

Buckthorn - sea Botesdale

Buckthorn - purging Kettlebaston, Syleham

Butchers Broom Bentley, Iken, St Cross South Elmham

Duke of Argyll Tea Baylham, Bramfield, Claydon, Gt. Cornard, Mutford, Stanstead,

Waldringfield, Wenhaston

Elm - smooth leaved Hessett

Eucalyptus Thelnetham
Hawthorn -red Barking
Laurel - cherry Theberton

London Plane Coney Weston, Gt. Glemham, Nayland & Wissington, Stutton

Medlar Barking, Blythburgh, Gt. Glemham, Ilketshall St Andrew,

Pettaugh

Rickinghall Inferior

Mulberry Bacton

Oak – sessile Stoke by Nayland

Pear –wild Westhall
Poplar - balsam Barking
Poplar - black Italian Bentley

Poplar - grey Gt. Bentley, Syleham Poplar - white Mickfield, Syleham

Redwood Brettenham
Scholar's tree Wetherden
Tree of Heaven Baylham
Willow - cricket bat Cratfield
Willow - almond Hepworth

Willow - white Syleham, Thelnetham

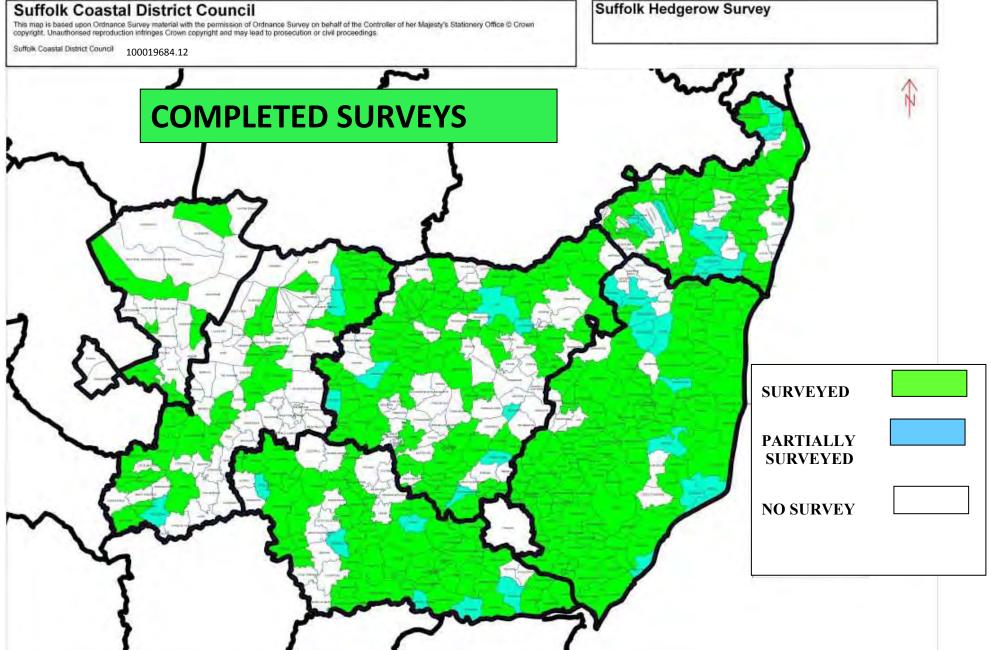
Willow - grey Thelnetham Willow - reticulate Woolpit

Suffolk Coastal District Council

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Suffolk Parishes

Suffolk Coastal District Council



Conclusion

It has been seen to be important that we acknowledge and thank as many volunteers, helpers and advisers who over the last 12 years have been instrumental in making the Project the success it has become. Whereas those that were parish hedgerow survey coordinators, committee members, and colleagues are well known to us and remembered, unfortunately we do not know all the surveyor volunteers and the 'back room' helpers at parish survey level, involved with the admin, mapping, support and recording of local data.

From the time the audit and statistics reports started to be written to completed parish survey coordinators, we were able to include their names as a means of local acknowledgement, but there were so very many volunteers' names that were omitted. It could be therefore invidious to those not listed if we were to name the volunteer surveyors for whom we did have the names.

In total, the best estimate we have is that over the length of the Project some 2000 surveyor volunteers helped with the survey at some time or another, ranging from 6 weeks to several years.

In the case of the named volunteers that follow, we know that donations of time, energy and dedication were spread over many years, some as many as 12 years in all, with two committee members working tirelessly up to 4-6 hours a day, seven days a week, year after year.

It is inevitable that in a project as large and long as this one, there will be omissions and errors and these are regretted, but the overwhelming fact remains that the Project would not have been the very obvious success it has been, had it not been for the volunteers.

It is also an extraordinary act of fate that the original ethos emanating from Rio in 1992 and all that the amazing Earth Summit stood for then, is today being echoed by Rio+20. There can be no stronger message that we got it right.

Anne	Ackerley	Bredfield	Alan	Bultitude	Monk Soham (east)
Anna	Alden	Sudbourne	John	Burford	Lound
Claire	Appleby	Botesdale	Rosalyn	Burrow	Bromeswell
Alan	Aris	Alpheton, Shimpling	Chris	Burton	Committee, Forest Heath
Barbara	Asplin	Reydon, Southwold	David	Butcher	Corton
		Barnby, Mutford, North			
Terry	Avery	Cove, Rushmere	Corrine	Butler	SWT Lackford
Sasha	Ayres	Farnham & Stratford St	Richard	Cage	Barking
		Andrew			
Jessica	Bailey	Hadleigh	Lydia	Calversbert	Bawdsey
Mark	Baker	Brettenham	Lydia	Calversbert	Bawdsey
Diana	Ball	Committee, Woodbridge	Ken	Campbell	Gislingham
		TC & Playford			
Terry	Bannister	Nayland & Wissington	Verena	Carr	Eye
Christine	Banyard	Flowton	Katie	Carr Tansley	Benhall, Sternfield and Kelsale
John & Yvonne	Barber	Willisham	Lin	Carter	Ufford
Maureen	Barker	Red Lodge	Dorothy	Casey	SWT
David	Barker	Westhorpe	Henry	Chancellor	Arwarton
Guy	Belcher	Committee , Forest Heath	Jenny	Chantler	Cavenham
Alan	Benton	Mildenhall	Bridgette	Chase	Kettleburgh
Peter	Berry	Committee, BDC	Erica	Clark	Hartest
Kit	Bird	Chelsworth	Grenville	Clarke	Lawshall
Margarette	Birkinshaw	Brettenham	Alan	Clement	Heveningham
Peggy	Bisson	Preston St Martin	David	Cobbald	Belstead
Rosie	Blake	Baylham	Lionel	Coe	Stoke Ash
Trevor	Boon	Ilketshall St John	Gillian	Coles	Bredfield
John	Booth	Foxhall	Jennifer	Cook	Lt Bealings
Kerry	Bridges	SCDC	Cathy	Crouch	Chelmondiston
Dennis	Briggs	SWT Lackford	Jane	Crowe	Shelley
Gen	Broad	SBP	Joan	Cull	Boxford
Nick	Bromley	Sotterley	Tim	Dafforn	MSDC
Phil	Brown	Dalham	Valerie	Darwell	Hartest
Trevor	Bugg	Tunstall	Stephen	Davies	Pettaugh

Angela	Davis	Eyke	Emma	Flaxman	Wissett
Joe	Davis	SWT	John	Forbes	Martlesham
Sarah	Day	Burgate, Mellis, Wortham	Marie	Foreman	Yoxford
Matt	Deakin	SCDC	Mike	Foster	Lound, Herringfleet,
					Blundeston
Lyn	Dicker	SCC	Bernardine	Freud	Ubbeston
Mary	Dixon	Trimley St May &	Hilary	Furlong	Elmsett
		Greenprint Forum			
Martin	Douglas	Committee, SWT, Long	Bernard	Gant	Wetherden
		Melford, Chilton, Gt			
		Cornard			
Helen	Drew	Shipmeadow	Wilf	Garford	Admin Manager, SCDC, BDC
Tony	Dyer	Hacheston	John	Garratt	Brandeston
Philip	Eastwood	Henstead & Hulver	Chris	Gibbons	Redlingfield
Mark	Edgerley	SCDC & trainer	Max	Goddard	Marlesford
Ray	Edwards	Brampton	Pam	Goldfinger	Hemley
Bernadette	Eklid	Easton	Mary	Gooderham	Friston
Nick	Elliott	BDC	Phil	Gore	SCDC
Sue & Tony	Emerson	Botesdale	Alistair	Graham-Kerr	Beccles, Flixton W
Sue & Tony	Emerson	Rickinghall Inferior	Carole	Graves	BDC
Sue & Tony	Emerson	Rickinghall Superior	Michael	Gray	Parham
Jill	Erben	Southolt	Maxine	Green	SCDC
Linda	Evans	Capel St Mary	David	Green	EADT
Berridge	Eve	Trimley St Martin & trainer	Joy	Green	Whatfield
Bob	Farrow	Witnesham	Alan	Guilford	Kettlebaston
Mary	Feeney	Elmswell	Carol	Gurney	Higham
Libby	Ffrench-Mullen	South Elmham St Cross	Douglas	Hackett	Ilketshall St Andrew
Maurice	Finch	Letheringham	Chris	Hainsworth	Committee, FWAG
Lisa	Finch	Denham	Colin	Hall	Foxhall
John	Fisher	Saxmundham	Jane	Halstead	Westerfield
Christine	Fisher-Kaye	Waldringfield	Elaine	Halton	Brome & Oakley
Lyn	Hannant	Drinkstone	Sue	Harvey	Wingfield
Ray	Hardinge	Framlingham	Colin	Hawes	Bentley & Brantham
Helen	Hardy	Wyverstone	Juliet	Hawkins	Milden
Michael	Harvey	Syleham,	Pat	Hayes	Beyton

Charles	Heath	Capel St Mary	Michael	Laschet	Aldringham cum Thorpe
Ben	Heather	SBRC	Rosalind	Lavington	Sproughton
Julyan	Heazell	Snape	Anne	Law	Ilketshall St Lawrence
John	Hewitson	Occold	Audrey	Lawford	Chattisham and Hintlesham
Chris	Hill	Fressingfield	Jan	Leech	Carlton Colville
Frances	Hitchcock	Bruisyard	Isobel	Lilley	Boyton
Julie	Holmes	SCDC	Rosemary	Lincoln	Gt Glemham
Joy	Homan	Wickham Skeith	Jasmine	Lingwood	Bungay
Martin	Horlock	SBRC	Dawn	Lodge	Hoxne
Robert	Horrex	Felsham, Gedding	Alison	Looser	Harkstead
Viv	Hotton	SCDC	Trevor	Lord	Brightwell
David	Housego	Committee, FWAG	Sally	MacKinnon	Mendahm & Withersdale St
Tony	Howe	Huntingfield	Ursula	Mackley	Blythburgh
Brenda	Hudson	Coddenham	David	Maddison	Holton St Mary, Raydon
David	Hughes	Committee, MSDC,	Liz	Marks	Bawdsey
		Mickfield, Stonham Parva			
John	Hughes	Sudbury	Jim	Marshall	Shelley
David	Humphries	Redisham	Heather	Marshall	Wetherden
Diana	Hunt	Wenham Magna, Wenham	Derek	Martin	Easton
		Parva			
Chris	Jackson	Leavenheath	Janet	Martin	Preston St Martin
John	Jay	Otley	Viv	Mason	Hollesley
Keith	Jones	Haughley, Woolpit	Jane	Mason	Westleton
Jenny	Kent	SWT	Jane	Mason	Westleton
Emma	Kerridge	SWT	Andelphine	Mason-Brown	Frostenden
Malcolm	Key	Parham	Barbara	Mathews	Felixstowe & Trimley St Mary
Charles	Keys	Monk Soham west	Alice	Mathewson	Creeting St Mary
Richard	Kilshaw	Polstead	Ingrid	McIver	Grundisburgh
Gill	Kimmerling	Knodishall	Fiona	McKeown	Committee, WDC, Kessingland,
					Lowestoft
Rosemary	Knox	Nayland & Wissington	Angela	Medhurst	Heveningham
Henryk	Kostecki	Brandon	Maureen	Mee	Bawdsey
Ralph	Lambert	Mendlesham	Maureen	Midwinter	Gt Bealings
Tony	Langford	Halesworth	Liz	Miles	Badwell Ash
Paul	Larkin	Holbrook	Lynne	Moore	Friston

Barbara	Moore	SCDC	Norma	Pitfield	Leiston
Carol	Moore	Mildenhall	Tim	Poole	Brightwell, Foxhall & Purdis
					Farm
Jackie	Morecombe	Walberswick	Charles	Posford	Falkenham & Kirton
Barbara	Morris	Thurston, Hessett	John	Poulter	Orford & Gedgrave
Sam	Mortlock	Committee, SCDC, Woolpit	Jeremy	Pratt	Nacton
Paul	Mortlock	Leavenheath, Stoke by	Debbie	Pynn	Grundisburgh
		Nayland			
Eileen	Moss	Burstall	Glenis	Pytches	Lt Glemham
Brenda	Motley	Blythburgh	Jonathan	Ralph	Aldham
Norman	Muddeman	Ringsfield & Weston	Steve	Ratcliffe	Committee, SCDC
Elaine	Nason	Laxfield	Jessamy	Reynolds	Witnesham
Alex	Nichols	Moulton	Diana	Reynolds	Monks Eleigh
David	Norman	Buxhall	Mary	Richardson	Kesgrave
Rosie	Norton	Peasenhall & Sibton	Celia	Richardson	East Bergholt
Rebecca	Norton	Edwardstone	Gaby	Ridgeway	Woodbridge
John	Norton	Groton	Philippa	Rixon	Hemingstone
Kay	Oakes	Needham Market	Maraday	Robinson	Kersey
Jonathan	Oldham	Raydon	Phil	Robinson	Thorndon
James	O'Neil	Lt. Blakenham	Alan	Rogers	Rushmere St Andrew
Sarah	Openshaw	Thornham display centre	Nicholas	Rose	Alderton
Peter	Oram	Wrentham	Peter	Ross	SCDC, trainer
Rick	Osborn	Worlingworth	Linda	Rowlands	Shotley
Paul	Parry	Kelsale	Karen	Ruth	Thornham walled garden
Graham	Patrick	Lavenham	Michael	Ryland	Wangford with Henham
Mary	Patterson	Earl Soham	Alan	Sawyer	Acton
Andrew	Paul	Sutton & Shottisham	Anne	Sayer	Pettistree
Graham	Peck	Wenhaston, Sotherton,	Tim	Schofield	Committee, FWAG
		Blyford			
Bob	Perrett	Middleton & Westleton	Andrew	Scott	Shelley
Simon	Phillips	Ashby,Somerleyton,	Peter	Seaman	Eye
		Flixton E, Herringfleet			
Anne	Pickess	Weybread	Anne	Seward	Wickham Market
Silke	Pinson-Roxburgh	Offton	lan	Shaw	Yoxford
Kate	Pirkis	Boulge	Tom	Sherridan	Rendlesham

Jenny	Shoebridge	Akenham, Claydon, Whitton	Kathy	Thurman	Bedfield
Jane	Shotter	Westhall	Andrew	Toomey	Ringshall
Helen	Sibley	Thornham Walks	Richard & Mary	Toomey	Somersham, trainer
Robert	Simper	Ramsholt	Maureen	Turner	Gt Ashfield, Walsham le Willows, Westhorpe
Beryl	Sims	Bramford	Audrey	Tyerman	Hadleigh
Richard	Skeats	Stanstead	Mischi	Vernetti	Walberswick
Ben	Smith	St EdsBC	Peter	Vincent	Fressingfield
Gordon	Smith	Hasketon	David	Waldron	Lindsey
John	Smithson	Committee, St Eds BC	Debbie	Wargate	SCDC
Ken	Southall	Nettlestead	Phil	Watson	SCC
Heather	Spencer	Tostock	Jim	Watts	Holton
Anne	St Quinton	Brundish	Simon	Weeks	Bramfield
John	Standeven	Tattingstone	Rodney	West	Blaxhall & Iken
Angie	Steele	Hessett	Andrew	West	Tuddenham
Liz	Stegman	Ashbocking, Gosbeck	Joy	West	Southwold
Phillipa	Stewart	Iken	Anne	Westover	Committee, SCDC, trainer
Patty	Stone	Harkstead	Paul	Wigens	Bredfield, committee chart maker
Isabel	Strickland	Copdoch with Washbrook	Claire	Willemstein	Eye
Anthea	Sullivan	Newbourne	David	Williamson	Mellis, Thornham Parva, Yaxley
Etienne	Swarts	South Elmham All Saints, St Nicholas, St Peter, St Michael	Carol	Williamson	Rattlesden
Mike	Swindells	Aldeburgh	Sarah	Wilson	Sotterley
John	Symons	Stratford St Mary	Ken	Wilson	Stutton
Maggie	Talmer	Wherstead	Guy	Wiltshire	Combs, Cotton
Anne	Thomas	Bramfield	Michael	Woods	Layham
Debbie	Thomas	Sudbury	Roger	Worboys	Somerton
Helen	Thompson	Levington & Stratton Hall	Nick	Wyatt	F/HDC
Stephen	Thorpe	Pinewood	David	Wybar	Earl Soham
David	Thurlow	Committee, RSPB	Louisa	York	Saxtead