

A note on some ecological and environmental factors relating to the proposed housing development on Street Farm, Sedlescombe, East Sussex

Patrick Roper, June 2014

1.0 Introduction

- 1.1 On 4th June 2014, Patrick Roper, the author of this note, was asked by Jonathan Vine-Hall, chair of the Sedlescombe Parish Council, if he could add any further ecological or environmental justification for the whole of Street Farm to be an undevelopable green space, an approach which is supported by 92% of Sedlescombe residents.
- 1.2 Dr. Roper and his family have been resident in Sedlescombe for over 40 years. He has worked for 20 years as a consultant ecologist, largely in Sussex (for a fuller CV see end of this note - page 11). He lives in Churchland Lane, Sedlescombe, and is therefore not directly affected by this particular proposal in the parish's Neighbourhood Plan or those of the developer.
- 1.3 The purpose of this note is to highlight the many ecological and environmental factors that are important in the Street Farm area and may be damaged or compromised if the proposed development goes ahead. The author of this note has also commented (APPENDIX 1) on the preliminary ecological assessment of the area prepared by Landscape Planning Ltd (LPL) in February 2014 as this has many serious flaws.

2.0 Background to Street farm

- 2.1 The current development proposal has been put forward by MJH Executive Homes Ltd. and involves the construction of 18 houses in the eastern part of the large (4.44 hectares¹) Street Farm field adjacent to the south western part of East View Terrace and Blacklands along Brede Lane. The footprint of the development currently proposed, and which (with surrounding areas) is the subject of this note, is 1.55 hectares including 0.41 hectares to be transferred to the school as playing fields. Before this an area on the north side of the Street Farm field was proposed for development by MJH. The various documents seen by the author of this note can refer to any one of these three areas and care needs to be taken to be sure which one is being discussed.

3.0 Methodology of this note

- 3.1 The site was visited on 5th, 9th and 13th June 2014 by the author of this note. Desk research was also undertaken on a variety of relevant issues including study of the *Preliminary Ecological Appraisal* (February 2014) of the area by Landscape Planning Limited (LPL). As mentioned above, this appraisal is considered more fully in APPENDIX 1 below.

¹ Most area values have been calculated using an online planimeter and are therefore approximate but give a good indication of scale.

3.2 All plants recorded on the site by the author of this note are listed at the end.

4.0 Site description

4.1 The proposed development site essentially involves the eastern end of a large hay meadow which had, according to Landscape Planning's ecology report, two hay cuts last year (2013). It is in Sedlescombe Parish, Rother District and the High Weald Area of Outstanding Natural Beauty.

4.2 Although it does not have the characteristics of an ancient meadow or pasture, the great diversity of plant life indicate that this meadow has not been recently sown, unless a special conservation seed mix was used. The main constituents are meadow buttercup (*Ranunculus acris*), common sorrel (*Rumex acetosa*), cocksfoot grass (*Dactylis glomerata*), Yorkshire-fog grass (*Holcus lanatus*), sweet vernal-grass (*Anthoxanthum odoratum*) and rough meadow-grass (*Poa trivialis*), but there are many other plant species. The field is what would be described by most people as a 'buttercup meadow'. In the technical term of the National Vegetation Classification this is one of the MG (Mesotrophic Grasslands series), though not readily ascribable to a particular category of this system. Four butterfly species were also noted: the small blue, the large skipper, the small tortoiseshell and the small heath. The latter is a declining BAP species (for research purposes). Grasshopper nymphs were also present.

4.3 It is difficult to understand why staff at the High Weald Area of Outstanding Natural Beauty have, apparently, said they felt development here would not affect the AONB. Lowland meadows are one of the habitats in the Sussex Biodiversity Action Plan because they are often botanically rich and support, or help to support, many mammal, bird and invertebrate species. They also help to compliment the life of surrounding hedgerows, woods and wetlands as part of a habitat mosaic . Hay meadows have been declining rapidly throughout Britain.

4.4 Lowland meadows are described as a 'habitat of principle importance in England' (Natural Environment and Rural Communities (NERC) Act 2006), Section 41. Rother District Council fully acknowledge the importance of meadows in their *Green Infrastructure* document (2011) , part of the Local Development Framework.

4.5 In June the Street Farm meadow (see right) is part of a beautiful, characteristically English landscape: an iconic element of the summer countryside that has often been celebrated by writers from Sussex and elsewhere. For example, W. H. Hudson wrote "I doubt if there exists within the tropics anything to compare with a field of buttercups--such large and unbroken surfaces of the most brilliant colour in nature." While novelist E. F. Benson who lived in Rye said "it is the month of the



briar-rose. See how the hedges foam with pink blossom. And the fields, look, knee-deep in long grasses and daisies and buttercups. I am home again, thank Heaven. I am home."

- 4.6 An additional point of interest is that the distant ridge beyond the field is the one down which the Norman army advanced at the 1066 Battle of Hastings.
- 4.5 Many of the plants present attract insects to their nectar and/or pollen and serve as foodplants. Buttercups, for example, "are visited by a very wide range of insects for nectar and pollen" (Proctor, Yeo & Lack, 1996); fifty four species of insect were recorded visiting meadow buttercup flowers in Germany (Steinbach & Gottsberge, 1993).
- 4.6 Wildflower-rich grasslands are a valuable habitat for bumblebees, important pollinators of fruit trees, as they contain many nectar and pollen-rich plant species, which are favoured by them. To feed and nest, bumblebees need large areas of flowers throughout the summer. But the meadows that were common earlier this century have been ploughed up for crops or are now grazed by cattle and sheep. The loss of meadows is the major factor in the modern population crash of these bees (Edwards, 1999)
- 4.7 Hedges are an important part of the site and its surrounds in ecological, landscape and historic terms. Writing in the *Hedgerow Survey Handbook* (2002) the then environment minister, Michael Meacher said "Hedges are extremely important not just to farming, but to the wildlife, beauty and diversity of our countryside, and to our culture and understanding of how that countryside has evolved over the centuries. They have been aptly described as the green veins of our countryside, and without them our nation would be greatly impoverished."
- 4.8 The hedges on the north, east and south of the proposed development site are all rather different in character but of importance to wildlife not only in their own right, but as a compliment to the open field. The ecological report by LPL considered below covers not only these three hedges, but also the one on the west of the field some 270 meters from the proposed development site. This western part of the field would, of course, be affected by the establishment of school playing fields.
- 4.9 The hedge on the north of the area on the south side of Brede Lane is almost entirely of common hawthorn (*Crataegus monogyna*). From the even size of the individual plants and their rather large, shiny leaves it is clear that they have been fairly recently planted and are not of local stock (a not uncommon occurrence in Britain). There is a wooden fence within the hedge. In addition to the hawthorns, ash, yew, dog rose, holly, hazel and bramble have succeeded in establishing themselves in the hedge as have at least 25 smaller plants in the hedge bottom. In recent years fallow deer have been seen in this part of Brede Lane and this needs to be borne in mind from the road safety point of view.
- 4.10 The 20 metre stretch of hedge along Brede Lane that would have to be removed to allow access to the proposed development site is virtually identical with the rest of the stretch as described in 4.9 above. In addition to hawthorn, the main constituent, it contains bramble (*Rubus fruticosus* agg.), stinging nettle (*Urtica dioica*), hogweed (*Heracleum sphondylium*), creeping buttercup (*Ranunculus repens*), cocksfoot grass (*Dactylis glomerata*), rough

meadow-grass (*Poa trivialis*), holly (*Ilex aquifolium*), lords and ladies (*Arum maculatum*), Italian lords and ladies (*Arum maculatum* cv), goosegrass (*Galium aparine*), garlic mustard (*Alliaria petiolata*), hedge bindweed (*Calystegia* sp.), ash (*Fraxinus excelsior*) and hedge parsley (*Anthriscus sylvestris*).

4.11 On the east of the site the hedges are a mixture of different species many planted on the boundaries of the gardens in Blacklands and East View Terrace. Some of these, such as garden privet (*Ligustrum ovalifolium*), Japanese honeysuckle (*Lonicera japonica*) and Russian vine (*Fallopia baldschuanica*) are not natives, but the hedges and the tall scrubby vegetation close to it offer a good habitat for wildlife.

4.12 The hedge on the south of the site running from the kickabout area on the south west corner of the East View Terrace estate westwards for some 325 metres is of much greater interest ecologically and historically than those considered above. It grows on a half-bank sloping to the south and many stretches consist almost entirely of hazel (*Corylus avellana*). This is not normally used for hedging today and the individual plants are large enough to have been in place for some considerable time. In addition to hazel there are oak, holly, ash, blackthorn, ivy, dog rose, hop, bramble, honeysuckle and a rich variety of smaller plants. Ancient woodland indicators such as field rose, bluebell and wood anemone also occur on the half-bank. The invertebrate life of a hedge of this kind is likely to be very rich: 830 species of fly (Diptera) were, for example, recently recorded from an 85 metre length of hedge in Devon (Wolton et al., 2014). This is about the same length as the strip of hedge on the southern boundary of Street Farm field that would be adjacent to the new development.

4.13 There are no waterbodies on the site itself but just to the south of the kickabout area on the edge of Catt's Shaw there are two springs that give rise to small streams that flow down to the river Brede. The location of the springs is readily visible in summer from the circular patches of white-flowered hemlock water dropwort (*Oenanthe crocata*) growing around them (see left). There is standing water at these springheads for much, if not all, of the year and they may be breeding sites for amphibians. It is thought unlikely that they are visited by great crested newts, but this could easily be checked at the appropriate time of year. An older inhabitant of Sedlescombe has said that some people used to get their water from these springs (though the main source, of course, was the pump on the village green.) It is important to establish that these springs would not be affected by runoff from the proposed development area.



4.14 There is a small pond marked on various maps some 370 meters from the proposed development area. On the 1878 Ordnance Survey 1:10,560 map it is shown as lying in the corner of a field at TQ7836617854, a field that is now mostly scrubbed over. The pond area itself is heavily overgrown with willow trees, brambles and other vegetation making it impossible to approach without clearing the area. It has probably both dried and silted up,

though it may contain some water in winter. At a distance of 370 meters from this pond, the proposed development site is within the terrestrial range of legally protected great crested newts. However, it is thought that the pond is not a suitable habitat for them, though it ought to be checked.

- 4.15 Catt's Shaw, the ancient woodland to the south of the site, would be affected by greater pressure in a variety of ways such as additional noise, light levels at night, potential pollution via runoff, higher footfall and dog walking and the presence of a greater number of cats. It is an unusual wood inasmuch as there is no fence between it and the surrounding pasture and both wood and pasture are grazed by domestic stock for much of the year. This is gradually changing Catt's Shaw from woodland to wood pasture, a habitat that can often be more valuable in ecological terms than ancient woodland.
- 4.16 The kickabout area, the springs, the woodland edge, the ancient hedge, the hay meadow and pasture make an ideal habitat for the bats that are currently present in the area. There are many potential roosting sites in Catt's Shaw and the general area should be surveyed so that the commuting and foraging routes of the bat population can be better understood and used in creating mitigation strategies for any development that might go ahead in the area. However, Natural England say "Measures to address potential effects on protected species should firstly aim to avoid those impacts." All bat species in England are legally protected.
- 4.17 The common eel (*Anguilla anguilla*) has recently been recorded from the nearby Brede valley. It is listed as Critically Endangered on the IUCN Red List and is a UKBAP Priority Species. Although it can travel overland, it is unlikely to be directly affected by the proposed development but it highlights the importance of ensuring the local waterbodies remain as unpolluted as possible.
- 4.18 Barn owls have bred regularly in Oaklands Park (Pestalozzi) on the southern side of the river Brede. Wild barn owls are given the highest level of legal protection possible under the 1981 Wildlife and Countryside Act. They require rough grassland, the edges of watercourses and grass strips alongside woods for hunting. According to the RSPB a pair of barn owls requires about 20-25 km of edge habitat with several suitable roosting sites. The area of the proposed development is good barn owl habitat.
- 4.19 The proposed development site lies about 235 metres from the closest part of the Brede Valley Site of Nature Conservation Importance (SNCI). This covers 1089 hectares and has been described as of outstanding importance for wildlife by the Sussex Wildlife Trust.
- 4.20 The Friends of the Brede Valley say that it "*supports a great many plant and animal species in varying abundance by providing the habitats in which they live. Some of the species and habitats are locally and nationally rare, and this has contributed to the area's recognition as being of significant importance to the county, through its designation as a Site of Nature Conservation Interest (SNCI).*"
- 4.21 One of the most important biodiversity aspects of the Brede Valley is the large number of unusual plant and animal species that have been recorded from the dykes and ditches. It is therefore important that these features remain unpolluted. It is assumed that a modern drainage system would be included in the MJH plans, but the issue of run-off southwards

from the proposed houses and gardens needs to be addressed and the strategy clearly stated.

- 4.22 The combination of river, ancient woodland and meadow from Sedlescombe Bridge to Brede Bridge, (some 4.38 km) uninterrupted by roads or railways creates a rich and dynamic diversity of habitat that can contribute much, both in terms of biodiversity and landscape aesthetic to the wider area. The proposed development would diminish the size, attractiveness and wildlife importance of this area. It might also be considered the 'thin end of the wedge' by creating a precedent for further urban development across Street Farm and similar sites.
- 4.23 In the government's National Planning Policy Framework (NPPF), para 115, it says: "Great weight should be given to conserving landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty. The conservation of wildlife and cultural heritage are important considerations in all these areas."
- 4.24 Natural England say "Measures to address potential effects on protected species should firstly aim to avoid those impacts."
- 4.25 In conclusion it is argued that residential houses of an equivalent number and type should be sited elsewhere in the parish as has been proposed in the Neighbourhood Plan. This would be far less damaging to habitats and species in this very special part of the Brede Valley as well as being desirable in aesthetic, cultural and social terms.

REFERENCES

Defra (2011) *Identification of injurious weeds*.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69265/pb4192-injurious-weeds.pdf

Edwards, R. (1999) *The plight of the bumblebee* by Rob Edwards. New Scientist 2177, page 15.

JNCC (2011) *UK Biodiversity Action Plan; Priority Habitat Descriptions*. BRIG (ed. Ant Maddock) 2008. (Updated 'HF 201)

Proctor, M., Yeo, P & Lack, A. (1996) *The Natural History of Pollination*. New Naturalist (HarperCollins), London.

Rother District Council (2011) *Green Infrastructure*.

<http://www.rother.gov.uk/CHttpHandler.ashx?id=14911&p=0>

Steinbach, K. & Gottsbergk (1994) Phenology and Pollination Biology of Five Ranunculus Species in Giessen, Central Germany. *Phyton (Horn, Austria)* **34** (2): 203-218.

Sussex Biodiversity Partnership (2007) *Lowland Meadows*.

<http://www.biodiversitysussex.org.uk/habitats/lowland-meadows>

Wolton, R. J., Bentley, H, Chandler, P. J., Drake, C. M., Kramer, J., Plant A. R. & Subbs, A. E. (2014) The diversity of Diptera associated with a British hedge. *Dipterists Digest* **21** (1): 1-36.

Plant list. The plants below were recorded from the proposed development area in mid-June 2014 by the author of this note. It is not comprehensive but gives some indication of the natural character of the area

<i>Pteridium aquilinum</i>	Bracken
<i>Dryopteris dilatata</i>	Broad Buckler-fern
<i>Dryopteris filix-mas</i>	Male-fern
<i>Taxus baccata</i>	Yew
<i>Calystegia sepium</i>	Hedge bindweed
<i>Arum italicum</i> ssp. <i>italicum</i>	Italian Lords-and-Ladies
<i>Arum maculatum</i>	Lords-and-Ladies
<i>Hyacinthoides non-scripta</i>	Bluebell
<i>Anisantha sterilis</i>	Barren Brome
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
<i>Arrhenatherum elatius</i>	False oat-grass
<i>Dactylis glomerata</i>	Cock's-foot
<i>Holcus lanatus</i>	Yorkshire-fog
<i>Poa trivialis</i>	Rough Meadow-grass
<i>Lolium perenne</i>	Rye grass
<i>Aethusa cynapium</i>	Fool's Parsley
<i>Anthriscus sylvestris</i>	Cow Parsley
<i>Heracleum sphondylium</i>	Hogweed
<i>Hedera helix</i>	Ivy
<i>Achillea millefolium</i>	Yarrow
<i>Bellis perennis</i>	Daisy
<i>Cirsium arvense</i>	Creeping Thistle
<i>Crepis capillaris</i>	Smooth Hawk's-beard
<i>Hypochaeris radicata</i>	Cat's-ear
<i>Lapsana communis</i>	Nipplewort
<i>Sonchus asper</i>	Prickly Sow-thistle
<i>Taraxacum officinale</i> agg.	Taraxacum officinale agg.
<i>Carpinus betulus</i>	Hornbeam
<i>Corylus avellana</i>	Hazel
<i>Alliaria petiolata</i>	Garlic Mustard
<i>Humulus lupulus</i>	Hop
<i>Lonicera japonica</i>	Japanese Honeysuckle
<i>Sambucus nigra</i>	Elder
<i>Cerastium fontanum</i>	Common Mouse-ear
<i>Silene dioica</i>	Red Campion
<i>Stellaria graminea</i>	Lesser Stitchwort
<i>Stellaria holostea</i>	Greater Stitchwort
<i>Convolvulus arvensis</i>	Field Bindweed
<i>Vicia cracca</i>	Tufted Vetch
<i>Vicia sativa</i>	Common Vetch
<i>Quercus robur</i>	Pedunculate Oak
<i>Geranium dissectum</i>	Cut-leaved Crane's-bill
<i>Glechoma hederacea</i>	Ground-ivy
<i>Stachys sylvatica</i>	Hedge Woundwort
<i>Fraxinus excelsior</i>	Ash
<i>Ligustrum ovalifolium</i>	Garden Privet
<i>Epilobium hirsutum</i>	Great Willowherb

<i>Plantago lanceolata</i>	Ribwort Plantain
<i>Fallopia baldschuanica</i>	Russian-vine
<i>Rumex acetosa</i>	Common Sorrel
<i>Rumex crispus</i>	Curled Dock
<i>Rumex obtusifolius</i>	Broad-leaved Dock
<i>Rumex sanguineus</i>	Wood Dock
<i>Anemone nemorosa</i>	Wood Anemone
<i>Ranunculus acris</i>	Meadow Buttercup
<i>Ranunculus repens</i>	Creeping Buttercup
<i>Crataegus monogyna</i>	Hawthorn
<i>Prunus spinosa</i>	Blackthorn
<i>Rosa arvensis</i>	Field-rose
<i>Rosa canina</i> agg.	Rosa canina agg.
<i>Rubus fruticosus</i> agg.	Bramble
<i>Galium aparine</i>	Cleavers
<i>Salix cinerea</i>	Grey Willow
<i>Veronica chamaedrys</i>	Germander Speedwell
<i>Urtica dioica</i>	Common Nettle

APPENDIX 1

Some comments on Landscape Planning Limited's (LBL) *Preliminary Ecological Survey*.

Patrick Roper, June 2014

1. The LBL report has no page or paragraph numbers so page numbers used in this note are those generated by the pdf file of the document.
2. The ecology report from Landscape Planning Ltd. is described as 'preliminary' which prompts the question as to whether further reports are scheduled. However LPL do say their report "is an assessment of the potential for the presence of European and other protected species." LPL also say "This report also specifically excludes invasive and pest species unless specifically instructed by the client." This is taken to mean alien invasive species as defined by the Government since there are, as would be expected on any field of this size, many native invasive and pest species on the site, e.g. bracken, bramble and broad-leaved dock (Defra, 2011).
3. Although this may not have been part of their brief, it is a pity that virtually no information is included on physical geography and geology of the site. It is simple to say something like "The 1.55 hectare survey site is on the south facing side of the Brede Valley in the High Weald Area of Outstanding Natural Beauty. It has a mean altitude of 30 metres above sea level (Ordnance Datum). The underlying geology is sandstone and mudstone with clay bands, all of the Ashdown Formation.
4. LPL Page 7. The opening paragraph is difficult to understand. The author(s) describe the survey area as comprising the 'Vale of Rother, and High Weald Area' possibly confusing it with the Rother Valley some 7km to the north and, presumably, the High Weald AONB. It goes on to say that the area "forms an important element of the English lowland scene, with gently rolling vistas including river valleys and higher grounds, a mixture of arable and grass fields surrounded by hedgerows and interspersed with small woods." This appears to come from a description by English Nature of their Natural Area 63 *Thames and Avon Vales* of which EN write "It forms an important element of an English lowland scene with its gently rolling vistas with a mixture of arable and grass fields surrounded by thick hedgerows and interspersed with small woods."
5. At the end of the second paragraph LPL say "To the south are playing fields, allotments, gardens and woodland." This is misleading as no allotments can be seen from the development area and only a small sliver of the Sedlescombe sports field. To the south of the site the landscape is mainly woodland and meadow with Pestalozzi's Oaklands Park in the distance. The mention of playing fields, allotments and gardens gives a false impression that the site is more urban than it is.
6. Paragraph 3 on page 7 of LBL's report is, again, difficult to understand. It reads "*Road Farm is located on the road frontage of Brede lane. The farm comprises of a small residence with the development site to the anterior of this property. As with all adjacent properties, gardens are well maintained with ornamental exotics.*" Presumably the author(s) mean Street Farm rather than Road Farm. The development site is, according to the maps I have seen, on the eastern side of a large field about 180 metres from Street Farm and the remark by LBL presumably refers to an earlier plan (still on the MJH web site at the time of writing this report) or to the proposed new playing field area. The sentence about local gardens does not seem relevant, though gardens round about are indeed well-maintained, but contain a variety of interesting native plant species as well as exotics.

7. In paragraph 6 on page 7 of their report LBL say the habitat survey was carried out on 6 September 2013. This survey does not inspire confidence as only 18 plants are listed (Appendix 3) whereas 67 plant species were noted in brief visits to the site in mid-June 2014 by the author of this note. There is no reason why virtually all of these 67 species would not have been evident in the previous September.

8. The LBL plant lists also contain several spelling errors such as *Crataegus* spelt '*Crateagnus*'; *aquifolium* spelt '*aquilifolium*'; *aquilinum* spelt '*aquilirium*'; *Convolvulus* spelt '*Convulvulus*'. Most people dealing regularly with plants like this would know how to spell their scientific names and have them on spell checkers. A Grape (*Vitis* sp.) is listed as one of the hedgerow species. While it is possible that this occurs, the author of this note has never seen a grape vine in a Sussex hedge in many years of ecology surveying. Maybe, the Russian vine (*Fallopia baldschuanica*) that has been planted at the end of one of the Blacklands gardens and grown into the hedge, or the hop (*Humulus lupulus*) in the south eastern corner of the site have somehow been confused with the grapevine as neither Russian vine nor hop are mentioned by LBL. The only willow seen by the author of this note was grey willow (*Salix cinerea*) and the privet which grows near the Russian vine is garden privet (*Ligustrum ovalifolium*) not wild privet (*Ligustrum vulgare*).

9. To list only four plants in the grassland where most of the development would be built is a serious distortion of the facts as it indicates that the area is much more species poor than it is. The DAFOR codes for the four plants listed in the grassland are irrelevant when most of the species growing there have been ignored.

10. On page 8, LPL say: "Although records show protected species within 2km of the site, including great crested newts, reptiles, dormice, bats including Common Pipistrelle, Serotine and Brown long eared, none were noted within the vicinity of the site." LBL point out that the site provides some potential terrestrial habitat for legally protected great crested newts, but say there are no ponds within 500 metres of the site. This is not strictly correct. There are pools, or small ponds, around the two springheads south of the kickabout area (see para 4.13 above) and a pond some 370 metres from the residential housing site (at TQ7836617854) is marked on many maps. This is surrounded by dense scrub and trees and may have dried up permanently, but should be checked.

11. Slow-worms are not uncommon around the survey area as they are almost everywhere in Sedlescombe with the most recent report being from East View Terrace in June 2014. Common lizards are also likely to occur as are grass snakes and possibly adders. Bats are present on the site and may well roost in Catt's Shaw or in houses in East View Terrace. They occur around the kickabout area and there are many parts of Street Farm where large numbers of airborne insects make very good foraging areas for them. Unbroken lines of hedge are important as markers for commuting.

12. It is important that proper surveys are undertaken for reptiles and bats, though it is agreed that great crested newts are unlikely on the site or within 500 metres. The nearby presence of protected species like barn owls and eels should also be acknowledged.

13. It is the view of the author of this note that LPL's preliminary ecological assessment is superficial, full of mistakes and contains misleading information. It should not be used to help determine the future of an area so important to Sedlescombe's future.

Patrick Roper - some background information

Patrick Roper has worked as a consultant ecologist since 1993 within his own business, Patrick Roper Associates, based in Sedlescombe, East Sussex. He is a doctor of business administration, an elected fellow of the Linnean Society and of the Royal Entomological Society and an elected member of the British Ecological Society. He was on the council of the British Entomological & Natural History Society from 2002 to 2004 and was a director of Butterfly Conservation and editor of its journal from 1990-1998. He was on the council of the Sussex Amphibian & Reptile Group and edited their newsletter for several years.

He managed the Rare Species Inventory for the Sussex Biodiversity Record Centre in a professional capacity and edited *Adastra*, their annual review of wildlife recording in Sussex for 12 years until 2013. He has given expert ecological evidence to recent public inquiries on major developments in East and West Sussex. He was a listed surveyor for Farm Environment Plans with Natural England's Rural Development Service.

He works closely with the Woodland Trust, both professionally and as a volunteer, on management plans and environmental statements for a number of conservation areas in East Sussex including the recently acquired Brede High Woods, one of their largest properties. He has recently been commissioned to write a 183 page book on Brede High Woods that was published in November 2013. He was chosen as their Volunteer of the Year for South East England in 2008.

He is on the conservation committee of Rye Harbour Nature Reserve and an honorary founder member of the Udimore Natural History Society.

Dr Roper is the recorder for two-winged flies (Diptera) in East and West Sussex. He has also studied an ancient woodland indicator, the wild service tree, *Sorbus torminalis*, for over 30 years during which time he coordinated the national survey of the species for the Botanical Society of the British Isles and the Biological Records Centre. He is author of a book on the tree published in May 2004 and a member of the Sussex Botanical Recording Society.

He is co-author of *Wooded Heaths in the High Weald*, a research report published by the Sussex Record Centre Survey Unit on behalf of the Weald Heathland Initiative (2004) and the subsequent paper *Ancient woodland or ancient heath? Re-examining the importance of wooded heaths in the Weald* (Proceedings of the 8th National Heathland Conference, 2004).

He has run courses and gives lectures on a variety of ecological and wildlife topics, has contributed refereed papers to a number of scientific journals and has contributed regularly to the Rye and Battle Observer newspapers. He was a member of the working party that revised the national Country Code in 1981 and a member of the committee for the establishment of Sites of Nature Conservation Importance (SNCIs) in East Sussex.

He has appeared on wildlife programmes on radio and television on many occasions including the national 2007, 2008 and 2009 Springwatches on BBC television as well as Countryfile and The One Show.

Clients for ecological work have included: Barefoot Yurts, Beauport Park Hotel, BdR Engineering, Brighton & Hove City Council, Bullens, Calverley Park Association, Canopy, CCM, Earthscapes Associates, Ecology Consultancy Ltd., Edburton Contractors, David I. Leigh Architects, G & F Pooke, Gemselect Ltd., Hastings Borough Council, Hawkins Brown, Hayland Developments Ltd., Helionix Designs, High Weald AoNB Unit, Horam Parish Council, J & J Design, Kent Design Partnership, Linda Bonnyman, Lseed Ltd., Mid Sussex District Council, National Trust, Oakdene Homes, Park Lane Homes (South East) Ltd., the Pines Calyx Centre, Robert D. Stokes, ROI Projects, Rother District Council, Royal Society for the Protection of Birds, Rye Harbour Nature Reserve, Simon Jones Associates Ltd., Smeeds Farm, Southern Water, Sussex Biodiversity Record Centre, Sussex Wildlife Trust, Wardell Armstrong, Wealden District Council, Weekes Consulting, Westridge Construction Ltd., West Sussex County Council, The Wetland Trust, The Woodland Trust and WoodNet. Many of these clients have returned several times with new commissions.

June 2014