

Field Survey 2013

Joan's Hill Farm Plantlife Reserve



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Acknowledgements

Project Coordinator: (Document, Data Collation,)

Janet Parry

Photography

Janet Parry, Eden Tanner, Hilary Ward

Graphics

Alan Parry

Plantlife liason

Joe Costley, Reserves Manager

Printing

Plantlife

Access

Plantlife and Forestry Commision

Members who carried out the survey, whose expertise and help was vital to the success of the project

Ann Bowker Michael Bradley Felicity Burge Valerie Cooper

John Davies Cherry Greenway Michael Harper Rob and Chris Hemming

John Meiklejohn Janet Parry Alan Pike David Taft

Eden and Wendy Tanner Hilary Ward Brian Wilder

Sally Webster Kate Wollen

Validation of observations and checking of data:

Michael Bradley Cherry Greenway, HilaryWard

Checking the text : Hilary Ward,

Introduction

This year, Ledbury Naturalists' Field Club was invited by Plantlife, the national charity supporting wild plants, to survey their site at Joan's Hill Farm on the edge of Haugh Wood. The area had been surveyed when purchased but no one had regularly reported on the wildlife throughout the seasons, therefore the Plantlife reserves manager was very keen that we should do a survey on the site in 2013 to help with future management plans.

Background

Joan's Hill Farm was bought by Plantlife in 1997. It is located at SO 591376 on the northern side of Haugh Wood in the Wye Valley Area of Outstanding Natural Beauty (AONB). The reserve covers 18.6 hectares (46 acres) and is divided into 15 fields in two separate areas joined by a track. The farm house is privately owned and not part of the reserve. Field boundaries are mainly old hedgerows with a post and wire fence round the reserve boundary. The fields are mostly grassland though there is an orchard near the farm house, a pond on the north side and a small area of woodland adjoining Haugh Wood at the western edge. The smaller eastern section contains considerable areas of scrub.

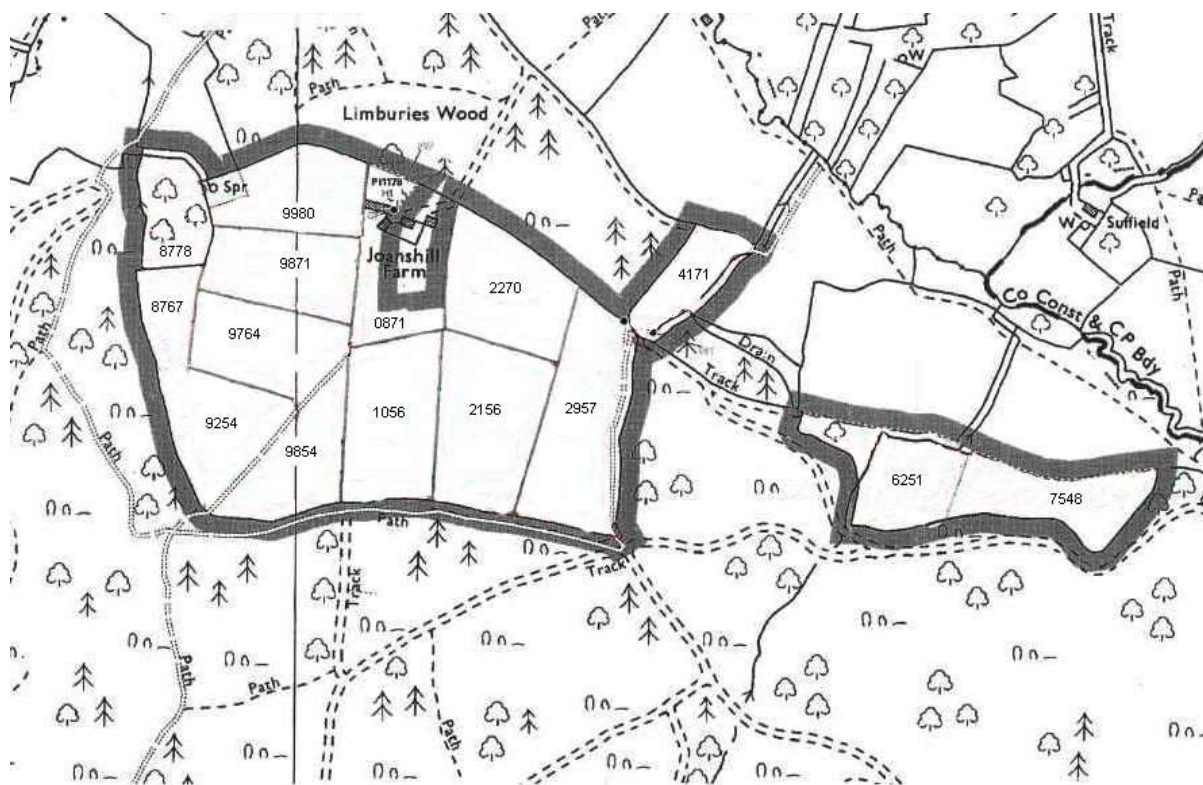
There are 2 public footpaths through the reserve, one along the eastern fringe of the main block and one from the south west corner across to the north following field boundaries. There is also a bridle track along the northern edge.

It is likely that the farm was carved out of the woodland in the 16th century and it seems that the field pattern has changed little since. The Tythe map of 1843 shows the farm and field patterns almost identical to today's plan. The map also shows that most of the farm was arable in 1843 but by 1925 most was pasture, though it was not until the 1950s that all the fields were grassland. There are probably only 3 sections of the reserve that have not been ploughed for 170 years and this is reflected in the vegetation.

From a geological point of view the farm is in the middle of the Woolhope Dome which is an inlier of Silurian aged rocks standing up through the surrounding Devonian Old Red Sandstones of Herefordshire. The Silurian rocks have been eroded to form concentric rings of alternating limestones and shales with sandstone in the centre all derived from depositions in the sea 450 million years ago. Joan's Hill is on one of the northern slopes mainly underlain by Woolhope Limestone with Haugh Wood sandstone just to the south at the top of the hill. It is well drained due to its slope though can get very muddy in winter.

The reserve is now managed by cutting the hay in late summer and being subsequently grazed through the autumn. There is a small group of local volunteers who work in the reserve doing tasks such as clearing the area round the pond and fixing fences. Another group have been helping to improve the old orchard by pruning neglected trees, removing some of the mistletoe and filling in gaps with local varieties of apple trees.

The Survey Area



Area of Joan's Hill Farm Reserve

The survey group members attempted to cover all the reserve, though they concentrated on the more flora rich meadows and the woodland. Only 2 visits were made to the smaller eastern block due to time available.

Conducting the Survey

Volunteers from Ledbury Naturalists' Field Club paid eight visits to the site between March and October in 2013 to carry out the survey. The dates of the general meetings were March 14th, April 3th, May 1st, June 5th, July 3rd, August 7th, September 4th, and October 2nd. There was an extra visit on May 13th by JP and HW as the meadows were flowering prolifically and MB ran a moth trap overnight on several occasions. On each date members spent about 3 hours in the afternoon walking around the site. All flowering plants, grasses, trees, fungi, ferns, birds, insects, and other invertebrates found along the way were recorded.

Hilary Ward supervised the botany and Michael Bradley and Rob Hemming tackled the Lepidoptera. Cherry Greenway identified the fungi. The club is fortunate to have the support of these experts in their fields, and great trouble was taken to verify each record to ensure the reliability of the survey as far as possible. However the records are doubtless an underestimate of the species present due to the limited time spent and in some cases due to lack of expertise available. Unfortunately no moss experts were available this year and the invertebrate list suffered through JM's indisposition.

Results and Comment

All species found were recorded. Complete details of the survey can be found in the Appendix.

In summary the following numbers of species were noted.

Flowers	Grasses Sedges Rushes	Trees	Fungi Mosses Ferns	Birds	Mammals and other Vertebrates	Insects and Invertebrates
137	30	31	43	40	6	206

The whole reserve was a delight to follow through the seasons, especially the herb rich meadows which became a carpet of Cowslips and Cuckoo Flower in May followed by sheets of Common Spotted -orchids in June mixed with Yellow Rattle and Buttercups. After this came the Ox-eye Daisies then Knapweed and Devil's-bit Scabious as well as many other species. Of the 137 flowering plants identified 16 out of 21 were indicator species for the Mesotrophic Grassland, MG5, category of the National Vegetation Classification (NVC) scheme. (See appendix) These include Agrimony, Ladies Bedstraw, Bird's-foot-trefoil, Dyer's Greenweed, Bitter Vetchling, Common Milkwort, Betony, Pepper Saxifrage and Tormentil showing it to be a fine example of semi natural lowland grassland, a fast disappearing habitat in the country. Plantlife had provided a list of vascular plants made when the site was acquired. Most of the previously recorded plants were rediscovered and 52 new species were added. Although originally noted, the Meadow Saffron and Greater Butterfly Orchids were not found by the team this year.



Common Spotted-orchid

The Orchids were notable for their quantity, especially the Common Spotted and Early Purple in Field 2157. The other extensive coverage was in the sloping west end of field 9980 where there were many Green-winged and Heath Spotted-orchids. One Twayblade was found in the wood.



Green-winged Orchid

The small area of woodland was in a rather neglected state with grown out coppice mainly Hazel with Oak and Ash, but it still had remnants of woodland floor plants such as Bluebells, Celandines, Wood Anemones, Pignut, Dog's Mercury, Spurge Laurel and both Early and Common Dog-violet. Only one plant of Wild Daffodil was found and 2 spikes of Herb Paris, neither flowering. There was an overgrown pond at the bottom of the slope and an old pumping station which was probably left over from the original farm water supply. Here were several old Willows and tangled vegetation which gave the whole area potential for development into a pond and stream side habitat. There is a management plan in place for the woodland to reinvigorate it and encourage the ground flora to return in greater abundance.

The small parcels of land 6251 and 7548 to the east were quite neglected but had some old orchard trees with nooks and crannies for birds and insects. The rather scrubby sward had many patches of Pepper Saxifrage, not commonly seen, and much Devil's-bit Scabious. In August, two spikes of Violet Helleborine were found alongside the access track.



Violet Helleborine

At the bottom of the main meadow 2957, was a pond which had been recently cleared out and a new fence erected. It was very bare in April, but rapidly recolonised through the year. There was a good deal of Greater Spearwort and some rather pale Yellow Iris at the edge which was probably an import. Many coarser plants such as Common Figwort, several thistles and Greater Willowherb grew up around the edge and were appreciated by the butterflies later in the year.

The 20 species of grasses recorded included Sweet Vernal and Quaking grass, more indication of old pasture. There were 4 rushes including Toad Rush and 2 woodrushes, Hairy Woodrush being found in the wood. At the top of field 9254 was a wet flush which had



Pond in April

several sedges also found in some of the other damp patches such as around the pond and in the lower field 4171. The wet flush was also home to a big stand of Fleabane attracting insects



Pond in Summer

later in the year until it was cut down.

A total of 31 tree species were noted. The old hedgerows had a good range of plants such as Hazel, Maple, Blackthorn and Hawthorn. There were also some specimens of Spindle, Guelder Rose and Wayfaring Tree with both Dog and Field Roses and Bramble mixed in. The wood was mainly old Hazel coppice under storey with Oak and Ash above. There was a stand of ancient Small-leaved Limes at the far end of the wood, far older than the rest of the trees. The trees in the orchard were mainly apple of varying ages with a few pears. Mistletoe was well established and is being managed to reduce any ill effects on the host trees. In April, a large pile of Mistletoe trimmings was checked for Mistletoe Tortrix Moth but none was found. The neglected trees in the eastern section of the reserve, were also apple and pear, some of a good age. There were also several very spiny Crab apple trees at the far end.



Magpie Inkcap

It was not a good season for fungi being very cold initially then very dry in autumn. Thirty nine species were recorded mainly in the wood including Magpie Inkcap, 4 Russulas of which *R. foetans* is quite rare. The meadows yielded 3 waxcaps including Blackening and Snowy but there should have been more in a better season. It did not help that the final session of the year had to be abandoned due to heavy rain. Of the other non flowering plants recorded were 4 ferns, Hard, Broad Buckler, Male and Bracken.

Birds are more difficult to observe than plants especially in the afternoon when the surveys took place. Local birdwatchers produce a regular list but of the 40 species

noted in survey time, Starling, Mallard, Rook and Cuckoo were added to the previous sightings. The survey list also included 5 species of tits, Greater Spotted, Lesser Spotted and Green Woodpeckers and Spotted Flycatchers. A group of 20+ Crossbills flew over in October. As Michael Bradley ran moth traps overnight on several occasions in the summer, there are 170 records of Lepidoptera showing the reserve to be an attractive habitat. Of the species recorded, Cloaked Carpet Moth, Devon Carpet Moth and Wood White Butterfly were noted as nationally rare. The Wood White was seen along the fringes of Haugh Wood which is a known stronghold for this species. White Ermine, Buff Ermine and Blood Vein moths are also on the Biodiversity Action Plan (BAP) list as common but rapidly declining, so it is good to find them here. In the summer the flower rich meadows attracted many more well known butterflies such as Brimstone, Ringlet, Small Copper, Comma and Peacock. There were several Silverwashed Fritillaries on a warm day in August and a cloud of Common Blues feeding on the thistles by the pond.

There were less extensive lists of other invertebrate groups mainly due to shortage of expertise rather than lack of specimens. A large hornet's nest was found in one of the old apple trees on the neglected eastern section also the frass of the Noble Chafer beetle. This is an increasingly rare species as so much of its main habitat, old orchards, has disappeared. Two dragon flies were seen, one on the pond and one in the meadow. Ten molluscs were identified in and around the pond including *Galba truncatula* which is the host to liver-fluke. Of the vertebrates, both Common Frog and Toad were found. Grey Squirrels, Rabbits and Moles were evident and Roe Deer were seen coming out of the woods in the far secluded section of the eastern fields. Small mammals were not trapped but 12 dormice tubes were erected in the small woodland but have not been inhabited yet. They are to be left for another season to see if any dormice take up residence. There is a good chance of this as there are dormice in the adjacent Haugh Wood.

Conclusion

Joan's Hill Farm is a delightful and biodiverse reserve. The sort of unimproved grassland found here has, since the 1950s, suffered losses of over 95% due to agricultural improvement and urban encroachment. It is now only found in small areas whereas before the Second World War it used to be widespread. It is good to see this particular area is being managed by Plantlife to promote the rich biodiversity, across all the taxa, that these habitats can support.

Distribution

1. Ledbury Naturalists' Field Club, survey team and committee members
2. Plantlife
3. Herefordshire Nature Trust.
4. Natural England.
5. Herefordshire Ornithological Club.
6. Herefordshire Biological Records Centre
7. Ledbury Town Council
8. Ledbury Library
9. Woolhope Naturalists' Field Club
10. Peter Garner Botanical Recorder for Herefordshire