

Upper Clun



Community Wildlife Group Report 2016



Upper Clun Community Wildlife Group

Report 2016 Contents

INTRODUCTION.....	1
Aims & Objectives	1
Area & Membership	1
Management Committee	1
Publicity	1
Website.....	2
Co-Operation With Farmers, Landowners & Other Organisations.....	2
Activities & Surveys	2
Covering Other Types Of Wildlife.....	3
Funding	3
Constitution	3
Other Community Wildlife Groups	3
BIRD SURVEYS	4
<i>Introduction.....</i>	<i>4</i>
<i>Participation and Coverage.....</i>	<i>4</i>
Lapwings.....	4
Fieldwork Results	4
<i>Local Extinction?</i>	<i>5</i>
Curlews	5
Fieldwork Results.....	6
Habitat Requirements and Population Decline.....	8
Other Target Species.....	9
Birds Of The “Wetlands”	9
Snipe	10
Red Kite.....	11
Other Species	11
Overview	11
Nest Boxes For Woodland Birds	12
Dippers	13
Barn Owls.....	14
THE PLANT GROUP	15
Introduction	15
Survey Methodology	15
Results And Findings.....	16
Discussion	16
Conclusion.....	17
Further Work.....	17
THE BUTTERFLY GROUP	18
Introduction	18
Safeguarding Habitat.....	18
Future Plans.....	18
MAMMALS	19
CO-OPERATION WITH FARMERS	19

CONSERVATION ACTION	19
Local (County) Wildlife Sites	19
New Hls Agreements	19
Countryside Stewardship	21
Future Agri-Environment Schemes.....	21
Habitat Requirements For Target Species.....	21
Habitat Management Leaflets	22
Surveying Wildlife Sites	22
River Catchment Management	22
Shropshire Hills Aonb Management Plan	23
Conservation Action	23
Curlew Action Plan.....	23
ACKNOWLEDGEMENTS & DISTRIBUTION	24
Acknowledgements.....	25
References.....	26
Distribution	27
The Report	28
CONCLUSION	289
APPENDICES	30
Appendix 1. Bird Survey Recording Instructions 2016.....	31
Appendix 2: Bird Survey Results.....	31
i) Curlew and Lapwing	31
ii) Other Target Bird Species, and Wetland Surveys.....	31
iii) Curlew, & Other Target Species: Explanatory Note to the Maps	31
Appendix 3 Plant Group – Sites Surveyed 2016.....	34
Appendix 4: Target Plant Indicator Species (The "Axiophytes")	35
Appendix 5: Small Pearl Bordered Fritillary Butterfly Surveys 2010 - 2016.....	36
Annexe 1. The Management Committee	37

INDEX OF MAPS, TABLES AND FIGURES

Maps

Map 1. Approximate location of Curlew Territories 2016.....	7
Map A2.1 Approximate Location of Curlew and Other Target Bird Species 2016.....	32

Tables

Table A2. 1. Results of Curlew Survey.....	32
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Figures

Figure 1. Decline of Lapwing in the Upper Clun 2004 – 2016	5
Figure 2. Decline of Curlew in the Upper Clun 2007 – 2016.....	7

INTRODUCTION

The *Upper Clun Community Wildlife Group* was formed in 2007, following extensive promotion and development work in the area initiated by 'Down to Earth in the Clun Forest' as part of the Shropshire Hills AONB's Blue Remembered Hills Project. This process was described in the Group's 2007 report. The first Annual Public Meeting in November 2007 agreed the Aims and Objectives, and its area of operation, and elected a Committee.

The Group aims to contribute to local knowledge and conservation of popular "flagship" wildlife species, by undertaking surveys to establish their status, and promoting conservation by working with farmers and landowners to safeguard and increase important habitats. It complements but does not duplicate the work of either *Land, Life and Livelihoods*, or the Clun and Bishop's Castle branch of the Shropshire Wildlife Trust (SWT). We have worked closely with both groups, which have in turn actively supported the Wildlife Group.

The Group has carried out Bird and Plant surveys each year since 2007, and Butterfly surveys since 2010. Well over 100 different people have been involved in these surveys. This Report presents the results for the current year, and updates our knowledge of wildlife in the area.

AIMS & OBJECTIVES

The Group will

- Undertake survey work to establish the status of key bird, plant and butterfly species and habitats
- Encourage and enhance local interest in wildlife
- Actively promote conservation.

AREA & MEMBERSHIP

The Group covers the catchment area of the River Clun west of Clun, including the River Unk and the Folly Brook, plus the part of the Bettws-y-Crwyn parish that is outside the River Clun catchment area. It includes the whole of the parishes of Newcastle, Bettws-y-Crwyn & Mainstone, and parts of the parishes of Clun, Colebatch and Llanfair Waterdine.

The Group is open to anyone who lives or works in the area, and who wants to actively contribute to local knowledge and conservation. It is for everyone in the community, not just experts. Interest in the area, and enthusiasm, are far more important than detailed knowledge. The target birds and plants are important and easy to recognise and search for. Initial training on identification and simple survey methods, and regular support and advice, is provided, so members learn a lot, and the work is very enjoyable.

The mailing list has grown each year, and now includes over 220 local people at more than 170 addresses, plus representatives of various organisations.

MANAGEMENT COMMITTEE

The Role of the Committee is to

- organise survey work
- involve more local people
- work with local people and other groups to develop a policy for Conservation Action
- seek to influence other organisations
- obtain and manage funds to continue existing work and develop new projects.

The membership, and details of meetings in 2016, are set out in the Annexe to the Report.

PUBLICITY

To help recruit and involve new members, the Group's activities have been well publicised in the area, through posters and press releases, and articles in the *Clun Chronicle*. The annual public meeting is well advertised, a recruiting leaflet is available in community centres and elsewhere, a

display is put up at the Newcastle Show, and occasional Bird, Plant and Butterfly events have been organised.

WEBSITE

There is a website for all the Community Wildlife Groups, with separate pages for the Upper Clun Group www.ShropsCWGs.org.uk. Future events and news will be listed. Members are requested to check the website periodically, particularly before events.

CO-OPERATION WITH FARMERS, LANDOWNERS & OTHER ORGANISATIONS

The vast majority of the area is farmland, and almost all of the birds, plants and butterflies that the Group wishes to conserve live on it. Close co-operation with farmers is therefore crucial to our success.

The Group has continued to actively promote conservation of popular “flagship” wildlife species by working with, and influencing, farmers, landowners, other local organisations, Government Agencies and the Shropshire Hills AONB Partnership, to protect and restore important habitats.

In 2010, we brought together the results of four years’ survey work to identify some of the best sites for birds, plants & butterflies in the Upper Clun. These sites have survived thanks to the way they have been managed, and we have subsequently worked with some of the land owners to help ensure that they continue to be managed in the same way. We have now made personal contact with almost all the farmers who own one of these high-quality sites, and we hope the information we have collected is useful to them. We have worked with both farmers and Natural England to ensure that the best wildlife sites are incorporated into Environmental Stewardship Higher Level Scheme (HLS) agreements.

This work is described in the Chapter on Conservation Action later in this Report.

ACTIVITIES & SURVEYS

Since its launch in 2007, the Group has set out to find all breeding pairs of Lapwing and Curlew, monitor other important farmland birds and their habitats, and promote the conservation of Barn Owls, Dippers and woodland birds through provision of nest boxes. This built on local knowledge of Lapwing and Curlew gained since 2004.

In 2007, a dozen different wild flowers were also located, and a further 12 plants indicative of woodland, and 12 indicative of grassland, were included in the 2008 surveys. These results were used to highlight the most important sites, and these sites have been the subject of detailed Plant surveys in subsequent years since 2009, with the aim of getting the best sites adopted as Local (County) Wildlife Sites.

Three Nature Reserves in the Upper Clun area are owned by Shropshire Wildlife Trust, Rhos Fiddle, Lower Shortditch and Mason’s Bank. These reserves have also been surveyed in some years.

Our area was initially divided into 31 squares, 2x2 kilometre squares on the Ordnance Survey National Grid. A map showing these squares has been included in previous Annual Reports. The Group recruited a local member to survey each of these squares for birds and/or plants each year, and well over 100 people have either undertaken surveys, or provided additional useful information, since 2007. However, since 2009, only the best sites have been selected for further survey work, and many of them do not fall into single squares, so this division of the area into squares is no longer important. The map of the area, divided up into these squares, can be viewed on the website.

Butterfly surveys, supported by Butterfly Conservation and concentrating on Small Pearl-bordered Fritillary, were started in 2010.

It was hoped to organise Mammal surveys, following the invitation to the Shropshire Mammal Group to speak at the 2014 Annual Public Meeting. However, this has not proved possible, and it is hoped to find a volunteer to take this on.

The aims and results of these surveys are described elsewhere in this Report.

COVERING OTHER TYPES OF WILDLIFE

The Group wants to expand its activities, and survey and promote conservation of other types of wildlife. These activities will be shaped by the interests of all the people who join.

FUNDING

Initially the Group was funded by the AONB's *Down to Earth* programme, and then its Sustainable Development Fund.

From October 2011 until June 2013, funding came via the "LEADER in the Shropshire Hills" programme, "part financed by the European Agricultural Fund for Rural Development 2007-2013: Europe investing in rural areas". This programme was co-ordinated by the Shropshire Hills AONB Partnership with Defra as the Managing Authority. The National Trust was the lead organisation and banker for the LEADER Project

The Group is not currently in receipt of any grants. Efforts will therefore be made to raise funds by asking people attending meetings and events to make donations, and support raffles. Members have not been asked to contribute since the Group started, and the Committee hopes to avoid having to charge a membership subscription, but hopefully members will now support the Group financially, as well as through voluntary activity.

Grant Applications will be made when the opportunity arises.

CONSTITUTION

To make Grant Applications, it is necessary to have a written Constitution, which was adopted at the Annual Public Meeting in November 2013. The Constitution can be viewed on the website.

OTHER COMMUNITY WILDLIFE GROUPS

The Upper Clun Community Wildlife Group was the second CWG to be formed, following the Upper Onny Wildlife Group, launched in 2003.

The Kemp Valley CWG started in 2011. The LEADER project funded these three Groups, and also three new groups, covering Clee Hill, the Strettons, and Wenlock Edge.

The Stiperstones – Corndon Landscape Partnership Scheme, financed by the Heritage Lottery Fund, is now supporting the development of two new CWGs, covering the Rea Valley and Camlad Valley.

These groups all survey important wildlife in their areas. but they are developing differently. All are monitoring birds and plants, but the species being searched for are different. Six of the groups are monitoring Lapwings, and five Curlews.

**The activities and results for each of the Groups can be found on the website
www.ShropsCWGs.org.uk**

THE BIRD GROUP

BIRD SURVEYS

Introduction

The primary aim of the Bird Group is to establish the population and distribution of Lapwing and Curlew, and to map the distribution of other species of conservation interest. The Target Species have varied from year to year; but they have not changed since 2011.

The habitats used in the area by five of the initial target species (hedgerow and farmland birds) were recorded in 2008 and 2009, and led to the production of the leaflet *Please Help Hedgerow Birds*. This work was judged to be complete, and was discontinued in 2010.

Results from surveys in the early years highlighted the importance of 'wetland' areas of less-drained ground retaining a more diverse flora, especially Soft Rush *Juncus effusus*, and a number of such sites were given particular attention from 2010 onwards.

Until 2011, the Group attempted to survey all 31 tetrads (2x2 kilometre squares) in the Upper Clun, focusing increasingly on Curlew as Lapwings steadily disappeared. However, as Curlew's range contracted and its population decreased, the survey of all 31 squares was replaced by more focused work on its strongholds around the 'wetlands'.

Map-based surveys are still carried out, now targeted on areas regularly used by Curlew, and supplemented by observations emailed as they occur by a network of resident recorders. Observers are prompted by email alerts to collect evidence of Curlew activity at key points in the season, and all members of the Wildlife Group are encouraged to send in any records of Lapwing or Curlew.

The Methodology and Recording Instructions for the Bird Surveys were described fully in the 2011 Report (see Appendix 1), and can be found on the website.

Observers receive regular alerts by email at key points throughout the season, from first arrival of Curlew, to post-hatching activity that continues into July. This has been effective in prompting members to send in their observations.

Participation and Coverage

This year eight members carried out surveys of agreed geographic areas; 26 others, including resident recorders and 'casual' observers, contributed records by phone, email or personal contact, a total of 34 participants. Well over 100 Curlew observations were received, including ones of serial activity or multiple birds, the greatest volume of records yet.

All 25 observers who undertook geographic surveys or continuous recording, or submitted nest box data, live within the survey area. Several are farmers, and many other farmers provided valuable information.

In addition to the surveyors, there are 15 Nest Box hosts, but only four sent in monitoring reports.

LAPWINGS

Fieldwork Results

There was only one Lapwing record this year, two birds seen once early in the season on the same rushy field visited last year. It is now four years since Lapwing has done more than pause in the area to feed, and in very small numbers at that. Without significant improvements in habitat, grazing regimes, and the timing and sensitivity of agricultural operations it is difficult to hold out much hope for Lapwing's re-establishment as a local breeding species.

Previous reports have included a map showing the approximate location of all breeding Lapwing found by the Group since 2007, together with the nests found previously in 2004 – 06 (Smith 2006). However, none were found in the area in 2009, 2011, or 2013-16, so this map is no longer reproduced. It can be found on the website.

Local Extinction?

If any population is to be stable, then the number of young birds that reach breeding age must be equal to the number of older birds dying off. Research elsewhere shows that, based on the known survival rates of first year and adult birds, Lapwings must produce around 0.7 fledged young per pair per year in order to sustain current population levels.

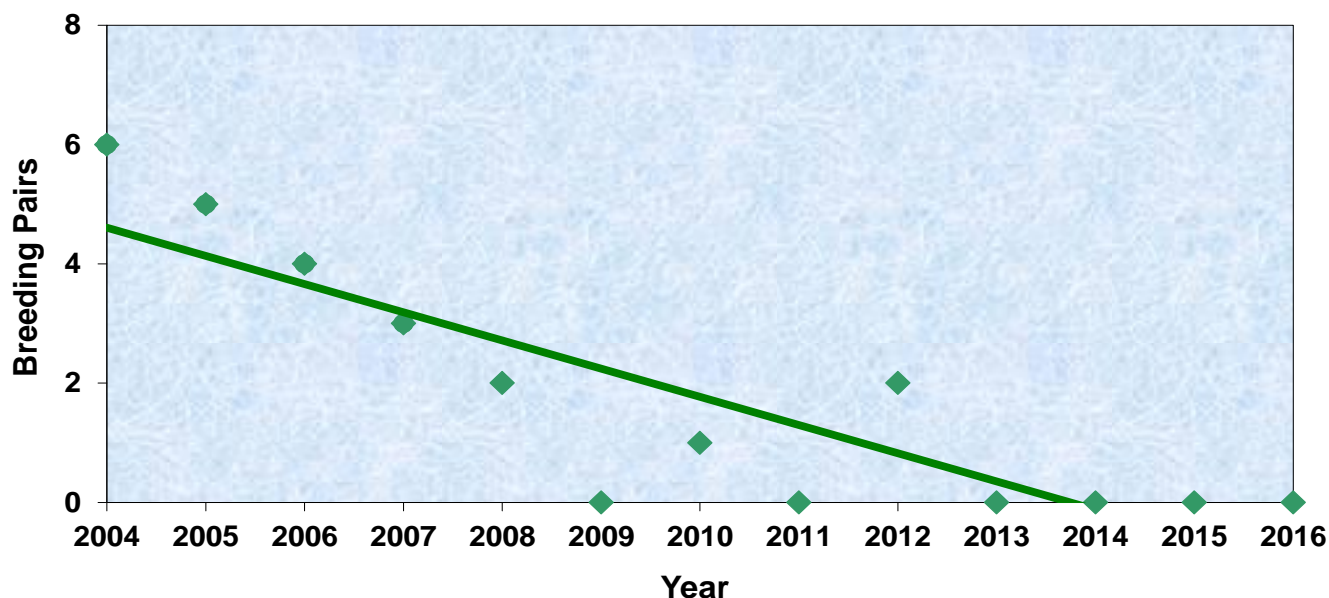


The local breeding population declined by around a pair a year between 2004 and 2010, with a pair found only once since (Figure 1). There is no record of any Lapwing fledging in the Upper Clun area after 2008, when two pairs produced an unknown number; in the three years prior to that, only two young Lapwings had fledged. That is not enough to sustain a population, and Lapwing appears therefore to be extinct as a breeding species.

The conclusion to be drawn is the same as for some years past: Lapwings continue to return each year, and could become re-established as a successful breeding bird if their habitat requirements were better met. Therefore, if the population is to become re-established, action is still vital to recreate suitable habitat. If they do return, action will also be needed to protect nests from risk from agricultural activities, and predation.

The Habitat Requirements of Lapwing, and the reasons for the Population Decline, were described in the Group's 2010 (and previous) Report, and are not reproduced here. Full details are provided in Shrub's book *The Lapwing*, and papers by Sheldon, listed in the References.

Figure 1. Decline of Lapwing in the Upper Clun 2004 – 2016



It is important that suitable habitat is retained, in the hope that any Lapwing returning to the area in future may stay and breed.

CURLEWS

Fieldwork Results

Three factors this year led to an increase in records, or shed new light on their interpretation, or both: residents in Curlew hotspots provided a near-continuous record of activity covering at least three territories; a BTO survey of Upland Waders, in which two group members participated, led to extra coverage of the main Curlew areas; and intensive work on Curlew nests undertaken by the Stiperstones & Corndon Hill Country Landscape Partnership Scheme (LPS) provided data on breeding outcomes, and the timing and causes of nest failure.



Only five Curlew breeding attempts could be identified with confidence; none of the other sites used produced a comparable record of continuous occupation, though short-lived breeding attempts cannot be ruled out. The greater attention described above confirmed that some previously-occupied sites were not used this year, although they may have received occasional visits from Curlews passing through or foraging.

There was evidence that four of the five nests failed, three probably at the egg stage, while the fourth may have hatched chicks; if so, they are not believed to have survived for long. At two of the sites there may have been relays where clutches were lost early, but those too appear to have failed. The fifth pair did successfully hatch chicks, and behaviour observed in early July suggested that they still had young, by then quite well-grown, with some chance of survival; the final outcome is not known. These results are comparable to those of Stiperstones-Corndon Landscape Partnership Scheme (LPS) Curlew Recovery Project, where, out of 20 nests monitored in 2016 17 failed early in incubation, only three produced hatched young, and, in spite of measures to protect them, all the chicks perished shortly after.

Previously it has been presumed that a record of Curlew activity at a site on a series of dates indicated an established territory, and a probable breeding attempt; if activity continued into June and July, it was considered likely that they had hatched young. Recently, however, it has become apparent that some activity is almost certainly attributable to failed pairs moving around, or passing through the area, and naturally gravitating to the same few Curlew-friendly areas. This interpretation is consistent with LPS's discovery that many nests fail early in the breeding cycle, suggesting that this could be happening early in the season as well as late.

This year a more rigorous test for occupancy has been applied: intermittent activity at any Curlew site is not necessarily attributed to a single resident pair; similarly, the presence of a pair late in the season is not interpreted as a successful breeding attempt without supporting evidence, in particular anti-predator behaviour. Observers are already briefed to look out for such activity, for example watching or listening for reactions to raptors, and more emphasis will be placed on it in future evaluation of results.

The full results of the Group's surveys for Curlew are set out in Appendix 2.

The distribution of territories in 2016 is shown in Map 1.

The estimated population found each year since 2007 is shown in Figure 2.

Map 1. Approximate location of Curlew Territories 2016

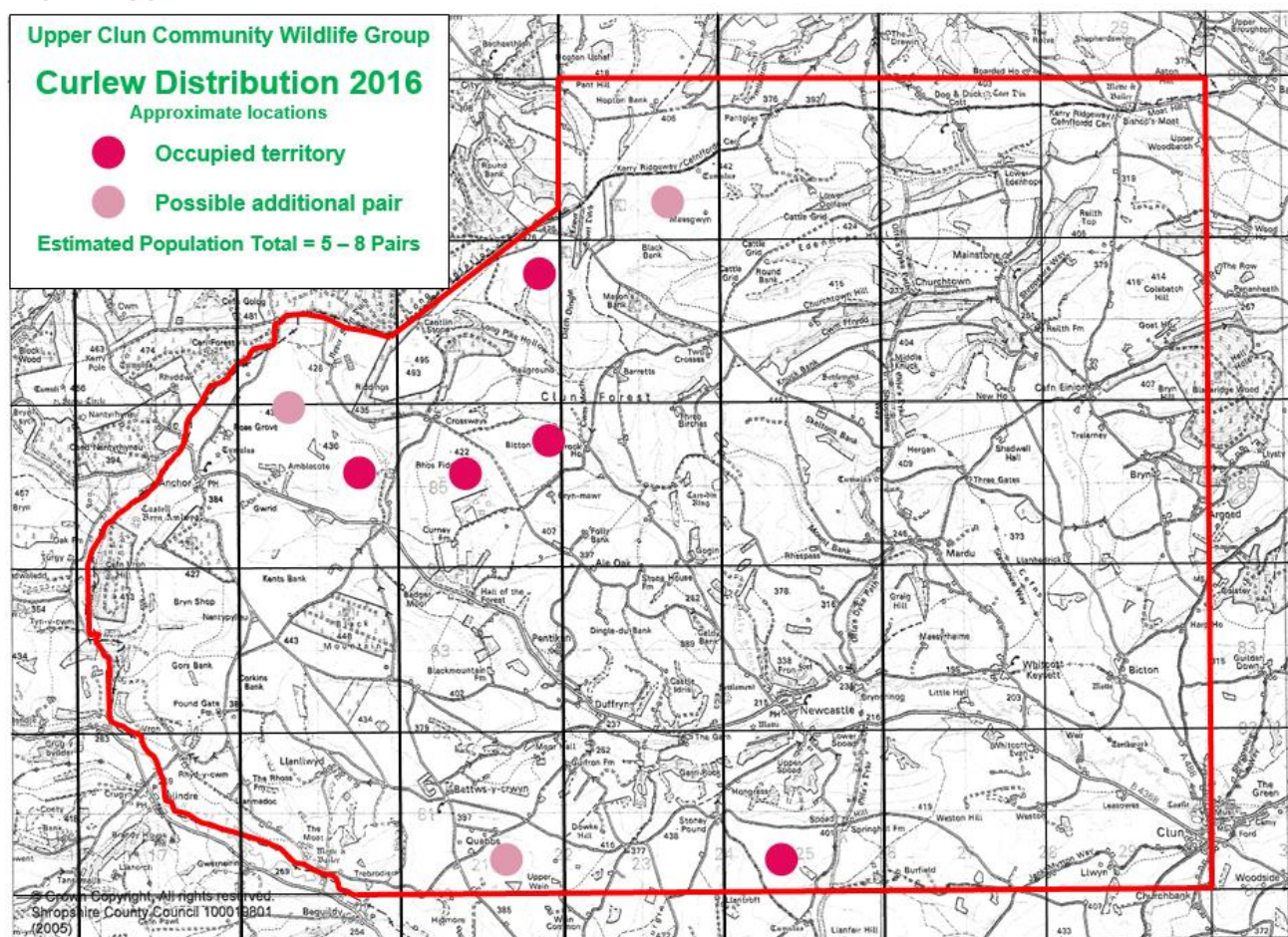
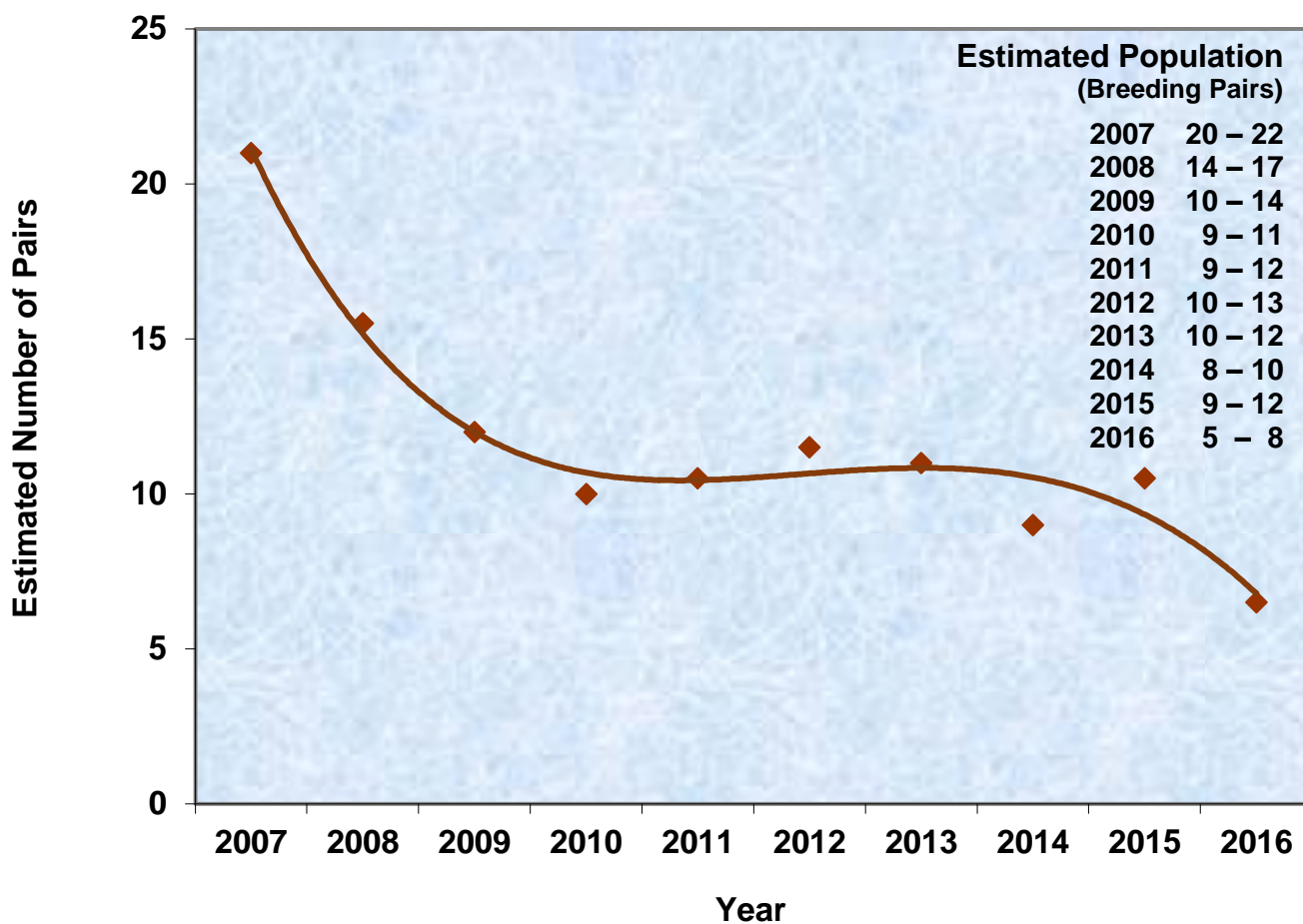


Figure 2. Decline of Curlew in the Upper Clun 2007 – 2016



The Curlew population appeared to have stabilised between 2010 and 2013, following many years of steep decline, but the estimate for 2014 of 8 – 10 pairs was the lowest yet. In 2015, occupancy appeared to be higher at 9 - 12 pairs, but is not believed to have resulted in high enough productivity to maintain, let alone rebuild, the population. The same was the case in 2016.

Curlews are long-lived, and may return to their breeding territories for many years without producing any fledged young. Eventually the adults will die, and the breeding population will only be stable if there are enough young birds to replace them. Breeding success will fluctuate from year to year, so any long term decline is unlikely to be steady – it will go in fits and starts.

Most young Curlews go to the estuaries for the winter, and do not return to breed until they are two years old. It is possible that the very wet weather in 2007, which meant that grass cutting and other agricultural activity was curtailed until after the Curlew breeding season, allowed more young to fledge than usual, and they returned to breed in 2009 and subsequent years

Records late in the season in 2011 suggested that at least six of the breeding attempts may have succeeded. Silage and hay cutting was unusually late, so chicks that escaped predation may also have been able to evade these activities. If 2011 was indeed a good breeding season, more Curlews could have returned to the area to breed in 2013, or at least sufficient to replace older birds that died off. However, the decline in the number of territories has resumed, so over the years the population is not producing enough young to be viable.

There seems to have been a sharp contraction of what was already a very limited range in a short space of time. The last pair of Curlew nesting in the “lowlands” of the Upper Clun has been lost: they occupied a territory north-west of Clun, in the Unk valley, but they were last recorded there in 2010. The Curlew population appears now to be entirely confined to the very highest ground, with no known territory below around 375 metres. In 2016, of the five Curlew pairs believed to have bred, four territories were in a single block of about 6 km². It is probably no coincidence that all four were within about a kilometre of, or actually on, SWT reserves, and Curlews were recorded moving between the reserves and their nest sites. The fifth nest was on or near Llanfairwaterdine Turbary, which has several features in common with the reserves.

It looks as though the reserves form a nucleus for the Curlew population, supplementing less-rich habitat areas around them. However, there may be a price to pay in the form of greater exposure to some risks. Human disturbance is more likely, and all this year's nests were within 1km of conifer plantations, known to pose a threat to Curlew and other ground-nesting birds by harbouring both avian and mammalian potential predators.

The Curlew situation is now so serious that in 2017 the Group will launch a campaign to attempt to recover the population. This is explained in more detail in the later Chapter on Conservation Action.

Habitat Requirements and Population Decline

Curlews are ground-nesting birds, requiring rank vegetation as cover for the sitting bird and eggs. They nest on unimproved grassland and heather moorland, rushes or tussocks on rough grazing, or grass being grown for hay or silage, and feed on damp pasture and meadows with wet, boggy areas rich in invertebrates. Since they need all-round visibility to detect approaching predators, they are found only in open landscapes.

In late 2015, Curlew, previously Amber-listed, was added to the *Red List of Birds of Conservation Concern*.

Its national decline is attributed primarily to agricultural intensification, in particular:

- land drainage, which reduces rank vegetation for nest sites and the quality and quantity of invertebrate food supply in the ground
- Increased use of fertilisers, which accelerate the transfer of the water in the ground into the growing grass, thereby reinforcing the effect of drainage.

- Other practices used to “improve” grassland, including control of “weeds” such as rushes that are necessary as cover for nests, and rolling and chain-harrowing which can destroy nests and chicks
- Production of silage, rather than hay, which is cut earlier and more often, thus increasing the destruction of eggs and chicks.
- More intensive grazing, and higher stocking levels, which reduces nest cover still further, and, in addition, increases the risk of nests being trampled.

(See *Birds of Wet Meadows Survey 2002* (Wilson et al., 2005) and the *Repeat Upland Bird Survey 2002* (Sim et al., 2005))

Predation has also played a part in the decline (Grant *et al*, 1999) - the smaller number of Curlews, the reduced amount of nesting cover, and the flight distances involved in finding food, mean nests and chicks are ever more vulnerable to the increasing number of predators, particularly corvids and foxes, which do very well in the current farmed landscape.

After a rapid initial decline, then a period of stability, the decline in the Curlew population has resumed, and 5 – 8 pairs located in 2016 is the lowest ever found by the Group.

The situation is now critical, and a Curlew Action Plan is being launched to attempt to recover the population.

OTHER TARGET SPECIES

In previous years, members were also asked to record several Other Target Species. Most were selected because they were used to assess the merits of applications made by farmers to join the Environmental Stewardship Higher Level Scheme. Details were included in the 2015 report.

The habitats used by several “hedgerow & scrub” birds included in the Other Target Species were also recorded in 2008 and 2009. The surveys in those two years produced the necessary data to produce the “*Please Help Hedgerow Birds*” leaflet, and the habitat recording was discontinued in 2010. The leaflet outlines conservation measures for landowners and managers of all kinds, with emphasis on small-scale, incremental improvements which can be implemented without major changes in farming methods, and without heavy investment of time or money. The updated leaflet is available on the website.

The Other Target Species list has continued to evolve, and from 2011 onwards only the birds associated with wetlands have been included.

BIRDS OF THE “WETLANDS”

The Wetlands Project, launched in 2010, aimed to identify and survey all bogs, mires, flushes, wet meadows and rush pasture in the Upper Clun area in order to assess their condition and census the birds, plants and butterflies they support. Next to the Lapwing and Curlew surveys, this is now a priority for Bird Group fieldwork.

A baseline survey of the major 'wetland' sites and their bird communities was made in 2010 and 2011. The group proposed to SWT, with SOS support, that such sites with breeding Lapwing, Curlew or Snipe, or a suite of at least four of the additional target species of conservation concern (Kestrel, Cuckoo, Barn Owl, Skylark, Meadow Pipit, Stonechat, Linnet, Yellowhammer & Reed Bunting), should qualify for adoption as Local (County) Wildlife Sites (LWS) because of the importance of their bird communities. This was agreed.

All records for such sites collected between 2007 and 2011, and the maps based on them (Maps A2.1 and A2.2 in the 2011 Report, Appendix 2) were submitted to Shropshire Ornithological Society (SOS), so they are on the record as evidence to justify the selection of these sites as Local

(County) Wildlife Sites. The report of SOS Conservation Sub-committee, *Adoption of "Wetland" Wildlife Sites in the Upper Clun for their Bird Communities*, was included in the 2011 Report as Appendix 3.

Initially, priority was given to privately-owned farmland with potential for inclusion in HLS. (This work is described in the Chapter on Conservation Action later in the Report.) The three sites owned or managed by SWT (Lower Short Ditch, Masons Bank & Rhos Fiddle) have now been included in the survey, both as a standard of comparison, and, since they are much more extensive than any of the other sites, as a means of assessing the importance of site area.

It was intended to resurvey the sites at approximately five-year intervals to monitor breeding species and assess the effectiveness of any conservation measures that had been taken. This work has now started.

Survey Findings

Ten of the fifteen 'wetland' sites were surveyed in 2016. One, Penargoed, near Clun, was still occupied by Curlew in 2010, but was abandoned shortly after. Since its status as a 'wetland' site was based solely on the presence of Curlew, it will no longer form part of the survey. The nine other sites were found still to be supporting Curlew and/or enough of the other target species to justify LWS status.

The relative quality of the sites has changed somewhat since the first surveys. The most striking improvement has been at Llanfairwaterdine Turbary, where a new management regime involving a reduction in sheep grazing, introduction of cattle, and gorse management, has resulted in a healthier and more varied sward. Stonechat, Wheatear and Reed Bunting all bred there successfully in 2016, and the Curlew pair was the only one in the Upper Clun possibly to have fledged chicks.

One or two sites appear to be supporting fewer birds since the earlier surveys; however, 2016 was a very poor breeding season for many bird species, and Cuckoo arrived very late, left very early, and sang very little. Sites appearing to be falling short in the number of species supported compared with 2010-11 will therefore be revisited next year along with the remaining five.

It is worth noting that the more diverse flora and fauna of the wetlands benefit many other bird species besides the group's targets: other Red-listed species, such as Song Thrush, Mistle Thrush, Spotted Flycatcher, Whinchat, Tree Pipit and Lesser Redpoll, also breed on or use wetland sites.

All records collected on these surveys, and maps based on them (similar to Maps A2.1 and A2.2 in the 2011 Report, Appendix 2) will be submitted to Shropshire Ornithological Society (SOS) as evidence of the extent to which the sites continue to justify their status as Local (County) Wildlife Sites.

SNIPE

The important local Snipe population at SWT Rhos Fiddle Nature Reserve was surveyed as part of the Shropshire Snipe Survey 2009. Four pairs were found, including a new territory in the centre of the Reserve, compared with 3 – 4 pairs in 2004. The survey was repeated in 2014, in apparently ideal conditions, but no Snipe were detected. This result was checked in 2015, when poor conditions produced an inconclusive result, and in 2016, when two evening vigils produced no evidence of Snipe.

Snipe have apparently disappeared as breeding birds in the rest of the area, including a site on Black Mountain which was occupied in 2004. This site was surveyed in the 2009 Shropshire Snipe Survey, and revisited in 2010, but no Snipe were seen or heard. Rush management, which group members carried out in 2013, and the creation of a scrape, may have improved the habitat for Snipe; the site should be revisited, but the prognosis is poor if the much better and more extensive habitat at Rhos Fiddle is vacant.



RED KITE

Four Red Kite nests were found in the Upper Clun this year. One nest, almost certainly a first breeding attempt by young kites, failed at the egg stage. The tagged female at that nest fledged in the Teme Valley in 2013. The three successful nests produced a total of seven young, including the first local brood of three chicks. One of the tagged young was seen in early October on a ploughed field in the Unk Valley, 10km from where it had fledged.

Between 2007, when the first nests in over 130 years were found, and 2012, the local population reached its maximum of four known nests. After falling back in the intervening years, it has now returned to that level. In total, 26 active nests have been found in the Upper Clun since 2007; and 17 were successful, producing 25 young. The local kite population has bounced back quickly from a couple of poor breeding seasons and appears now to be well established.

Records of a Kite in the same vicinity on several occasions, or of two together, or of one going into a wood between January and July, may indicate a nest site.

Such locations should be kept strictly confidential, as Kites are still persecuted, but should be reported immediately to Leo Smith or Michelle Frater (both of whom have a monitoring licence).

OTHER SPECIES

A regular Kestrel nest produced three young this year. A Hobby territory was occupied and a nest found, but only after it had failed, possibly as a result of predation. Yellow Wagtail bred in the Clun and Unk Valleys, and Mandarin Duck bred on the Clun, probably at more than one location. A pair of Sedge Warblers bred in the Unk valley; there has been no confirmed breeding by this species in any of the BTO Atlases from 1968. Wheatears bred at two previously-used sites, and Whinchat, now very rare, was present on Masons Bank in late summer with recently-fledged young; the possibility that it might be breeding will be explored next year.

OVERVIEW

Our survey work over ten years has made a detailed assessment of the bird populations in the Upper Clun. During this period Lapwing appears to have become extinct as a local breeding species, and Curlew is only just holding on. The status of most of the other target species is more secure, largely because their habitat requirements are less exacting, and are met on the SWT reserves and a few other sites of comparable quality.

The data has helped us to identify key Local (County) Wildlife Sites, and support several farmers in applications to join Environmental Stewardship HLS; Natural England made use of our data in identifying priorities for new agreements. Future surveys will continue to monitor the populations of the target species, especially in relation to changes in land management under the Environmental Stewardship Scheme. Their fortunes will be an important measure of its effectiveness.

The Bird Group has evolved over the years: map-based surveys are still important, and those who carry them out are reliable, conscientious and increasingly knowledgeable. At the same time, the contribution of our network of resident recorders, and other local people, who send in records of the bird activity they see around them has greatly increased. Information is exchanged via an email distribution list. Records are submitted regularly to the County Recorder, and, where relevant, to BTO.

Thanks to our large initial membership, and small but steady stream of new members, the Bird Group has other achievements too - we've got people into birdwatching for the first time, organized nest box schemes, collected valuable data for local and national conservation bodies, and published advice leaflets on land management for wildlife.

This year, two members of the Bird Group took part in the BTO survey of Breeding Waders of English Upland Farmland, which focused on farmland adjacent to moorland or heath, believed to be of great importance in sustaining wader populations. Breeding Curlew and other species such

as Meadow Pipit and Stonechat were recorded, together with detailed descriptions of the topography and habitat of the areas they were occupying.

Over the years, efforts to involve new people, through indoor Group meetings and outdoor training sessions and Bird Walks, have not generally been well supported. Such activities will be organized in future on an *ad hoc* basis, where there is a demand, and where members will undertake to come along to the event.

NEST BOXES FOR WOODLAND BIRDS

The Nest box Scheme aims to increase the number of suitable nest sites for hole-nesting woodland birds, and to collect data on their breeding success. Members who live in the Group's area with suitable gardens or access to woodland are invited to host up to 10 boxes, undertaking to monitor and maintain them. Currently there are 15 hosts; but only four of them provided records, 3 fewer than last year.

Nest records (a minimum of egg-laying and final outcome) were available for 54 boxes in 4 schemes. The occupancy rate at those sites was 41%, with a range of 20% - 54% for individual sites, a very substantial drop from last year's 64% and 40% - 92% respectively. Clutch size was small in the case of tit species, and across all species the fledging rate was very poor, with a high proportion of nestling deaths.

Out of twelve Pied Flycatcher nests in which a total of 77 eggs were laid, 34 young fledged, an average of 2.8 per nest; only three complete broods fledged and six were lost entirely. Blue Tit fledged 23 young from 26 eggs in five nests (average 4.3) and Great Tit 12 young from more than 13 eggs in four nests, including a Great Tit clutch of unknown size which was predated (average 3). It may be that the high failure rate is attributable in part to an episode of heavy, prolonged rainfall during the fledging period, but that cannot of course account for the low occupancy rate across all species, nor the small clutch size in the case of tit species.

At the time of writing, preliminary results from BTO's Nest Record Scheme were not yet available to provide context for the local ones. The birds benefit from the increased supply of nest sites whether or not they are monitored, but the low level of reports received is disappointing. Nest records make a big contribution to conservation, and, where there were adequate data, UCCWG nest records were submitted to the BTO scheme.

There is now a modest charge for nest boxes, but support and advice will continue to be freely available.

If you live in the Upper Clun area, and are interested in having nest boxes on your land, please ring Jacky Harrison on 01588 630666



Photo © John Swift

DIPPERS

Dippers feed almost exclusively on the stony beds of rapids and fast flowing streams, and are dependent on such waters. The headwaters of the River Clun, along with the River Unk and the Folly Brook, are one of the County strongholds. Dippers stay here throughout the year, and might be seen at any time bobbing up and down on the rocks in the streams, or flying low over the water.

The average length of the fiercely-defended territory, approximately 1km in the Upper Clun, is closely related to water quality, so that the health of the Dipper population, assessed by nest monitoring, ringing, and trapping or resighting ringed adults, is an important indicator of changes in the river environment.



Breeding usually starts early, in late March or early April, sometimes earlier, and nesting pairs may attempt to raise two broods. Though some Dippers nest in natural cavities along the riverbank, others build nests on ledges under bridges, and they take readily to nest boxes located directly above the flowing water, where predators are unable to reach them.

With landowners' permission, specially designed nest boxes have been installed under bridges and other suitable structures to increase nesting opportunities and breeding success, and facilitate monitoring of the Dipper population.

2016 Monitoring Results

- 25 potential nest sites were monitored, the great majority nest boxes under bridges
- 20 nests were found, 13 on the Clun, 4 on the Folly Brook, 2 on the Unk and 1 on Mardu Brook; two produced second broods
- all of these nests except one were in boxes
- 43 chicks were ringed at 12 sites, as were 2 adults; chicks of ringing age would be likely to fledge; one brood of 3 and one of 4 were not ringed
- 18 of the breeding adults had colour-rings, which were read

Tony Cross has been monitoring Dippers in the Teme catchment since 1987, by ringing chicks at nest sites, and counting birds at winter roost sites. Colour-ringing of adults started in 2011, and since then as many colour-rings as possible have been read during the breeding season, giving an important measure of adult movements and survival. Annual reports of this project, *Dippers in the River Teme Catchment*, have been produced since 2007.

The study suggests that the local population declined in the 20 years prior to the start of the nest box scheme in 2006, then increased until 2010, as the boxes created more nesting opportunities. Productivity is slightly higher in boxes, as they tend to be less vulnerable to predation. Low water levels in 2011, and high levels on fast-flowing rivers in 2012, appeared to reverse the growth. Such natural fluctuations are normal for species inhabiting dynamic environments, and long-term trends will become apparent only after years of monitoring.

Anyone who sees Dippers regularly, or knows of an existing nest site, is requested to please contact Michelle Frater 01588 640909

BARN OWLS

Barn Owl was removed from the *Amber List of Birds of Conservation Concern* in 2015, but remains very scarce in the Upper Clun. Loss of habitat - rough grassland rich in prey - is the major factor, but loss of suitable nest sites has contributed: old barns have been replaced or converted, and old trees removed.

Nest boxes help replace lost breeding sites, and the Shropshire Barn Owl Group (SBOG) has shown that breeding success is actually better in boxes than in natural sites. Boxes should be located in isolated farm buildings, large trees or poles 400m or more from woodland, near at least 4 ha (10 acres) of permanent rough grassland likely to support a good vole population.

SBOG installed a few nest boxes in the area prior to the Group becoming established, and the Group has installed many more, so there were over 20, though some have been removed where habitat is no longer suitable. Only two have been used. These boxes are at potentially the best sites, so there is little point in putting up any more until the population increases, unless new exceptionally favourable sites are found.



2013 was the “worst Barn Owl breeding season for over thirty years” (Barn Owl Trust), and no pairs were found here that year. Two broods were raised in 2014; last year, one brood of four Barn Owls chicks fledged, with possible breeding at another site.

In 2016, landowners were contacted to assess which sites had a reasonable prospect of holding Barn Owl, and those sites were monitored. There were two successful Barn Owl nests, one regular site producing two fledged young, the other site, one. Site details are kept confidential at the request of the landowners.

If you know of any Barn Owl territories, or know of a suitable location for a nest box, please tell Michelle Frater on 01588 640909.

THE PLANT GROUP

(THE WILDLIFE SITE AND BOTANY SURVEY GROUP)

INTRODUCTION

Ten years of botanical survey work on farms in the Upper Clun and Teme translates to a huge amount of data collection which has led to a much improved knowledge of this landscape and a good picture of the health of wildlife in south-west Shropshire. Local Wildlife Sites (LWS) which provide strong ecological links with the nature reserves have now been surveyed in detail for around seven years. The surveying of these sites is now always the main focus as is the assessment of 'new' areas which arise each year.



SURVEY METHODOLOGY

The Upper Clun and Teme have a core group of seven skilled volunteers to carry out LWS surveys. Training of the group in methodologies takes place each winter and the group is involved in decision making. Since this is a Community Wildlife Group, other local people are encouraged to join in (which they do).

In 2016 a record 20 (6 were Teme Valley) sites were selected and surveyed over a 15 week period (see Appendix 3). This was in part due to the fact that the 5 year Shropshire Wildlife Trust (SWT) funded LWS Project has now come to an end and funding for future survey work remains uncertain.

SWT supports the group with an officer who provides maps, condition survey cards, NVC recording cards, species record cards, Invertebrate Habitat Assessment check lists and risk assessments. SWT also provides the group with landowner details and access permissions.



Training courses arranged by SWT supported the surveys this year with expert tuition on: Using a Flora, Difficult Grasses and the Apiaceae (carrot family).

All surveyors use recommended floras (listed under References) and the axiophyte lists; the target species for the area covering the three key habitats: Rush Pasture and Mire, Blanket Bog and Meadows, (Appendix 4) are used for guidance.

In addition to recording species, the LWS Condition Form for Grassland was completed (it was included in the 2012 report as Appendix 3, and gives an idea of the data collected). Condition forms for Woodland, Wetlands and Heathlands were also used where appropriate.

RESULTS AND FINDINGS

Eleven people participated in the site surveys in 2016 collecting valuable information on both LWS and new sites. Again, excellent species lists were compiled along with good quadrat data and in-depth information about site condition.

In summary, thirteen LWS were visited and fully surveyed. An additional seven other areas, some of them already identified as sites of ecological significance, were also surveyed and five will be put forward at the Local Sites Partnership meeting for consideration as new LWS. All sites visited are listed in Appendix 3.

Once again over 100 target species were recorded in 2016 in line with previous years' recording; these plants are the Shropshire 'axiophytes', the species which are good habitat indicators because they are relatively uncommon and indicate an unimproved and relatively unspoilt habitat. As a rule of thumb, the higher the number recorded, the better the site but hay meadows often have few axiophytes although they offer extremely important habitat.



Unbranched Bur-reed

Species of interest recorded in 2016 include: Northern Marsh Orchid, Common Cow-wheat, Dwarf Elder, Stag's-horn Clubmoss, Petty Whin, Deergrass, Bog Asphodel, Unbranched Bur-reed, Tawny Sedge and Marsh Arrowgrass, with a new site for Marsh Violet (with accompanying small pearl-bordered fritillaries).

The cumulative result of the Botany Group's work (together with the complementary work of the Bird and Butterfly Groups) is shown in Map 4 "Nature Reserves, Local Wildlife and Candidate Sites in the Upper Clun" in the Chapter on Conservation Action on page 20.

DISCUSSION

It is perhaps surprising that we continue to put forward new sites for LWS adoption, that there are still semi-natural areas in the Clun and Teme which have been to date overlooked. A further five (two were Teme Valley) prospective sites were adopted during 2016 as LWS: Three Gates; The Pants; Crossways Meadow; Maice and also Lady's Meadow, The Graig. Since the start of the Community Wildlife Group in 2007, 25 (31)* LWS are either completely new or are extensions to existing sites.

The majority of the 47 (65)* LWS in the Upper Clun (and Teme) areas have been surveyed within the last five years, and 75% are in a reasonably good condition.

Where sites were found to be in a poor condition this was attributed to: over-grazing, fertiliser use and run-off with each leading to loss of species-richness of unimproved grassland, bracken encroachment and inappropriate woodland management.

Most of the work of the three groups: Bird, Butterfly and Botany focuses on rush pasture, mire and species-rich grassland habitats of the Clun Forest. There are around 15 such sites in this landscape where conservation work needs to continue to be focused for key threatened species like the curlew and small pearl-bordered fritillary.

The Botany group continues to work closely with farmers, which is essential if habitat conservation and restoration is to be successful. The group also works with Ceri Meehan, Natural England (NE) and the AONB office to ensure that LWS receive appropriate management within schemes and projects.

CONCLUSION

A substantial amount of work was done by the group in 2016 with a wide area of the Upper Clun (and Teme) covered, amounting to 561 hectares (more than double the ground covered last year). The landowner involvement, interest and cooperation is very good and much of the data collected has been useful. Working with our partners at the AONB, Land Life and Livelihoods, Natural England, SWT and Severn Rivers Trust means that so much more (and better) is achieved.

FURTHER WORK

Botanical surveys and mapping will continue into next year although how much depends on available funding (SWT are awaiting news of further funding). New and returning surveyors will once more be encouraged to join in the work.

()* = figures where Teme valley local wildlife sites are included



THE BUTTERFLY GROUP

INTRODUCTION

Surveys of Small Pearl-bordered Fritillaries, a “near-threatened” UKBAP Priority Species, started in 2010 and have continued ever since. The original intention was to extend the survey period to look also for Dark Green Fritillaries but few surveys were specifically devoted to this species and only casual sightings of Dark Green Fritillaries are now recorded.

Small Pearl-bordered Fritillary counts and visits for 2010 to date are given in Appendix 5. It is clear that the most important sites have been Barretts West and Pant-y-Lidan, and the numbers found at Barretts West and nearby in Ditch Dingle in 2010 and 2011 make this a regionally significant site. It is hoped to build on, and extend, this work in 2017. Details will be published on the website. More surveyors would be most welcome



The yearly figures for each site are not directly comparable as they comprise the counts for all surveyors and all visits and the numbers of both surveyors and sites visited have declined since 2010. However, it does seem likely that the local population of Small Pearl-bordered Fritillaries has shrunk over the last six years. The only way to get comparable figures would be to make regular surveys of several specific sites during the flight period (late May to early July), but this would require many more volunteers.

SAFEGUARDING HABITAT

Rush Pasture is an important habitat for Small Pearl Bordered Fritillaries, and the food plants they need, and it is also an important habitat for wetland birds. A UCCWG leaflet on the management of Rush Pasture for its characteristic wildlife was included in the 2013 Report (Appendix 7), and can be found on the website www.ShropsCWGs.org.uk

A similar document, but concentrating on the Small Pearl-bordered Fritillary and its needs, has also been produced. This is available on the website of the West Midlands Branch of Butterfly Conservation www.westmidlands-butterflies.org.uk

FUTURE PLANS

Unless more volunteers materialise, all that can be done is to concentrate on sites where significant numbers of Small Pearl-bordered Fritillaries have been seen previously, i.e. (in descending order of importance): 1. Barretts W, 2. Pant-y-Lidan, 3. Cefn Vron S/Bryn Shop (2 sites close together), 4. Ditch Dingle (close to Barretts W) and 5. Corkins Bank.

BURY DITCHES (A NATIONALLY IMPORTANT SITE FOR WOOD WHITES)

Although it's not in the Upper Clun area, readers may be interested to know that, from April to September, weekly surveys of a 2 ¼ mile section of forest track in Bury Ditches have, for the past several years up until 2015, been undertaken by one volunteer with the object of assessing the effect of habitat improvement measures on the population of Wood Whites (a rare species classified as “Endangered” on the UK Red List – the second highest danger rating). This year, the surveys have been carried out by a team of volunteers.

VOLUNTEERS NEEDED

Anyone who would like to help with surveys of Small Pearl-bordered Fritillaries in the Upper Clun area or Wood Whites in Bury Ditches (even if it's only for one or two site visits) should contact

Dennis Twist 01588 640629 dandmtwist@googlemail.com

MAMMALS

The Group decided at its 2014 Annual Meeting to expand its interests in birds, butterflies and plant life to mammals (and reptiles and amphibians) and John Mackintosh of the Shropshire Mammal Group made a presentation.

However, for a number of reasons the intention to get a new Mammal Group up and running has not proved possible. Hopefully, new volunteers will come forward and help with that. If you want to help, please tell Rob Harris, phone 01588 640234, email wilksharris@hotmail.com

CO-OPERATION WITH FARMERS

The Wildlife Group needs, and wants, to work closely with the farmers in the area. The vast majority of land in the Upper Clun area is farmland. Therefore, if we are to gather a worthwhile picture of local wildlife, and then undertake effective action to increase populations and habitat, we need the active cooperation of local farmers. We will therefore continue to work with farmers, individually and generally, on conservation issues in future.

We also encourage members of the Group who are not farmers to do whatever they can to develop good relations with individual farmers while carrying out surveys. This often includes discussion while seeking permission to carry out surveys on farmland.

There are now many examples of where this co-operation has produced results, for the benefit of wildlife and farmers, as we have helped farmers with good wildlife habitat to secure an Environmental Stewardship HLS Agreement with Natural England, so they are rewarded for managing these habitats sensitively and effectively. More details are given in the next Chapter.

CONSERVATION ACTION

The Group was set up in 2007 to monitor nationally or locally threatened bird, plant and butterfly species and their habitats, and to encourage interest in, and actively promote, conservation in the area. Annual Reports have documented the results of the surveys, and the data have been used to underpin Conservation Action, particularly in relation to the steeply-declining Curlew population.

The Group has successfully

- formed a good estimate of the breeding population, distribution and habitat use of Lapwing, Curlew and other target Bird Species
- identified plant sites which contain axiophytes, indicators of high habitat quality, and produced complete species lists in support of their adoption as Local Wildlife Sites
- identified important Butterfly sites, two of which are regionally important

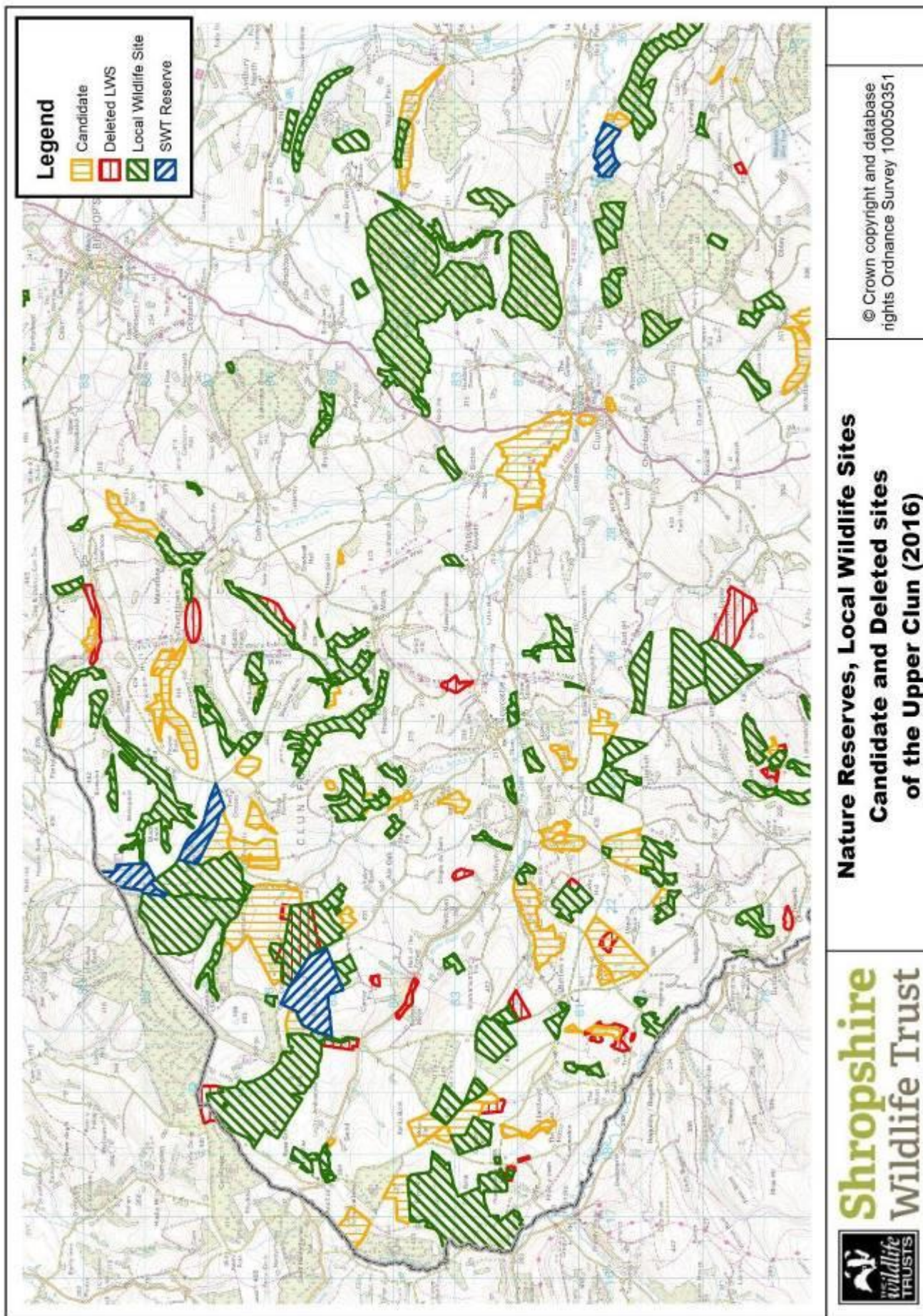
LOCAL (COUNTY) WILDLIFE SITES

Survey results presented in previous reports demonstrated that 'Wetland' sites which support many of the target birds are also key habitats for plants and butterflies. Data were collated across the three survey groups, and used to make the case that sites that were not already Local Wildlife Sites should if possible be adopted. These sites of wildlife interest, *Nature Reserves, Local Wildlife Site, Candidate Sites and Deleted Sites in the Upper Clun 2016* are shown in the Map on page 20. All the proposals have been accepted in principle by the LWS Committee, but formal adoption requires landowners consent, and this is still being sought in some cases, shown as "Candidate Sites" on the map.

Maps in previous reports have not shown the deleted (red) sites. The wildlife attributes of these sites were lost when they were ploughed, fertilised, built on, planted on, felled or destroyed in some other way, usually more than 10 years ago.

NEW HLS AGREEMENTS

Until recently, the national and local strategies to reverse the declines of these species and habitats, and meet Government Biodiversity targets, were based on using Environmental Stewardship (particularly Higher Level Scheme - HLS) agreements between Natural England and landowners to safeguard and enhance the habitats. Such agreements aimed to mitigate the long-



term agricultural changes which have led to the decline of many bird, plant and butterfly species, including “improvement” of grassland by ploughing, reseeding and / or draining.

Most farmland in the Upper Clun was covered by Environmentally Sensitive Area (ESA) agreements, but these all expired in 2014 or earlier. Natural England (NE) had to consider which of the land covered by ESA Agreements should be incorporated into HLS Agreements. The Group’s strategy was therefore to identify the best wildlife sites, make survey information freely available to the land owners and to Natural England, and ask that the species-rich habitats most likely to benefit bird, plant and butterfly species would be included in the scheme. Our detailed proposals to Natural England have been described in previous Repots.

New HLS agreements between Natural England and Individual Landowners in the Upper Clun were entered into in 2013 (21) and 2014 (a further 11), covering more than 10 sq. km altogether.

Our strategy was partially successful, and the 2014 report included comments from Lucy Roberts and Chris Hogarth, the Joint Shropshire Land Management Team Leaders at NE, about how valuable the data we provided was in helping NE decide which land should be covered by Agreements.

Maps showing the location of holdings which include HLS agreements that started in 2013 or earlier, and in 2014, were published on pages 26 and 27 of our report for 2014. These agreements are scheduled to last for 10 years, so they should bring substantial benefits to local wildlife for many years to come.

However, each agreement is voluntary, so it may not protect the best habitats, and funding constraints mean that it is unlikely that any agreements will create significant amounts of new habitat. Around half the landowners in the Upper Clun were not able to make a strong enough case that their farms should have a share of an inadequate budget to provide wider environmental benefits; others preferred to forgo the income rather than enter into HLS agreements. Some farmers need to increase production in order to make up the shortfall in income, and this has already had an effect on grassland management that may further disadvantage wildlife.

Therefore, while HLS has been a major benefit, it protects only a small proportion of the area, so the Group still needs to monitor key wildlife species, monitor the impacts of HLS, positive or negative, and promote conservation.

COUNTRYSIDE STEWARDSHIP

HLS has now been replaced by a Countryside Stewardship Scheme, which, although it is supposed to be more simple than HLS, is much more bureaucratic and less well funded. It aims to implement the proposals of the Lawton Report, which recommended reducing habitat fragmentation through a more integrated approach to land management. Participating areas will be selected by Natural England, rather than relying on applications from individual landowners.

Targeting Statements have been published, but do little to clarify how the scheme will work in practice. In particular, Curlew has been given no priority, despite a decline so serious that it now figures on the Red List of Birds of Conservation Concern. Getting to grips with Countryside Stewardship, and using local knowledge to promote the interests of conservation, will be a major priority for the Group in coming years.

FUTURE AGRI-ENVIRONMENT SCHEMES

All agri-environment schemes for many years have been part of the European Union Common Agricultural Policy. Given the referendum result and the Government’s plan to leave the EU by 2019, the future arrangements for farm payment scheme and benefit for wildlife are very uncertain.

HABITAT REQUIREMENTS FOR TARGET SPECIES

If the various threatened species are to be saved from local extinction, it is necessary to protect them where they breed now, and improve breeding success so their populations can increase and spread. The apparent loss of Lapwing as a breeding species underlines the urgency of this work.

The habitat requirements for Curlew, Lapwing, Snipe, the other Target Bird Species and Small Pearl Bordered Fritillary have been included in previous reports.

Unfortunately, little management work has been carried out in recent years to ensure that sites retain their value for wildlife, but now that some land is being managed under HLS, with funding for such work, it is hoped that this will lead to beneficial changes in farming practice such as rush management, growing hay rather than silage, creating shallow pools and muddy patches, and managing livestock in the vicinity of nest sites.

The Group will continue to monitor these species and sites, particularly the wetlands and Wildlife Sites, to see if our aspirations are borne out in the future.

HABITAT MANAGEMENT LEAFLETS

Based on the results of our local surveys, four leaflets have been published

1. *Please Conserve our Curlews*, requesting farmers to make changes in the way in which grassland is managed and grazed, in 2007 This is based on a similar leaflet produced by the Upper Onny Wildlife Group
2. *Please Help Hedgerow Birds*, requesting all landowners to make small scale changes to the management of hedges, verges, field margins and scrub, in 2008.
3. *Managing Wetlands for Wildlife*, to benefit birds, plants and butterflies, in 2009.
4. *Management of Rush Pasture*, also to benefit birds, plants and butterflies, in 2013.

All these leaflets have been endorsed by the AONB, Natural England, RSPB, Shropshire Wildlife Trust and, when it still existed, Shropshire FWAG.

Each leaflet was published in the appropriate Annual Report, and further copies are available on request. They can also be viewed and downloaded from the website, www.ShropsCWGs.org.uk

SURVEYING WILDLIFE SITES

'Local Wildlife Site' is not a statutory designation. It provides no protection, and does not limit landowner activity. It recognises the wildlife value of a piece of land based on the species it supports. Sites have to meet published criteria drawn up by Shropshire Wildlife Trust in consultation with Statutory Bodies such as Natural England, the Environment Agency and Forestry Commission, and other Organisations such as Shropshire Ornithological Society and Butterfly Conservation. Applications have to be approved by a committee representing most of these bodies, and adoption needs landowner consent.

Fieldwork associated with current or potential Local Wildlife Sites was done in consultation with landowners, whose permission has been sought both for the survey, and for any subsequent adoption of sites. Landowners are given all survey results, and information about any rare or unusual plants at sites.

RIVER CATCHMENT MANAGEMENT

Water quality in the River Clun and its tributaries has declined as a result of silting up of the river bed and pollution from people, transport and farming practices. This is being addressed by statutory organisations in compliance with the EU's Water Framework Directive (WFD), under which The Environment Agency is charged with getting all rivers into 'good ecological condition'.

Part of the lower Clun is designated a Special Area of Conservation (SAC) by the European Union, one of only three such designations in England, because it supports a threatened population of Freshwater Pearl Mussels. The designation requires the statutory organisations to protect the mussel population. Action is urgent: monitoring suggests that if the current rate of decline continues, the population will be extinct within the very near future.

Current initiatives include:

- work on farms to reduce run-off into the rivers through the **Catchment Sensitive Farming** project funded by Natural England
- a **Teme Pilot Project** whose implementation is being co-ordinated by Severn Rivers Trust (SRT); it includes funding for the **Dipper Project**
- a **Clun Catchment Management Plan** being drawn up by a Working Group, set up by Shropshire Hills AONB Partnership, on which UCCWG is represented
- **Dippers in the Teme Catchment** project, with UCCWG involvement, collects data on a species with similar habitat requirements to the Mussel
- Land, Life and Livelihoods, a community initiative in the Clun Forest, is developing a **Catchment Management Plan** as invited by the government
- **Severn Rivers Trust** has secured Heritage Lottery Funding to develop a major four-year project promoting community involvement in the Teme Catchment

The Wildlife Group supports these initiatives, and will seek to become involved in them wherever possible.

SHROPSHIRE HILLS AONB MANAGEMENT PLAN

The AONB has a statutory obligation to produce a Management Plan every five years. Conservation and enhancing Biodiversity are important elements of the Plan. The plan for 2014-19 can be found on the AONB website

CONSERVATION ACTION

UCCWG recognizes that most land in the area is farmland in private ownership, and the Group needs to work closely with farmers to achieve our conservation objectives, although other landowners, householders with gardens, the County Council (responsible for verges and public open space), Welsh Forestry and the Wildlife Trust, among others, should also be involved. Declines in habitat quality and species richness have occurred slowly over many years, and it will take many more years of sustained, incremental habitat improvement if the populations of the “flagship” species are to return to their former levels.

The Group will continue to promote its vision of a diverse, wildlife-rich landscape, and to collect the evidence that enables it to make authoritative representations Parish Plans, the AONB policy and Management Plan, Natural England’s Countryside Stewardship, the Environment Agency’s work on river habitats, the Statutory Planning Process, and the policies of other statutory and voluntary organisations. Such influence is necessary if we are to help make a difference to the quality and diversity of wildlife habitats

CURLEW ACTION PLAN

The Wildlife Group has been surveying the Upper Clun for ten years now, and working to reverse species declines by promoting the protection and restoration of habitat. It remains committed to such an approach as the only means of sustaining healthy species populations in the long term. However, Curlew has now declined so severely that it may follow Lapwing into local extinction before such measures can take effect. In an effort to prevent this, the Group is drawing up an emergency *Curlew Action Plan*.



Fieldwork suggests that fewer Curlew pairs are settling to nest; the habitat at many of the traditional breeding sites is now marginal and requires landscape-scale conservation measures. Where pairs do manage to breed, nest and chick survival is extremely poor: in 2015 and 2016 only one brood per year is believed to have survived to an age where young might have gone on to fledge. This falls so far below the productivity needed to maintain numbers that the situation is now critical.

The work of the LPS (see *Bird Report above*) has shown that predation is a major cause of breeding failure, though agricultural activities sometimes play a part; the same is likely to apply in the Upper Clun. Breeding success will not improve unless the immediate causes of failure are tackled directly, with close landowner involvement at all stages. When nest sites have been identified, we will approach the owners to discuss the possibility of taking practical steps to protect the nests.

We know that the whole community is dismayed by the prospect of losing Curlew as a breeding species, and hope that by offering a range of opportunities to make a practical contribution to its survival we can bring everyone together in a joint effort to prevent the unthinkable.

Our surveys since 2007 have identified the most important sites, leading to most of them being adopted as Local (County) Wildlife Sites, and many of them also being protected by HLS Agreements between Natural England and the landowners and farmers. These agreements run for 10 years, but only around 10% of the total area is covered.

Our work has therefore provided lasting benefit for wildlife in our area, but much of it is still declining, so we need to continue to monitor the populations of key species, try to safeguard their habitats, and promote conservation.

A Curlew Action Plan is being launched, to try and prevent the local extinction of Curlews as a breeding species.

ACKNOWLEDGEMENTS & DISTRIBUTION

ACKNOWLEDGEMENTS

Most importantly, thanks to all the people who undertook the Survey work, and contributed additional information. None of the work would have been possible without their effort and commitment. Their names are listed below

Bird Surveyors

Jo Anderson & Diana Mackintosh (r)
Brian Angell (s)
Elizabeth & Steve Blackman (s)
Colin & Sheila Davies (r)
Chris Evans (s)
Michelle Frater (s)
Keith Hodson (r)
Tim Lewis (r)
John Lyden (s & r)
Mark Measures (r)
Mervin Mullard (r)
Katie Steggles (s & r)
Richard Whately (r)
Duncan Yapp (s)

Plant Recorders

Brigid Bruce
Paul Bruce
John Clayfield
Susie Cuning
Susan Gardner
Ros Gillard
Fiona Gomersall
John Lyden
Tess Pearson
Rob Rowe
Janet Watkin

Butterfly Recorders

Dennis Twist

(r) = Resident (Continuous) Recorder
(s) = Map Surveys

Casual records of Curlew and other Target Species were provided by Gill Binks, John Clayfield, Ros Gillard, Fiona Gomersall, John & Ginny Hall, Jacky Harrison, Ian Kidd, Cath Landles, Anne Lewis, Mark Measures, David & Frances Morris, Roger Thomas, Trevor Wheeler, Roger Williams and Marie Zenick.

The Snipe survey at Rhos Fiddle was carried out by Katie Steggles and John Lyden. Katie also took part in the BTO survey of Upland Waders, as did Michelle Frater.

The Small Woodland Birds Nestbox Scheme was run by Marie Zenick, who collected the information for that Chapter in the Report.

The Small Woodland Birds Nest Box Scheme hosts who provided information for the report were Gill Binks, Michelle Frater, John & Ginny Hall, Chris Haydon, Mervin Mullard and Marie Zenick.

Ross Jones monitored the Barn Owl nest boxes, and provided the information for the Barn Owl Chapter in the report.

John Swift made and installed the Dipper and Woodland Bird nest boxes up until 2011. Vince Downs has made the nest boxes since then.

Tony Cross carried out the Dipper nest monitoring and ringing.

Additional Bird Survey work, particularly in determining the Curlew population, and repeat surveys of the Wetland sites, were carried out by Michelle Frater, who organised the surveys and wrote the chapters on the work of the Bird Group.

Fiona Gomersall compiled and drafted the Chapters and sections on the work and results of the Plant Group, and she also organised the surveys and the training.

John Arnfield, who set up the website, www.ShropsCWGs.org.uk, and trained the members of the Group who manage the UCCWG pages: and Rob Harris, who posted material on the website

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REFERENCES

Deans, P., Sankey, J., Smith, L., Tucker, J., Whittles, C., & Wright, C. 1992. *An Atlas of the Breeding Birds of Shropshire*. The Shropshire Ornithological Society.

Grant, M.C., Orsman, C., Easton, J., Lodge, C., Smith, M., Thompson, G., Rodwell, S. & Moore, N. 1999. *Breeding success and causes of breeding failure of Curlew Numenius arquata in Northern Ireland*. Journal of Applied Ecology, 36: 59- 74.

Sheldon, R.D. 2002a *Lapwings in Britain – a new approach to their conservation* British Wildlife, December 2002: 109-115

Sheldon, R.D. 2002b *The breeding success and chick survival of Lapwing Vanellus vanellus in arable landscapes, with reference to The Arable Stewardship Pilot Scheme*. Unpublished PhD Thesis, Harper Adams University College

Sim, I.M.W., Gregory, R.D., Hancock, M.H., & Brown, A.F. *Recent changes in the abundance of British upland breeding birds* Bird Study, 52: 261-275

Wilson, A.M., Vickery, J.A., Brown, A., Langston, R.H.W., Smallshire, D., Wotton, S. & Vanhinsbergh, D. 2005. *Changes in the numbers of breeding waders on lowland wet grasslands in England and Wales between 1982 and 2002*. Bird Study, 51: 55-69

Shrubb, M. *The Lapwing* T & AD Poyser 2007

Smith, L. *Lapwing, Curlew, Dipper, & Other Wildlife in the Upper Onny Valley (Upper Onny Wildlife Group Survey Results & Report* Annually since 2004

Smith, L. *Lapwing & Curlew in the Clun Environmentally Area Survey Report 2006*.

Smith, L. *Upper Clun Community Wildlife Group Report* Annually since 2007

Smith, L. *Dippers in the River Teme Catchment* Annually since 2007

References and fieldguides used by the Plant Group for survey work include:-

- *The Wildflower Key* (second edition): Francis Rose & Clare O' Reilly
- *Wildflowers of Britain and Ireland*: Marjorie Blamey, Richard Fitter and Alastair Fitter
- *The Vegetative Key to the British Flora*: John Poland and Eric Clement
- *New Flora of the British Isles*: Third Edition Clive Stace
- *Sedges of the British Isles* Jermy, A.C., Simpson D.A., Foley M.J.Y., Porter M.S.
- *Guide to Grassland Plants 1*: FSC (Field Studies Council) publications
- *Guide to Moorland Plants* FSC Publications
- *Guide to Woodland Plants* FSC publications
- *Guide to Orchids* FSC publications

DISTRIBUTION

Paper copies of this Report are being distributed to the people listed above in the acknowledgements.

An electronic version of this Report, in .pdf format, will be supplied to the individuals and organisations listed below. Paper copies will be supplied to them on request.

Natural England

- Chris Hogarth & Lucy Roberts (joint Team Leaders, Shropshire Land Management, Parkside Court, Telford)
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THE REPORT

The Group's Report is printed on re-cycled paper.

Copies can be downloaded from the website www.ShropsCWGs.org.uk

Additional Copies (either paper or electronic .pdf files), or copies of any of the Reports since 2007, can be obtained from Leo Smith *Ornithological Surveys & Consultancy*; The Bryn, Castle Hill, All Stretton SY6 6JP (tel: 01694 720296, email leo@leosmith.org.uk)

CONCLUSION

The Group has covered the whole Upper Clun area with Bird and Plant Surveys since 2007, and knowledge of the numbers and distribution of target species is increasing. This has been supplemented by Butterfly Surveys since 2010.

Some of the best grassland and wetland sites in the area, which contain good habitat for scarce Birds, Plants and Butterflies, have been identified. The Group has now started working with land owners to safeguard these sites. Most have been adopted as Local (County) Wildlife Sites.

The information we collected helped land owners apply for Environmental Stewardship Higher Level Scheme agreements, and helped Natural England target these agreements for maximum benefit for wildlife in our area. Most of the best wildlife habitat in the area has been safeguarded through HLS Agreements that have 10 years to run, mainly from 2013 or 2014.

We have also worked with the local community, land owners, and the relevant Statutory and Voluntary Organisations, to raise awareness of conservation issues and influence decision-making bodies.

We have become increasingly involved in the land management issues which affect the water quality in the River Clun and its tributaries.

Planned survey work in 2017 will build on this knowledge, particularly in the wetlands, and enable us to extend the action to promote conservation of our target species and their habitats.

We will also launch a Curlew Action Plan, to try and save Curlew from local extinction as a breeding species

APPENDICES

Appendix 1. Bird Survey Recording Instructions 2016

Appendix 2. Bird Survey Results

- i) Curlew and Lapwing**
- ii) Other Target Bird Species, and Wetland Surveys**
- iii) Curlew, Reed Bunting, & Other Target Species: Explanatory Note to the Maps**

Appendix 3. Plant Group – Sites Surveyed 2016

Appendix 4. Plant Survey - Target Indicator Species (Axiophytes)

Appendix 5. Small Pearl-bordered Butterfly Records 2010 - 16

Annexe 1: The Management Committee

Appendix 1. Bird Survey Recording Instructions 2016

The maps and recording instructions for the Survey (“Operation Curlew, plus Lapwing & Other Target Species”) have not changed since 2011, and are not reproduced here.

The survey is organised and administered via email, and all surveyors are sent reminders at key stages in the season, the first in late March.

Some returns are marked on survey maps, but most come from surveyors via email, as and when they have observations to report. This is particularly useful to collect all the observations of recorders who live in the area and hear Curlews frequently.

Appendix 2: Bird Survey Results

i) Curlew and Lapwing

The only observation of Lapwings is described in the main body of the Report. Observations were so few that there is no Table of Lapwing Survey Results.

The Curlew Results in Table A2.1, together with the results of follow-up fieldwork and visits to local farmers and residents, and a few casual records, have been used to produce Map 2 (the approximate location of Curlew Territories) in the main body of the Report.

ii) Other Target Bird Species, and Wetland Surveys

The list of Other Target Species which members have been asked to record since 2007 are listed in the Other Target Species section in the Bird Surveys Chapter in the main body of the Report.

By the end of 2009 it became apparent that many of the Target Species were restricted to “wetlands” (mires, flushes and damp pasture) in the area. The best wetland sites were therefore targeted in 2010 and 2011, and were revisited from 2012 onwards only where incidental to other fieldwork. The results were shown on the *Curlew, Reed Bunting, & Other Target Species* maps for 2007-10, and for 2011, reproduced in the 2011 Report, while the similar map for subsequent years appeared in the relevant report. That for 2016 is on the page after next.

Because priority was given to recording Curlew, surveyors were not asked to record Other Target Species this year, although some contributed records voluntarily. This year’s records are shown on Map A2.1. *Curlew, Reed Bunting, & Other Target Species 2015*. The map has been produced on the same basis as those in previous reports.

iii) Curlew, Reed Bunting, & Other Target Species: Explanatory Note to the Maps

The “Other Species” are Snipe, Cuckoo, Skylark, Meadow Pipit, Stonechat, Linnet and Yellowhammer

Curlew, Reed Bunting and Kestrel are usually represented by one lozenge per record, although in some cases only representative Curlew records are shown, as some resident recorders were seeing or hearing them almost daily at some stages of the season. The presence of the other species is marked by a single lozenge which may represent multiple records.

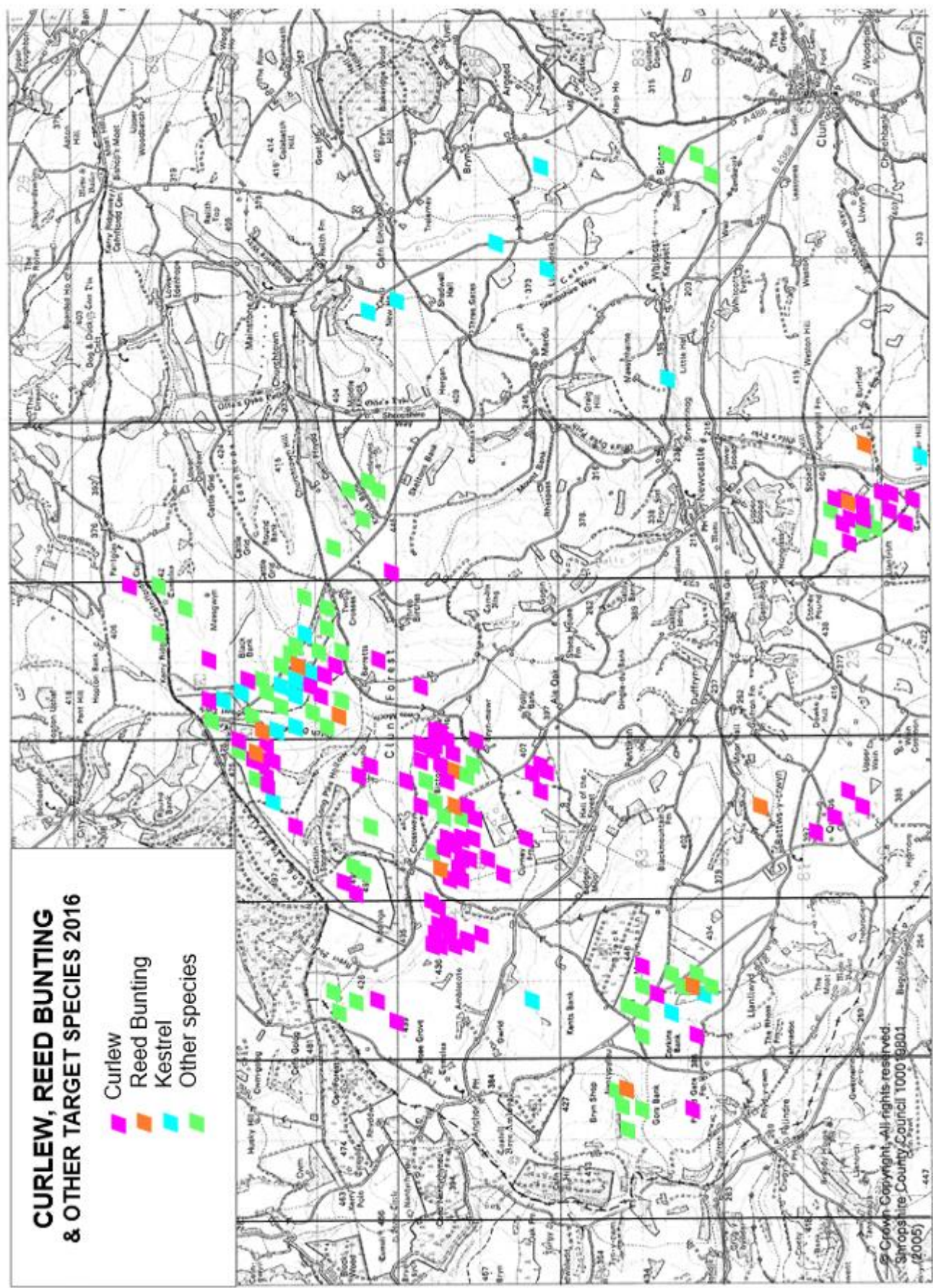
At sites where Curlew records came mainly from local residents, no attempt may have been made to record the Other Target Species. These species will therefore be under-represented on the Map.

Fewer visits were made to some sites than others; this too will have affected the relative volume of records.

Table A2. 1. Results of Curlew Survey

Site name	Square	Observer	Curlew	Breeding status	Comment
Maesgwyn	1	M Frater (s) D Yapp	??	?	Pairs used site occasionally but unlikely to have bred
Amblecote/Riddings	5S & 12N	Colin & Sheila Davies (r)	2	?	Pair arrived at beginning of season but left soon after; breeding status unknown
Riddings/Curney Bank	12NE & 13W	John Lyden (s) C & S Davies (r)	2	1	Active Curlew nest, but failed by July, exact timing unknown
Bicton Hill	6SE & 13NW	Katie Steggles (s & r)	2	1	Continuous activity until c10/06; breeding attempt, apparently failed shortly after hatching
Cwm Moch	6NE	Michelle Frater (s)	2	1	Pair settled and nested, but breeding activity ceased between 13/05 & early June
Masons Bank	6NE & 7W	M Frater (s) D Mackintosh (r)	2	0	Intermittent activity probably associated with other sites or birds passing through
Cwm Ffrydd, Knuck Bank	8S & 9S	Mervin Mullard (r) M Frater	0	0	No known activity
Anchor, Kents Bank	11E & 12S	M Frater (s) D Yapp	0	0	No known activity
Ale Oak/Rhos Fiddle	13S & 20NE	Chris Evans (s) Tim Lewis (r)	2+	1	At least 1 active nest, failed early; possible relay nearby, if so also failed
Black Mountain	18SE & 19	MF (s) D Yapp (s) D&F Morris (r)	0	0	Recorded only in flight over area early in season
Quabbs	27	Richard Whately (r) P Morris	??	?	Some activity; infrequency suggests breeding unlikely, but cannot be excluded
Spoad Hill	29	E&S Blackman (s) B Angell (s)	2	1	Successful nest; defensive behaviour early July suggesting well-grown young; outcome unknown
		(s) map surveys			
		(r) resident recorder			

Map A2. 1. Approximate location of Curlew and Other Target Bird Species 2016



Appendix 3 Plant Group – Sites Surveyed 2016

Site name	Site Code	Grid Reference	Area Surveyed (ha)	Habitat 1	Condition	Habitat 2	Condition	No. of axio-phytes
Anchor (south section)	SO18.02	SO178852	4.24	species-rich grassland	good in parts	rush pasture & purple moorgrass	good	30
Riddings, Anchor	SO18.06	SO190859	168	semi-improved to species-rich mesotrophic grassland	good	rush pasture and other mires	good	52
Gors Bank & Vron	SO18.09	SO171828	33	semi-improved to species-rich mesotrophic grassland	good in parts	semi-natural woodland	good	54
Wain Common	SO27.02	SO221794	13.46	rush pasture	declining in condition			26
Panpunton Hill	SO27.09	SO277735	0.67	semi-natural woodland	destroyed			2
Lower Skyborry	SO27.11	SO277736	0.85	species-rich grassland	destroyed			0
Caer din Bank	SO28.10	SO237847	36.28	acid grassland & heath	recovering in condition	semi-natural woodland	improving in condition	35
Cwm Moch	SO28.25	SO218872	100.39	acid grassland	good	rush pasture and other mires	good	46
Upper Edenhope	SO28.26	SO258895	23.26	acid grassland	good	rush pasture and flushes	declining in condition	34
Dowke Hill	SO28.28	SO221810	10.17	rush pasture	good	Species-rich grassland	good	24
Mason's Bank West	SO28.35	SO224870	76.7	rush pasture	good	Flushes	good	41
Reilth Top	SO28.37	SO288872	1.68	acid grassland	good	scrub & bracken	good	9
Knuck Bank (west section)	SO28.52	SO247863	6.94	mesotrophic grassland	improving in condition	flush	good (much of area seen scraped out for waders).	15
Springhill	SO28.64	SO260812	6.62	acid grassland	no change	rush pasture	improving in condition	16
Tack Wood Pasture (new)	SO18.1 -PS	SO199805	11.17	rush pasture and mires	good	standing open water	good	36
Panpunton Hill Fields	SO27.09-PS	SO281738	63.97	improved to semi-improved grassland	no change	woodland and scrub	improving in condition	9
Trebert Wood (new)	SO27.22-PS	SO257756	15.9	Semi-natural woodland	good	Alder carr	good	11
Bottom Pasture (new)	SO27.23-PS	SO252752	7.42	River	good	Alder carr	improving in condition	15
Brynmawr extension	SO28.31-PS	SO217847	5.63	species-rich grassland	good	rush pasture	good	19
Folly Brook	SO28.59-PS	SO237840	3.62	stream	good	flush	good	14
North-west of Swinbatch Wood (new)	SO28.73-PS	SO275847	1.19	acid grassland	good			12

Appendix 4. Target Plant Indicator Species in the Upper Clun (The "Axiophytes")

Rush Pastures

Scientific name	Common name
<i>Achillea ptarmica</i>	Sheezewort
<i>Anagallis tenella</i>	Bog Pimpernel
<i>Briza media</i>	Quaking Grass
<i>Carex curta</i>	White Sedge
<i>Carex demissa</i>	Common Yellow Sedge
<i>Carex echinata</i>	Star Sedge
<i>Carex hostiana</i>	Tawny Sedge
<i>Carex panicea</i>	Carnation Sedge
<i>Carex pilulifera</i>	Pill Sedge
<i>Carex pulicaris</i>	Flea Sedge
<i>Comarum palustre</i>	Marsh Cinquefoil
<i>Dactylorhiza incarnata</i>	Early Marsh-orchid
<i>Dactylorhiza maculata</i>	Heath Spotted-orchid
<i>Dactylorhiza purpurella</i>	Northern Marsh-orchid
<i>Dryopteris carthusiana</i>	Narrow Buckler-fern
<i>Epilobium palustre</i>	Marsh Willowherb
<i>Equisetum sylvaticum</i>	Wood Horsetail
<i>Erica tetralix</i>	Cross-leaved Heath
<i>Eriophorum angustifolium</i>	Common Cottongrass
<i>Eriophorum vaginatum</i>	Hare's-tail Cottongrass
<i>Galium uliginosum</i>	Fen Bedstraw
<i>Isolepis setacea</i>	Bristle Club-rush
<i>Juncus foliosus</i>	Leafy Rush
<i>Menyanthes trifoliata</i>	Bogbean
<i>Molinia caerulea</i>	Purple Moor-grass
<i>Myosotis secunda</i>	Creeping Forget-me-not
<i>Narthecium ossifragum</i>	Bog Asphodel
<i>Pedicularis sylvatica</i>	Lousewort
<i>Pinguicula vulgaris</i>	Common Butterwort
<i>Polygala serpyllifolia</i>	Heath Milkwort
<i>Pulicaria dysenterica</i>	Common Fleabane
<i>Scutellaria minor</i>	Lesser Skullcap
<i>Succisa pratensis</i>	Devil's-bit Scabious
<i>Trichophorum cespitosum</i>	Deergrass
<i>Triglochin palustre</i>	Marsh Arrowgrass
<i>Valeriana dioica</i>	Marsh Valerian
<i>Veronica catenata</i>	Pink Water-speedwell
<i>Veronica scutellata</i>	Marsh Speedwell
<i>Viola palustris</i>	Marsh Violet

Blanket Bog

Scientific name	Common name
<i>Anagallis tenella</i>	Bog Pimpernel
<i>Apium inundatum</i>	Lesser Marshwort
<i>Calluna vulgaris</i>	Heather
<i>Carex demissa</i>	Common Yellow Sedge
<i>Carex dioica</i>	Dioecious Sedge
<i>Carex echinata</i>	Star Sedge
<i>Carex laevigata</i>	Smooth-stalked Sedge
<i>Carex pilulifera</i>	Pill Sedge
<i>Carex pulicaris</i>	Flea Sedge
<i>Dactylorhiza incarnata</i>	Early Marsh-orchid
<i>Dactylorhiza purpurella</i>	Northern Marsh-orchid
<i>Drosera rotundifolia</i>	Round-leaved Sundew
<i>Eleocharis multicaulis</i>	Many-stalked Spike-rush
<i>Eleocharis quinqueflora</i>	Few-flowered Spike-rush
<i>Erica tetralix</i>	Cross-leaved Heath
<i>Eriophorum angustifolium</i>	Common Cottongrass
<i>Eriophorum vaginatum</i>	Hare's-tail Cottongrass
<i>Hypericum elodes</i>	Marsh St. John's-wort
<i>Isolepis setacea</i>	Bristle Club-rush
<i>Juncus bulbosus</i>	Bulbous Rush
<i>Juncus foliosus</i>	Leafy Rush
<i>Lythrum portula</i>	Water Purslane
<i>Melampyrum pratense</i>	Common Cow-wheat
<i>Menyanthes trifoliata</i>	Bogbean
<i>Molinia caerulea</i>	Purple Moor-grass
<i>Myosotis secunda</i>	Creeping Forget-me-not
<i>Narthecium ossifragum</i>	Bog Asphodel
<i>Pedicularis palustris</i>	Marsh Lousewort
<i>Pedicularis sylvatica</i>	Lousewort
<i>Pinguicula vulgaris</i>	Common Butterwort
<i>Potamogeton polygonifolius</i>	Bog Pondweed
<i>Ranunculus omiophyllus</i>	Round-leaved Crowfoot
<i>Scutellaria minor</i>	Lesser Skullcap
<i>Trichophorum cespitosum</i>	Deergrass
<i>Valeriana dioica</i>	Marsh Valerian
<i>Veronica scutellata</i>	Marsh Speedwell
<i>Viola palustris</i>	Marsh Violet

Species-rich Meadows

Scientific name	Common name
<i>Alchemilla filicaulis</i>	a lady's-mantle
<i>Ananacampsis morio</i>	Green-winged Orchid
<i>Betonica officinalis</i>	Betony
<i>Botrychium lunaria</i>	Moonwort
<i>Briza media</i>	Quaking-grass
<i>Carex caryophyllaea</i>	Spring Sedge
<i>Carex pallescens</i>	Pale Sedge
<i>Carex panicea</i>	Carnation Sedge
<i>Carex spicata</i>	Spiked Sedge
<i>Colchicum autumnale</i>	Meadow Saffron
<i>Euphrasia officinalis</i> agg.	Eyebright
<i>Filipendula vulgaris</i>	Dropwort
<i>Genista tinctoria</i>	Dyer's Greenweed
<i>Linum catharticum</i>	Fairy Flax
<i>Myosotis discolor</i>	Changing Forget-me-not
<i>Myosotis ramosissima</i>	Early Forget-me-not
<i>Neottia ovata</i>	Common Twayblade
<i>Ophioglossum vulgatum</i>	Adder's-tongue
<i>Pimpinella saxifraga</i>	Burnet-saxifrage
<i>Rhinanthus minor</i>	Yellow-rattle
<i>Serratula tinctoria</i>	Saw-wort
<i>Silau silaus</i>	Pepper-saxifrage
<i>Succisa pratensis</i>	Devil's-bit-Scabious
<i>Trisetum flavescens</i>	Yellow Oat-grass

Appendix 5: Small Pearl Bordered Fritillary Butterfly Surveys 2010 -2016

SITE			YEAR												Totals			
No.	NAME	GR	2010		2011		2012		2013		2014		2015		2016		Count	Visits
			Count	Visits	Count	Visits	Count	Visits	Count	Visits	Count	Visits	Count	Visits	Count	Visits		
1	Cefn Vron S	167835	12	1							0	1			1	1	13	3
2	Bryn Shop	174833	0	1	4	1			6	2			6	2			16	6
3	[Gors Bank - Same as No. 2]																0	0
4	Black Mountain 1	187832	0	2	0	1											0	3
5	Black Mountain 2	190826	7	2	1	2	0	3	4	2	0	1	0	2	1	3	13	15
6	Black Mountain 3	189825	0	1		1							0	1			0	3
7	Corkins Bank	185826	2	1	0	1	10	1	18	1	0	2	2	1	1	2	33	9
8	Rhos Fiddle	205853	2	2	1	2	0	2					3	2	1	4	7	12
9	Curney Plantation	209849	13	1	3	1											16	2
10	Bicton Hill	207858	2	1	0	1	0	2									2	4
11	Upper Cabin Gutter [Bryn Mawr]	220849	0	1													0	1
12	Pant-y-Lidan	247853	9	2	70	2	8	2	2	3	0	1	7	1	3	1	99	12
13	Pant-y-Lidan Lower	251846	0	1													0	1
14	Hergan	255850	0	1	0	1											0	2
15	[Hergan W – Same as No. 14]																0	0
16 (a,b & c)	Barretts W	224865	141	4	122	7	85	7	44	6	65	6	19	4	5	2	481	36
17 (a & b)	Ditch Dingle	223370	3	2	31	1	5	1			4	2	6	1			49	7
18 (a & b)	Upper Dolfawr	237876	1	2	0	2											1	4
19	Stevens Dingle	250875	1	2													1	2
20	[Cow Hall Rush Pasture – Same as No. 22]																0	0
21	Knuck Bank	250862	3	1													3	1
22	Dowke Hill NW	220810	0	2													0	2
23	Llanfairwaterdine Turbary	248805			1	1	1	1					0	1			2	3
24	Cwm Moch	217870					0	1	0	1	0	2	1	1			1	5
25	Cwm Burholes	273873											0	1			0	1
26	Gogin	237846					2	1									2	1
27	Brook House NW	220857					0	1									0	1
Totals			196	30	233	24	111	22	74	15	69	15	44	17	12	13	739	136
NOTES																		
A. Site nos. 1 - 23 taken from table produced by Nick Williams in 2011. Nos. 24 onwards assigned by Dennis Twist.																		
B. A blank cell means the site was not visited. A zero denotes a “nil” count for a site that was visited.																		
C. Figures in greyed cells are interpretations of non-numerical records.																		
D. Each count is the total for all visits to that site in that year. As the butterflies are both mobile and indistinguishable, large counts may include some double-counting of																		
E. Records of the dates and counts of all the visits will be archived.																		
Dennis Twist, 1 November 2016																		

Annexe 1. The Management Committee

Membership

The following people were elected at the Annual Meeting in November 2015

- Leo Smith (Chair)
- Jacky Harrison (Secretary)
- Mervin Mullard (Treasurer)
- Fiona Gomersall (Plant Recorder)
- Rob Rowe (Publicity Officer)
- Joy Greenall
- Rob Harris
- John Lyden
- Katie Steggles
- Trevor Wheeler
- Marie Zenick (Bird Group rep)

Fiona Gomersall also represents the local Branch of the Shropshire Wildlife Trust, and Trevor Wheeler also represents the Clun Forest *Land, Life and Livelihoods* project Steering Group.

The Committee, and the Bird and Plant Group, have the support of Professional Advisers

- Fiona Gomersall (Shropshire Wildlife Trust) actively supports and co-ordinates the Plant Group
- Leo Smith actively supports and helps co-ordinate the Management Committee and the Bird Group

Meetings

The Committee has met twice since the last Annual Public Meeting, on 15 October 2016.

The first meeting was largely concerned with a joint application with Land, Life and Livelihoods to Natural England's Facilitation Fund, to encourage farmers largely on the high ground in the area to work together to provide "joined up management" to improve key upland habitats. A lot of work was put into this, particularly by Fiona Gomersall, Joy Greenall, Rob Harris and Sarah Jamieson, who are hereby thanked for their efforts. Unfortunately, although the bid was well received, it was not successful

Otherwise, most of the practical work of the Group is carried out by the Bird and Plant Groups, and the organisers report to, and are overseen by, the Management Committee. In practice this means that it is not necessary to have frequent meetings of the Committee.

Most of the issues discussed at the Committee meetings relate to the conduct and results of surveys, mailings to members, publicity and getting more people involved, engaging with farmers and landowners, relations with Land Life and Livelihoods and the Clun & Bishop's Castle SWT branch, Conservation Action & *Wildlife Habitats & Landscape* Policy, the increasing attention being paid to land management issues in the whole catchment, as they affect the water quality in the river, and other matters which are fully described in this Report.

The Committee believes that social events are very important, and a barbeque was arranged for 30th July, at the Straw Bale building on Brynmawr Farm. Unfortunately very few people booked, so the event was cancelled

Minutes of Committee meetings have been kept, and can be obtained from the Secretary.

Funding and Bank Account

The Group had a Bank Account at the Co-operative Bank, but the Bank decided to close it. A new account has been opened with HSBC in Bishop's Castle, the only branch of any bank convenient for the area.

Each cheque requires two signatures from four nominated Committee members: the current Officers, and Rob Rowe

Up until 2011, all the costs of the Group were met through various grants to Leo Smith. From October 2011 to June 2013, all costs were met by the LEADER Community Wildlife Groups Project, administered by the Shropshire Hills AONB and part financed by the European Union Regional Development Fund, with the National Trust as Banker. These grants were listed in the Acknowledgements in the various Reports, and all of them have been accounted for to the funding body.

Most grants are for the financial year ending 31st March, so the Constitution has set the financial year as 1st April – 31st March, and accounts will be audited accordingly.

Financial Report and Accounts

In 2015-16, the only income was receipts from the 2015 Annual meeting. Expenditure was hire of hall and refreshments for the meeting, and expenses for Group mailings (mainly postage), a stall at Newcastle Show, and UCCWG's share of the cost for the website.

Income and Expenditure for 2015-16

Opening Balance (Bank Statement @31/03/15)		470.14	
			<u>Expenditure</u>
<u>Income</u>			Stamps
AGM Draw	42.00		76.68
AGM Donations	55.00		Newcastle Show
Newcastle Show Entrance Fees	5.00		22.78
			AGM Hall Hire
			32.00
			AGM Food
			25.00
			Website
			15.00
Closing Balance (Bank statement @ 31/03/16)		400.68	

From 1 April 2016

<u>No income</u>			<u>Expenditure</u>
			Stamps
			34.65
			Newcastle show
			15.00
			Website
			15.00

Bank statement at present: 336.03

Audited by Cath Iandles (AONB Community Officer) 16/11/16

Members

Any volunteers for membership of the Committee will be very welcome.

All the current Committee members are willing to stand for re-election. Existing and new members are all subject to election at the Public Meeting

Leo Smith (Chair)
Mervin Mullard (Treasurer)
November 2016