NEWSLETTER

# Wildlife Matters

Pertwood Organic Farm

SUMMER 2019

# LOWER PERTWOOD FARM WINS WILTSHIRE LIFE AWARD!

**The last few months have been very exciting at Lower Pertwood Farm. We won the Wiltshire Life Award 2019 for Conservation Project of the Year. The award was presented at a prestigious event in Salisbury. Much of the recognition for the award must go to Nick Adams, our tireless wildlife consultant, who has been working with us since 2015.**

We are pleased to see that Nick's skills are being recognised by more and more farmers because he is able to provide excellent guidelines as to how our wildlife can be protected. Obviously being an organic farm, we have an advantage in so many ways.

Since the last newsletter we have launched our new cereal product which has been well accepted. We are avoiding mass distribution through the multiples and are rather concentrating on direct sales as well as working though health food shops, nurseries and other more bucolic orientated outlets.

Although we do not have a shop on the farm, we are open from 08h30 to 14h30 Monday to Thursday and from 08h30 – 12h30 Friday if you would like to pop in and have a chat or buy cereals from us.

As always, our newsletter contains good news, hopefully on as many fronts as possible across invertebrates, birds, mammals and all creatures who from the earliest days of our planet are allowed to live undisturbed lives and to ensure that their own species are protected for the future.

# OUR DELICIOUS MUESLI

## AVAILABLE ONLINE AND FROM THE FARM

Our wonderful organic fruit and seeds muesli is gaining fans at breakfast tables across the country.

You can purchase yours by visiting: **www.pertwood.com**, or if you are in the area, come to the farm - Mondays to Thursdays, between 08.30 and 14.30, and on Fridays, between 08.30 and 12.30. Enjoy.


# DEVERILL RAPTOR & OWL GROUP

## WHY WE DO WHAT WE DO

In recent years barn owls, primarily a farmland species in the UK, have begun to recover from the declines which occurred during much of the 20th Century. The recovery has been helped by nest box projects and the co-operation of farmers and landowners who have responded to the plight of barn owls by offering nest sites and a habitat which provides the right environment for the owls preferred food source, vole. The British Trust for Ornithology (BTO) estimates that at least 25% of barn owls now use nest boxes which provide dry and safe cavities for the birds to successfully raise their young.

Continued on page 3…

## DEVERILL RAPTOR & OWL GROUP

Our interest in helping barn owls began with one box in Monkton Deverill, made by my husband Alan in the late 1990's. We put up the box and left the owls to get on with it. In 2005 a pair of owls producing 3 young brought us into contact with Major Nigel Lewis, Barn Owl Conservation Network Advisor for Wiltshire who encouraged & supported an expansion of our work.

At the end of 2005 contact was made with Mark Houghton-Brown, the then owner of Lower Pertwood Farm, who allowed the monitoring of a box in Glebe Barn. Gradually we checked more sites in the Deverill Valley, built and erected new boxes and by 2012 were looking after 14 barn owl boxes.

2013 was a disastrous year for breeding barn owls with Nigel Lewis stating it was the worst he had known in 30 years; the only successful brood we had locally was on Lower Pertwood Farm, where a pair of owls raised two young very late in the year. Nigel also reminded us that kestrels as well as barn owls needed help and so the Deverill Raptor Owl Group (DROG) was born, our aim being to provide safe nesting sites to owls and raptors of conservation concern. With some funding from Wessex Water and contributions from farmers & landowners for materials, we built and erected 12 kestrel boxes and 15 more barn owl boxes, many on Lower Pertwood; by this time in the ownership of the Mole family.

Since 2015 barn owls have been green-listed (low conservation concern), partly thanks to the help they have received; conversely tawny owl are now amber-listed (medium conservation concern) as is kestrel. Continuing help is needed for all three species, barn owls to enable them to remain green-listed and tawny owl and kestrel to try and move them to low concern.

As of 2019, DROG is monitoring 28 barn owl boxes (10 on Lower Pertwood), 12 kestrel boxes (three on Lower Pertwood), four little owl boxes (one on Lower Pertwood) and three tawny owl boxes (one on Lower Pertwood) with some sites having more than one box. The breeding season for 2019 is underway and so far, the DROG news is good with eight pairs of barn owl with eggs and young (four on Lower Pertwood); two pairs of tawny owl with eggs and young; three pairs of kestrel on eggs (one on Lower Pertwood). Some barn owl boxes are still to be checked.

Lower Pertwood Farm contributes enormously to the success of DROG, not only by providing wonderful habitat for all flora and fauna but also by acknowledging and supporting the work we do. Glebe Barn will always be special for DROG, in 2013 it provided our only successful brood for that year and then in 2014 a pair of owls had a successful first brood of four followed by a second brood of seven, affectionately known as the Glebe Seven.

Alison Rymell

*Permitted to check barn owl boxes under the Schedule One Disturbance Permit of Major Nigel Lewis.*

# BUTTERFLY UPDATE

OUR BUTTERFLY LIST HAS RISEN TO **32** SPECIES

*Marsh Fritillary*

*Dingy Skipper*

*Small Blue*

*Green Hairstreak*

**Last year was a brilliant one for butterflies on Lower Pertwood. We reached 30 species recorded, had one of our target species (Brown Argus) using the butterfly bank and recorded a male Adonis Blue holding territories by the long barrow. How can 2019 measure up to that? Well, pretty darn well as it happens, perhaps surpassing it already!**

Stuart Corbett has been engaged in a quest to discover if any ancient calcareous grasslands remain at Lower Pertwood. Agricultural intensification during the 1960s, 70's and 80's 'improved' a lot of the grasslands on the farm and these are now in recovery towards more typical Wessex chalk grassland. To discover some original grassland would, it is hoped, also reveal the wildlife associated with it. This wildlife has become uncommon or rare in the modern landscape and it is only on larger downlands, such as those found on Salisbury Plain and Porton Down, that it is come across with any frequency.

On 15th May 2019, Stuart surveyed Little Coombe for butterflies. The results obtained indicate that the focus of attention for the quest should be here. Among the eleven species of butterfly recorded were Small Blue, Dingy Skipper and Marsh Fritillary. All of these are characteristic of chalk grassland. Marsh Fritillary has not been recorded on the farm in recent years, similarly Dingy Skipper. The vegetation as well as the butterflies present on this area lead us to believe this is the 'Ark Site' which we have been searching for. Further confirmation of its status will be carried out by pitfall trapping for ground-dwelling invertebrates this summer. That's great news, taking our butterfly list to 32 species.

Perhaps even more exciting for me, was my butterfly transect on the Butterfly Bank on 20th May. I only recorded four butterflies of two species, but there was a single Brown Argus (target species present for second year – great!) and three Small Blue (new target species – really great!). Here's a picture of one of the Small Blues sat on kidney vetch, planted especially for them. This is only the third summer for the Butterfly Bank and we have now recorded two of or three main target species.

Finally, we found a new Green Hairstreak colony, having seen one recently in Poppy Knapp (where the tree hive is), a quick search in nearby suitable habitat found this gem on some flowering gorse. What a colour!

Can't wait to see turns up next!

*View from Falconers*

# FLOWERS APLENTY ALREADY!

Following on from the recent years' help to our pollinators by planting areas of flowers, we have been planning what to plant for 2019 but always keeping an eye on what is still growing. Anyone passing by at the moment will notice a splash of colour by the Falconers gateway.

*Crimson Clover*

The main flowers at present are pink campion and crimson clover, here's a close up of the clovers, a very rich red.

*Cornflower*

There are a few of last year's plants flowering that didn't manage it in 2018 due to the dry weather. Here's a cornflower.

There will soon by a further splash of pink as the Sainfoin flowers and a number of new strips coming your way soon…

# HONEY BEE *update*

A lot has been going on with our honey bee work in the last few months.

Our Zeidler tree hive, the first one in the UK continues to buzz, the bees have been active since the hazel started to flower in January. If you have not seen or heard about this before, please see the YouTube video – click here (or put 'zeidler tree hive ' into YouTube search) … we're well above 40,000 views already.

We have added more bees boxes, places where swarms of bees can choose to build a nest and be left alone to do their thing. The first one is a bee nursery made by DROG. It's made with thick planks of cedar or larch, so its insulated and doesn't need any treatments to protect the wood. They are an impressive sight, hopefully the bees will think so too!

*Bee nursery*

*Simon putting the entrance cover on the Just Bee Eco Hive*

We were also lucky enough to receive a Just Bee Eco Hive to help our bees from Simon Kellam who brought the box up from Truro and helped me put it up. Well, I took pictures as Simon did all the work. It has a special construction that means its light as well as highly insulated. Fingers crossed the bees find it soon.

Saving the best nest to last. We have had a couple of log hives up for a year or so that we made last winter. One is in a tree and one is on some sleepers on the ground. There have been a fair few swarms around the farm this year, possibly coming from the tree hive or perhaps from a wild hive somewhere in the vicinity. One swarm

*Bees in the log hive*

was taking an interest in the flue of the log burner in the main house, which is not ideal for us or the bees. A bit of quick thinking by the guys, lighting the burner, effectively smoking the bees out who then headed north. Imagine my delight when checking the log hive in Tank Ground to the north of the house to find this…

As time goes on, we are developing our own strain of bees – the Pertwood honeybee. These are bees that are attracted to the farm and if they do well here, they breed with other like-minded colonies. If it does not suit them, they will not survive. It's all down to the bees to continue to do what they have done for millions of years!

*Skylark singing*

# LATEST BIRD NEWS

**The last few months have been all about the Hungry Gap. The period when food is at its shortest and the weather can be at its worst, all while the birds are trying to get into condition to migrate, breed or both.The weather was relatively mild and dry during the period, so you would think it would suit the birds. This is not necessarily the case.**

In 2018 the weather was very cold and wet, this meant that over winter stubble fields were left untouched across a lot of the area, providing much overwinter cover and food for the birds. Whereas in 2019 the weather at the end of February was the warmest on record, so a lot of farmers got out there and prepared their fields for spring cropping. The conditions were great for this and they did not want to get held up like 2018 if the weather turned for the worse, this year the areas for feeding disappeared quickly. But as always, at Lower Pertwood we had our safety net of tailings from when we cleaned the oats and barley ready to go to feed the birds.

Corn bunting numbers especially have been very high. We have had several flocks in excess of 100. The general areas around Windy Ridge and Pig Down however is their favourite. The flocks here peaked at c500 in April. At the same time there were 100+ in Wet Field, 100+ around Petersfield, 50+ in Plough Down, Ridgeway and Near Cowdown. Suffice to say there were at 750 on the farm and probably a fair few more. It takes so long to cover and count these areas its not possible to get a more accurate figure as they can move around a little. Counting fast moving flocks of small birds is not an easily skill to master either, it's a case of estimate, verify and repeat.

**750** Corn bunting spotted at the farm

We have also had better than usual number of skylark this winter. They wintering birds start to tune up for the Summer ahead from January, is there a better sound in the countryside than this chap?

Recently with the spring starting to take effect, thoughts of breeding birds take over and it's exciting to report a male grey partridge looking like he's on territory duty keeping an eye on a well hidden female. Hopefully we will soon see a covey working the field edges in this area.

Finally, these chaps are back from their winter in Africa – swallows and house martins. Please remember to help them out by making some mud for them to help make their nests. They've flown 1000s of miles to get back here, least we can do I reckon.

# SPECIES SPOTLIGHT

# MARSH FRITILLARY

*Marsh Fritillary*

**As previously mentioned, we have had our first recent sightings of Marsh Fritillary, a total of six were seen on Little Coombe on 15th May.**

This species fluctuates in numbers greatly from year-to-year. They are impacted by poor weather as well as the attentions of a parasitic wasp. Despite this, the general trend is downwards across its Global range and the UK is considered a stronghold for this species now. The State of the UK's Butterflies 2015 (Fox, 2015) states a UK decline of 64% in the ten years to 2014.

Despite the name, this species occurs on a number of habitats including calcareous downland. The main requirement seems to be an area that gets lots of direct sun. The primary larval food-plant is Devil's-bit Scabious, of which there is some in Little Coombe.

They will also use Field Scabious and Small Scabious, there is loads of the latter at Little Coombe. It will be interesting to search the area in the Autumn to see if we can find any of the caterpillars to see what they are feeding on.

**Devil's-bit Scabious is an interesting plant. It flowers late in the summer and has relatively short roots.**

The name Scabious comes from being used as a cure for Scabies. It's said the Devil was getting a bit annoyed by this plant, curing people who would normally have ended up with him. So he decided to tunnel up through the earth and nibbled away the roots so the plant would not grow so well. Hence the name.

*Devil's-bit Scabious on the Long Barrow*

# THE HEALTH OF PERTWOOD SOIL

## AN ACCOUNT OF INITIAL INVESTIGATIONS

**Despite all of our technological advances the basis of farming is still firmly rooted, literally, in the soil.**

If it is in good heart then cropping can be maintained indefinitely. In order to achieve this ideal the soil must be regarded rather like the Christmas cake your granny used to make. The recipe, handed down from previous generations, included practical lessons and skills as well as a mixture of ingredients which were combined to produce a tasty treat for hungry mouths

In much the same way generations of farmers learnt how to develop the most from their soils, adding organic matter to the standard sand, silt and clay to develop a mixture that included a myriad of living ingredients which combined to from a healthy soil that would yield good quality crops.

Since granny's day the quality of the Christmas cake has declined. We have become programmed to accept that the industrialised, mass-produced, chemically enhanced version peddled by the multi-national food chains, saying it is cheaper and as healthy and nutritious as the traditional cake (taste doesn't seem to matter).

The same programming has affected soils. Chemical usage has supplanted the natural health contained in a traditionally managed soil and the effects are obvious even to those with the most jaundiced eye. Research detailing losses in biodiversity, washing of soils into watercourses and the rest have been increasing dramatically in recent years. We have now reached the point where we can no longer believe that soil quality and health can be maintained solely by inputs bought from the multi-national agrochemical conglomerates. Indeed, the situation is so serious that the future of soils suitable for cropping is now being measured in decades. Unless our treatment of soils changes, and quickly, the consequences will be catastrophic.

The correct treatment of soils has, of necessity, been a paramount concern for organic farmers and Pertwood has not only followed this mantra but has been striving to improve both the health and productivity of its soils. A consistent maintenance of soil organic matter together with the use of organic, plant-based, sources of fertiliser has produced a soil rich in biology at Pertwood.

*Lawrence putting the Garford Hoe through its paces in Plough Down South'*

*The business end of the Garford Hoe*


It is not often that an opportunity arises to undertake a direct comparison of these farming types and view the stark reality but such a chance happened at Pertwood in 2018. Land adjacent to the organic fields and in conventional practice was purchased so it was possible to stand on the fence line and compare the fields. A basic visual assessment was enough to indicate some of the significant differences. The details of which can be seen in the Winter 2018/19 Wildlife Matters **here**.

In 2019 this study will be continued and extended and become even more interesting. We have the opportunity to compare the same fields again, allowing us to increase the robustness of the 2018 results by comparing in different weather conditions. At the end of 2019, the conventional field will be undergoing conversion to organic status and all of the things that improve soil health will start to take place. We will then be able to monitor beetle and spider populations again to see if and when population changes begin to occur. We will also monitor an adjacent field which is planned to become permanent grassland. Population developments here in the medium to long term will be fascinating. As these changes take place on previously conventional land further developments are taking place on organic fields.

As mentioned previously weed populations in organic crops, though attractive, have always been a significant limiting factor in the objective to obtain decent yields. Pertwood has, this year, been operating a new machine designed to lower weed populations. It is the Garford Hoe which, as the name suggests, hoes weeds from between crop rows. This is no garden hoe. It is satellite and laser guided and covers a lot of ground rapidly. Its operation and success will be assessed in 2019 and, as part of this an, admittedly rather cursory, examination has already taken place. A comparison took place between a field where the hoe had been used (Plough Down South) and one where previously used tillage operations had taken place (Plough Down North). Plough Down North was in a second winter oat and Plough Down South was in a first winter oat and there had been slightly difference methods used to prepare the different fields as Plough Down South was coming out of a grass ley, so this was not a direct comparison but, rather, a looksee at 'historical' crop management versus the current methodology that incorporates the use of the Garford Hoe.

On 1st April ten 0.25m$^2$ quadrats in each field were assessed to record the weight of weeds and crop present. The average crop height was also measured. The results are given in the table below:

| | Crop hoed | Not hoed | Weed hoed | Not hoed | Ht. hoed | Not hoed |
|---|---|---|---|---|---|---|
| Total/m$^2$ g | 208.4 | 67.2 | 17.6 | 145.2 | | |
| Mean ht | | | | | 10.2 | 7.4 |

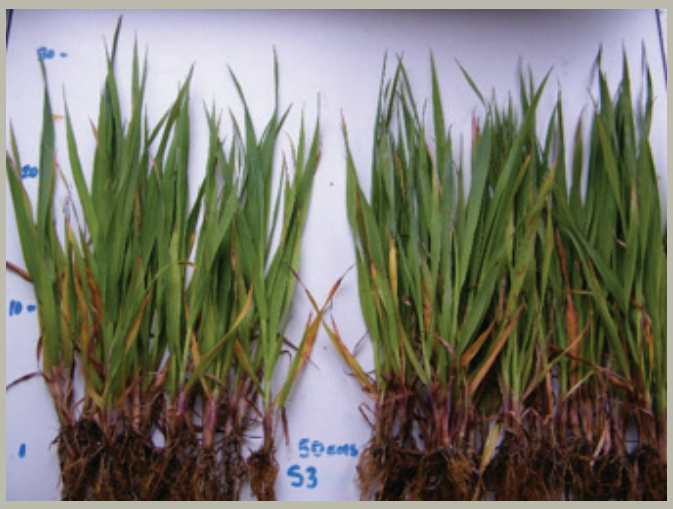
*Garford Hoe used*

*Garford Hoe not used*

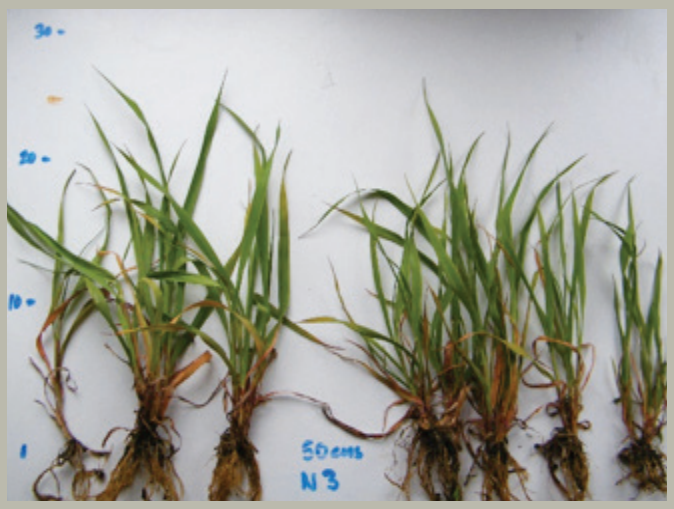
The effect of hoeing is clear and this was also evident in the visual appearance of the crop. Where the hoe was used plants were more erect and greener and it is thought this may be due to an increase in nutrients deriving from soil disturbance by the hoe.

A further assessment on 15th May counted the number of plants with the plant height being assessed again:

| Number of plants/0.5m row | | Mean no. tillers/plant | | Mean plant height (cms) | |
|---|---|---|---|---|---|
| Ploughdown S | Ploughdown N | Ploughdown S | Ploughdown N | Ploughdown S | Ploughdown N |
| 35.0 | 17.33 | 2.1 | 3.7 | 24.33 | 18.0 |




*Garford Hoe used*




*Garford Hoe not used*

Some of the differences will be down to the different field treatments but some of the results can be put down to the use of the Garford Hoe. Although the weed numbers are less, particularly in between crop rows, they are still present and, hopefully, they will maintain the wildlife dependant on them. An indication of this will be obtained in 2019 as monitoring of beetle and spider numbers will take place in the field monitored in 2018 and where the hoe has also been used. As always, Pertwood is endeavouring to carry out its agriculture in a way which minimises deleterious effects on the environment.

This may be the wrong edition of the Newsletter to have started with a Yuletide subject so, to continue the delinquency, I will leave with a piece of advice received from Santa:

"Hoe, Hoe, Hoe"

# INTERESTING FIND WHILE WEEDING

When we were setting up the Garford Hoe for its maiden voyage in Plough Down South, I walked behind it looking at the various bits of the equipment to see if they were operating correctly.

There were bits of flint all across the field, many being moved by the hoe, the one in the photos caught my eye though so I picked it up and put it in my pocket. My pockets often end up full of various bits and bobs as I walk across fields! This one though survived the evening clear out as it looked worked.

The edge looks almost serrated and such a smooth curve, it fits very nicely in your hand and feels like it was made to do so. Hopefully I will have the chance to show it to a knowledgeable person in the not too distant future.

## WE'D LOVE TO HEAR FROM YOU

As a passionate organic farm, we believe in sharing information in the hope that we all learn from it. If you have read some of our ideas and adopted them on your farm or in your garden, please let us know! Every gardener and farmer, from neophyte to old-timer, has a metaphorical bag of tricks: a diverse collection of clever strategies, techniques and tools that help them save time, frustration, money – please share your experiences with us.

Write to us via Louise at email **louise.norton@pertwood.co.uk**