



Wildlife Trust for  
**Beds, Cambs  
& Northants**



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# Strawberry Hill

Conservation Update – Spring 2026

Chantelle Warriner & Gwen Hitchcock

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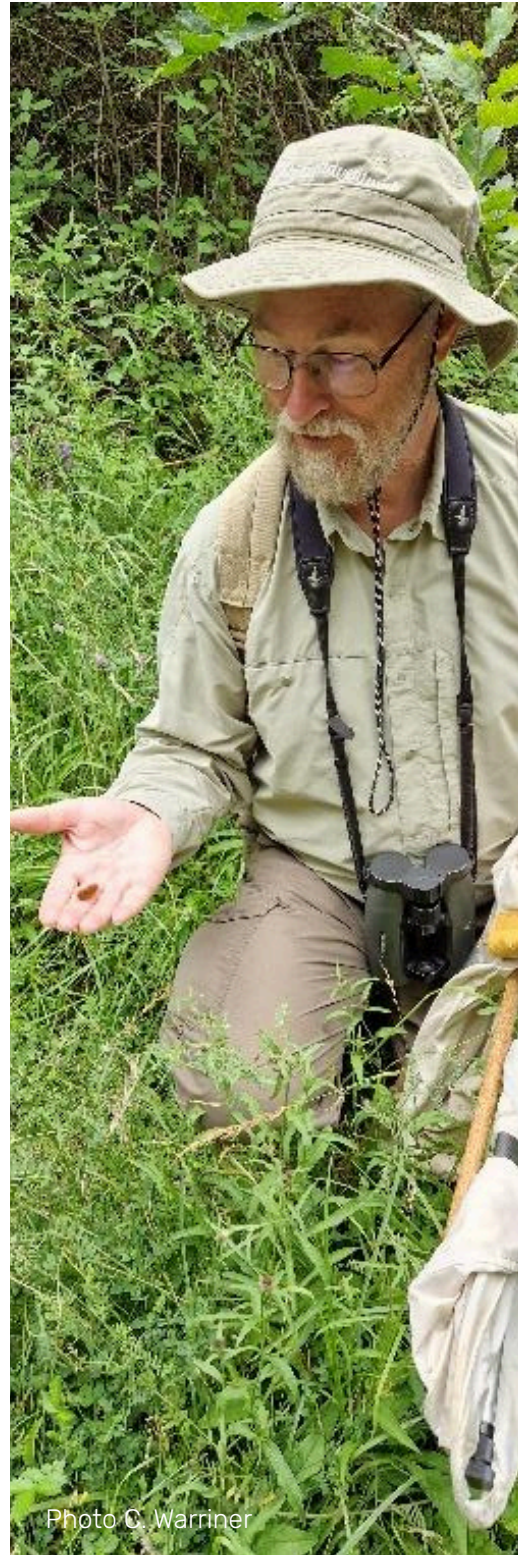


Photo © Warriner

# Introduction

As I sit here at my desk in early 2026, ready to enlighten you with progress and developments from Strawberry Hill this past year or so, I look out at the birds clinging on to bird feeders in my frozen back garden. And it strikes me just how challenging seasonal change throughout a year can be for our wildlife. Challenges that are amplified in an increasingly unpredictable seasonal landscape. A busy and productive year of management planning, volunteer tasks and wildlife monitoring for us, pales in comparison to the year our wildlife has faced. Each species battling the elements in an ever-changing landscape to secure food, water, shelter and ultimately, to survive and reproduce.

These cyclic seasonal challenges faced by our native wildlife are at the forefront of our management planning and actions here at Strawberry Hill and the Wildlife Trust BCN. We endeavour to manage our nature reserves to promote rich habitats and dynamic ecological processes, supporting a myriad of species throughout each stage of their lifecycle. This report will detail the supportive actions and interventions that have been carried out at Strawberry Hill over the last few years, all with the intention of safeguarding this vital wildlife haven in the Bedfordshire countryside.

I would like to take this opportunity to personally thank you all for your continued support for the unique oasis that is Strawberry Hill.

*Chantelle Warriner, Reserves Officer at Strawberry Hill.*



Figure 1: Autumn colours in the scrub at Strawberry Hill. (Photo: C. Warriner)

# Habitat Management

## Scrub Mosaic Habitats

Scrub is an 'in-between' or transitional habitat - a middle ground between open grassland and secondary woodland which, owing to its diversity in ecological niches, is often rich in biodiversity. The scrub mosaic at Strawberry Hill provides a whole host of wildlife with food and shelter throughout the year, while also connecting the wider landscape by providing safe commuting pathways for many species including bats and butterflies. While Strawberry Hill is presently characterised as a 'rewilded' landscape that has developed relatively free of human intervention, it is now, almost 40 years after it began its transformation, at an ecological optimum or 'sweet spot'. As such, without some management intervention, the habitats at Strawberry Hill would gradually transition into secondary woodland - an important habitat but one that takes hundreds of years to reach its full potential. While we would like to reassure you that around a third of the site will continue to develop into secondary woodland, the remainder will be subject to a range of management techniques including conservation grazing, scrub laying and coppicing.

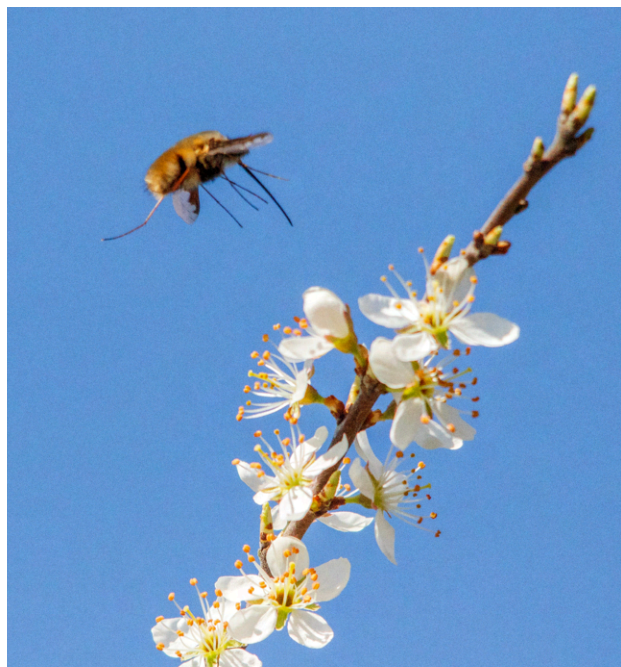


Figure 2: Bee fly and blackthorn blossom at Strawberry Hill (Photo H. Wilkinson )

With these imminent ecological processes in mind, much of our work on site will aim to halt this natural progression and maintain the scrub mosaic which presently hosts so much life. In particular, our scrub loving birds, including nightingales, turtle doves and a host of warblers. While we finalise plans for our larger scale management of the scrub habitats on site, such as conservation grazing with rare breed cattle, much of our current work is targeted and small scale, made possible by our dedicated volunteer team.

## Public Access and Ride Edge Management

In 2025 one focus was maintaining access for the public along bridleways and public footpaths. With several kilometres of public rights of way criss-crossing the site, there is always plenty of 'trimming back' to do for our volunteer team. While this work serves a practical purpose, it also proves beneficial to the ride edge habitats. By trimming back overhanging vegetation at a range of heights we let light through to the path edges and stimulate fresh new growth. In doing so we create structural diversity along the path network, increasing the complexity of ecological niches along these linear features, allowing a greater diversity of species to take advantage of them.

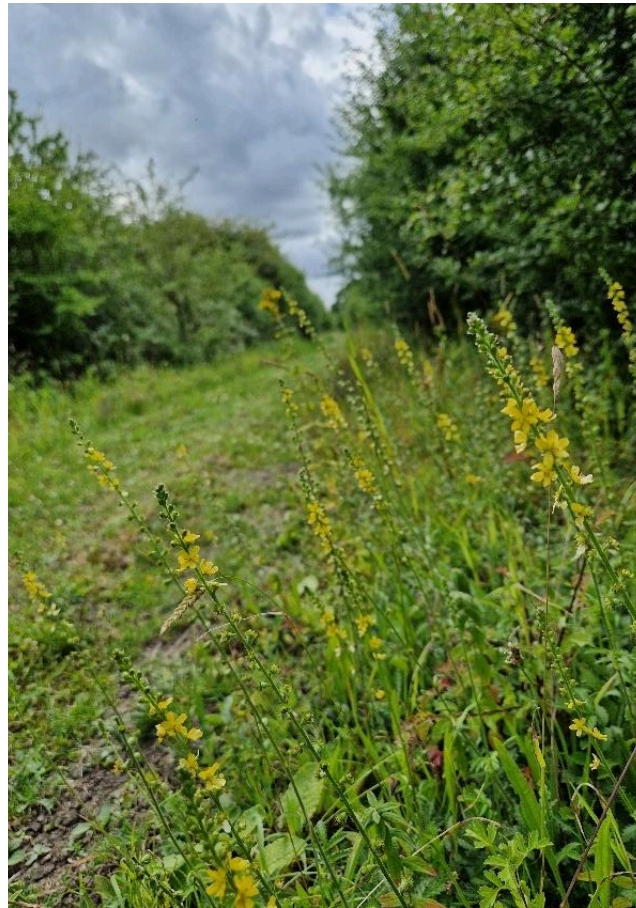


Figure 3. Agrimony flowering along a bridleway



Figure 4: Volunteers taking a break after some hard graft at Strawberry Hill

# Pond Restoration and Creation

## Working in partnership on ponds

A second area of focus for us this year has been pond restoration and creation. Several of our recent volunteer tasks have involved clearing existing ponds of overhanging vegetation and reducing the burden of competitive species such as yellow flag iris. These interventions increase light levels, maintain open water and reduce leaf litter deposits, improving water quality and encouraging a greater diversity of plant life within the pond ecosystem. Such management of existing ponds was carefully considered; volunteers conducted aquatic invertebrate surveys prior to any management interventions to inform where management would lead to the best outcomes for wildlife. Some heavily shaded ponds are excellent habitat for a large variety of aquatic invertebrates and as such their intrinsic value should always be considered before interventions are enacted.

It was always our intention to create new ponds for wildlife at Strawberry Hill. Their ecological benefits within the landscape often far exceed their modest footprint. Freshwater ponds not only provide habitat and drinking water for a myriad of species, they also help to mitigate against many impacts of climate change – they absorb carbon, aid in flood defence and act as life-giving reservoirs in times of drought by replenishing groundwater stores and providing drinking water for thirsty animals. So, when representatives from the Newt Conservation Partnership got in touch with us to discuss a collaborative pond creation project on our land, we were curious to hear what they had to say. Made up of staff from the Freshwater Habitats Trust and the Amphibian and Reptile Conservation Trust, two leading NGOs, the Newt Conservation Partnership or NCP, is the practical delivery partner for the NatureSpace District Licensing Scheme. Developers pay into this Natural England approved scheme to compensate for their impacts on Great Crested Newts (GCN) and the funds are used for the creation and long-term management of GCN habitat.

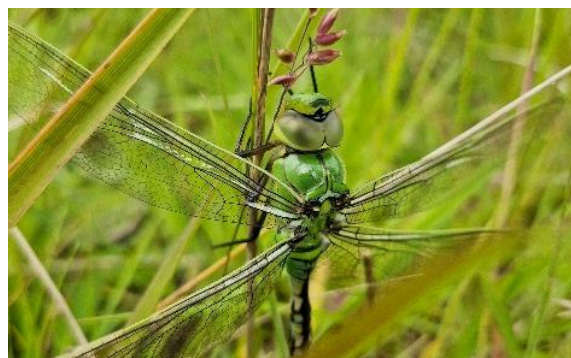


Figure 5: Female emperor dragonfly at Strawberry Hill (Photo: C. Warriner)

NCP focuses on delivering new clean water ponds and enhancing the surrounding habitats in places where newts can thrive long term. Owing to the sheer acreage of high-quality terrestrial habitat at Strawberry Hill and the confirmed presence of GCN in our existing ponds, our site represented a rare opportunity to create a network of ponds to support GCN at the metapopulation scale. A metapopulation is a group of interconnected populations, where individuals move between several breeding ponds within a landscape connected by suitable terrestrial habitat. With the suitability of the terrestrial habitat assured, in October 2024 we set about digging six test pits across the southern half of Strawberry Hill to test the land for its suitability for pond creation.

## Creating new ponds

The dominant geology at Strawberry Hill is Oxford Clay, renowned for its ability to hold water, so we were hopeful the test pits would hold water well. To our delight, four out of the six test pits held water well into the driest months of 2025 (quite a feat given the weather last year). This allowed us to pinpoint the best locations for our new network of ponds.

In October 2025, one year after the test pits were dug, we broke ground on our first new pond. This was a seamless process involving a skilled contractor and a knowledgeable project lead from NCP. In just over two weeks, six new ponds had been created within high quality scrub and grassland habitat at Strawberry Hill. Each pond has its own unique shape, size and depth profile, creating a range of pond ecosystems with their own unique microhabitats. When created sensitively with both land and water in mind, a pond can become a space where land and water seamlessly interact. To achieve this, each pond has a gently sloping edge with shallow margins. This encourages wetland plants to colonise but also provides safe access to freshwater for many animals, including the threatened turtle dove. The turtle dove breeds successfully on site at Strawberry Hill and is just one of the many species set to benefit from the newly created ponds.



Figure 6: Work commenced on the construction of six new ponds at Strawberry Hill in October 2025 (Photo: H. Wilkinson)



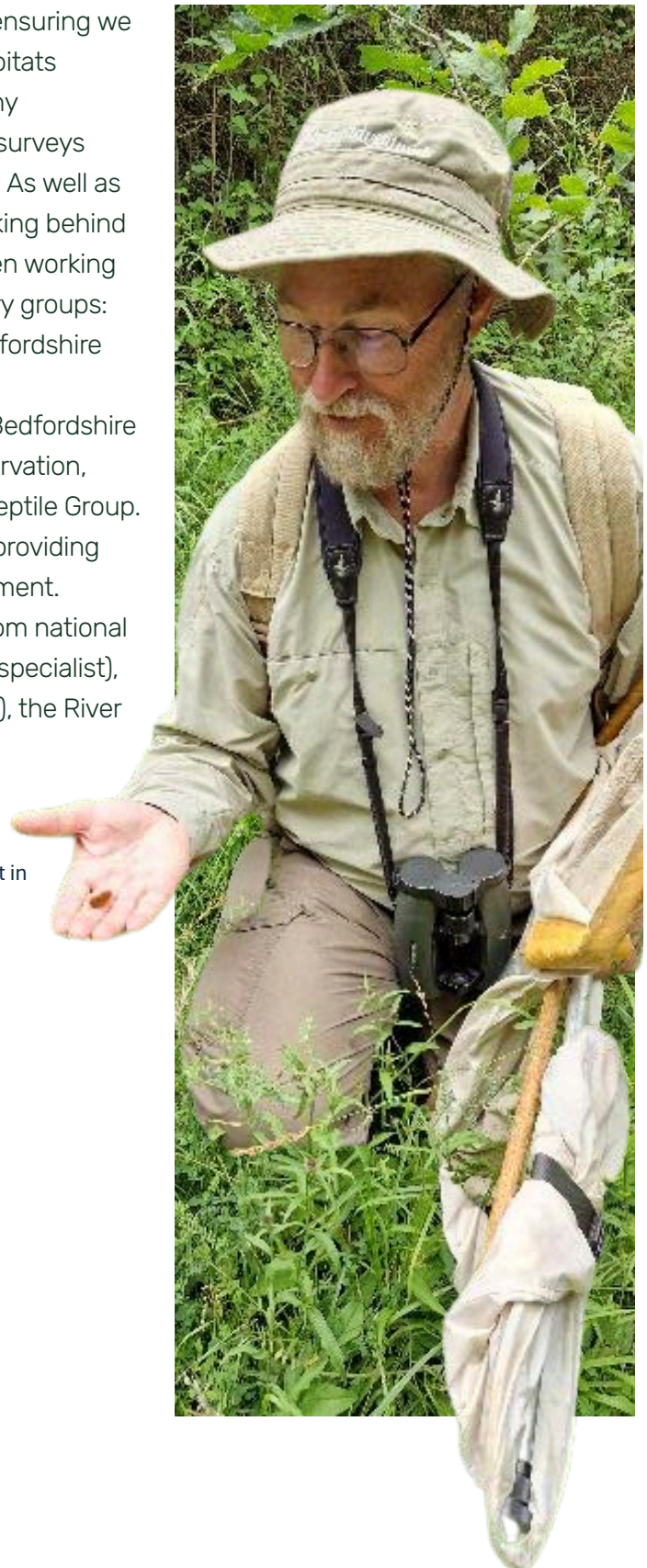
The ponds are beginning to fill. We plan to allow the ponds to naturally colonise with plants and animals in a process known as natural succession. Once the ponds are established, which will take a number of years, we will manage them according to best practice for both GCN and any other aquatic life that the ponds may host.

Figure 7: Four newly constructed ponds at Strawberry Hill (Photo: H. Wilkinson)

# Surveying

One of our first aims after taking on the site was ensuring we had a good understanding of the species and habitats present – a rather mammoth task! We've had many wonderful volunteers out to help with numerous surveys from dawn (birds) until late in the evenings (bats). As well as this we have a dedicated team of volunteers working behind the scenes to help process the data. We have been working closely with many local experts and natural history groups: Bedfordshire Natural History Society (BNHS), Bedfordshire Mammal Group, Bedfordshire Invertebrate Group, Bedfordshire Bird Club, Bedfordshire Bat Group, Bedfordshire and Northamptonshire Branch of Butterfly Conservation, Bedfordshire and Hertfordshire Amphibian and Reptile Group. This has included both carrying out surveys and providing advice on setting up surveys and future management. As well as this local interest we have had input from national experts including Graeme Lyons (an invertebrate specialist), the UK Centre for Ecology and Hydrology (UKCEH), the River Restoration Trust and RSPB.

Figure 8: Local entomologist and volunteer with Wildlife Trust in Bedfordshire at Strawberry Hill (Photo C. Warriner)



## Birds

This reserve is known to be important for many bird species, at least at the county level, particularly nightingales, turtle doves, and warblers. In 2023 we set up three breeding bird transects with volunteers covering as much of the site as possible using the path network. So far these have recorded over 50 bird species, around half of which were showing evidence of potential breeding. Based on the first two years of records, Strawberry Hill may support over half of the total breeding population of nightingales in Bedfordshire, with at least 30 territories mapped in 2023 and 2024.

It also has a significant proportion of the local breeding population of turtle dove, grasshopper warbler and cuckoo. The large numbers of scrub-associated warblers (e.g. blackcap, chiffchaff, willow warbler and whitethroat) would also put Strawberry Hill in the top 5 sites in the county for these species.



Figure 9. Blackcap  
(Photo H. Wilkinson)

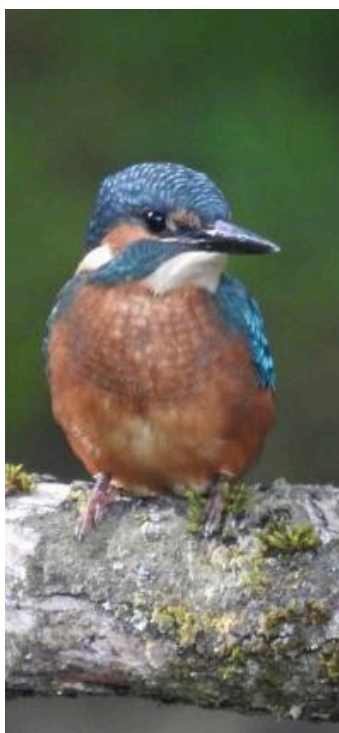


Figure 10: Juvenile kingfisher  
(Photo: S. Boys)



Figure 11: Nightingale (Photo H. Wilkinson)



Figure 12. Barn Owl (Photo S. Wantling)

## Mammals

Thanks to fundraising by our Junior Ambassador Henry Day, we purchased two trail cameras for Strawberry Hill which have allowed us to record many of the larger mammal species including badgers, foxes, hares and roe deer. In the spring of 2025, a wildlife camera also picked up a weasel regularly commuting across the stream adjacent to the Willow Pond. We have recorded at least four active badger setts, with badger movements recorded across the site with the help of these trail cameras.

Small mammals were surveyed by staff using Longworth traps in autumn 2023 and 2024. As well as the expected wood mice and bank voles, we recorded a harvest mouse and two water shrews. It was wonderful to confirm the presence of water shrews, the largest British shrew, at Strawberry Hill. They possess a unique blend of adaptations that enable them to live semi-aquatically. They are the UK's only venomous mammal – possessing a venomous bite used to stun prey such as frogs and fish. They can also trap air in their fur and use this while hunting underwater to stay buoyant while hunting aquatic insects and snails.

The Bedfordshire Mammal Group has been out annually since December 2022 to survey for harvest mouse nests as part of their winter programme. Through these, and incidental records during work parties, we have confirmed the presence of harvest mice at low density in all the main grassland areas of the reserve. Staff have also carried out a few water vole surveys along the Willow Stream, which historically supported water voles. Unfortunately, no conclusive evidence has been seen yet, but with the Waterlife Recovery project beginning to get on top of mink populations in Bedfordshire it is possible that they may recolonise, especially if we can hold more water on site during the spring and summer.



Figure 13: A weasel caught on a wildlife camera trap at Strawberry Hill.

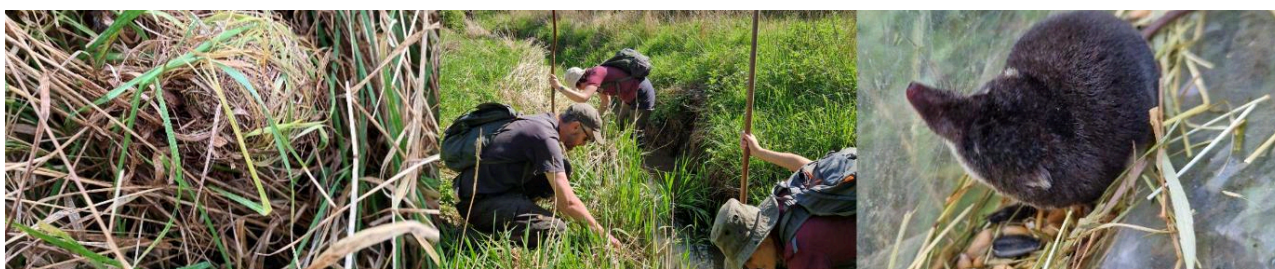


Figure 14: Left - harvest mouse nest, centre - water vole survey, right - water shrew (Photos G. Hitchcock & C. Warriner)

### Bats

Bat surveys have been carried out by staff, volunteers and the Bedfordshire Bat Group (of which some staff are also members). This has included deploying static bat detectors, evening transect walks and late-night trapping surveys (under licence). The results are fascinating. We have recorded 11 of the 12 bat species present in Bedfordshire using the habitats at Strawberry Hill, but many of the in-person surveys have been extremely quiet with low numbers of bats present on most visits. Given many habitats at Strawberry Hill are early on in their succession, with limited features to support roosting bats, this is unsurprising. It is likely many of the bats recorded, particularly the woodland specialists like the barbastelle, roost elsewhere and use the site for commuting and foraging. Another exciting find was the elusive whiskered bat, which can only be confirmed in the hand or by DNA analysis. While we have few bat specific management interventions planned for the site, broader site management that generally improves the site for invertebrates will also benefit foraging bats. We are planning to install some bat boxes on some of the larger trees to increase roosting potential on site.



Figure 15: Whiskered bat  
(Photo R. Cornes)

### Herptiles

Prior to us taking on the site, surveys showed that great crested newts were using all the ponds holding water that summer. This suggested they are widespread across the site and will utilise any available water source. We have also recorded smooth newt on site, but curiously no frogs or toads.

Reptile surveys carried out by staff and volunteers looking under artificial refugia have so far found no reptiles at Strawberry Hill. We will be repeating the surveys in 2026. It will be curious if reptiles are absent given the suitability of the habitat, particularly for common species such as grass snake. It may be the site is too isolated from other populations for them to get here, highlighting the importance of connected landscapes for wildlife.



Figure 16: Great Crested Newt  
(Photo C. Warriner)



## Lepidoptera – Butterflies and Moths

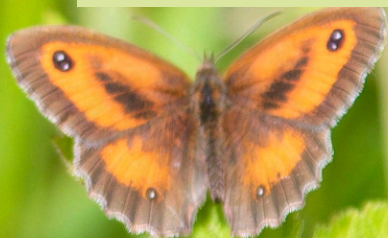
Local Lepidopterist, and Bedfordshire and Northamptonshire Branch of Butterfly Conservation's member, Aidan Whitfield helped us set up a new UK Butterfly Monitoring Scheme (UKBMS) transect on site in 2023, and a specific survey for Purple Hairstreak in 2024. There were 26 species of butterfly recorded at Strawberry Hill between 2023 and 2025. These included the occasional silver-washed fritillary, small copper and Essex skipper as well as abundant clouds of more common, familiar species such as the gatekeeper, speckled wood and red admiral butterflies. Purple hairstreak surveys focused on selected oak trees (their larval food plant) and from June to August recorded 58 purple hairstreaks at 8 out of the 11 locations surveyed. It's good to know they are across the site and not just confined to one area.



Figure 17: Local volunteer surveys for purple hairstreak at Strawberry Hill

In 2025 we were also delighted to discover a population of black hairstreak butterflies, with three individuals seen at Strawberry Hill. This is a rare species in the UK, but about half the British population occur within our BCN area. In spring of 2026 we plan to use UV torch survey techniques to identify black hairstreak caterpillars on blackthorn, their larval foodplant.

Through specific moth surveys (using light traps and lures), general invertebrate surveys and casual records, 148 species of moth have been recorded on site. This number is expected to go up with further survey effort. Abundant moth caterpillars are suspected to be driving many ecosystem dynamics at Strawberry Hill, in particular the high densities of breeding birds. This may form an interesting point of study in the future.



## General invertebrate surveys

Including the *Lepidoptera* data above we have 978 invertebrate species recorded at Strawberry Hill. Many of these records come from a few specialists that have visited the site since we took it over, including our own CEO Brian Eversham. The Bedfordshire Invertebrate Group visited in 2023 which identified many beetles, flies, moths and true bugs. Members have been invited to revisit the site as they wish which should increase the records even more.

Around two-thirds of the species were recorded in 2023 by entomologist Graeme Lyons. He has been surveying rewilding sites across the country and was keen to include Strawberry Hill.

Over six visits he made a total of 3,413 records of 693 species, of these, 30 were found to have some form of conservation status. He noted that Strawberry Hill had exceptional numbers of spring-active moths, which will be instrumental in supporting the bird population here.



Figure18: Red soldier beetles (Photo:C.Warriner)

## Flora

We've had a few local experts out looking at the bryophytes (mosses and liverworts), algae and lichens. They recorded 30 bryophyte species on site, mostly the common ones that would be expected in these habitats. The algae survey turned up two interesting finds: *Koliella spiculiformis*, a rarely documented planktonic green algae, and *Spirogyra elongata* in a rarely seen fertile state. The lichen surveys found over 50 species of lichen, as well as eight lichenicolous fungi (a specialised group of fungi that live exclusively on lichens, their host organisms). This includes several rarer species, some only recently recorded in Bedfordshire and others that are perhaps often overlooked.



Figure 19: Bee orchid (left) pyramidal orchid (centre) common spotted orchid (right) (Photos: C. Warriner)

The site has proved surprisingly well populated by orchids. This was not something we expected given the soil type. In late spring and early summer there are large numbers of pyramidal and common spotted orchids along the rides as well as bee orchids. This is potentially the result of a lack of soil disturbance and agricultural chemicals over several decades.

## Abiotic surveys

Water quality testing of the Willow Stream that flows west to east through the site found high levels of phosphate and nitrate pollutants, not unexpected for water running through agricultural land. A River Habitat Survey in spring 2025 assessed the stream as poor due to significant modifications (e.g. culverts) and lack of natural features. Again, unsurprising given the agricultural history of the site. In contrast the riparian vegetation scored well.

We are working with our partners to formulate plans to re-naturalise the stream, retain more water on site throughout the year and improve water quality. With the help of our volunteer team, we have already installed several small-scale leaky dams. These are constructed of natural woody material and help to slow down flood waters by temporarily trapping them. Trapped water will typically form temporary pools and back channels creating a diverse wetland habitat while also reducing flood peaks and easing pressure on downstream areas. As the water finds its way through the dam it gouges out the stream bank and creates variation in the structure of the steam channel, diversifying the habitats that form along its banks.



Figure 20: The Willow Stream at Strawberry Hill. Staff and volunteers help with leaky dam construction. This has been carried out to encourage the deep straight channel to re-naturalise. The dams will also help the site retain and filter flood waters creating a diverse wetland habitat (Photos: C. Warriner).

# Remote Mapping and Monitoring

We've had detailed drone surveys carried out on site, both optical and LIDAR. This helps us see what is happening away from the paths which is often difficult to do on the ground due to the dense scrub. These detailed maps then help us better plan our work across the site in a more effective and efficient way. They also help us determine the above ground biomass of the scrub which in turn can be used to calculate the amount of carbon locked away on site.



Figure 21: Drone image of Strawberry Hill captured by Holly Wilkinson

# Research projects

Strawberry Hill provides excellent research opportunities for natural regeneration on agricultural land as well as future management options. In addition to our own projects we are welcoming researchers from various institutes to use the site to improve knowledge of the reserve as well as contributing to wider, nationally important, projects.

Recent and current research projects:

- Remote mapping of scrub biomass – UK Centre for Ecology & Hydrology (UKCEH): By combining details drone mapping with data collected from the ground researchers are creating a model to calculate above ground biomass of scrub.
- Modern approaches to biodiversity monitoring (MAMBO) – UKCEH: This international project is developing and testing methods of automated surveying and identification. Strawberry Hill is being used as one of many sites for trialling their pollination, moth and audio methods.
- Treescape Expansion through Planting & Natural colonisation (TreE PlaNat) - Woodland Creation & Ecological Networks (WrEN): this project is investigating the socio-ecological outcomes for woodlands created through different processes, including planting, natural colonisation, or mixed approach. Strawberry Hill provided an example of natural regeneration for this and they monitored trees, including saplings and seedlings, and moths.
- Hedgerows – PhD researcher, University of Reading: studying well-managed hedgerows and poor-quality hedgerows across several farms. Strawberry Hill has been added as an example of hedgerows turning into scrub when neglected. We identified stretches of previous hedgerow through looking at old aerial images of the site.
- Soils – Undergraduate student project, Harper Adams University: We have had several students from various universities interested in comparing soil chemistry and/or invertebrates across Strawberry Hill and the adjacent arable fields. Unfortunately, two of these projects were aborted in 2024 - MSc students from University of Leicester and Anglia Ruskin: but one is currently conducting fieldwork.



Figure 22: MAMBO research equipment for automated surveying and identification of moth species. (Photos: H. Wilkinson)



Figure 23: Staff and researchers from the Wildlife Trust BCN and UKCEH conduct scrub biomass sampling at Strawberry Hill. (Photo G. Hitchcock)

# Training workshops

We would like Strawberry Hill to become an important site for training as well as research. Without a dedicated classroom this limits what can be done, but we now hold some of our Wildlife Training Workshops here. In May 2024 we held an Introduction to Bird Identification and Birdsong workshop led by Paul Gosling which was fully booked. Then in June 2024 an Introduction to Wildflower Identification workshop led by our own Matt Jackson which was also fully booked.

Unfortunately, the Bird Identification workshop in 2025 had to be cancelled for reasons beyond our control. This coming year we have an Introduction to Warbler Identification workshop scheduled with a new trainer, as well as a repeat of Matt's Introduction to Wildflower Identification.

# Public events

In addition to our regular volunteer work parties and monitoring activities, we have also hosted many guided walks and public events at Strawberry Hill this past year. We welcomed many local groups for guided walks during the nightingale breeding season, with lots of people hearing a nightingale for the first time – a truly memorable moment in nature. Groups included RSPB Local Groups, WTBCN Bedford Local Group and Flit Vale Local Group, St Neots Rotary Club and members of the Beds Natural History Society. We also welcomed the next generation of nature enthusiasts when Paxton Pits Wildlife Watch group attended the site for a morning of exploration and discovery.

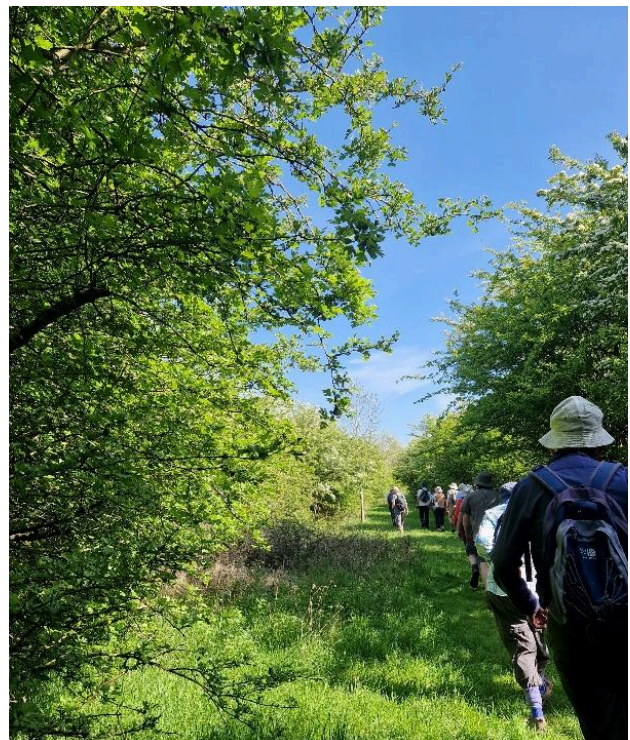


Figure 24: Paxton Pits Wildlife Watch Group and guided walks at Strawberry Hill (Photos: C. Warriner)

# Future Management Plans

Now that we have several years of data to inform our management decisions at Strawberry Hill, we are looking to plan and implement larger scale management interventions with the aim of maintaining and improving biodiversity on site. To achieve our objectives we are working closely with Natural England to form a Countryside Stewardship Higher Tier and Capital Works agreement for the land. This is a UK government scheme that compensates landowners for tailored, environmental work on their land. This work aims to both restore and maintain key habitats for wildlife while also considering the impact on ecosystem services such as water quality, flood defence and climate change mitigation. We hope to have a new agreement in place in 2026. The primary management intervention that this agreement will enable us to enact is conservation grazing with cattle. While the government funding will go a long way to enable us to build the required infrastructure including fenced compartments, we will require further funding to complete the works and build our herd of conservation grazers.

It is likely that our herd at Strawberry Hill will be made up of Highland cows and Highland/longhorn crosses.

While we will build several large-scale fenced compartments with Clipex™ fencing, their day-to-day movements within the compartments will be controlled using cattle collar technology. This technology enables us to control the movement and focus of cattle without the use of multiple fenced paddocks and also records valuable information regarding grazing habits and preferences across the site. Conservation grazing on scrub mosaic, particularly with sturdy breeds such as Highland cows, is an excellent means of engineering a diverse ecosystem structure. The cattle will push their way through scrub, breaking branches and pushing over bushes and trees – naturally coppicing vegetation as they move through the landscape. Cattle promote dynamic ecological processes by creating bare ground and a range of vegetation heights through their grazing habits, further diversifying the habitats and thus biodiversity at Strawberry Hill.

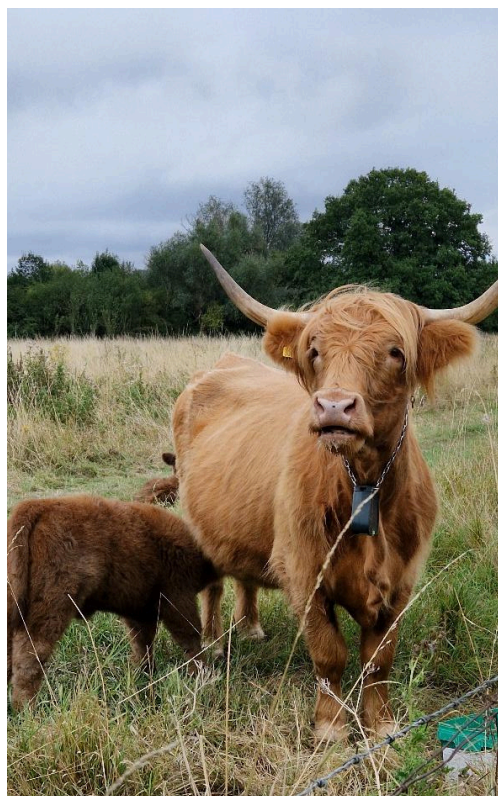


Figure 25: A Highland cow with her calf at Strawberry Hill (Photo: C. Warriner)

## Strawberry Hill - Conservation Update – Spring 2026

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Finally, we have engaged a planning consultant to help us deliver staff and visitor infrastructure on site. This will include a public and staff car park and staff only facilities including an office and barn style storage area. We are also hoping to include a meeting room from which we can run small training workshops and public events. These plans are yet to be finalised, but we hope to have them available for use by before spring 2027. These facilities will enable us to welcome visitors to this important wildlife site while also offering extended opportunities for education and engagement. The new office and storage facilities will allow for a regular in person presence on site and enable efficient management of the land and cattle.



Figure 26: Volunteers at Strawberry Hill have had a significant impact on the work we have been able to achieve (Photo: C. Warriner).

*As always, our work is reliant on the continued support of our local communities, local interest groups, wildlife guardians and generous supporters. We would like to offer our profound thanks for your support in securing and safeguarding this precious natural resource for both wildlife and future generations.*



Wildlife Trust for  
**Beds, Cambs  
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# Support us and our local communities

Wildlife Trust for Beds, Cambs & Northants



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↑ Start

H. Wilkinson