



Title Page to Report and image

THE START

- ▶ Charlton Down Nature Area/Reserve started as a field called Clover Ground that had been used for animal grazing and growing potatoes back in the days when Herrison Hospital was active
- ▶ The land is owned by Charminster Parish Council who decided to make it into a nature reserve at the beginning of the 21st century after the hospital site had been developed into a residential complex
- ▶ The basic layout was established and later between 2007 and 2008 the community installed a pond thanks to the National Lottery Fund
- ▶ Paths were laid around the pond with picnic tables & BBQ slabs
- ▶ Trees were planted around the sides of the plot and a patch of wildflowers sown
- ▶ The basis for the reserve was completed there but with an accent on visitor facilities

The Start- background history of Charlton Down Nature Area



Oldest image available for the site of Charlton Down Nature Area (CDNA) – prior to development of the Herrison Hospital site into a new village



What the CDNA site looked like around 2008 when it was first laid out. Notice the hardcore pathways, and no wooden footbridge yet



A closer view of CDNA showing picnic tables, BBQ hard stands, wide mowed area, surrounding trees and wildflower area



The gateway to CDNA was originally at the verge of the roadside. The footbridge is still not built. Note the extensive mowed area of grass. The white features around the edge of the plot are chalk from planting a hawthorn hedge



The CDNA in winter showing that the entrance gate has been moved further down the pathway, and a separate entrance to the Community Orchard created. Proper wooden signs put up. Wooden footbridge over the pond now built.



The sign to the Charlton Down Nature Reserve and Community Orchard as it is today. The CDNA was always intended to be a nature reserve and called by that name even though it fell short of requirements for that definition. We have been referring to the place as a nature 'area' rather than 'reserve' since the Facebook Group page was set up (Charlton Down Nature Area & Community Orchard)

Progress to 2022

- ▶ A footbridge bridge was constructed over the pond between the shallow and the deep end
- ▶ The trees and shrubs became established in the intervening years
- ▶ The pond initially flourished but fell into disrepair
- ▶ There had been no development into the nature reserve that had been originally planned
- ▶ Charlton Down Nature Reserve basically remained a recreational area with some lovely trees and flowers
- ▶ What did the Charlton Down Nature Reserve look like at that time?
- ▶ The “Before” pictures are shown below

Between the time that the CDNA was setup around 2007 and 2022 the site changed as the plants grew, structural features deteriorated, and there remained an over emphasis on keeping the place neat and tidy by regularly low mowing through the summer over about half the site, and total winter cut back of all ground vegetation each autumn. It was maintained in the style of a park or garden without regard to the conservation of wildlife. It received the same maintenance from contractors as the other recreational places like the MUGA Field, playgrounds, and communal open spaces in the village.



This is what Charlton Down Nature Area looked like after the first 13 years in June 2021. It does not look like a nature reserve. The extensive mowing makes it look like a park or garden even in summer when the wildflower zone is at its best. Because of the restrictions of the Covid pandemic at this time, the space was visited more frequently, and villagers became more aware that this space could be managed differently to benefit wildlife.

January 2022



Clearing vegetation in winter destroys insect early life stages & shelter for small creatures

In winter, January 2022, the CDNA was even more bereft of wildlife. With the entire area cut to the ground and debris disposed off-site,, any animals in the vegetation would have been macerated, no food supplies would be available during the cold weather or early spring, and no shelter would remain for overwintering creatures.

What is a Nature Reserve?

- ▶ A local nature reserve in the UK is a designated area managed by local authorities to protect wildlife, habitats, and natural features. These reserves offer opportunities for people to study and enjoy nature. LNRs are managed to ensure that recreational activities do not harm the environment. Over 1,000 LNRs exist across England, contributing significantly to the country's biodiversity. <https://www.gov.uk/guidance/create-and-manage-local-nature-reserves>
- ▶ Local Nature Reserves are both for people and wildlife. They are places with wildlife or geological features that are of interest locally, which give people special opportunities to study or learn about them or simply enjoy and have contact with nature. <https://www.dorsetcouncil.gov.uk/w/local-nature-reserves-lnr/>
- ▶ Nature reserves may look completely wild, but they are actually managed by conservation teams who protect, restore and create a mix of habitats where wildlife can thrive. Reserves can be a relic of an historic landscape, home to flora and fauna that can no longer be found in other places, or they can be created from a bare landscape and encourage wildlife to return. Yorkshire Wildlife Trust - <https://www.ywt.org.uk/what-is-a-nature-reserve>

Why do we say that the way CDNA is not a nature reserve. There are various definitions of a nature reserve. The emphasis seems to be on an area where the most important thing is that wildlife or nature is preserved and enhanced, visitors are encouraged to study, learn, or simply enjoy the setting, but always the wildlife is the main priority. Nature first. This means that the area needs to be cared for in a different way to a park or other recreational area. And that means that the traditional norms of maintaining a park or garden do not apply. Management is necessary to keep the site safe for access, and to prevent it becoming entirely scrub and then woodland. This style of management may not be obvious to the casual observer. Management is active but uses a different set of rules.

Park or Reserve?

A change of emphasis

- ▶ From the outset the intention has been the creation of a Nature Reserve
- ▶ There are already several designated recreational areas in the village
- ▶ An over-emphasis on the public access part of the definition of “reserve”, together with lack of appropriate reserve management information, meant that Charlton Down Nature Reserve was not in any real sense a nature reserve
- ▶ The Covid pandemic gave us all a lot of time to take stock and re-evaluate
- ▶ Residents realised that the Charlton Down Nature Area was long overdue for a makeover into something more in keeping with a nature reserve, prioritising wildlife over people, and meeting the original vision and proper function of such an area
- ▶ The impetus for action is endorsed by awareness of the Nature Emergency

From the outset the site was designated as a nature reserve. We now had an opportunity to rethink what was going on and had some access to relevant expertise to effect a change for the better. Added to this is the extra impetus of the declaration of the Nature Emergency

Nature Emergency

- ▶ Global research
- ▶ National directives
- ▶ Conservation organisation advice
- ▶ Dorset County Council rulings & guidance
- ▶ Parish Council compliance
- ▶ Individual concerns
- ▶ Need for Action
- ▶ Rapid loss of abundance in British native plants and animal
- ▶ Habitat loss, chemical contamination, climate change & alien species
- ▶ Loss or threat of extinction in many British native species
- ▶ Interconnected web of life
- ▶ Need to make space for Nature & to protect it for a better future

At all levels of public administration and in every ecological organisation in the UK, there is a consensus that actions are urgently needed to remedy a dire situation in the natural environment of the UK where abundance and variety of all manner of wildlife is under threat. Guidelines and help are freely available for taking this urgent action. In this parish we have an opportunity to contribute to this call for action, not only in the general environment of the two villages and their surroundings, but specifically in this one space which should always have been dedicated to nature survival. It is not an easy task. The site is surrounded on two sides by fields that are regularly treated with herbicides and where hedgerows are scalped frequently. A rat-race of a road contaminated by petrochemicals and the like on another side. The adjacent Swale managed by Meadfleet directs heavily polluted rainwater from the roads of Charlton Down into a soak-away via culverts and a small stream. Even the community orchard on the remaining side of the plot allows certain herbicides – although in the last couple of years we now have two strips of no-mow wildlife vegetation. This all means that there is effectively minimal input to the ecosystem of the Nature Area from its surroundings. It is mainly winged creatures that are incomers. Other creatures cannot readily migrate to the site. If we lose species by inadvertent action, they cannot easily be re-introduced naturally.

Aims

- ▶ Meet the needs of the Nature Emergency:
- ▶ Ensure a protected and managed wildlife reserve in the village
- ▶ Give priority to Nature while allowing access for the public to enjoy
- ▶ Protect and increase the numbers of existing flora & fauna at the location
- ▶ Enhance biodiversity by varied planting and creating more habitats
- ▶ Give regard to all forms of life, great or small, not just the pretty things
- ▶ Raise awareness of the interdependence of all organisms

This is an outline of our aims for the care of the Charlton Down Nature Area.

How to increase biodiversity

- ▶ Understand the needs of different organisms for shelter, food, and reproduction
- ▶ Increase the variety of suitable British native plants both terrestrial and aquatic
- ▶ Create more habitat types and niches
- ▶ Minimise interference and disturbance
- ▶ Prioritise the needs of wildlife needs over aesthetic concerns and recreation

An understanding of the biology and life cycles of British native plants and animals, and their complex web of interactions, is vital to taking actions that will enhance the biodiversity of the site.

How to make the changes

- ▶ Tap into local expertise and willingness to work for the benefit of wildlife - no charge
- ▶ Increase the space available as wildlife habitat by simply reducing the area being mown, the frequency of the cutting, and raising the height of the cutting blades - no extra cost & an instant improvement
- ▶ Replace the old damaged pond with a safer design and more aquatic sub-habitats - expensive but worth it
- ▶ Conduct baseline survey - gratis
- ▶ Create a range of new terrestrial habitats - mostly free
- ▶ Replanting and sowing - at least half by donation
- ▶ Monitor on a day-to-day basis - volunteers are invaluable
- ▶ Upkeep with minimum of mechanised equipment - old methods favour wildlife survival

This is a list of the ways in which we hope to bring about the necessary changes to the Charlton Down Nature Area. It should be noted that, thanks to the invaluable help of a small group of volunteers and the generosity of residents, many of the changes have up till now been achieved without Parish Council funding. We are grateful that we now have a budget for spending with The PC and this will always be used wisely.



BASELINE SURVEY

- ❖ Observation
- ❖ Identification
- ❖ Recording
- ❖ Photography

Records of the flora and fauna of the Charlton Down Nature Area have been made over the years from its creation. More systematic recording and identification has been carried out since 2023. This information constitutes the Baseline Survey of life in the nature area. It is a way of knowing what we had in the beginning so that we can compare the situation as we improve the site. Mostly done by careful observation while regularly walking around the site, photographing, identifying, and entering on spreadsheets. We know that this methodology is inadequate for a complete list of species but there are plans to employ more advanced survey techniques in the future, and to draw on specialist professional expertise.

SPECIES NUMBERS

▶ Trees & shrubs	30	▶ Slugs & snails	12
▶ Flowering plants	95	▶ Spiders & mites	12
▶ Grasses & sedges	5	▶ Birds	36
▶ Fungi & lichen	9	▶ Amphibians	3
▶ Mosses	4	▶ Reptiles	1
▶ Insects & arthropods	182	▶ Mammals	11

Total number of species to date ≥ 400

To date we have recorded over 400 different species of plants and animals but know that is only the tip of the iceberg because many organisms need specialist equipment and survey techniques together with the right kind of expertise for identification

Increasing Biodiversity

Understand the needs of different organisms for shelter, food, and reproduction

- ▶ It is not enough to plant more flowers and hope that you will increase biodiversity
- ▶ You need to understand the life cycles and habits of the organisms and how they inter-relate with the surroundings
- ▶ What do they feed on, where do they shelter, nest, over-winter?
- ▶ Where do they lay eggs, what do the larvae eat, where do they pupate?
- ▶ What are the specific habitat requirements of each species of plant and animal - resident or visitor?

Understanding plant and animal life cycles and habitat requirements is key to making improvements for wildlife

Increasing Biodiversity

Add to the variety of British native terrestrial and aquatic plants

- ▶ Many animals depend on specific food plants which can be different for their various life stages, and at different times of the year
- ▶ Butterflies, for example, demonstrate this principal. See following slides.
- ▶ The same with beetles - adults and larvae have different needs.
- ▶ The same with vertebrates too - different seasons can dictate what they eat
- ▶ The greater the range of native plants, the higher the probability of catering for the needs of a wider range of creatures
- ▶ We have added 1 new tree, 5 shrubs, 12 flowering plant species and 12 aquatic plant species. The Wildflower Zone 3 has been re-seeded with 21 types of flowering plant. (Many of the plants have been donated by residents).

The food needs of animals can be varied according to season, or according to life stage. The abundance of one species can depend on another. Abundance of different species at different levels in the food web can be cyclical.

Simply put, primary production converts sunlight to plant matter. Herbivorous creatures eat the plants, Carnivorous animals eat the herbivores, and predators eat any animal. Predators are the top of the food chain. When they die, they decompose (with a bit of help from scavengers and decomposers) and the energy is returned to the ground to nourish the primary producers. It is more complicated than that, of course. But in the end, we are also part of that complex web of life, and our wellbeing is intricately linked to every other organism in the web in many unsuspected ways.



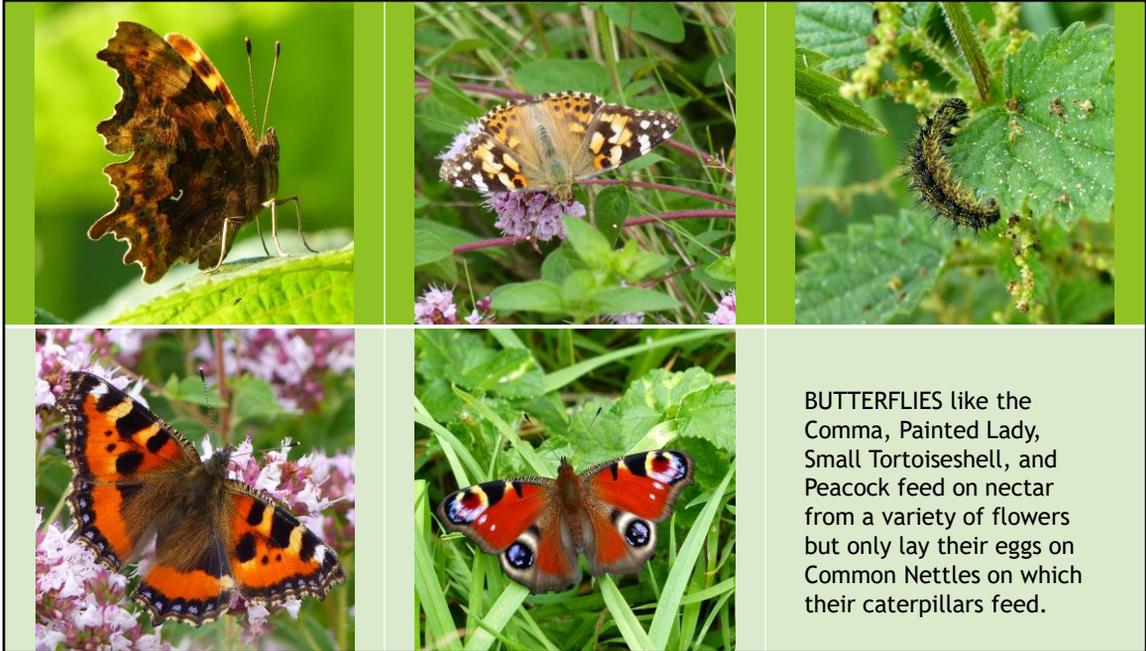
Here are some of the 95 wildflower species recorded in the Nature Area so far – including originals and those introduced or re-instated after 2023. The wider the range, the larger the number, the better for the wildlife. So, we are always wanting to add more. More flowering and fruiting plants makes the site more attractive and interesting for visitors



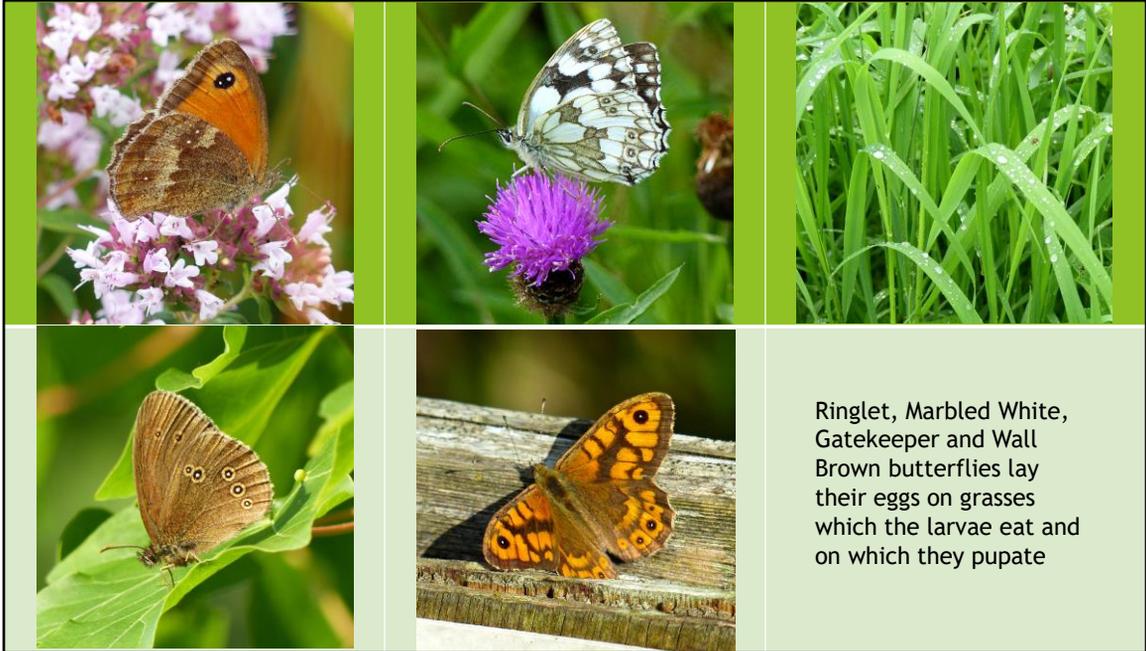
Here are some of the 21 species of tree forming part of the Nature Area. They include Cherry, Hazel catkins, Ash, Spindle, Field Maple, Rowan, Oak acorns, Hazel leaves, Wayfarer berries, Oak leaves, Copper Beech, Wayfarer flowers. We can also enjoy the trees that surround the site but are not our property – the adjacent mature trees on the roadside and the copse in the field.



Here are some of the shrub species to be found in the Nature Area so far. Most of these are around the perimeter of the site. We have recently put in some gorse and other bushes around the pond and in the scrub zone to add more structure and autumn and winter colour. All the plants are food source and habitat combined for various species of invertebrate animal on the site.



For example, some butterflies will only lay their eggs on common nettles. Nettles are one of the most important food plants for wildlife. Not only butterflies but many other insects depend on them. They can be rampant so in our small nature area, a measure of control is needed without any attempt at eradication. They are too valuable.



Ringlet, Marbled White, Gatekeeper and Wall Brown butterflies lay their eggs on grasses which the larvae eat and on which they pupate

Some other species of butterfly are easier to cater for as they lay their eggs on any number of grasses. You need to remember that when you cut and remove 'just grass', it is often the food plant of larval and pupal stages that may still be attached. The next generation of the insects is on the grass.



Cinnabar moths mating before laying eggs on the underside of ragwort leaves



Cinnabar caterpillars feed on the whole plant

Another butterfly with a special diet is the Cinnabar Moth. The adults have red & black colouring, and their larvae are orange and black (warning coloration indicates poison). They only lay their eggs on Ragwort and that is virtually all that the larvae eat. Cuckoos are the only bird that can eat the caterpillars. They are a Priority Species under the UK Post-2010 Biodiversity Framework. Larvae pupate over winter in the ground.



While this butterfly adult can feed on nectar from many flowers, the Common Blue lays its eggs predominantly on Common Bird's-foot Trefoil.



It is the same kind of thing with beetles. Different species of beetle can be vegetarian, carnivorous, or omnivorous. The invasive Harlequin Ladybirds eat the larvae of insects including those of native species of ladybird. Common Red Soldier Beetle adults feed on flowers but their larvae eat arthropods. The Minotaur Beetle feeds on dung composed of plant material. The Great Diving Beetle adult and larvae feed on other aquatic animals and love tadpoles. The Thick-thighed Beetle adult feeds on flowers

Different species of beetle feed on different things. The invasive Harlequin Ladybird eats other insects including aphids and the larvae of the native ladybirds. Red Soldier Beetle adults feed on flowers but the larvae eat arthropods. The Minotaur Beetle only eats dung composed of plant material. The Great Diving Beetle and its larvae eat other aquatic invertebrates and particularly like tadpoles. The Swollen-thighed Beetle adult feeds on flowers but the larvae live in stems, roots and rotten wood, Leaf beetles feed on leaves with each species confined to a single species of plant like docks or waterlilies.



Black Oil Beetle feeds on leaves & petals of Lesser Celandine, Dandelions, Buttercups and soft grasses

This spectacular large Black Oil Beetle (found last week) is a Priority Species for Conservation Action in the UK Biodiversity Action Plan and identified as Nationally Scarce. It feeds on leaves and petals of flowers like Lesser Celandine, Dandelion, Buttercups, and soft grasses. One female can lay up to 40,000 eggs in burrows in the ground during a season. The larval development depends on solitary bees to complete its life cycle.



Black Oil Beetle moving through the path-side grass



The same principles of the relationship between food availability and organisms applies for all the vertebrates (amphibians, reptiles, mammals, and birds) as well as the wide range of non-insect invertebrates. This slide shows some of the 206 species of insects and other invertebrates recorded in the Nature Area – each has its own specific food requirements and preferred places to lay eggs. There is no time to illustrate the vertebrates as well. But I hope you will get an idea of the wide range of fauna already on site having their individual food requirements, including eating each other.

Increasing Biodiversity

More types of habitat

- ▶ The variety of plants is related to differing habitat conditions
- ▶ The variety of animals depends on the number of habitats & their plants or other substrates
- ▶ Habitats are small ecosystems
- ▶ In the CDNA there is woodland, grassland, scrub, meadow, pond, and new bog habitat as major zones
- ▶ Hibernaculae, reptile refuges, log & brash piles, and dead hedging have been added as well as 17 bird nest boxes and a bat box - these are constructed small habitats
- ▶ A policy of leaving fallen leaves and dead vegetation creates vital niches for shelter especially over winter.
- ▶ A single fallen leaf can be a complete ecosystem

How to create more habitats to increase biodiversity. Each habitat type supports a different range of organisms – with some overlap. The major zones are already established but within those there is room for minor ones.. Thinking about frogs and toads for example. Many people do not realise that these amphibians do not actually live in the pond year-round. They visit the water, especially in early Spring to breed, but most of the time they live among the vegetation or hiding in shadier places beneath old logs or buried in the mud. Hibernaculae are constructed safe places for them. Part above ground and part below with sticks and stones and tubes or pipes for access to the unground space. We've built 2 of these – currently needing repair because of badger activity this winter. Other habitat constructions suitable for a wide range of animals would be the log and branch piles, the compost heap, the reptile refuges, and of course, the dead hedge.

Actions

- ▶ Changed the maintenance contract to minimal cutting of paths only
- ▶ New habitats created by change of maintenance regime and reduction in use of machinery
- ▶ Actively leaving ground-covering vegetation untouched as refuge and food for all creatures especially in winter & to protect eggs, larvae & pupae of insects and other invertebrates.
- ▶ New Pond built with shallow marginal shelf, deep centre, “beach” area for drinking animals, and border of rocks for ease of access for invertebrates, larvae, and amphibians. - planted and monitored
- ▶ New bog habitat being developed
- ▶ Hazel coppicing first tranche
- ▶ Dead hedge commenced
- ▶ Scything and reseeding wildflower zone - phases 1 and 2
- ▶ Hibernaculae, reptile refuges, bird box restoration, bat box installation
- ▶ New planting of aquatic and land plants, seeds, bulbs, shrubs, & tree

A list of some of the things we have been doing as part of the re-wilding of the Charlton Down Nature Area

The New Pond

The original pond had become vandalised and leaked. It was replaced by a new one in February 2024. The following slides show how the pond looked before, during and after the re-build.

Old Pond January 2024



January 2024 The old pond before the rebuild was in a sorry state and beyond repair



This image was taken during the construction of the new pond. The old liner was removed, and underfelt positioned over the hollow re-sculpted to include a shallow marginal area and a gradual slope in one place for animal access



New pond nearly complete 16 February 2024

This is the new pond nearly complete. New liner in place, functional and ornamental stones around the perimeter. The whole pond less steep and much safer than the old pond design. Surrounding ground completely churned up mud from the construction work in heavy rain.



The new pond when the fire brigade had filled it with water from the River Cerne.

New Pond June 2024



New Pond June 2024 the first summer – just 4 months after completion. Tall natural vegetation has grown up all around it and water lilies have started to grow.



Drone photograph by Garry Prescott of the new pond in September 2024 – 7 months after completion. Mowing around the pond was stopped going from this time to leave more natural tall pond-side vegetation for wildlife benefit

New Pond June 2025



New Pond June 2025 the second summer after completion

New Pond January 2026



New Pond January 2026

The Bog Habitat

The background of the slide features an abstract design of overlapping, semi-transparent green polygons in various shades, ranging from light lime green to dark forest green. The shapes are primarily concentrated on the right side of the slide, with some extending towards the left and bottom edges.

Title page for the section on how we are making a new bog habitat from the dried-up shallow end of the old pond

Creating a Bog Habitat (1)

- ▶ The Old Pond had a deep-water & a shallow end - divided by the bridge
- ▶ The shallow end was mostly dry
- ▶ The shallow end was converted to a Bog Habitat when the New Pond was installed
- ▶ Water flows over a lip beneath the bridge to the bog when levels are high in the pond
- ▶ Perforations in the old black liner at the shallow end allow slow drainage
- ▶ Periodic soil saturation provides the right conditions for bog plants

First steps to the creation of a Bog Habitat beside the new pond.

Creating a Bog Habitat (2)

- ❖ Pondlife rescued & relocated to the large pond
- ❖ Area filled with soil, compost and rotting wood
- ❖ Small holes punctured in old liner for deliberate slow water drainage
- ❖ Remaining exposed liner of the sides of the bog-hollow removed
- ❖ Turf pinned grass-side down on the underlay along the sides
- ❖ Earth & roots of turf scarified
- ❖ Topsoil spread on the upturned turf
- ❖ Wildflower seeds (including yellow rattle) sown
- ❖ Bog-specific plants added

Following steps to the creation of a Bog Habitat beside the new pond. The slides that follow illustrate our progress.



For many years before the construction of the new replacement pond in February 2024 the shallow end of the pond nearest to the entrance of Charlton Down Nature Area was subject to drying out because of leaks in the liner of the old pond



In the month before the new pond was built, this is what the shallow end looked like



Location of Bog Habitat March 2024 after installation of new pond. The shallow end of the pond was not renovated or touched when the new pond was built. The old liner was left in place. The design of the new pond included the facility for water to overflow into the shallow end when there was heavy rain because the conversion of the area into a bog habitat was part of the plan.



Before we could start the conversion to a bog habitat, we had to ensure that all pondlife from overflow events was rescued and relocated into the new pond



Here some of the volunteers involved in the project used nets and buckets to rescue the aquatic organisms



We were amazed to find several types of dragonfly larvae in the water

Pondlife



There were also leeches and freshwater shrimps



Creating small drainage holes in the liner for intermittent saturation of bog habitat

We started to fill the hollow with soil. Continued heavy rain had filled the hollow. The bog habitat needs slowly draining water through the soil. Intermittent soaking and water-logged soil are desirable for this kind of habitat. The old pond liner was perforated at intervals to allow slow drainage. This slide is both an image and a short video clip.

Pouring gravel over the puncture holes in the bog habitat to prevent blocking by silt



The puncture areas under water were prevented from future silting up by pouring fine gravel over the top. This slide is both an image and a short video clip.



It took a lot of hard work to transfer soil and compost from dumpy bags delivered to the roadside into the bog hollow.



The shallow depression of the bog habitat filled with compost ready for planting

After several episodes of settling, this is how the new bog habitat looked. The old pond liner remained exposed on the sides of the hollow and needed to be removed.



Bog Habitat April 2025



We started to remove the visible pond liner. Beneath the black butyl liner, were multiple layers of underfelt which were allowed to remain because plant roots would be able to penetrate over time. We decided to cover the underfelt with turf slabs used as substrate for sowing seeds. Placed grass-side down so that it could be scarified, covered with soil, and seeded with yellow rattle. Yellow rattle is a small yellow-flowered semi-parasitic flowering plant that attached to grass and limits its growth. It is commonly used in the establishment of wildflower meadows. Other plants can be added later. Here a volunteer is cutting away the old liner ready for the turf slabs.

Cutting away the old liner showing on the sides of the bog hollow & replacing it with turf



Three more volunteers cutting turf to shape and pinning on the sides of the bog habitat hollow.



April 2025 The sides of the bog habitat hollow completely covered with turf ready for covering with topsoil and seeding. Notice that reeds and yellow flag were already growing there.



26 May 2025 Here the turfed sides have been covered with topsoil and many seeds already sown both in the main part of the habitat and on the sides of the hollow. Some of the many wildflowers are already emerging.



We encountered a few problems with birds and animals feasting on the seeds, drought conditions killed seedlings and soil slide down the slope. Here a volunteer re-scarifies and re-seeds the slopes of the hollow.



Developing new bog habitat June 2025 Bog habitat looking like it should.. 22 varieties of wildflower seeds have germinated and flourished in the main part of the bog habitat despite the drought. The side slopes have proved more of a problem. The answer is probably to put in plant plugs next year instead of seeds.



Developing new bog habitat February 2026 - Over winter the wildflower stems have been left in place for insect early life stages. Tall grasses have begun to dominate because the yellow rattle seeds sown so liberally last year have failed to germinate. They can be difficult to establish and are the key to dealing with tall grasses. This year we will plant yellow rattle plugs and add rattle seed that has been cold-shocked in the freezer to see if we can get a more satisfactory result.

Bog Habitat Plants 2025

- ▶ Black medick
- ▶ Bog pimpernel
- ▶ Brooklime
- ▶ Common field speedwell
- ▶ Common nettle
- ▶ Corn chamomile
- ▶ Creeping jenny
- ▶ Docks
- ▶ Fat hen
- ▶ Field scabious
- ▶ Grasses, various
- ▶ Groundsel
- ▶ Hemp agrimony
- ▶ Knot grass
- ▶ Marsh marigold
- ▶ Mugwort
- ▶ Penny royal
- ▶ Purple loosestrife
- ▶ Red dead nettle
- ▶ Soft rush
- ▶ Wild marjoram
- ▶ Yellow flag

22 wildflower plants that have been recorded in the bog habitat so far.

Hazel Coppicing

- ▶ There are three clumps of Hazel in the Nature Area
- ▶ We experimented with some small-scale coppicing
- ▶ We cut the innermost trees in one clump down low to the ground
- ▶ This stimulates new growth of vertical stems from the base or stool
- ▶ Coppicing opens an area of ground to light that promotes groundcover plants
- ▶ Increases the number and variety of plants that can grow
- ▶ Increases the range of habitats available
- ▶ We also planted Wild Garlic bulbs
- ▶ Thorny cages around the stools stop deer and rabbits eating the new stems

Hazel Coppicing – details of our coppicing activity. A maintenance task that improves biodiversity by reinvigorating tree growth and opens-up the ground to receive more light thus encouraging more groundcover plants. We also cut back a fair amount of blackthorn which grows and spreads rapidly encroaching on areas where we rather grow other plants.



Hazel Coppicing – some pictures showing the volunteer work in a patch of trial coppicing. We used mostly hand saws and loppers but also a small electric hand saw to cut the wood and reduce the multi-stemmed hazel to low “stools”. Regrowth from the stools is susceptible to foraging by deer and rabbits so we built protective cages with bramble and dog rose cuttings around them

Scything

- ▶ There is a central wildflower zone in the Nature Area
- ▶ Over time tall grasses dominate and out-compete smaller flowering plants
- ▶ Periodic cutting is necessary for the flowers thrive - maybe 5-year intervals
- ▶ Previously done using machinery to cut and cultivate for re-sowing
- ▶ Power-driven mowers & rotovators destroy the organisms living on & under the vegetation
- ▶ Next season's generation of invertebrates destroyed & vertebrates displaced or killed
- ▶ Scything is a more environmentally suitable method of cutting
- ▶ Mobile creatures can escape with the slower pace of action
- ▶ Arisings are left to rest so animals can move away and relocate
- ▶ Timing of cuts is important too

The wildflower zone in the nature area needed re-invigoration. It used to be cut every 4 or 5 years using power-driven mowers and rotovators before reseeded. Because these methods are generally good for plant regeneration but very destructive for all wildlife, we opted to use the more traditional method of scything and raking. The volunteers would have liked to learn how to do this for ourselves, but this proved not to be feasible for the time-being. We employ Chris Riley from Pratensis to scythe for us (the easy part) and we do the raking, scarifying, and re-seeding. We are tackling small areas at a time as a conservation measure.



Wildflower zone in July 2025 This is a view of the wildflower zone in summer. It shows that the vegetation is about waist high. There are many flowers but also a lot of tall grasses. To redress the balance and make a more colourful display at the same time as allowing smaller plants to survive, it needed cutting scything and reseeding. More flowers means more pollinating insects.



Chris Riley of Pratensis scything the first part of the wildflower zone in the Nature Area October 2025. This is not only an image but also a short video clip.



Chris Riley scything and volunteer Mark raking up the cuttings



This slide shows the scything in the context of the whole site and the extent of the cutting – about one third of the wildflower zone - as it is better to cut smaller areas at a time to conserve the wildlife organisms hiding in or attached to the vegetation.



Arisings (cuttings) from the scything in the wildflower zone resting for a week after cutting to allow animals to escape



Once the cuttings had been cleared from the area and placed in a compost heap under the trees, the ground was scarified with rakes to remove moss and clear areas of bare earth between the plants where seeds could be sown.

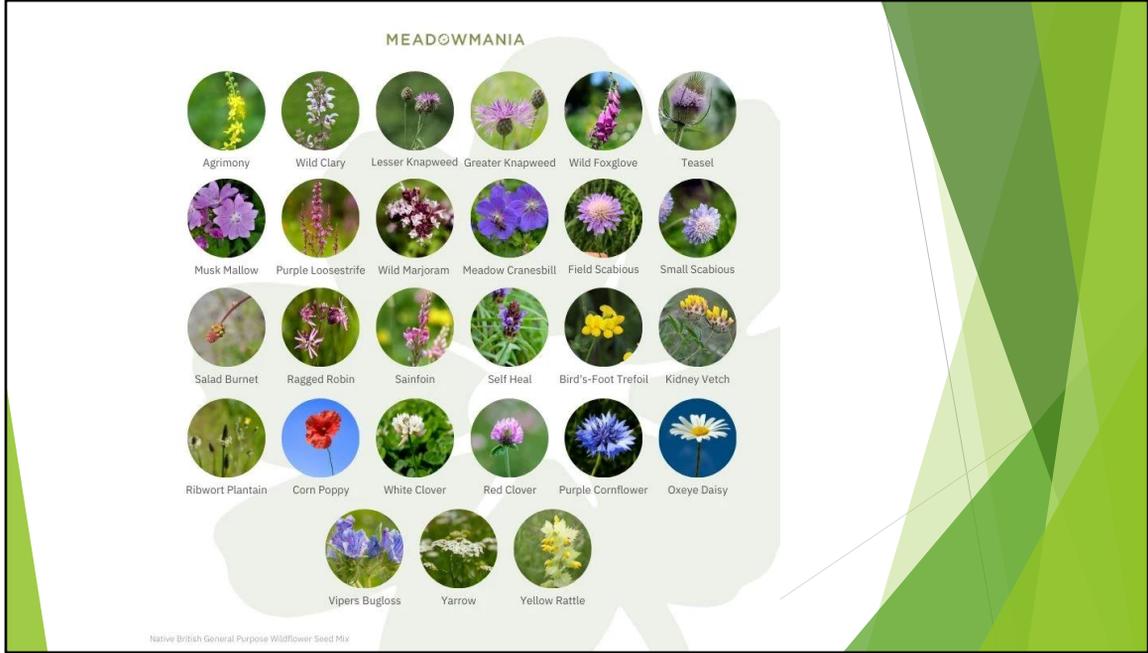


Seeding after scarifying the first portion of the wildflower zone – mixture of 21 different annual and perennial flowering British native plants. A level teaspoon of mixed seed for each square metre.

Re-seeding

- ▶ 21 types of annual and perennial flowering British native plants
- ▶ Agrimony, Bird's-foot Trefoil, Corn Cockle, Corn Poppy, Cornflower, Field Scabious, Foxglove, Greater Knapweed, Kidney Vetch, Meadow Cranesbill, Musk Mallow, Oxeye Daisy, Purple Loosestrife, Ragged Robin, Red Clover, Ribwort Plantain, Sainfoin, Salad Burnet, Small Scabious, Teasel, Viper's Bugloss, White Clover, Wild Clary, Wild Marjoram, Yarrow, Yellow rattle

This is a list of the wildflower seed varieties that were sown after the scything



This is a list of the wildflower seed varieties that were sown after the scything with illustrations

Clearing Algae

- ▶ 2025 had a long hot and very dry summer
- ▶ Filamentous algae grew rapidly in the warm pond water
- ▶ By the autumn it was dying back and decaying
- ▶ Decomposition of so much weed threatens the oxygen levels in the water
- ▶ Low oxygenation impacts on aquatic organisms
- ▶ Therefore, we removed as much as could be reached from the margins
- ▶ Used rakes and deposited the matter on a tarpaulin to drain
- ▶ Examined for wildlife prior to disposal
- ▶ Some invasive New Zealand Pygmy Weed was also removed

Clearing decomposing filamentous algae from the pond where it had proliferated during last summer's hot weather and drought was necessary because of the threat of deoxygenation of the water and potential danger to life the aquatic creatures



In autumn last year rotting filamentous algae threatened to de-oxygenate the pond water



In autumn last year rotting filamentous algae threatened to de-oxygenate the pond water – close-up of dead algae



Volunteers raking dead filamentous algae from the surface of the pond to protect it from depleting the oxygen supply in the water. They worked from the ground around the margins of the pond to minimise disturbance. The algae was allowed to drain on a tarpaulin and give time for any creatures in the algae to escape



There were small creatures in the retrieved dead algae, and in this picture a colourful wasp spider has come across from the surrounding vegetation to investigate whether there is anything to eat.



We also removed some of the invasive New Zealand Pygmy weed in the pond and it was checked, along with the algae, for trapped aquatic life before it was disposed of in the compost heap.

New Planting

Pond Plants

- ▶ Aquatic plants including oxygenators
- ▶ Water Crowfoot
- ▶ Water Soldier
- ▶ Frogbit
- ▶ Hornwort
- ▶ Branched Bur-reed
- ▶ Yellow Iris
- ▶ Lesser Spearwort
- ▶ Water Forget-me-not
- ▶ Aquatic Moss

Land Plants

- ▶ Trees, seeds, & plants including:
- ▶ 250 Bluebell and 500 Wild Garlic bulbs
- ▶ Primroses, Foxgloves, Comfrey, Teasels
- ▶ Marsh Marigold, Penny Royal, Hemp Agrimony, Purple Loosestrife, Bog Pimpernel, Creeping Jenny
- ▶ Pendulous sedge, Holly, Gorse
- ▶ Purging Buckthorn, Guelder Rose
- ▶ Silver Birch

List of plants added to the pond and elsewhere in recent years



Volunteers planting Gorse shrubs around the pond to provide more structural interest to the overall planting regime, to introduce some winter colour with its yellow flowers, to contribute to the protection of the pond edges, and supply resting places and nectar for insects emerging from the pond or visiting it.



Volunteers have been planting bulbs for more Spring and early Summer colour and nectar for pollinating insects newly emerged from hibernation or hatching. Here they are putting in Bluebell bulbs beneath some field maple trees, but they have also put in a lot of wild garlic bulbs – some of them are flowering for the first time right now (end of March). The bluebells are shooting and will flower later. We are hoping that all the bulbs will take and spread. We already have scattered patches of snowdrops and primroses from earlier plantings.

Dead Hedge

- ▶ A dead hedge is a large-scale wildlife refuge rather like a “bug hotel”
- ▶ Made with parallel lines of fence posts infilled with dry woody waste
- ▶ It provides habitation sites for a wide range of creatures
- ▶ An environmentally sound way of recycling dry plant debris
- ▶ Like a vertical compost heap it beds down over time & can be topped up
- ▶ Provides substrate for lichens, mosses, and fungi and decomposers
- ▶ Forms a protective barrier for the new live hedge whips
- ▶ Creates a boundary marker between Swale and Nature Area

Some notes about the purpose of building a dead hedge - our largest scale project for creating anew habitat for all manner of wildlife as well as being an environmentally sound a way of recycling dry plant materials.



A volunteer collecting woody debris and cutting branches for infill material in the dead hedge



A stack of logs and branches to be used as infill material for the dead hedge construction



Volunteers trial digging holes for placement of fence post – lots of flints and chalk rubble near the surface



Unpeeled chestnut stakes 6 feet tall and 3-4 inches in diameter. Buried 2 feet into ground and spaced linearly 3 feet apart with 18 inches between rows. First tranche 5 yards long



Volunteers helping to build the dead hedge



The dead hedges viewed end on. Two lengths have been installed, and these will be extended along the boundary line with the adjacent Swale



Volunteers infilling the dead hedge with rotten branches and twigs



The initial two stretches of dead hedge now complete and separated from each other by an opening gateway to allow maintenance teams and equipment to enter the Swale and perpetuate a deer trackway.



The entrance way to the Swale. The Swale not part of the Nature Area and is maintained by Meadfleet



How the trial stages of dead hedging look now in late March. Extension will be at a gradual pace over the next couple of years dependant on materials and volunteer availability

Living Hedge

- ▶ The Nature Area is situated next to the Swale that redirects excess rainwater away from the roadside drains in the village, through culverts under the road, down a winding stream through willow trees, to a circular drainage pan
- ▶ The Swale lies parallel to the NA and is managed by Meadfleet
- ▶ The two areas had been separated from each other by a barbed wire fence
- ▶ A small opening in the fence allows Meadfleet contractors to enter the Swale from the NA for maintenance purposes
- ▶ The fence and wire had become dilapidated over time
- ▶ The fence has now been removed, and the 100-metre stretch has been replaced with mixed live British native hedge plants donated by the management company
- ▶ The plants will take many years to form a hedge but will be protected by our dead hedge construction which will mark the boundary between the two properties

This slide describes what the Swale is, and how the old neglected boundary fence has been replaced by a living hedge courtesy of Meadfleet Management Company

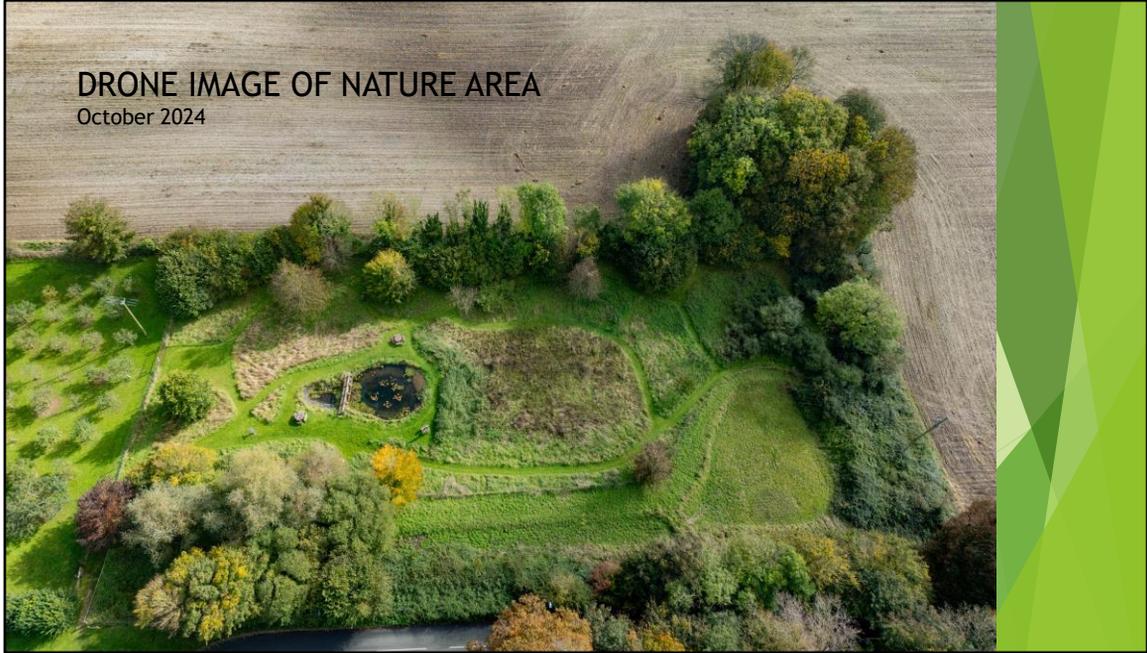


Picture of the live hedging plants after they were planted by Meadfleet along the boundary between the NA and the Swale, replacing the old barbed wire fence. They are small whips which are thought to have a better chance of establishing well. Only about 50 cm high on installation and with no protective stakes or tubes.

The Nature Area Now

- ▶ There have been a lot of changes
- ▶ The result is a very different appearance to that of 3 years ago
- ▶ We are beginning to achieve what we set out to do
- ▶ Which was to increase biodiversity and protect all wildlife on the site
- ▶ It is a work in progress, we are happy with the way it is going, and learning to work with Nature
- ▶ The “After” pictures (seen below) show the same views as the “Before” pictures from 2021/2 - but 3 years later, on 25 June 2025 and January 2026

The viewpoint on progress in March 2026



Drone image of Charlton Down Nature Area in October 2024 (by Garry Prescott who documented changes in the Nature area over a 12-month period) showing the different habitat zones, the new pond after the first 7 months, the prospective new bog habitat in the shallow end of the old pond, and the banjo-shaped Swale area between the NA and the road. The community orchard is situated on one side and an arable field wraps round the other 2 sides. Mowing around the pond was stopped the following year in 2025 to allow a wide strip of marginal plants for wildlife benefit and to help protect the pond edges from heavy footfall and damage.



The general appearance of the Nature Area in June 2025 when viewed from the entrance pathway to show how the site has changed since 2023 when the new management regime was instigated. The abundant vegetation now present provides a more favourable environment for wildlife to thrive



The general view of the Nature Area from the entrance pathway this winter in January 2026 showing that even when most plant life is dormant there are still plenty of places in which the fauna can forage for food and safely shelter over winter.

A work in progress

- ▶ Nothing is ever perfect
- ▶ Volunteer team monitors
- ▶ Volunteer team manages
- ▶ Beneficial changes effected where possible
- ▶ Working with Nature for Nature - not gardening
- ▶ Improvements must always benefit wildlife the most
- ▶ Nature often sees our efforts in its own terms
- ▶ Animals eat the seeds or dig plants up
- ▶ The weather is too dry
- ▶ The weather is too wet
- ▶ Our ability to control antisocial behaviour and vandalism is limited
- ▶ Log pile habitat burnt
- ▶ Birdboxes destroyed
- ▶ Signs defaced and stolen
- ▶ The ice on the pond gets broken and the shock threatens the survival of the pondlife
- ▶ Plants get trampled
- ▶ Pond edging stones and other debris is thrown in the pond
- ▶ Dogs contaminate and disturb the Nature Area despite dogs not being allowed

A work in progress – not without difficulties

Volunteers

- ▶ Charlton Down Nature Area Maintenance Committee - meets once a month to decide what to do and plan necessary actions
- ▶ 10 volunteers working on the committee to increase biodiversity & gain Local Nature Reserve Status
- ▶ During winter months work parties on site take place every other week but often more frequently depending on the job in hand and the weather
- ▶ During the warmer months it is more monitoring the site, recording, plus urgent response actions
- ▶ Committee has 3 North Ward Councillors, 7 Charlton Down residents & we are always looking for new helpers

Grateful thanks for all the hard work put in by the volunteer team over the last couple of years without whom nothing would have changed for the better.

Education & Information

A long way to go

- ▶ Website:
Charlton Down Nature Area
<https://charltondownnaturearea.uk/>
- ▶ Facebook Group:
Charlton Down Nature Area & Orchard
<https://www.facebook.com/groups/1911381479075627>
- ▶ Leaflet in preparation
- ▶ Information event planned
- ▶ Bi-monthly articles in the Pilot Parish Magazine
- ▶ Part of Nature Network Dorset (Dorset County Council)
- ▶ Wildlife Friendly Space Award (Dorset Wildlife Trust)

Disseminating information is an important part of what we are doing and a lot more is needed going forward

SUMMARY

- ▶ Committee - monthly meetings & frequent work parties
- ▶ Volunteers - 10 and more welcome
- ▶ Management plan - we know what we are doing and where we are going
- ▶ Survey baseline & ongoing - hoping to use specialist techniques in future
- ▶ New maintenance regime - traditional hand over mechanised if possible
- ▶ New planting and site management to improve structure and variety
- ▶ New habitat creation on both a large and small scale
- ▶ Education & information - understanding the reserve and its purpose
- ▶ Work in progress - working with nature and the difficulties that presents

In a nutshell, this is what the Charlton Down Nature Area Maintenance Committee has done over the last few years

END of REPORT



Marbled White butterfly on Knapweed flower with Salad Burnet flowers and grasses – the beauty and worth of our nature area is in the detail and is not defined by superficial appearances