10 Years in Botany Bay
2014 – 2024

2024 marks our tenth year of conservation work in Botany Bay. Our vision statement emerging from a strategy meeting of key stakeholders back in February 2014 was: "The future vision is one of climax natural vegetation, biodiversity and the regeneration of a wildflower meadow". We saw Botany Bay being part of the patchwork of different habitats along the Downs. We saw Botany Bay providing educational opportunities as well as benefitting the local community. Ten years on we are getting there!

Our first steps were both cautious and precarious. Engaging experts to identify and advise on species and habitats that needed protection. Deploying explosives experts and digger drivers to remove the main impediment to stream flow and dismantle all the fish farm infrastructure. Following that excitement and filling five skips we settled into the hard work of restoring the site's natural vegetation, stream flow and making sure Botany Bay was safe for our school, volunteer and community visitors. We cut out a large amount of Cherry Laurel, Bamboo, and Rhododendron to make more space for natural vegetation. In the chalk stream we removed barriers and constructed small falls and pinch points to improve water flow and lengthen gravel beds and spawning areas for our resident population of wild Brown Trout. Traps were installed along the stream to control Mink; some twenty were caught and dispatched in the first five years. We laid out chalk paths, fencing and brash barriers, installed bridges, a dipping platform, and put up an education shelter to host students, volunteers and visitors. Visitor safety required quite a bit of tree work, especially on Ash suffering from dieback. That was the first five years.

In the last five years interventions turned from restoration to habitat diversification within our meadow, woodland, ponds and stream. Now, what was a rough pasture meadow is a small copse, a twenty-five-metre bee-bank, and a wildflower area which we are busy expanding to replace the entire rough pasture. The copse provides pollen for bees, insects and butterflies as well as winter food for birds. The bee-bank hosts solitary bees. Within the wildflower meadow, in 2023, we recorded fifty-three plant, twenty-five butterfly, seven beetle, six moth, six fly, five bee, and five dragon and damsel fly species. The woodland area is managed sensitively, leaving dead wood habitat piles and monoliths creating space for bats, surveys regularly record between ten and thirteen species. We now have some seven hundred metres of mixed hedging along the woodland edges. The riparian margin of our lake has seen twelve Black Poplar trees established. Across our woodland area we have planted around one hundred and thirty trees including Cherry, Box, Whitebeam, Guelder Rose, Dogrose, Hawthorn, Blackthorn, Spindle, Wayfaring Tree, disease resistant Elm, Small-leaved Lime, Oak, Field Maple, Buckthorn and Wild Privet. Stream margins and pond habitats have also been diversified. Re-profiling and connecting ponds expanded shallow margins fit for introducing Marsh Marigolds and Yellow Flag as well as encouraging frogs, toads, and newts. We created wetland scallops in the stream margins, supporting damsel and dragonflies as well as many beetle species. In the stream we constructed two berms increasing flow over gravel and helping sustain our healthy invertebrate indicator species counts.

While we can justifiably celebrate the realization of our vision, we now move to a focus on managing for biodiversity. For us this will mean keeping a check on invasives like Pendulous Sedge, Hemp Agrimony, Horsetail, and Cherry Laurel as well as managing species mixes in our expanded wildflower meadow. We'll be expanding our riparian woodland into three shallow ponds with Goat Willow, River Birch and Alder. We will also be looking to introduce the native White-clawed Crayfish and Water Voles in the stream. Lastly, we'll be reaching out to our neighbours to interconnect habitats making wildlife corridors for species across the landscape.

What we have achieved over these ten years would not have been possible without the invaluable energy and support from South Downs National Park Authority, Portsmouth Services Fly Fishing Association, Sussex Wildlife Trust, The Wild Trout Trust, Arun and Rother Rivers Trust, The Environment Agency, The Woodland Trust, Seaford College, Weald Woodsman, Arun Trees, Artizans, The Graffham Downs Trust and the many other groups, individuals and members of our Community Interest Group who have given us their time.

Message from the Chair. Clive Lightfoot PhD.

Here's a brief look at the main activities over ten years in Botany Bay.

2014 & 2015 Experts survey the site for plants, mosses and bryophytes, invertebrates and aquatic molluscs in the stream and ponds; showing the biodiversity richness of the site. We remove the old fish farm infrastructure and break the concrete dam. Tree safety work begins, and fences are built to allow for educational visits. Duncton Juniors have a field visit and Seaford students help to clear cherry laurel. The Wild Trout Trust gives advice on how to manage the flow of the stream for spawning trout. Fishing coaching begins. Botany Bay Community Interest Group (CIG) is formed.

2016 & 2017 CIG Members start to survey ponds and stream and a Riverfly Monitoring course is hosted, finding all eight indicator species for a healthy stream. Mink control begins. First steps to restore the pasture, with Southdown sheep in the meadow, cutting and removing the bankside grass, and introducing Yellow Rattle and Oxeye Daisy seed. A platform for dipping, and a new bridge designed by Emma Amin, are built for school visits. John Muir Award student Josef Amin suggests we should enter The Wild Trout Trust Award for a small-scale project, which to our surprise we win!

2018 & 2019 A beautiful shelter designed for school visits is constructed by Dylan Walker (Built by Artizans) and a new bridge. Surveys find the rare Triangle Web Spider in the Yew trees. FLOW conservation group do a bioblitz on the plants in the grassland and introduce us to iRecord (Sussex Biological Records Centre), so far 941 records have been entered by us this way. Sussex Fly Group and Sussex Dragonfly group visit and add to our growing database. Ash dieback starts to take effect and Arun Trees continue to work on management for conservation and safety. Student volunteer Alfie Dudley-Warde trains as a Riverfly Monitor. Duncton Juniors and Seaford Prep visit the site. Native hedging replaces Cherry Laurel. Erosion under Beechwood Lane is filled. Bankside grassland management and a demo plot in the meadow show many more wildflowers recorded and a wildflower meadow restoration project begins with clearance of turfs by hand!




2020 & 2021 Bath University Student Will Morris spends a placement year for his biology degree and helps with surveys and management. The Environment Agency surveys the stream and finds a healthy population of wild Brown Trout and Bullheads; water samples are taken to see if native White-Clawed Crayfish introduction would be possible. Rhododendron and Bamboo are removed and in their place a wetland scalloped area and two hibernacula are created. A moth survey with Michael Blencowe records over 100 different species. The meadow attracts Marbled Whites, Common and Chalk-hill Blue butterflies. A deep pond is reprofiled. SDNPA organises a Woodland Management Plan. We host local adults and children for education, meditation, and a pilgrim group from Graffham Church.



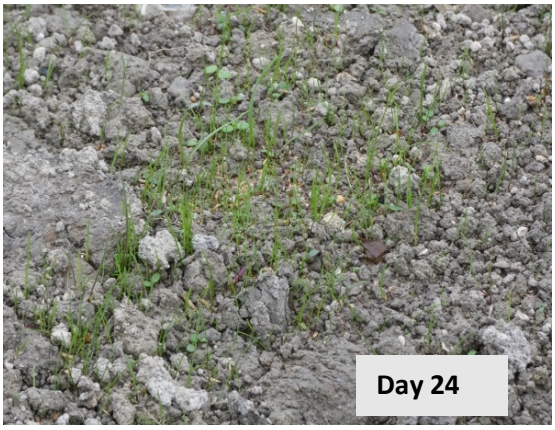
2022 & 2023 Through the Beeline Project we create 25 metres of chalky bank in the meadow to attract wild bees and provide bare soil for nesting miner bees; this also provides a valuable warm spot for other species such as Black-tailed Skimmer, Peacock Butterfly, and Small Copper. Woodland Trust Ancient Woodland Restoration Fund supports the removal of the last of the Cherry Laurel and Bamboo from the site, leaving space for the planting of Black Poplars along the banks of the lake and more mixed hedging and disease resistant Elm. A copse of mixed shrubs found on chalk is planted, increasing the amount of nectar and pollen for pollinators and berries for birds. We host Graffham Thursday Club, Lodsworth Heritage, ICI walking group and Bianca Pitt from Lavington Estate. Jonathan Simons and the West Weald Fungus Recording Group survey the site, and Jonathan creates a website and database for our CIG www.botanybayCIG.co.uk




2024 Anne and Greta Pasteiner begin water surveys for Western Sussex Rivers Trust. Seaford Prep come to learn about the chalk stream in their Science Week. Haslemere Natural History Society visits. Student volunteer Gabriel Sullivan qualifies as a Riverfly Monitor and two berms are constructed to improve the stream flow. We receive a Remoti mink trap as part of a catchment wide project to rid a large area of this non-native invasive predator; the efficiency of this system is improved by the use of pheromone lures. Finally, with a great deal of help from our Ranger Dominic Sunderland, the wildflower

meadow is completed as Matthew Sennitt (who inspired, planned, and supervised our meadow project) reports:

The Meadow by Matthew Sennitt: *For a long time, we have dreamed of converting the meadow to one full of wildflowers and buzzing with life. Since 2018 we have slowly built this up, starting with a small hand-dug area, to remove the turf and nutrient rich topsoil, for the wildflowers, adding a larger area in 2019 using a turf cutter as well as SDNP volunteer muscle, then making the bee bank with a medium sized digger in 2021. Last year we received a sizeable grant from the SDNP-Trust to enable us to finish the whole meadow. For this much greater task we needed to bring in a considerably larger digger and a dumper to remove the turf and topsoil. The process was started by brush-cutting the area of coarse grasses followed by frequent mowing, so that the work area for the digger could be well marked out. The digger cleared the turf and topsoil in two days, then spent the third day using a raking technique to make a ploughed field. On the fourth day a stone-burier was employed to produce a seedbed with a tilth sufficiently good for wildflowers to grow. Sowing was done by hand, as was rolling to ensure a good contact of seed and soil. All these processes needed dry weather, and the weatherman smiled on us. A few days later it rained hard which started the seed (80% native grasses and 20% native wildflowers) germinating, and the following damp, but warm, weather has allowed the small plants to keep growing. In just 24 days after the first spit of turf was removed it was clear that germination was well underway and that there was a good coverage of grass and wildflowers. What will we see in 2025?*



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