Botanical Group Activities 2021

Introduction
The focus of the Botanical Group changed in 2021. We are a 'project' of the Strettons Area Community Wildlife Group, but our activities are coordinated by the Shropshire Wildlife Trust (SWT). In recent years we have spent our time surveying Local Wildlife Sites or potential LWSs. This year, and probably for the next couple of years at least, the priority has shifted towards Local Nature Recovery (LNR) Habitat Mapping.

The What and Why of LNR Habitat Mapping
Nature needs space and it's not getting it. It's depleted, fragmented and fragile. We need a recovering landscape, with 'more bigger, better and joined-up spaces for nature'. So says the Lawton Report of 2010, and one may wonder what progress has been made since. The cogs of change grind so slowly. We always seem to be waiting; for an Environment Bill, for an Agriculture Bill, for Brexit, for evidence to be gathered, for trials to be completed, for the details of what is to replace the Common Agriculture Policy, and so on. And yet we know nature doesn't wait.

Given so much uncertainty, can we at least get ready for change to happen? What needs to be in place so that when the awaited frameworks and policies emerge, they can be implemented speedily? Well, a core requirement is to know what exists now by way of biodiversity, and this is the raison d'être for the Community Wildlife Groups and their emphasis on bio-surveying. Equally fundamental is the lack of detailed knowledge of habitats. The main reason for the decline in biodiversity is the degradation of habitats, so a clearer baseline picture of the current status of Britain's habitats is surely a pre-requisite for nature and landscape recovery. This is not new. The different organisations in the UK conservation community have been saying and doing this for years; but there is now more solidarity of purpose under the banner of the Local Nature Recovery.

What do we want? A joined-up system of places important for wild plants and animals, on land and at sea. One that allows plants, animals, seeds, nutrients and water to move from place to place and enables the natural world to adapt to change. One that provides plants and animals with places to live, feed and breed. *When do we want it?* Now.

We know where many of the centres of biodiversity excellence are; the nature reserves, the Local Wildlife Sites, the SSSIs and so forth. And we have some patchy survey data of them. Other centres of biodiversity are not known, and are fragmented. If future action is to be prioritised to restore, recreate, and reconnect habitats for maximum effect, then we need to have a clearer habitat map. Which is why the Wildlife Trusts are focusing on LNR Habitat Mapping.

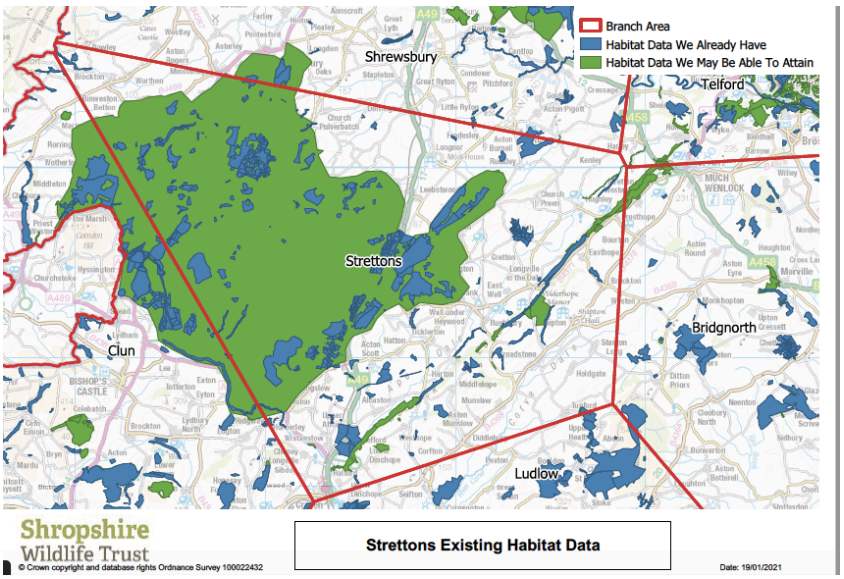

Figure 1: The SWT Strettons Area

The mapping process
Working with partner organisations, Shropshire Wildlife Trust aims to collate existing data and, where necessary gather fresh data, to habitat map the whole county. SWT is asking its 11 Branches throughout the county to

help. The Strettons area covers about 400 monads (1km squares) on the OS map. Over the next few years the Botanical Group aims to map all the monads that need mapping. Some are SSSIs and are well surveyed; for some, there already are data, but it may be dated and need verification.

The UK Habitat (UKHab) Classification system, key and codes include some 51 divisions; many are not found in Shropshire: Marine, Coastal, Estuarine etc. SWT contracted a consultant, Rob Mileto, to contextualise and simplify the classification for Shropshire, and to provide training for Branch group volunteers. This happened in 2021. Covid meant delays and adaptation; some training was provided by zoom. However Rob was able to provide a day's training in the Strettons in late June. We followed that with two group get-togethers, where we walked part of a monad, discussing features and how we would classify and map habitats. So what is the process?

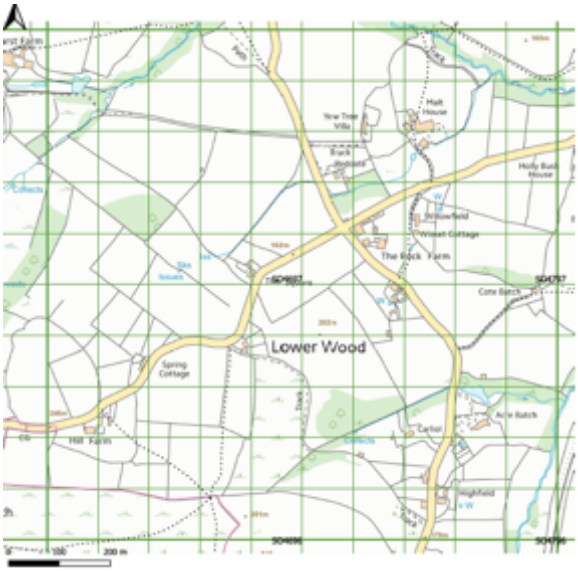

Figure 2: Map for monad SO4697

The group includes about 10 volunteer surveyors. Each volunteer chooses one (or more) monad that has not yet been mapped; as an example, let's take SO4697, around Lower Wood, north of All Stretton. SWT HQ will issue a blank .pdf map of the monad (Fig. 2). It can be useful to start by looking at satellite imagery online; or with some monads finding a high vantage point with sight over the area. The volunteer walks all the public rights of way - footpaths, bridleways, road verges etc. – and records the habitats present using the UKHab coding system. If the landowner is known and access permission obtained, all well and good, but this is often not possible or practical. **The priority is to find HoPIs, Habitats of Principal Importance.** About 20 different HoPI types are found in Shropshire (Table 1). These are habitat types identified as being the **most threatened and requiring conservation action**.

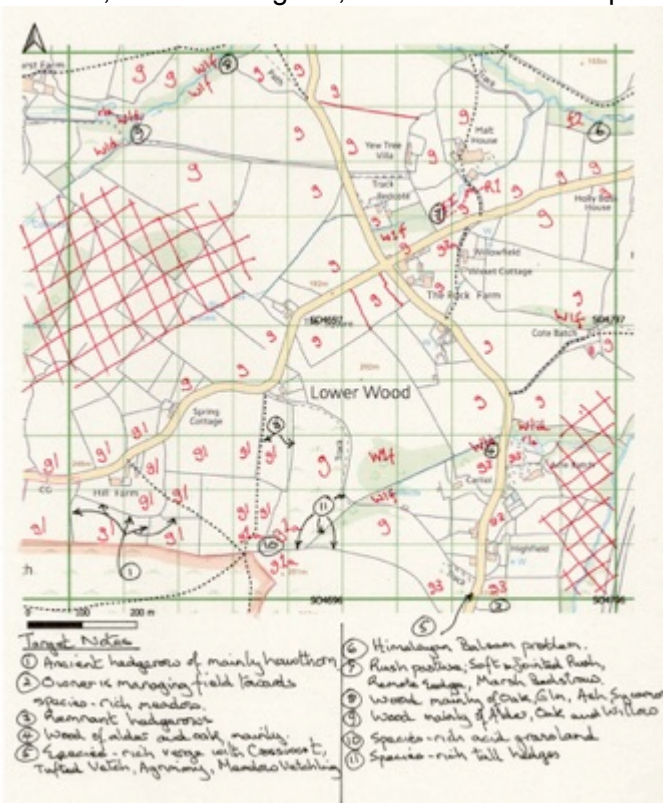

Figure 3: Completed map example

Volunteers don't map everything; if a field is improved pasture, we mark 'g' for grassland on the map to show it has been surveyed. We are specifically looking for HoPIs, or potential HoPIs, habitats which, with a small change in management, could be restored, and become more species rich. We are looking for connections; where perhaps two HoPIs could be joined together with habitat restoration in between. We make notes of important features; a particularly species-rich, mature hedgerow; an area of grassland where bracken encroachment is shading out ground flora; a woodland with a particularly rich ground flora, etc.

Some areas of the monad are inaccessible. These are marked on the map as such.

Table 1: Habitats of Principal Importance in Shropshire

Grasslands and Heathlands	
Lowland meadows	Flower-rich meadow or pasture dependent on low fertility soils and traditional management methods. Important for invertebrates and ground nesting birds such as skylarks. Sensitive to changes in hydrology and nutrient status.
Lowland calcareous grassland	Associated with underlying limestone. Flower-rich in lime-loving plants, important for invertebrates, especially butterflies. Sensitive to change in nutrient status.
Lowland dry acid grassland	Characterized by acid soils derived from sandstone and igneous rocks. Less flower rich but important for rare plants and invertebrates. Mainly found on shallow soils on hills or rocky outcrops.
Heathland	Can be lowland e.g. Prees Heath; in Shropshire more commonly upland (above tree line) dry or wet. Often in a mosaic with acid grassland or wetlands raised bog or flushes. Heather and gorse abundant often with bilberry. Upland wet heaths may be rich in butterworts and asphodels.
Woodlands	
Lowland beech and yew woodland	Where these species form >50% of the canopy, usually on shallower soils. Of high biodiversity value; can be fungi-rich.
Lowland mixed deciduous woodland	Typically dominated by oak and ash. May have a rich ground flora. Important for bats, woodland birds and butterflies, occasionally with dormice.
Wet woodland	Typically dominated with alder and/or willow species adjacent to waterbodies or part of a wetland mosaic. May support rare invertebrates attracted by dead rotten wood, and otter seeking cover and breeding sites.
Wood-pasture and parkland	With open grown trees, some of which are ancient or veteran. Important for veteran trees, invertebrates and bats.
Wetlands	
Eutrophic lakes	Nutrient rich, maybe abundant in algae. Often important for waterfowl.
Mesotrophic lakes	Moderate nutrient content. Can be rich in plant, invertebrate and amphibian species.
Oligotrophic lakes	Nutrient poor, with clear or brownish water. Rare in Shropshire generally in upland quarries.
Lowland fens	Perhaps floodplain inundated for part of the year. Neutral with lush swamp vegetation dominated by sedges, tall grasses, meadowsweet, yellow iris. May support water vole and otter. Important for rare invertebrates and plants.
Upland flushes and swamps	Flushes, swamps and springs. Shorter vegetation on acid soils. Can be flora rich with mosses inc. sphagnums, rare sedges and sundews.
Reedbed	Dominated by common reed. Important for birds, rare plants, and perhaps water vole.
Lowland raised bog	Peatlands with peat >0.5m deep. Usually dominated by sphagnum and other mosses, cotton grasses, deergrass, cross leaved heath.
Purple moor grass and rush pastures	Tussocky, dominated by purple moor grass and rushes often with marsh bedstraw, water mint, angelica and perhaps orchids.
Other habitats	
Inland rock	Open mosaic habitats on previously developed land.
Traditional orchards	Fruit and nut trees grown at low density in permanent grassland.
Arable field margins	Flower and invertebrate rich edges managed as weedy strips or deliberately planted. Important for invertebrates and farmland birds.

Analysis and follow-up
When a monad map is completed it is sent to the team at Shropshire Wildlife Trust HQ. Maps will be analysed along with data from other sources. Possible opportunities for habitat restoration or recreation will be prioritised in the light of funding streams such as the emerging Environmental Land Management Scheme and Biodiversity Net Gain criteria for follow-up discussions with landowners.

The volunteer team
The training in 2021 was disrupted with Covid, but we now have a core of trained surveyors that we hope will be able to move forward apace in 2022. Between us we have taken on 25 of the c.400 monads so there is still a long way to go. Some are working in pairs initially to consolidate skills. Some of the group have reasonable flower ID skills, some are beginners. That's fine, **you don't need to be a flower ID expert to do the mapping!** Some ID skills do help but they're not essential. Training in the process and mapping will be available in 2022. And we hope to also run some 1-day flower ID courses.

If you are interested in joining us, please get in touch.

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