

Long Sutton Parish Landscape Opportunities

Habitat Survey and Management
Suggestions



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Somerset Wildlife Trust

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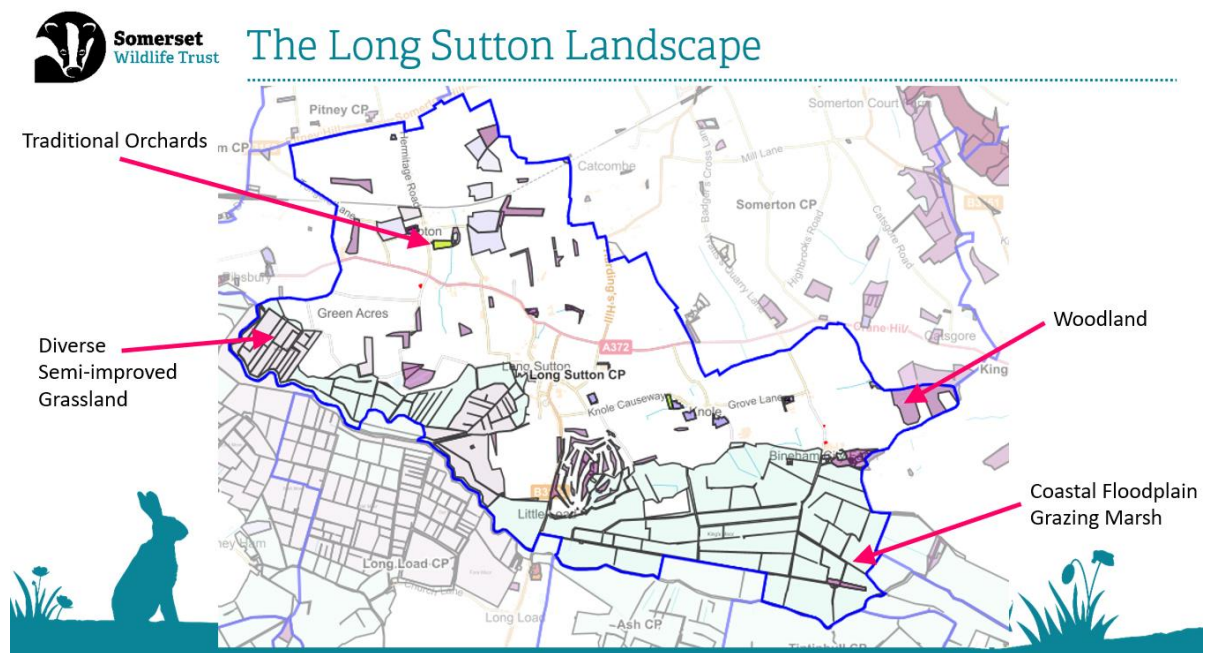
Introduction

A walkover survey of Long Sutton Parish and the surrounding area, commissioned by Long Sutton Parish Council, was carried out over one day in September 2023 by Somerset Wildlife Trust. It is important to note that this was not an exhaustive survey but an impression of the landscape to form the basis of discussions about what changes could be made to connect habitats, make the farmed landscape more resilient to the effects of climate change and reduce the nutrient load of the River Parrett.

This report is a summary of the feedback session delivered to members of the community.

Landscape Character

The map below is taken from Parish Online and shows the designated sites and priority habitats recorded in the parish.



The habitats in the parish demonstrate the effects of a change in land height moving from drier grasslands, woodland and orchards in the north down to the lower wet grassland in the Long Sutton Catchwater. Much of the land in the south of the parish is Coastal Floodplain Grazing Marsh. This type of seasonally wet grassland is characteristic of the Somerset Levels and can provide a winter roost for wetland birds as well as nesting opportunities if it is able to fulfil its natural function as a floodplain.

Some of the areas of Coastal Floodplain Grazing Marsh hold three designations; Wetmoor SSSI (National designation), Somerset Levels & Moors Special Protection Area (European designation) and RAMSAR (international designation). The condition of these designations is under threat from poor water quality as a result of high nutrient load and heavily managed water courses.

The recommendations in this report have been made with the aim of bringing out the landscape character of the parish using land management techniques that increase the sustainability of farm businesses and aid local climate adaptation. The recommendations have

been made with every type of land manager in mind including farmers, gardeners and those that manage amenity spaces within the parish.

Nature Recovery Networks



Long Sutton Parish (left) has a good hedge network and natural corridors provided by the ditches and drives. It is important that this network connects patches of good habitat and that wildlife is not simply restricted to the hedges and drives.

Plants on the drives expressed the landscape character in different parts of the parish. In the wetter areas in the south of the parish there were greater birdsfoot trefoil and common fleabane, whilst along the drives in the northern parts of the parish plants included field scabious, agrimony and knapweed more typical of dry neutral grasslands.

Orchards and plantations of different ages and management intensity are dotted through the parish.

Recommendations

- *Provide a mix of year-round habitats* through habitat creation, cropping and staggered management. This can be coordinated through the parish environmental group or through a farm cluster.
- *Use drives and ditches as wildlife corridors* by concentrating management for wildlife in fields that are connected to these linear features.
- *Give the ditches and hedges space* by allowing at least a 1m buffer along ditches and 2m from the centre of a hedge for any agricultural operations.
- *Manage hedges to produce flowers and fruit* by cutting every other year.

In-field Trees and Hedges

Long Sutton has a substantial network of hedges with veteran standard trees (right) as well as plantations, orchards and specimen trees that the community is proud to have planted. There was a traditional orchard off Knloe Causeway that had veteran trees as well as younger replacements.

Hedges have a good mix of species including black bryony, honeysuckle and dog's mercury showing how long established they are. There was variation across the parish in how hedges were flailed, some were cut frequently to the same height and were becoming leggy with a knuckle forming at the cutting height, others were cut at a longer interval.



Recommendations

- *Provide the next generation of trees now* by planting standards and selecting trees to become standards when carrying out hedge management.

- *Trim hedges every other year*, leaving a little longer each time then rejuvenate through laying or coppicing. This will maximise flowering and fruiting as this does not happen on new growth. It also means that the uncut hedges will provide food for wildlife into the winter.
- *Find locations for new plantations and orchards*. Choose locations that will slow the movement of water down hill on to the floodplain. Well managed hedges across contours will also have the same function.
- *Actively manage woodland areas* to create a varied woodland structure and encourage woodland wildflowers. Plantations require thinning around 20 years or less after being planted.
- *Incorporate trees into grazing systems* by grazing thinned plantations (right, example from elsewhere in Somerset) or adding in-field trees. This can have welfare benefits to livestock, reducing worm burdens and improving weight gain or milk yield.



Agricultural Grassland

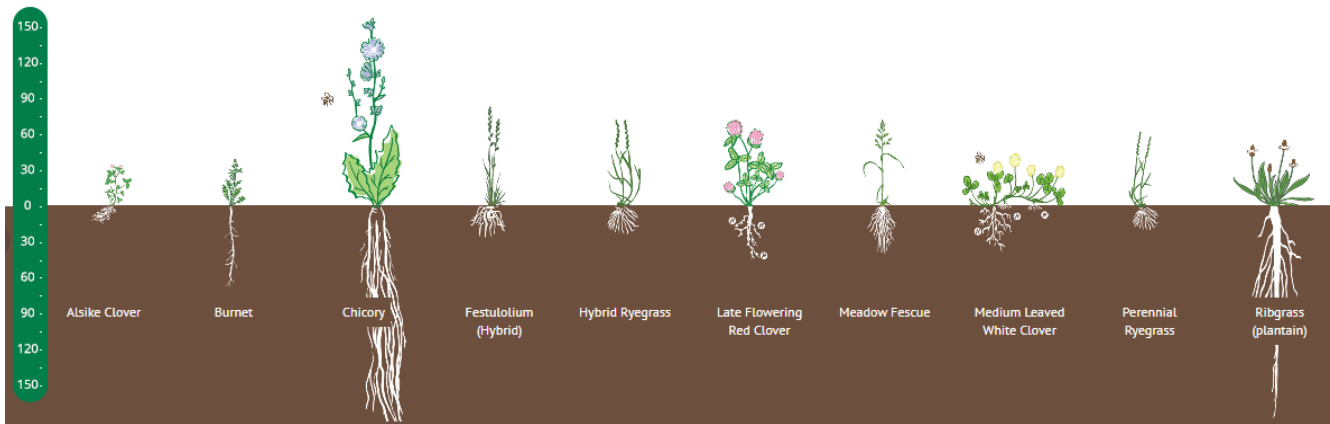


The grassland through the parish was mostly set stocked, improved grassland. Although wildflowers were seen on the droves, a substantial species-rich grassland was not found during the parish survey. This included knole hill which like many of the grasslands in the parish had areas of thistles and nettles that indicated the current management was not benefitting soil health. Set stocking can lead to compaction and change the composition of the sward through preferential grazing.

The key to managing grasslands for soil health is seeing grazing as a management tool which can be used to kick-start biological activity in the soil by interspersing periods of grazing, trampling and dunging with periods of rest. During these rest periods plants develop extensive root structures, opening up the soil, improving grassland productivity and making the sward more resilient against extreme weather. Regular stock movement also helps to reduce work burden. Generally, this grazing technique involves dividing fields into smaller units and moving the stock at intervals of 3 days or less, aiming for 1/3 of the grass to be eaten, 1/3 left and 1/3 trampled during the growing season.



Generally, the temporary grasslands in the parish used simple grass dominated seed mixes although some multi-species leys were seen in the north of the parish. The diagram below is taken from Cotswolds Seeds and shows the range of plants in a multi-species ley and the variation in root structures. This variation has been shown to have benefits to animal nutrition (providing energy, protein and minerals) and soil health. Multi-species leys more resilient in times of drought and helps with infiltration during period of heavy rain which needs to be taken into account in our changing climate.



Recommendations

- Use *strip grazing* or *mob grazing* with rest periods to allow the grass to recover fully before being grazed again.
- Use *multi-species leys* in temporary grassland. Speaking to farmers in the parish who already do this will help with selecting seed mixes and advice on management.
- *Cut or graze the droves*. Rest from grazing has allowed wildflowers to come into flower but if they will need grass cut and removed or grazed to persist in the sward.

Arable

Arable crops seen in the parish were predominantly maize (right) or cereal with a few fields of millet. Crops were often established close to field boundaries although they did have headlands; some of which were rough and created a smooth transition from crops to tussocky grass to hedges which would benefit wildlife.

The timing of the survey made it difficult to tell, but from harvested cereals fields it looked like there had been some uptake of agri-environment scheme options like skylark plots or beetle banks which vary the vegetation structure within fields and encourage populations of agriculturally beneficial insects and other wildlife.



Recommendations

- Move away from *mono-cropping* to get as many different types of roots in the ground as possible. For example, try out whole crop forage mixtures like peas, oats and beans.

- *Reduce tillage* either by frequency or depth. This will help to maintain soil structure which has a range of soil health benefits.
- *Use crop residues and cover crops* to keep soil and nutrients on the holding.
- *Prepare soil and nutrient management plans* to maximise nutrient use efficiency.
- *Maximise structural diversity of the vegetation* which will increase the diversity of beneficial insects and predators of crop pests.
- *Do not cultivate or apply inputs less than 2m from the centre of a hedge or 1m from the top of a ditch.*

Amenity and Public Open Spaces

The most diverse sward seen during the survey of the parish was in the churchyard of Holy Trinity Church. There were wildflowers throughout the sward, which means that any area could be left to flower making it easier to balance the requirements for access and wildlife. The village green was not floristically diverse but would be suitable for the addition of wildflower seeds or plugs or simply for areas to be deliberately left long. The sward on the bank outside the primary school was also quite diverse and could be left long over the summer.

Areas of long grass had been left on the playing field in which small birch trees were beginning to establish, indicating that this area is not cut annually. If the intention is that it should be a wildflower area it will need to be cut each year following the management prescriptions below.



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Flowering Lawn

Where: Areas with moderate to infrequent use that have at least 1/3 of the sward made up of clover and other flowering plants

Timing of cut: The interval should be long enough to allow plants to flower, this will be between 5 – 6 weeks.

Height: 5 - 6cm

Cuttings: Removed if possible. Not essential but will bring biodiversity benefit over time.

Specialist management activities: Plug plants could be added in spring and watered well. Cutting should be staggered between sites so that there is a continuous supply of flowering plants.



Flowering Lawns can still provide a source of pollen and nectar whilst also providing nesting habitat for solitary bees. The short turf also means that birds like blackbirds, thrushes and green woodpeckers can forage easily.



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Annually Cut Grass with Paths

Where: Can be islands in a larger grassland area, under groups of trees or form borders along hedges.

Timing of cut: Cutting can take place from August through to the beginning of March, staggering cutting between sites. Desire lines will be cut every 4 weeks or as appropriate to allow access over large areas.

Height: Desire lines cut regularly to 5cm and should be at least 1m wide. Mown to 5cm after summer cut for the remainder of the grass growing season.

Cuttings: Removed. The cuttings of desire lines and arisings from the remainder of the season can be left in situ.



Annually cut grass with paths functions as a hay meadow would. It allows plants to flower and set seed while adding additional structural diversity to the vegetation which bring greater diversity of invertebrates. In an amenity setting there is the opportunity to be creative with the shape of the uncut area.

Winter Shelter

Where: These areas will typically be under trees or around park boundaries and watercourses to create an ecotone

Height: Leave long for 2 summers then cut to a height of 5 – 10cm

Cuttings: Always removed

Specialist management activities: The cuttings must be removed and so there needs to be a mechanism in place to deal with these cuttings. These long areas should be cut on rotation so that not all long areas are cut in the same year.



Areas left for winter shelter do not have to be floristically diverse. Their function is to provide areas for invertebrates to spend the winter and for bumblebees to nest the following summer. They also provide habitat for small mammals.

When considering changes to mowing of amenity spaces, it is important to prioritise access and make any changes in management look deliberate by adding in paths through the centre

or mowing the edges. Flowering lawns can be a good way of maintaining access while still taking positive action for nature and this could be suitable for parts of the churchyard at Holy Trinity Church. It is worth noting that long grass is a vital habitat too, even if it is not full of wildflowers.

Trees had been planted around the playing field, some of which had established well, others had died most probably during the periods of drought that have occurred since planting. If it is not possible to maintain newly planted trees then consider using natural regeneration to allow scrub and then trees to establish in an area.

The primary school had used amenity planting well for wildlife, with standard trees, flowering shrubs and the addition of bug hotels and sunflowers.

Recommendations

- *Consider location of tree planting and aftercare.* Only plant a tree where natural regeneration is not suitable and when the aftercare of that tree is confirmed. Planted trees will have a restricted root structure and will need to be watered.
- *Vary the timing and length of grass cutting* to create a mix of different grass habitats all year round. See the management descriptions above for more details
- *Access needs to continue to be a priority.* Grass cutting in amenity spaces should only be changed when it is fully understood how people use a site and with proper consultation.
- *Consider using the churchyard as a local seed source.*

Nutrient Management and Soil Health



Long Sutton is in the catchment of the River Parrett which, like most rivers in Somerset is highly modified and impacted by the management of the landscape around it. The high levels of nutrients are a particular problem and land management is one of a set of contributing factors. This drainage channel (left) in the parish is full of weeds and algae as a result of high levels of nutrients.

Managing farmland and amenity spaces with soil health in mind will decrease run off and decrease the amount of nutrients which will ultimately run into the Parrett via the Yeo. Healthy soils are a crucial aspect of a profitable, sustainable farm business and will help reduce the risk to the community of flooding as climate change becomes more pronounced and we regularly see periods of extreme rainfall.

A healthy soil should have an open crumb structure with space for air, water and roots which enables the microbial community to thrive. This community is vital for nutrient use efficiency and crop health, reducing the amount of inputs required. Soil should not be hard, be made of fine particles that hold no shape and it should not have deep cracks like this soil in the parish (below right).

Recommendations

- *Limit soil disturbance* by reducing the depth and frequency of ploughing or not routinely digging vegetable patches and flower beds. Let biological activity open up the soil as much as possible.
- *Cover the soil surface* with plant residues or living plants to protect the soil from extremes of heat and heavy rain.
- *Build diversity* by including as many different plants as possible. Each plant will have a different benefit to soil health and a diverse plant community will bring diversity of other wildlife.
- *Keep living roots in the soil* for as long as you can all year round. This includes using perennial plants in planting schemes and using cover crops to maintain soil cover during the winter.
- *Use animals as a management tool.* The targeted hoof action, trampling and dunging of animals can stimulate the soil microbial community, aiding nutrient cycling and carbon sequestration. Include grazing in your rotations and if you are a small landowner with no stock work with a farmer or grazier to graze your grassland.



Conclusions

The recommendations in this report have focussed on bringing out the landscape character of Long Sutton using actions that improve the sustainability of farming in the parish and build resilience for the community in a changing climate.

Amenity spaces, private gardens and farmland all have their part to play in building a truly sustainable Long Sutton. Engagement and collaboration within the community and with external organisations will be key.