

# Creating Areas for Nature

## 4.1 Wildflower meadows

### 4. Habitats



Season –  
Spring or  
Autumn



#### Why?

Wildflower meadows are one of Britain's fastest-disappearing habitats, with over 95% having been lost in the last century because of agriculture. As a result, many native British wildflowers are in decline and this has gone on to affect numbers of bees, butterflies and birds.

#### Helpful tips

Sow seeds in March or April on heavy soil that becomes waterlogged or in autumn if you have light, well-drained soil. Be aware that the meadow's establishment is unlikely to be an immediate event, but a gradual process that may take well over a year to develop.

#### Tools

Trowel  
Rake  
Spade  
Turf cutter

#### Materials

Seeds/ flower plugs (established plants grown in a plug of soil)

#### Health and safety considerations

- Take care not to strain your back or muscles if using a turf cutter, which can be strenuous.
- When using a rake, make sure that people's feet do not get in the way and that the tool is not left out as a trip hazard.

#### Instructions

- Choose an area of land in which to plant your wildflower meadow. Ideally this should be as large an area of land as you can use with plenty of sunlight, but don't worry if you only have an area that is shaded; this just changes the type of plants that you can use.
- Decide what type of plants you would like in your wildflower meadow. This will depend on the level of shade in your area and the type of soil. If you are unsure about this please see section 2. Most suppliers will have separated out their mixes according to shade level and soil type, so the hard work is already done for you.



#### Option 1 — Leave it alone!

- Try leaving the area un-mown and see what comes up. If your soil is very chalky, for example, you should find that a rich wildflower meadow will come up naturally.

As a test, try leaving a small strip of ground uncut when your grounds are being mown, and see what comes up. It may prove that you do not need to commit to seeding a large area. As well as proving an indicator of what seeds are present in the ground, un-mown edges and corners provide a buffer area for wildlife between the hedgerows where they live and shortly-cropped grass.



### Option 2—sowing seed

This method is best used on an area that has very little diversity in natural flora, for example on an area that is just grass. You can choose seed that is pure wildflower mix or part wildflower and part grass.

- Remove the top layer of soil and turf as this will be predominantly grasses that will compete with your wildflowers.
- Rake the area until the soil is very fine and be careful not to tread on the newly-raked ground.
- Sow your seed forwards, walking on the sown area as you go. Mix the seed with some sand to help distribute the seed evenly and to let you know where you've already sown.

#### Additional Tip

If you have sown with grass seed then you will have to mow the area 3 times in the first year to stop the grass from dominating the wildflowers. From then on, for all seed mixes, cut once a year. This should be after the wildflowers have set seed which is usually around September.

### Option 3— planting plugs

Plugs are plants which are already established and come grown in a small cell of soil, ready to plant. This is often more expensive than seed but can produce quicker results. Plugs are available from most wildflower suppliers and are very easy to plant.

- Make a small hole with the handle of a trowel or similar shaped tool and place the plug in the hole, firming the earth around them.
- Make sure that you spread the plugs evenly over a wide area and remember that they will be competing with the existing grasses and plants. This means that mowing three times in the first year is again necessary and once in September every year afterwards.



For information and advice on which species of plants to use, and where to source local materials and contractors, contact your local Countryside Management Partnership.

Please see *Section 7.3 Structures Links* for further reading and information.

# Creating Areas for Nature

## 4.2 Boggy Areas

### 4. Habitats



**Why?**  
 Natural wetlands have declined sharply in the past century because of land drainage for agriculture, reducing the habitat available for wetland plants and amphibians. A boggy area will attract similar wildlife to a pond and comes without the associated health and safety risks.

**Helpful tips**  
 This is a great way to recycle any old pond liner you might want to get rid of. Make sure to choose plants that love wet ground.

**Tools**  
 Scissors  
 Spades  
 Wheelbarrow  
 Rope  
 Shovels

**Materials**  
 Punctured or damaged pond liner

**Health and safety considerations**

- Take care not to strain muscles when digging.
- Do not leave tools out where they can be tripped over.

**Instructions**

- The bog area can be any size or shape you like, and don't worry about depths, shelves or contours.
- Mark out the area that you want to dig with a rope.
- Dig out the desired area to approximately 0.5m depth all around.
- Place a punctured liner in the hole and then place the soil back in it. Simple! The liner will help to retain much of the rainwater and therefore make the soil very moist and boggy, whilst the holes in the liner will allow some water to escape and stop it from becoming a filled in pond.
- Leave your boggy area alone for a few weeks until it has trapped enough water to make it seem boggy, and then plant it up with suitable bog plants.



For details and advice on which species of plants to use, and where to source local materials and contractors, contact your local Countryside Management Partnership.

# Creating Areas for Nature

## 4.3 Ponds

### 4. Habitats



Season:  
May - Sept.

**Why?**  
By 1890 land drainage for agriculture had reduced the number of ponds in England to about 1,250,000: today only around 400,000 remain. You can help to reduce this loss by creating your own haven for pond life, no matter how large or small.

**Helpful tips**  
Before you pick up a spade, planning is absolutely vital. We recommend that you seek advice on health and safety according to the size and depth you require, as well as issues such as fencing and access to the pond area.

**Tools**  
Spirit level; Scissors; Spades; Rake  
Wheelbarrow; Shovels  
Long piece of timber  
Hosepipe; Rope (marking out the pond)  
Nearby water supply

**Materials**  
Pond Liner  
Pond underlay

**Health and safety considerations**

- Schools or community groups whose pond will be used by a large number of people should fence off their pond area, making sure to leave plenty of room for people to access the pond. A dipping platform will also allow closer access.
- Make sure that underground service and cable maps are checked before any digging is started.

**Instructions**

- Choose the location of your pond. Ideally you want a mixture of sun and shade, but not too close to a large group of trees that will shed their leaves into the pond in the autumn.
- Next, decide on the shape and size of the pond. Ponds can be as large or small as you see fit. Larger ponds will attract more wildlife but will also need more maintenance, so find the correct balance for your site. Ponds are typically oval or kidney shaped, but the shape can actually be anything your imagination can think of, so you could ask those taking part to design something different.
- Measure the size of liner and underlay required. Use the following equation to work this out:  
*actual length of the pond (+ 2x maximum depth) X the width of the pond (+ 2x maximum depth)*
- Mark out the shape and size of the pond using stakes and tape, rope or string.
- Now dig out the pond. Depending on your soil type, this can be very time consuming so make sure you allocate plenty of time for this task. Try and vary the depth of the pond with at least one really deep area and one shallow area that slopes down from the side (see Fig. 1). The maximum depth of the pond is up to you, but 1-1.5m is probably deep enough.

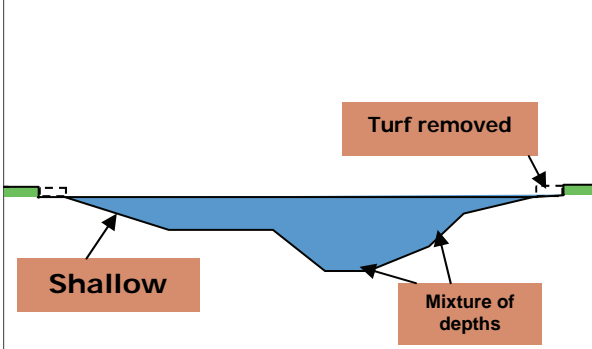


Figure 1.

- Once your pond is dug, rake out any stones or sharp objects that could puncture the liner. Next, take off a 0.5m strip of turf around the outside of the pond. This is where the liner and underlay will be tucked at the end. Put the turf to one side for later.
- It is crucial that the pond is level all around, otherwise one side of the pond will be at the water's edge and the other end will be a cliff! Put a length of timber across the pond and place a spirit level on top. Check lots of different angles across the pond and make sure they are all level.
- Now you have to place the liner in the pond. First use an underlay, which is basically a protective layer for the liner. You could also put a layer of sand down underneath.
- Put your liner over the top. Make sure there are no creases in the liner and that it moulds to the contours of the pond, then start filling the pond with water. Keep pulling the liner taut every now and again as the pond is being filled to prevent creases from occurring.
- Replace the turf into its original place around the edge of pond, tucking the liner underneath.
- Cut off any liner that is sticking out. It is useful for the turf to hang into the water by about 10cm as this will allow wildlife to get in and out of the pond easily.
- Disposing of the spoil from the pond can be a problem, but if you are also creating a raised bed or planting area then it can be used to fill these. Alternatively, try and lose it in any adjacent undergrowth. Over time, grass and other vegetation will cover it.
- Your pond is now complete! Leave it alone for approximately 2 months to allow the rainwater to naturalise the pond and then you can place some plants into it.



As an alternative to the above method, those of you whose sites lie on clay soil could try “puddling”, a process whereby the methodical compacting of clay and water forms a watertight seal—ideal for lining a pond. The puddling can be done by human feet and is great fun. More information can be found on the BTCV website—see *Section 7.3 Habitats Links*.

For details and advice on which species of plants to use, and where to source local materials and contractors, contact your local Countryside Management Partnership.

For further information on ponds, their creation and their wildlife, please see *Section 7.3 Habitats Links*.

# Creating Areas for Nature

## 4.4 Hedgerows

### 4. Habitats



**Why?**  
 Over 600 plant species, 1500 insects, 65 birds and 20 mammals have been recorded at some time living or feeding in hedgerows, yet 21% of England's hedgerows have been lost since 1945 because of removal for agriculture and neglect. A hedgerow will attract a huge range of butterflies, birds and small mammals to your green space and help reduce this loss of habitat.

**Helpful tips**  
 If there are grazing animals (this includes rabbits!) in the area where you have planted the hedge, it is wise to add tree guards. These are held up with wooden stakes and protect the small trees from being nibbled. You will be able to buy them from your tree supplier.

**Tools**  
 Trowel  
 Spade  
 Fork  
 Crowbar

**Materials**  
 Trees  
 Tree guards (optional)  
 Stakes (optional)

**Health and safety considerations**

- Steel toe-capped boots must be worn to protect feet when using tools such as spades and crow bars.
- Be careful not to leave tools lying where they can be tripped over.
- Thorny species should be handled with gloves.

**Instructions**

- Decide where the hedge is going to be and calculate how many trees you will need. Depending on how thick you want your hedge, plant between 4 and 6 trees per metre in a staggered fashion (see Figure 1).
- Choose which species of tree you would like. Remember to check the soil in the nature area (see section 2) before planting so that you can then work out which species to plant. If in doubt, contact your local Countryside Management Partnership who can advise you on species.
- Now order the trees. It is advisable to buy whips (0.5m-1m) and get them cell grown (in small sections of soil). This makes them much easier to plant, but you can also buy them bare rooted from most tree nurseries. Check with the supplier that they are of local provenance, that is, that they have been sourced from the local area and that you are not planting trees from a foreign country.

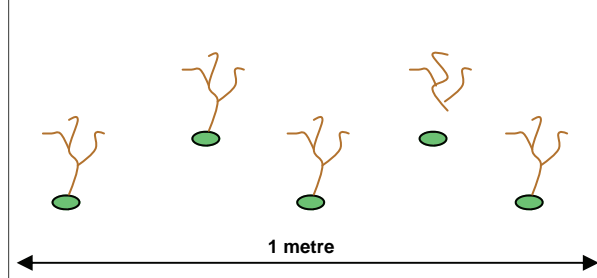


Figure 1

- Now to planting. Dig a small hole with a trowel or spade, place the roots of the tree or the cell into the ground and gently firm the soil around it. Simple! Be advised that you may need to break the soil up first with a fork if the soil is particularly hard. If you are using cell-grown trees you may find it easier to make a hole in the ground using a crowbar, and simply press the cell into the hole.
- Make sure you water the trees during the first two summers, especially if they are particularly dry.
- Some species, such as sessile oak or field maple may take a while to grow into a substantial hedge, but others such as hazel and hawthorn will grow very quickly and you'll be surprised at how soon you have a wildlife-beneficial boundary to your nature area.



For details and advice on which species of plants to use, and where to source local materials and contractors, contact your local Countryside Management Partnership.

For further information on hedges and their wildlife, please see *Section 7.3 Habitats Links*.

# Creating Areas for Nature

## 4.5 Trees and woodland

### 4. Habitats



Season:  
Oct.—  
March



#### Why?

Trees are absolutely essential for our continued existence! They are responsible for converting carbon dioxide into oxygen, and are therefore vital for combating climate change. They also reduce noise pollution, provide shade and control soil erosion.

Nevertheless, trees across the world continue to be destroyed by humans so that land can be used as pasture or to grow crops. You can help to make up for this loss by planting native species of tree in suitable areas.

#### Helpful tips

Be aware that mature trees need more care and attention after they have been planted than smaller hedge trees.

When choosing which species of tree to plant, make sure to take into account how big it is likely to grow (both in terms of its roots and canopy) and the ongoing maintenance that it will require.

#### Tools

Fork  
Mell  
Spade

#### Materials

Trees  
Tree ties  
Stakes

#### Health and safety considerations

- When using a mell, make sure that there are no near bystanders that would be hurt when swinging the tool.
- Steel toe-capped boots should be worn for digging to protect feet.

#### Instructions

- Identify the best place for the tree to be positioned, preferably where it will get lots of sunlight.
- Most mature trees will come with a large root ball. Dig a hole large enough for the root ball to comfortably fit in, break up the sides of the hole with a fork to loosen the soil.
- Plant the tree. Make sure you firm all of the earth down around the tree once you are finished.
- It is advisable to use stakes and tree ties to support the tree in its first year or two while it is adapting to the new location. These can be purchased with the tree. Use a mell to drive the stakes into the ground close to the tree and the use the tie to attach the tree to the stakes.
- If there are grazing animals on the site more robust protection will be required in the form of tree guards, which can be purchased from your tree supplier and range from small plastic rabbit guards to large metal versions which will protect against large livestock such as cattle and deer.



- Make sure you water the tree frequently for the first two years, especially in the summer.
- If you have sufficient space, why not create a woodland? It need not be huge and could be a valuable haven for all sorts of wildlife. Check with your local Countryside Management Partnership to make sure that your particular area will be suitable.



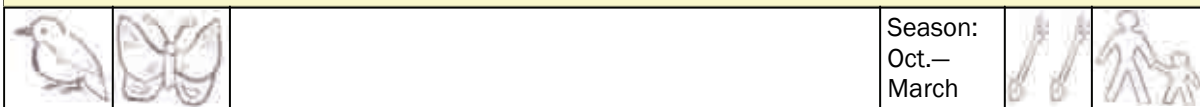
For details and advice on which species of plants to use, and where to source local materials and contractors, contact your local Countryside Management Partnership.

For further information on trees and woodlands please see *Section 7.3. Habitats Links*.

# Creating Areas for Nature

## 4.6 Orchards

### 4. Habitats



**Why?**

Planting an orchard is good way to combine both encouraging wildlife and conserving local heritage. Kent was planted with extensive apple orchards during the 16th and 17th centuries; most of the apples were used for cooked and later to produce cider. Sadly, 85% of Kent's orchards, which earned the county the nickname "Garden of England", have been lost in the last fifty years because of modern agricultural practices.

**Helpful tips**

Ask at your tree supplier for the varieties which do best in your area. Many exotic varieties are inviting, but the local species will produce most with the least effort.

If planting a few trees, choose varieties which will give you fruit for a longer time. With apples, for example, you can plant one early variety for summer eating, a late summer variety for autumn and a winter keeper which can be stored all winter.

**Planting your orchard**

- Follow the instructions in Section 4.5 Trees and Woodlands for planting a tree.
- As with planting any tree, make sure to take into account how big it is likely to grow (both in terms of its roots and canopy) and the ongoing maintenance that it will require. Also, remember to space the trees about 4 metres apart so that they will not shade each other.
- An orchard can contain any number of fruit-bearing trees such as apples, apricots, pears, cherries, figs, peaches, plums and many more. Please see *Section 7.3 Habitats Links* for further reading.

**Tips on fruit trees**

- Some varieties of fruit tree are self-fertile; that is, they do not need to be pollinated by another tree. This means that you can plant just one tree and expect it to bear fruit. The Home Orchard Society has produced a list of these species - see *Section 7.3 Habitats Links* for further information.
- Other species of tree have distinct male and female flowers, and you must grow both to get seed. Trees that do not self-pollinate need to be close to other similar flowering trees at the same time if they are to produce fruit. To this end, flowering groups are available to help you choose which fruit trees to plant together (again, see *Section 7.3*).
- Many fruit varieties have been specifically bred to provide resistance to common diseases and viruses. These species reduce the need for pesticides in an orchard and can make organic growing much easier.



For details and advice on which species of plants to use, and where to source local materials and contractors, contact your local Countryside Management Partnership.

For further information on trees and woodlands please see *Section 7.3. Habitats Links*.

# Creating Areas for Nature

## 4.7 Wood piles

### 4. Habitats



<p><b>Why?</b></p> <p>As well as interesting fungi and mosses, you will provide the perfect home for a vast range of invertebrates, and the a safe haven for frogs, toads and newts to hibernate in.</p>	<p><b>Helpful tips</b></p> <p>Different species of fungi live on different species of wood, so using a variety of logs is a good idea. Fungi help recycle the rotting wood, breaking it down for other small invertebrates.</p>
--	---

<p><b>Tools</b></p> <p>None required, although a wheelbarrow might be useful if transporting wood across a large distance.</p>	<p><b>Materials</b></p> <p>Dead wood</p>
--	--

**Health and safety considerations**

- Stack the wood neatly so that it is not likely to topple over or slip down a hill.
- Be careful when handling heavy or slippery bits of wood.

**Instructions**

- Choose the site of your wood pile. Dappled shade is perfect, allowing enough heat in for insects to thrive, but not so much as to dry out the wood pile.
- Pile some logs and dead branches on top of one another in a quiet corner of your nature area and leave them be.
- The wider the logs, the better, but any size of wood can be used. It is a good idea to stack the wood quite neatly, avoiding the risk of it slipping on to someone's foot and creating lots of small crevices for wildlife.



For details and advice on which species of plants to use, and where to source local materials and contractors, contact your local Countryside Management Partnership.

