Acorn Ecology Certificate Course
Self-Study Tutorial

Hedgerows
Tutorial summary

- What is a hedgerow?
- Hedgerow wildlife
- Hedgerows and the law
- Hedgerow assessments
- Tree ID – a vital skill
- Hedgerow Management
What is a hedgerow?

According to the UK Biodiversity Action Plan, 2008, a hedgerow can be defined as:

Any boundary line of trees or shrubs that is over 20m long* and less than 5m wide (at the base) and where any gaps between the trees or shrub species are less than 20m wide.

Any bank, wall, ditch or tree or herbaceous vegetation within 2m of the centre of the hedgerow is considered to be part of the hedge.

*Or connected at both ends to another hedgerow of any length
Are hedgerows important?

Hedgerows can be found throughout lowland Britain and are important features of our landscape. They are important for the following reasons:

• Archaeological
• Agricultural
• Historical
• Cultural
• Wildlife
You can see on this aerial how important hedges are for creating corridors of habitat across the countryside and for connecting habitats such as woodlands.

Note: These ‘wiggly’ hedgerows indicate Pre-Enclosures Act fields. These are Likely to be ANCIENT and SPECIES RICH.

Strip-like fields could be remnant Medieval strip fields – look for the curve that was needed to turn the plough.
More than 600 plant species, 1500 insect species, 65 bird species and 20 mammal species have been recorded living or feeding in hedgerows. (UK BAP, 2002)
Why are hedgerows so important for wildlife?

3 main reasons ...
Why are hedgerows so important for wildlife?

1. Provide shelter and cover

2. Provide a food source

3. Create connectivity across the landscape

Why is connectivity so important?

- Facilitates gene flow and prevents isolation of small populations
- Allows animals to expand their range if they reach their carrying capacity in a particular area
- Increases the likelihood of animals being able to move and adapt to change (e.g. Climate change)
What protected species use hedges?

Mammals

- Dormice
- Bats - commuting, foraging, roosting in standard trees
- Badgers
What protected/notable species use hedges?

‘Nesting birds’

- Cirl bunting (Schedule 1)
- House sparrow (Red list)
- Song Thrush (Red list)
- Yellowhammer (Red list)
What protected/notable species use hedges?

Amphibians and Reptiles

- Great crested newt
- Slow worm
- Grass snake
- Common lizard
What protected/notable species use hedges?

**Invertebrates**

- **Barberry Carpet Moth** (WCA - fully protected)
- **Pearl bordered fritillary**
- **Brown Hairstreak**
- **Great green bush cricket** (Devon BAP)

These species are only protected from sale under WCA but are also UK BAP priority species.

Find out what is on your local BAP?
What protected/notable species may be present in hedges?

Plants

Bluebell

Schedule 8 of WCA

Pale dog-violet (UK)

Devon whitebeam (Devon)

Primrose (Devon)

Also consider UK priority species and local Biodiversity Action Plan species e.g.

Primrose (Devon)
UK Priority Habitats and Species

- Hedgerows themselves are a UK priority habitat. For more information about the type of hedgerows that are covered go to: http://jncc.defra.gov.uk/pdf/UKBAP_BAPHabitats-17-Hedgerows.pdf

- Numerous species that are associated with hedgerows are UK priority species, for example
  - Brown hare
  - Hedgehog
  - Bullfinch
  - Grey partridge
  - Linnet
  - Spotted flycatcher
  - Stag beetle
  - Pearl-bordered fritillary

……..to name but a few!
Hedgerows and the Law

The main piece of legislation that covers hedgerows is the **Hedgerows Regulations, 1997**

Where protected species are present, the legislation that is relevant to them will also apply. For example:

- Wildlife and Countryside Act, 1981
- Conservation (Natural Habitats&c) Regulations, 2010
- Badgers Act, 1992
- Natural Environment and Rural Communities (NERC) Act, 2006

Trees within a hedgerow may also be subject to a **Tree Preservation Order (TPO)**
Hedgerow Regulations 1997

These regulations prohibit the removal of any hedges that are defined as ‘important hedgerows’, without first submitting a ‘hedgerow removal notice’ to the Local Planning Authority (LPA). If a hedgerow is classified as ‘important’ then it is up to the LPA to decide whether the removal can be justified or whether a ‘hedgerow retention notice’ should be issued.
Hedges that are covered by the regulations:

Any hedgerow growing in or adjacent to:

- Common land or village greens
- Protected land (e.g. SSSI or LNR)
- Land used for agriculture
- Land used for forestry
- Land used for horse management

Hedges within or making the boundary of a dwelling house/garden are exempt.
Exemptions

Some activities are permitted under the Regulations:

- Where planning permission has been granted
- Making a new opening in substitution for an existing one
- To gain temporary access to the land in an emergency
- For national defence purposes
- For proper management of the hedgerow e.g. coppicing
- To carry out certain works to do with flood defense or land drainage
- By an authorized inspector to prevent the spread of a plant disease
- By the Highway Agency
- To protect or prevent danger to electric lines and plant
What is an ‘Important Hedgerow’?

According to the Hedgerow Regulations 1997 a hedge can only be classified as ‘Important’ if it is at least 30 years old and meets one of the criteria relating to archaeological, historical, landscape or wildlife value.

Is this hedge old enough to be covered by the regulations?
Your role

As an Ecological Consultant, you are most likely to be asked to survey hedgerows in relation to development. In such cases, it is your responsibility to inform the planning officer whether the hedgerow on site is ‘Important’ from an ecological perspective i.e. under the ‘Wildlife and Landscape’ section of the Regs.

From now on we will focus on the ‘Wildlife and Landscape’ criteria, but make sure you are aware of the other criteria that apply.
A hedgerow is classified as ‘Important’ if……

• It contains protected species listed in Schedule 1 (birds), Schedule 5 (other wild animals) and Schedule 8 (plants) of the Wildlife and Countryside Act, 1981 and certain Red Data Book species
A hedgerow is classified as ‘Important’ if……

• It contains at least 7 woody species (as defined by Schedule 3 of the Hedgerow Regulations, 1997)

• It contains at least 6 woody species plus at least 3 Associated Features

• At least 6 woody species including a black poplar, large-leaved lime, small-leaved lime or wild service tree.

• At least 5 woody species and at least 4 Associated Features

N.B. In certain counties in the north of England e.g. North Yorkshire, Cumbria and Northumberland the number of woody species can be reduced by one for each scenario.
A hedgerow is classified as ‘Important’ if……

The hedgerow is adjacent to a Public Right of Way (not counting an adopted highway) and contains at least 4 woody species and has at least 2 associated features.
What are ‘Associated Features’?

These are features that count towards the importance of a hedge, as described in the last two slides.
‘Associated Features’

A bank or wall for at least half the length

Earth bank

Stone-faced bank
‘Associated Features’

A ditch for at least half the length
‘Associated Features’

Gaps that add up to no more than 10% of the length
‘Associated Features’

At least one standard tree per 50 m

A standard tree has a 20 cm stem diameter at 1.3 m above ground level
‘Associated Features’

At least 3 ground flora woodland species as defined in Schedule 2 of the Regulations within 1 m of hedge

Bluebell

Ransoms

Herb-robert

Primrose
‘Associated Features’

A parallel hedge within 15 metres of the hedgerow

This does not apply to hedgerows such as this, that are parallel to roads or paths
‘Associated Features’

Connections scoring 4 or more points:

1 point = connection with another hedge
2 points = connection with a broad-leaved woodland or a pond
Connection Points

4 points in total. Therefore this counts as one of the Associated Features
How to survey a hedge

1. Make sure you have identified what constitutes the start and end of a hedge.

- A hedge ends where there is an intersection/junction with another hedge
- If there is a gap of less than 20 metres to the next section of hedgerow then it is all one hedge
How to survey a hedge

2. When counting how many woody species are present you must only survey in 30m samples

<table>
<thead>
<tr>
<th>Length of hedge</th>
<th>Where to count the woody species</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;30m</td>
<td>Along whole length of hedge</td>
</tr>
<tr>
<td>&gt;30m and &lt;100m</td>
<td>Central 30m</td>
</tr>
<tr>
<td>&gt;100m and &lt;200m</td>
<td>Central 30m of each half and divide aggregate by 2</td>
</tr>
<tr>
<td>&gt;200m</td>
<td>Central 30m of each third, and divide aggregate by 3</td>
</tr>
</tbody>
</table>

(Hedgerow Survey Handbook, 2002)
How many schedule 2 plants are present?

Are there any standard trees?

How many connection points does the hedge score?

Is there a bank or wall?

Is there a ditch?

Is there a parallel hedge within 15m?

Also consider whether protected species are likely to be present and note whether it is adjacent to a bridleway, footpath or BOAT.
Other Hedgerow Assessments

HIT
• In Cornwall they have their own hedgerow assessment tool – can be used anywhere.
• The Hedge (& Wall) Importance Test (HIT)
• www.cornishhedges.co.uk
• No special knowledge, non-invasive to the wildlife - just walk the length of the hedge and answer the questions.
• Survey form 24 simple questions produces the HIT mark for the overall importance of the hedge on a scale of 1 to 10.
• Marks for the three principal values of history, landscape and wildlife, and a detailed description of the hedge.
• 15 main factors and over 60 sub-factors, and is equally divided between history, landscape and wildlife.
• Can be applied at any season of the year, anywhere in Britain, to any kind of hedge, hedgerow or wall, and requires

Defra’s Hedgerow Survey Handbook
Know your plants

As you can see it is really important that in order to apply the Hedgerow Regulations, 1997, you need to be able to identify both trees and ground flora.

So here are ten common trees to get you started…..
Pedunculate Oak
*(Quercus robur)*

The lobed leaves have a **short** stalk.

The acorns are on **long** stalks.

Bark has deep, knobbly ridges.
Hawthorn
*(Crataegus monogyna)*

Leaf is deeply lobed and smaller than oak

May blossom

Haws
Elder (*Sambucus nigra*)

The bark is soft and **corky**, with raised warts on newer shoots.

The compound leaves have 5-7 leaflets in opposite pairs. **Strong smell.**
Blackthorn (*Prunus spinosa*)

Sloes – intensely sour!

In spring the white blossom appears before the leaves.

Vicious *spines*
Field Maple (*Acer campestre*)

The small leaves are 5-lobed with a few rounded teeth.

The keys have horizontal wings.
Willows (Salix sp)

Willows usually have prominent male catkins – pale and furry or yellow when covered in pollen.

The leaf shape is variable but they are often paler on the underside.

Grey willow
Beech (*Fagus sylvatica*)

Leaves are wavy-edged and silky. Veins are parallel.

Nuts are contained within prickly husks.
Elm (*Ulmus* sp)

Leaves have a **rough texture**

Uneven lobes

There are often small elm trees that are dead in hedgerows.
Hazel (*Corylus avellana*)

- **Male catkins**
- **Nuts**
- **Leaves are toothed end have a prominent point at tip.**
- **Young stems are burnished bronze**
Ash (*Fraxinus excelsior*)

- Compound leaves with 9-13 leaflets in opposite pairs
- Prominent black buds
- Ash keys
A common woody species that doesn’t count for the Hedgerow Regulations

Sycamore
Can you identify these leaves?
Can you identify these leaves?

- Ash
- Hazel
- Elder
- Hawthorn
- Field maple
- Elm
A few tips on Hedgerow Management

• Only trim hedges once every 2-3 years, otherwise they are unlikely to produce blossom or fruit (food sources)
• Cut hedgerows on rotation so that there are always bushier hedges nearby for wildlife to use
• Try to trim around a few saplings so that they become standard trees
• Best time to cut hedges is in January and February
  – Avoids disturbing nesting birds
  – Allows wildlife to take advantage of berries/nuts
References

• Hedgerows Regulations 1997 HMSO
• History of the Countryside – Oliver Rackham
• Hedgerow Survey Handbook– DEFRA
• The Hedge (& Wall) Importance Test (HIT) - Cornish Hedges