

**FÁLTA SCEACH
CHONTAE NA
GAILMHE**

**THE HEDGEROWS
OF COUNTY GALWAY**





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Aims

This booklet aims to....

Promote the protection and conservation of native hedgerows in Galway.

Inspire people in Galway to plant native hedgerows.

Encourage the retention of native hedgerows on new development sites.

This booklet will show that hedgerows have a multitude of benefits for wildlife, landscapes and the environment and will demonstrate that native hedgerows make a beautiful addition to gardens, public green spaces, urban and rural landscapes.

Keeping hedgerows in new developments protects the rural character of the Galway landscape, adds considerable aesthetic, environmental and wildlife value, and saves money on landscaping.

This booklet provides

- The results of a county-wide survey of the composition, structure and management status of hedgerows in Galway.
- Conservation recommendations and management guidelines for Galway’s hedgerow resource.
- Practical advice and information on how to protect hedges in new developments and how to plant new native hedgerows.





Introduction

County Galway landscapes and hedges

When we think of the Galway countryside we usually conjure up images of green fields and stone walls. Hedgerows are also a familiar sight however, in Galway, particularly in the east of the county. The intricate network of stone walls and hedgerows adds structure, colour and interest to Galway landscapes. This network is an important part of the historical and cultural heritage of rural Galway.

East of Lough Corrib, County Galway is a largely low-lying, gently undulating landscape with no significant upland areas (apart from the Slieve Aughties in south Galway). The landscape is covered with grassland of varying quality, much of it relatively fertile improved grassland on well-drained lime-rich soils. These agricultural landscapes of east Galway tend to have a mosaic of stone walls and hedgerows as field boundaries.



The west of County Galway is characterised by a more rugged landscape with a very different vegetation cover. While agriculture still plays an important role, poor drainage, peaty soils and exposure are limiting factors. Much of the landscape of west Galway is covered with blanket bog, heath, and rough grassland. Hedgerows are less common



in the west of the county and are confined to lowland areas, often close to villages and along roadsides.

The beautiful shrub, fuchsia, adds a splash of vibrant colour to roadsides in the west. Although not a native plant it is very comfortable in the west of Ireland. Unlike the invasive non-native shrub Rhododendron, it doesn't pose a threat to native vegetation.

The value of native hedgerows

Native hedgerows are a haven for wildlife within the Galway countryside. They form corridors that allow animals, big and small, to move through the landscape, while also providing much-needed food and shelter for wildlife. Hedges also provide a refuge for woodland plants and animals in a county where woodland cover is low.



Hedges and wildlife

Native hedgerows can support a huge array of wildlife. From a distance hedges might seem unlikely wildlife hotspots but up close you will find they are teeming with life.

It is estimated that over 600 of Ireland's 815 native species of flowering plants can be found in hedgerows. Hedgerow plants provide a rich source of food (pollen, nectar, leaves, fruit, nuts and berries) for a myriad of insects, birds, small mammals and other creatures. Hawthorn, our most common hedgerow shrub, is host to about 20 insect species, which feed on the young leaves and the nectar in the flowers.

Nearly two thirds of Ireland's bird species nest in hedgerows. Small songbirds such as the robin, goldfinch, chaffinch and tree sparrow take advantage of the protection offered in a thorny hedge when choosing nesting sites.

Small mammals, such as hedgehogs and badgers, forage along hedgerows as do bats who take advantage of the rich insect life and the cover provided. If the hedge is planted on a bank of earth, this may provide sites for badger setts and fox earths. Holes in old hedgerow trees can provide homes for bats and birds such as the barn owl.

Many butterflies use the sheltered side of hedges to travel across the landscape. They also find food sources in the flowering hedgerow shrubs and ground flora.

Water-filled drains or ditches associated with hedgerows provide a home for water plants, aquatic invertebrates and frogs.

The physical structure of a hedge influences its value for wildlife. Whether the hedge is bushy or dense, tall or short, has hedgerow trees, a hedge bank or a water-filled drain will determine the range and diversity of wildlife it will support.

Hedgerows also enhance the scenic appearance of the landscape. Imagine an Irish rural landscape devoid of hedgerows! Hedgerows are part of our historical, cultural and natural heritage, and help create a sense of place.

Hedgerows provide shelter and screening for housing, helping to reduce heating bills and to create privacy. Native hedgerows can form excellent and highly

attractive boundaries for houses, even in larger developments and estates. They are an environmentally-friendly alternative to concrete block boundary walls.



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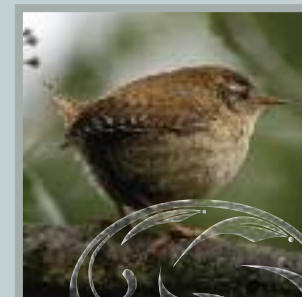
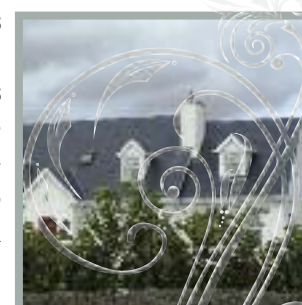


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The primary function of hedgerows is an agricultural one. They define field boundaries and act as stock-proof enclosures. Hedges provide shelter from wind for stock and crops. They also help prevent the spread of airborne disease, regulate water movement and help prevent flooding.



Photo Copyright Dave Ruffles

Hedgerows are living boundaries that should be actively conserved.

Native hedgerows

- Improve the scenic appearance of rural landscapes.
- Have an enormous value for wildlife.
- Screen unattractive views, absorb noise and provide privacy.
- Provide shade and shelter from the elements; considerably reduce heating costs by sheltering buildings.
- Provide shelter from wind for stock and crops.
- Help prevent flooding.
- Help blend new houses and buildings into the landscape.
- Improve air quality in urban areas by filtering dust and air pollutants, and releasing oxygen.



Why go native?

Native species of plant or animal are considered to be those that managed to arrive in Ireland naturally, without the assistance of people. A truly native tree or shrub is one grown from Irish seed.

Native trees and shrubs are adapted to environmental conditions in Ireland and for that reason grow best here. They tend to support a huge range of wildlife as they have been present on the Irish landscape for thousands of years. For example, oak trees provide food and shelter to over 450 species of insects. Not to mention all the birds, bats, ferns, mosses, lichens and fungi that seek food, shelter and/or roosting sites on a mighty oak!

The supply of native trees and shrubs grown in Ireland and from Irish seed has increased in recent years due to a growing awareness of the value of native stock.



History of hedgerows in County Galway

Hedgerows did not become a significant feature on the Irish landscape until the mid 18th century when landlords enclosed former commonage to form fields. In the west of Ireland, land enclosure progressed more slowly than in other parts and was confined to the larger estates for some time. In Galway, enclosure was achieved in many areas by building stone walls, as well as planting hedgerows. Many hedgerows probably established opportunistically along stone walls.

Townland boundary hedges are often much older than field boundary hedges having been established in some cases as early as late medieval times. Townlands were often bounded by banks and ditches which were sometimes planted with hedgerow shrubs or on which

shrubs became established. As a result of their age, townland boundaries may contain a more diverse flora. Agricultural intensification led to the widespread removal of hedgerows on many farms in Ireland in the 1960s and 1970s. Unfortunately there is no survey data to quantify the extent of loss in Ireland.

More recently there has been a European Union-led move to promote environmentally friendly farming and the Department of Agriculture introduced the Rural Environmental Protection Scheme (REPS) in the early 1990s. Measures in REPS include various hedgerow management requirements and options such as hedgerow rejuvenation and new hedgerow planting to encourage farmers to improve the viability of the hedgerow resource on their land.

Hedgerows under threat

Throughout the country and in Galway, hedgerows are being cleared at an alarming rate to make way for one-off housing, larger housing developments, gas pipelines and road schemes. They have also been removed in some areas to allow for agricultural intensification. In some cases, lack of appropriate management is leading to their demise.

Invasive plants

Non-native plants can sometimes become 'invasive' when they spread rapidly and outcompete the native flora, pushing out native species. Invasive species present one of the greatest threats to biodiversity world-wide.

Invasive plants that sometimes occur in hedgerows include Rhododendron, Japanese knotweed, gunnera and Himalayan balsam. These plants should be controlled or eradicated where possible due to the threat they pose to the native vegetation.

Hedgerows are part of Ireland's natural, cultural, historical and archaeological heritage and identity, and therefore should be valued and protected.



Japanese Knotweed
Photo Copyright Elaine O'Riordan.



Galway's hedgerows: results of a county-wide survey

A county-wide hedgerow survey was carried out in Galway by two ecological consultancies Janice Fuller (east Galway) and Gioria Environmental Services (west Galway). The main aim of the County Galway hedgerow survey was to determine the composition, structure and management status of native hedgerows in Galway, and to propose recommendations for hedgerow conservation. The study was commissioned by the Heritage Office of Galway County Council and the main results from this survey are described below.

Extent
Galway has an extensive network of hedgerows with an estimated length of over 23000 km! This network is concentrated mainly in the east of the county. The



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landscape of west Galway with its more mountainous terrain in places and extensive peatlands is less conducive to intensive agriculture and therefore there are significantly less hedgerows. These results indicate that Galway has a significant hedgerow resource which is an invaluable asset for the county.

Hedgerow composition

Hedge layer
At least twenty eight types of shrubs or trees were recorded in the shrub or hedge layer of the hedges sampled indicating the variety and potential diversity of hedgerows in Galway. Several of these species are trees (e.g. oak, birch and rowan) but were cut to form the shrubby part of hedgerows in places. Hawthorn is by far the most common species found in hedges in Galway as it is in many other parts of the



country. Other commonly occurring shrubs include blackthorn, elder, holly, hazel, spindle and privet. Gorse and willow are more abundant in wetter and upland areas. In the west of the county, the beautiful shrub Fuchsia, which is native to Chile, is common in places where it was formerly planted and has spread vegetatively. This non-native plant is not a threat to the native flora unlike the very invasive Rhododendron, which is also common in the west of the county.

Table 1: Types of shrubs or trees occurring in the shrub layer of Galway hedgerows

Common name	Scientific name
Hawthorn	<i>Crataegus monogyna</i>
Blackthorn	<i>Prunus spinosa</i>
Elde	<i>Sambucus nigra</i>
Gorse	<i>Ulex species</i>
Willow	<i>Salix species</i>
Ash	<i>Fraxinus excelsior</i>
Holly	<i>Ilex aquifolium</i>
Hazel	<i>Corylus avellana</i>
Spindle	<i>Euonymous europaeus</i>
Privet	<i>Ligustrum vulgare</i>
Crab apple	<i>Malus sylvestris</i>
Sycamore*	<i>Acer pseudoplatanus</i>
Wild cherry	<i>Prunus avium</i>
Snowberry*	<i>Symphoricarpos albus</i>
Gooseberry*	<i>Ribes uva-crispa</i>
Box*	<i>Lonicera nitida</i>
Yew	<i>Taxus baccata</i>
Guelder rose	<i>Viburnum opulus</i>
Birch	<i>Betula species</i>
Elm	<i>Ulmus species</i>
Broom	<i>Cytisus scoparius</i>
Damson*	<i>Prunus domestica</i>
Beech*	<i>Fagus sylvatica</i>
Fuchsia*	<i>Fuchsia magellanica</i>
Alder	<i>Alnus glutinosa</i>
Rowan	<i>Sorbus aucuparia</i>
Oak	<i>Quercus species</i>
Cotoneaster*	<i>Cotoneaster species</i>

*Non-native plants

Hedgerow trees

Ash and hawthorn are the most common hedgerow trees found in Galway (i.e. growing up above and clear of the shrub layer). Trees are not commonly found in hedgerows in the west of the county. Hedgerow trees add an extra structural dimension to hedgerows. They provide shelter and shade for livestock and can be used as a source of timber. Trees in hedgerows provide perching and nesting sites for birds, and are also utilised by bats. Hedgerow trees make a huge contribution to the scenic value of the landscape and help give the impression that the landscape is much more wooded than it really is.



Hedgerow climbers

Woody climbing plants are also regularly found in Galway hedges. They include ivy, bramble, honeysuckle and wild rose. These climbers add to the floristic diversity of the hedgerow. Ivy provides a winter source of food for insects and birds; bramble is very highly valued as a food source by wildlife of all shapes and sizes; the sweet nectar of honeysuckle is tapped by moths who are attracted to the musky scent that is released at night; and the flowers and fruit of wild rose are also an important food source.





Hedge species richness

An assessment of the 'species richness' of hedges in Galway indicates that they are not particularly diverse in terms of shrub composition. The reasons for the relatively low diversity may be a factor of relatively recent origin of the hedgerows in many cases, the lack of management and/or land use history.

Hedge species richness estimates are based on the number of native species along a 30m sample length; species-rich hedges are considered to be those that contain four or more hedgerow shrubs.

The greater the diversity of shrubs within a hedgerow, the greater the diversity of wildlife the hedgerow will support.

In general roadside hedgerows in Galway are more species-rich and therefore should be protected because they are likely to support an even greater variety of wildlife. Townland boundaries also appear to be more species-rich and therefore also worthy of conservation.

Hedgerow types

Five groups or hedgerow types were identified for Galway based on the number and type of shrubs that occur in the hedge:

Group 1: Gorse-dominated hedges



Hedges in this group are dominated by gorse. Willow can also be abundant; hawthorn and elder are often present. These hedgerows were commonly found in areas with marginal soils, usually acidic and often at higher elevations.

Group 2: Species-poor hawthorn hedges



This variable and widespread group is characterized by hawthorn-dominated hedges. In some cases, the hedges are very species poor with maybe one other species such as blackthorn or elder. Ash (cut to form the shrub layer), privet or gorse may also be found.

Group 3: Hedges characterized by the presence of holly



The hedges in this group are generally made up of hawthorn, blackthorn, elder, ash and/or privet. They are differentiated by the presence of holly and the fact that they tend to be more species rich than Group 2 hedges. This group is more common in the east of the county.

Group 4: Hedges characterized by the presence of hazel and/or spindle



These hedges are similar to Group 3 but tend to include hazel and/or spindle and are generally slightly less species rich. Holly is occasionally also present at low abundances.

Group 5: Willow-dominated hedgerows on wet ground



Hedgerows in this group tend to be dominated by willow species and to a lesser extent, hawthorn. Gorse, blackthorn and privet may also be present.

Hedge construction



There is considerable variation in the construction details of hedgerows in Galway (i.e. whether there is a stone wall or bank, a ditch or drain, a single, double or random line of shrubs etc.). This variation suggests that hedges in Galway originated at different times and under different conditions. Land in commonage is a common feature of the Galway landscape and this may also influence boundary origin and management.



Remnant Hedgerow

Many hedgerows appear to have originated opportunistically along stone walls although it is clear that some hedgerows were planted deliberately on soil banks, particularly in the furthest eastern and south-eastern part of the county.

Hedge structure

The majority of hedgerows in Galway are relatively tall (>1.5m), wide (>1m) and bushy and therefore are probably very good for wildlife because they provide cover and fruit

prolifically. There is considerable evidence to suggest that increasing hedgerow height and width is strongly linked with the diversity of birds in a hedge. Many hedgerows, however, do not have dense growth at their base and are quite gappy thus reducing their value for wildlife somewhat.

Management status

Many hedgerows in Galway appear not to have been managed for some time or are poorly managed. An increase in the quality and quantity of management would greatly improve the ecological and agricultural value of the hedges in Galway, and ensure long-term sustainability of the hedgerow resource.

Although most hedgerows are associated with active field boundaries, fencing is commonly used to re-enforce to the stock proof capacity of the boundary which indicates that the value of the hedgerow to act as a stock proof boundary is either not valued or practicable.

In order to ensure the long-term sustainability and conservation of the hedgerow resource in Galway, the main issues that need to be addressed in Galway are lack of appropriate management and awareness of the value of hedgerows.





Common hedgerow shrubs and trees

Hawthorn (Sceach gheal) *Crataegus monogyna*



Hawthorn, our most common hedgerow shrub, puts on a stunning display of white flowers in spring and red berries in late summer and autumn. The leaves of hawthorn are lobed which differentiates it from blackthorn, which has simple, oval-shaped leaves. The thorny stems of hawthorn make it highly suited to forming stock-proof hedgerows. Hawthorn will grow in a wide range of soils although it prefers neutral to lime-rich soils with a medium to heavy texture. A hardy plant, it tolerates exposed locations. It has a high wildlife value as the early flowers are visited by insects and the fruits are much sought after by insects and birds. Hawthorn also provides good cover for nesting and roosting birds.

Blackthorn/ sloe (Draighean) *Prunus spinosa*



A shrub with long, sharp thorns often found in hedgerows, blackthorn stands out in early spring when masses of pretty white flowers appear before the leaves (unlike hawthorn, the flowers of which appear after the leaves are out). Blackthorn grows in a wide variety of soils with the exception of very wet conditions. It can tolerate exposed and coastal sites. Blackthorn forms a dense scrub, which will spread if not regularly trimmed or grazed back. The berries or sloes look like small plums but are very sour to eat. The thorny bush provides good nesting cover for birds while the berries are a valued source of food for birds and small mammals. Blackthorn is an ideal hedging plant especially if a stock-proof hedge is required.

Holly (Cuileann) *Ilex aquifolium*



Holly is one of the few native broad-leaved evergreen trees. A highly attractive small tree, holly is often found growing in hedgerows and on a wide range of soil types. Holly is tolerant of exposed sites and makes a wonderful high sheltering screen or hedge although it is slow-growing. The berries are slightly poisonous but birds love them, particularly thrushes. Holly provides good roosting sites for birds in winter. It is the main food plant of the holly blue butterfly.



Spindle (Feoras) *Euonymus europaeus*



Spindle is a hedgerow and woodland shrub that is relatively common (especially on lime-rich soils) but is often overlooked as it is inconspicuous for much of the year. In autumn, however, the leaves turn a beautiful orangey-pink and it produces stunning bright pink berries that split to reveal the orange seed inside. Spindle prefers lime-rich soils but tolerates a wide range of soils. It is good for insects.

Honeysuckle (Féithleann) *Lonicera periclymenum*



Honeysuckle is a woody climber commonly found in native woodlands and hedgerows. It prefers neutral to light acid soils. As a climber honeysuckle needs to be planted near a wall or hedge over which it can grow. The large, showy flowers of honeysuckle produce a sweet scent at night to attract moths. The bright red berries that appear in late summer are a valuable source of food for birds.

Willow/sally (Saileach) *Salix*



There are several native willows in Ireland and some of them can be difficult to tell apart. They all tolerate damp soil and are often found along rivers and lake edges. They will, however, also grow in drier sites. The most widespread willow species are the goat willow, the rusty or grey willow (both known as sallies) and the eared willow. Most willows are easy to grow from cuttings and are fast-growing. These attractive trees and shrubs are excellent for wildlife, especially insects and nesting birds. The flowers (catkins), which appear in early Spring, are an important source of pollen and nectar for bees.

Ash (Fuinseog) *Fraxinus excelsior*



Ash is very common as a woodland and hedgerow tree in county Galway. A large handsome tree, it can grow in a wide range of conditions with the exception of acidic or peaty soils. It can tolerate damp and heavy soils but it needs plenty of light to grow well. It can grow in exposed sites and windswept coastal areas. The seeds are valued by birds, small mammals and red squirrels.

Guelder Rose (Caorchon) *Viburnum opulus*



Guelder rose is a highly attractive shrub occasionally found in hedgerows in Galway (more commonly in the midlands). It prefers lime-rich, fertile clay soils and thrives in damp conditions. The beautiful, showy white flowers are followed by bright red berries in early autumn. The foliage turns various shades of orange and red adding to the spectacular autumn display. Guelder rose is good for insects and the fruit is highly valued by birds.



Hedgerow conservation

The issues

Hedgerows differ from other semi-natural or natural habitats considered worthy of conservation (e.g. bogs or woodland) in that they are dependent on human intervention for their survival. Hedges that are not managed eventually become tree lines and thus change in terms of their function, structure and wildlife value.



Hedgerow conservation cannot be considered in isolation from agricultural function. Agriculture in Ireland is in transition and the numbers of people interested in a career in farming have dropped markedly in recent times. The County Galway Hedgerow Survey results suggest that farmers are relying heavily on fencing to maintain stock proof capacity of field boundaries. While they still provide shelter for animals and crops, the

agricultural value of hedgerows may be diminishing. The question is how can the value of hedgerows be increased for farmers? Hedgerows have to be a cost-effective boundary option in order to meet the needs of the farmer or landowner.



The landscape context in which hedgerows occur is important in terms of their ecological value. Hedgerows that link with other wildlife habitats such as woodlands or wetlands are likely to be of more value in terms of acting as part of an ecological network than those that have no links. On the other hand, hedgerows that are

located in an area of intensive agriculture will provide the only refuge for wildlife in that locality. Hedgerows that link with other hedgerows help connect up wildlife habitats across the landscape.



Hedgerow conservation recommendations

1. Species-rich hedgerows, townland boundary and road-side hedges should be prioritised for conservation.
2. Roadside hedgerows frame the countryside for all road users and increase the scenic value of the landscape and, therefore, should be retained in new developments. Where they have to be removed, new native hedgerows should be planted elsewhere.
3. Nurseries and garden centres in county Galway should be encouraged to stock native trees and shrubs of local provenance.
4. Appropriate hedgerow management is essential for the conservation of a sustainable hedgerow resource.

Hedgerow management guidelines

1. Hedgerows should be cut on their sides and shaped roughly into an A-shape but leaving the top to grow free-form. Cutting to this profile should produce hedgerows that are functional from an agricultural perspective (i.e. stock-proof) and have a high ecological value. Teagasc 'Hedgerow Management Leaflets' currently promote the A-shape profile with a high peak and bushy top (see www.teagasc.ie).
2. Hedge height should not be reduced below 1.5 metres.
3. Hedgerows should be trimmed in rotation approximately every three years according to Teagasc guidelines (www.teagasc.ie). This will ensure some is left undisturbed for wildlife. Annual trimming may be required in some locations for road safety reasons. All trimming and cutting of hedgerows must only be carried out in the winter months (see below).
4. Increasing tree planting and retention of saplings in hedgerows is required to increase the level of trees in hedgerows in Galway.
5. Native species, preferably of local provenance, should be used for planting new hedgerows.
6. Invasive plants that occur in hedgerows (e.g. Rhododendron, Japanese Knotweed and Himalayan Balsam) should be controlled.





Protecting hedgerows in new developments

How to retain existing hedgerows

When developing a site, every effort should be made to retain existing hedgerows. When a hedgerow is to be retained, it should be protected from all construction activities by erecting a sturdy fence, and it should not be seen as a dumping ground during the building process. Retaining hedgerows around the site boundary will save considerable expenditure on alternatives such as fencing or stone walls. It will also have enormous benefits for wildlife.

Existing hedgerows can be enhanced if necessary by trimming, laying, and infill planting in gaps if required. Teagasc, the Heritage Council, ENFO and Crann (see Appendix 1) provide advice on their websites and in various publications on hedgerow management.

How to move a hedgerow

If existing road-frontage hedgerow has to be removed when developing a site for housing, why not consider moving the hedgerow to form the new site boundary at the desired location? If a digger is on site to excavate for foundations and/or services, it could also be employed to move hedgerow plants. Great care needs to be taken when moving a hedgerow, however, and an experienced digger driver who has a clear understanding of the need to minimize damage to the hedgerow shrubs is essential.

If moving a hedgerow, it must be done during the winter when the plants are dormant (late December to the end of March). The plants should be pruned hard or coppiced prior to

removal. They should be lifted very carefully using a digger bucket and every effort should be taken to minimize damage to roots and stems. The plants should be placed immediately

A native hedgerow would make a more attractive and environmentally-friendly boundary treatment



A mature hedgerow has been retained within this estate

and carefully into a prepared trench. Efforts should also be made not to compact the soil by driving heavy machinery along the site of the 'new' hedgerow.

How to rejuvenate an old hedgerow

Older hedgerows that have not been managed for some time can lose their vigour and become tall and gappy. In order to improve their value as a stock-proof boundary or if they are being retained in a new development, they can be rejuvenated through coppicing, laying and in-fill planting as appropriate. Such work should only be carried out in the winter months when the plants are dormant.

Teagasc

Teagasc have produced several informative leaflets on hedgerows including topics such as planting new hedgerows, hedgerow rejuvenation, the value of hedgerows, routine hedgerow trimming and planting a hedgerow from cuttings. These leaflets are all available on their environment website: www.environment.teagasc.ie

Hedges and the law

The best time to cut hedgerows is in winter when the plants are dormant and the bird-nesting season is over. Hedges provide the ideal nesting habitat for many of our countryside birds. In spring and summer hedgerows are bustling with activity as a myriad of wildlife utilise hedges because of the wide range of food and shelter that hedges provide.

The Wildlife (Amendment) Act 2000 actually prohibits the cutting of hedgerows during the critical bird-nesting period in spring and summer (1st March to 31st August) because of the devastating impact on nesting birds and other wildlife. Hedges have little other legislative protection and therefore it is important that the hedge cutting restrictions are adhered to as hedgerows are such an incredibly important resource for wildlife. Contact your local conservation ranger if you have concerns about hedgerow cutting, especially mechanical cutting, in your area.

Planting new native hedgerows

Far too often, non-native hedging species are planted along the site boundaries of houses (e.g. Lawson cypress, Leylandii, Griselinia). Many native species of shrubs and small trees can be used to produce highly attractive and functional hedgerows, and their use is more appropriate in a rural setting.

The characteristics of the main shrubs and trees found in hedgerows in Galway are summarised in Appendix 2 on the inside back cover. This list will help you select shrubs and trees for planting new native hedgerows.



Site preparation is essential for the successful growth of a new hedge. Dig the soil to 25cm deep and 50cm wide keeping about one metre away from the fence or wall. If possible spread farmyard manure, garden compost or slow-release fertiliser along the bottom of the trench to help the trees and shrubs get off to a good start.

In order to keep the weeds down once the hedge is planted it is worth considering the use of a geotextile ground cover. Spread it out over the prepared soil prior to planting and dig in the sides to prevent it from blowing away.

Bare-rooted plants are the cheapest option for planting but remember they can only be planted from late December until the end of March. Potted plants can





also be used.
Soak the bare-root plants in a bucket of water for about an hour before planting. Space all of your trees and shrubs along the trench about 25- 40cm apart. The hedging plants should be planted in a double row of staggered plants. Holding each plant (one at a time!), cover the roots carefully with soil.

Try to ensure that the tree or shrub is planted at the same depth as it was when growing in the nursery. This should be a little bit above the highest roots and is marked by a change in the colour of the stem. Planting too deeply may result in the tree rotting while planting too shallowly may result in the tree drying out. Once all the plants are in, firm up the soil around the roots carefully with your foot and water well after planting to settle the soil around the roots.

To ensure that your plants will grow in a 'bushy' form and to reduce the chance of plants being loosened by the wind, cut back at least by half (you can cut down to 10cm for hawthorn).
If using ground cover, cut small crosses in it in which to plant the young shrubs and fold it back into position around the base of the plant after planting. Spread a layer of shredded bark, gravel or wood chips over the ground cover.



Water a newly planted hedge during dry spells and pull re-colonizing weeds back off the ground cover during the growing season. If you don't use a geotextile ground cover, a good use for grass clippings is to distribute them along the base of your hedge to keep down weeds.

Remember hedges need to be cut! Many hedgerow plants will grow into small trees or large shrubs if not trimmed.

Before selecting species for a new native hedge, have a look at hedgerows in the surrounding landscape to see what is there and consider using the same. Using a range of species creates a more attractive hedge that is of greater value to wildlife (see Appendix 2 on inside back cover for ideas). Hawthorn (whitethorn) and blackthorn are the most common hedgerow shrubs in Galway. For further information on hedgerow planting, see Teagasc and Crann publications and websites (Appendix 1).

Suitable plants for native hedgerows:

Hawthorn, privet, blackthorn, honeysuckle, dog rose, hazel, guelder rose, spindle, holly, cherry and gorse*

Wet ground: willow, alder

Hedgerow trees: ash, crab apple, whitebeam

* Can be invasive but highly tolerant of exposed sites

Non-native hedging species to be avoided in rural areas:

Sycamore, snowberry, box, rhododendron, cypress, leylandii and cherry laurel (because of aggressive growth patterns or poisonous plant parts).
Griselinia and Escallonia are more appropriate in a suburban rather than a rural setting.



Appendices



Appendix 1:

Useful contacts

Galway County Council
www.galway.ie

Heritage Office
www.galway.ie/en/services/heritage

People and Nature Project
www.galway.ie/en/services/heritage/BiodiversityProject/

Crann
www.crann.ie

ENFO
www.enfo.ie

Irish Seed Savers Association
www.irishseedsavers.ie

The Heritage Council
www.heritagecouncil.ie

National Parks and Wildlife Service
www.npws.ie

Teagasc
www.teagasc.ie and www.environment.teagasc.ie

The Hedgelaying Association of Ireland
Miskaun, Ballinamore, Co. Leitrim
hlai@eircom.net

The Tree Council
www.treecouncil.ie

Appendix 2:

Native hedgerow trees and shrubs and their characteristics

Common name	Latin name	Soil Preferences	Tolerates some shade	Tolerates exposure	Growth Rate	Biodiversity Value	Attractive Features
Alder, Common	<i>Alnus glutinosa</i>	Grows in a wide variety of conditions including wet soils			F	Birds, insects, squirrels, lichens	Cones
Apple, Crab*	<i>Malus sylvestris</i>	Thrives in most fertile fertile soils (not acid or wet)			S	Birds, insects	Flowers and fruit
Ash*	<i>Fraxinus excelsior</i>	Grows in a wide range of soils (not acid)		Yes**	M	Birds, bats, squirrels, lichens, insects	Foliage
Blackthorn, sloe	<i>Prunus spinosa</i>	Grows in a wide variety of soils		Yes**	M	Birds and insects	Flowers, berries

Common name	Latin name	Soil Preferences	Tolerates some shade	Tolerates exposure	Growth Rate	Biodiversity Value	Attractive Features
Cherry, Wild	<i>Prunus avium</i>	Prefers fertile, deep well-drained soils that are slightly acid	Yes		F/M	Birds, insects	Flowers, berries, autumn colour
Dog rose	<i>Rosa canina</i>	Tolerates a wide range of soils (not acid)			F	Birds, insects	Flowers, berries
Elder	<i>Sambucus nigra</i>	Grows in a wide variety of soils (not acid)			F	Birds, insects	Flowers, berries
Elm, Wych	<i>Ulmus glabra</i>	Prefers fertile free-draining soils	Yes		M	Insects, squirrels, lichens, deadwood	Autumn colour
Gorse, Common	<i>Ulex europaeus</i>	Prefers dry and neutral to acid soils		Yes**	M	Insects	Flowers
Guelder rose	<i>Viburnum opulus</i>	Prefers damp lime-rich soils	Yes		M	Birds, insects,	Flowers, berries, autumn colour
Hawthorn	<i>Crataegus monogyna</i>	Grows in a wide variety of soils (not acid)	Yes	Yes	F/M	Birds and insects	Flowers, berries
Hazel	<i>Corylus avellana</i>	Grows in a wide variety of soils (not acid)	Yes		F/M	Birds, bats, insects, squirrels, lichens	Catkins, nuts
Holly	<i>Ilex aquifolium</i>	Grows in a wide variety of soils	Yes	Yes	M/S	Birds, insects, lichens	Evergreen, Flowers, berries,
Honeysuckle	<i>Lonicera periclymenum</i>	Prefers neutral to acid soils	Yes		M	Birds, insects	Flowers, berries
Rowan*	<i>Sorbus aucuparia</i>	Grows in a wide variety of soils		Yes	F	Birds, insects, lichens	Flowers, berries
Spindle	<i>Euonymus europaeus</i>	Prefers soils damp, lime-rich soils	Yes		M	Insects	autumn colour berries
Whitebeam, Irish*	<i>Sorbus aria</i>	Prefers neutral to lime-rich soils	Yes	Yes**	M	Birds, insects	Flowers, berries
Willows	<i>Salix species</i>	Generally prefer damp soils with heavy to medium texture		Yes	F	Birds, insects, lichens, fungi deadwood	Catkins, autumn colour

* Suitable as a hedgerow tree; ** Tolerant of coastal sites; F = Fast, M = Medium, S = Slow
After Fuller, J. 2007. Buds of the Banner. Clare County Council, Ennis.

