

Mayo's Hedgerows

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COUNTY MAYO





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The Heritage Officer
Mayo County Council
Aras an Chontae
Castlebar
Co. Mayo

Tel: 094 9024444

Email: heritageofficer@mayococo.ie

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An Chomhairle Oidhreachta
The Heritage Council



Comhairle Contae Mhaigh Eo
Mayo County Council

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Bluebells under a tree-lined hedgerow

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Foreword

We welcome the publication of this booklet on the Hedgerows of Mayo, which aims to raise awareness and appreciation of this most important resource. Mayo's hedgerow network is a major asset to the county, and is uniquely valuable in terms of agriculture, enhancing the landscape, providing a haven for wildlife, maintaining and improving water quality, sequestering carbon, supporting tourism and providing employment. Hedgerows line many of our roads and laneways, framing the countryside as we drive, cycle or walk through it, and in certain areas give the impression of a timeless tunnel through an ageless wooded landscape. Our hedgerow network is an important part of the cultural history and heritage of the county.

In 2007, Mayo County Council carried out a Hedgerow Survey, which was the first systematic record made of the extent, species composition, structure, condition and management of the hedgerows of Mayo. This survey provided much useful information on the quantity and character of the hedgerows in the county and the results are included in this booklet.

This picturesque patchwork of fields and hedgerows, together with meandering stone walls, endow Mayo's countryside with a distinctive and attractive appearance. The flowering and fruiting of hedgerow shrubs give a unique colour and fragrance to the countryside in summer. Local variations in hedgerows give character to a townland or area and contribute to the particular sense of place.

This richly-illustrated informative booklet, the latest in Mayo County Council's Heritage Booklet Series, with its many interesting facts about hedgerows and its guidance on hedgerow establishment and management will be of benefit and interest to landowners, residents, both urban and rural, and visitors alike.



Peter Hynes
Mayo County Manager



Cllr. Austin Francis O'Malley
Cathaoirleach, Mayo County Council



Introduction

HEDGEROWS AND THE MAYO LANDSCAPE

Mayo's landscape varies considerably from the low-lying and undulating terrain in the east and south-east of the county, in which the best agricultural land is found, to the upland and more mountainous areas of the north, west and south-west. Large expanses of blanket bog and heath in the west are interrupted by forestry and significant mountains such as the Nephin Beg range, Croagh Patrick, the Sheefry Hills and Mweelrea. Noteworthy lakes include the beautiful limestone lakes of Lough Conn, Lough Cullin, Lough Carra, and Lough Mask. The wild Atlantic coast is highly indented and is covered by a range of coastal habitats.

Mayo's diverse landscape is endowed with a wealth of wildlife habitats, supporting a myriad of plant and animal species. Many of these habitats and species are of international and national importance and as a result over 27% of the land area of Mayo is designated for nature conservation. These natural habitats include bogs, lakes, rivers, turloughs, sand dunes, machair, sea cliffs and native woodlands.

Hedgerows are a common feature of agricultural landscapes in Mayo, especially in the east and south-east of the county, and less so in the west. While they are not designated for nature conservation, as we will see throughout this booklet, hedges are hugely important for wildlife, and are an invaluable natural heritage resource that is often overlooked. Hedges have characterised the agricultural landscapes of Mayo for centuries and therefore are also part of our cultural and historical heritage.





A mighty oak in a hedgerow



Primrose



Rowan berries

THE IMPORTANCE OF HEDGEROWS

Benefits of hedgerows for wildlife

Hedgerows form linear networks that crisscross the Mayo countryside and allow animals, big and small, to move through the landscape, while also providing an invaluable source of food, shelter and cover for wildlife.

Mixed broadleaved woodland once covered the island of Ireland and probably most of Mayo. Woodland cover declined after the first farmers arrived and so began the transformation of the Irish landscape. Hedges, therefore, also provide a refuge for woodland plants and animals in a county such as Mayo where woodland cover is low.

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 (e.g. pollen, nectar, leaves, fruit, nuts and berries) for a myriad of insects, birds, small mammals and other creatures.

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 stoats, 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.



Blackberries



Honeysuckle



Whitethroat © Clive Timmons



Purple loosestrife

GET UP CLOSE AND PERSONAL WITH NATURE IN YOUR LOCAL HEDGEROW!

From a distance hedges might seem unlikely biodiversity hotspots but if you take the time to have a poke around your local hedgerow you will find it's a haven for nature and teeming with life.

Stand next to the sunny side of your local hedge on a nice day in early summer and you could be pleasantly surprised with all that you will see and hear such as the speckled wood butterfly zig-zaging along looking for sources of nectar, a mate or a place to lay eggs; nesting birds dashing in and out searching for food and feeding their young in nests; bees buzzing along and visiting the sweet-smelling flowers of whitethorn, elder or gorse, depending on the type of hedge; and a multitude of insects crawling about and all over.

Look even closer and you might spot some dead wood with interesting looking mushrooms growing out of it. You may see some woodland herbs such as violets or the unusual looking lords and ladies flower hiding down in the darkest part of the hedge. There could be evidence of a badger sett or you might be lucky and see a stoat popping his head out, always on the prowl for its next meal.

Many different types of flowers can be found at the base of hedges depending on whether the soil is dry (bluebells or primroses), wet (purple loosestrife or meadowsweet), nutrient-enriched (nettles), shady (violets or veronicas), or heavily grazed (thistles).

FEATURES OF HEDGEROWS FOR WILDLIFE

The physical structure of a hedge influences its value for wildlife, as well as the composition of the hedge flora.

SIZE: The larger the hedgerow the better it is for birds. Nesting birds want to be sufficiently clear of the ground to avoid ground predators, and sufficiently concealed to avoid detection by magpies. A tall, bushy hedgerow provides a wealth of food and cover for birds and other wildlife.

STRUCTURE: Hedgerows have a multitude of uses for wildlife. They can provide nesting sites, song posts, roosting sites, feeding sites and cover from predators, and act like corridors for wildlife to move across the landscape and between habitats. The structure of a hedgerow (i.e. whether bushy or severely trimmed,

tall or short, with or without hedgerow trees, dense at the base or gappy etc.) will determine to a large extent its wildlife value. Many birds and small mammals prefer hedgerows which are dense at the base, thus providing better cover. Hedgerow trees are used as song posts for birds and/or roosting sites for bats.



Trees add structural diversity to hedgerows

SPECIES COMPOSITION: The greater the variety of trees, shrubs and herbs in a hedgerow the greater the diversity of wildlife it will support by providing a range of food and shelter throughout the seasons. Some species are particularly important food sources for wildlife, especially our most common hedgerow shrub, whitethorn, which supports over 200 insects. Willow is another

common shrub in Mayo hedges, and it supports over 400 insect and mite species!

Other hedgerow features such as the presence of a hedgerow bank or ditch, and linkages with other hedgerows or other semi-natural habitats (e.g. woodland, wetlands) will also influence the wildlife interest and value of a particular hedge.



Yellowhammer © Clive Timmons





Benefits of hedgerows for landscapes

Hedgerows add to the beauty of our countryside. Imagine an Irish agricultural landscape devoid of hedgerows! Hedgerows are part of the historical, cultural and natural heritage of County Mayo and help create a sense of place.

Benefits of hedgerows for householders

Native hedgerows can also provide shelter and screening for housing, helping to reduce heating bills and to protect privacy. Native hedges 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.



Trimmed hawthorn hedge

Benefits of hedgerows for agriculture

The primary function of hedgerows is an agricultural one. Hedges have been used as stock-proof field boundaries for centuries. Hedges provide shelter from wind for stock and crops. A good shelter belt will provide considerable shelter for stock. The best shelter is provided by hedgerows with a slightly open and flexible structure and a rather uneven and bushy top. Hedgerows also help prevent the spread of airborne disease, regulate water movement, and mitigate against flooding and soil erosion.



HEDGEROWS UNDER THREAT

In recent years many miles of hedgerows have been removed to make way for one-off housing, other developments, road schemes and as part of agricultural intensification, thus considerably reducing and fragmenting the native hedgerow network in Mayo and many other counties throughout the country. Inappropriate and lack of appropriate management has also been detrimental to our hedgerow resource.



Hedgerows being removed

NATIVE HEDGEROWS

- Help make our countryside beautiful
- Benefit agricultural crops and stock by providing shelter
- Provide food and cover for wildlife
- Help prevent flooding
- Absorb road noise and provide privacy for homeowners
- Provide shelter for housing and therefore help reduce heating bills
- Help blend new housing and buildings into the countryside
- Improve air quality in urban areas by filtering dust and air pollutants



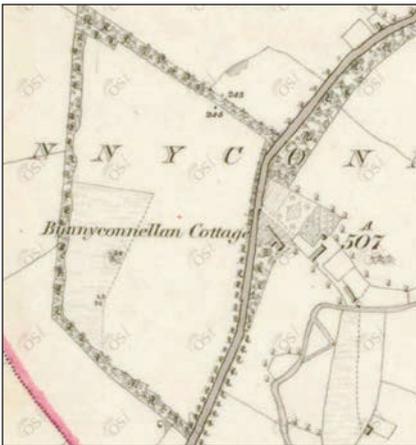
Mayo's hedgerows: results of a countywide survey

A county-wide survey of Mayo's hedgerows was conducted in 2007. This survey followed a standard methodology that has been successfully used in several other counties. The main aims of the survey were to examine the extent, composition, structure, construction and management status of hedgerows in County Mayo, and to produce recommendations for future conservation of the hedgerow resource.

The County Mayo Hedgerow Survey was commissioned by the Heritage Office of Mayo County Council and the main findings are described below.

EXTENT AND LOCATION

The total length of hedgerow in Mayo was estimated at 12,173 km, which indicates that hedges are a significant natural heritage resource in the county. Hedgerows are concentrated in the south and east of Mayo, and particularly on the landscape unit described as the East Central Drumlin Spine (which encapsulates the towns of Castlebar, Swinford and Charlestown). Hedges are also commonly found on the plains of Mayo and other areas dominated by drumlins in the south-east, and moorland in the south-west. Hedges are scarcer in the west of the county, and largely absent from upland areas and areas dominated by blanket bog and heath.



ORIGIN

Examination of Ordnance Survey maps indicates that the majority of hedgerows in the county originated between 1839 and 1913. Mayo's hedges have therefore been part of the landscape for some time and therefore are an integral part of the cultural and natural heritage of the county.

HOW TO SURVEY A HEDGEROW!

A method for surveying hedgerows has been developed in recent years (Murray and Foulkes, 2006) and was used in the County Mayo Hedgerow Survey. This method records all the shrubs, trees and climbers growing in a number of hedges in a defined area. The extent, history, condition and management status of the hedgerows is also documented. The information gathered can be used to assess the hedgerow resource in an area and to make recommendations for its conservation.





MAIN HEDGEROW SHRUBS AND TREES IN COUNTY MAYO

COMMON NAME	SCIENTIFIC NAME
Whitethorn/Hawthorn	<i>Crataegus monogyna</i>
Gorse/Furze/Whin	<i>Ulex europaeus</i>
Willow/Sally	<i>Salix spp.</i>
Blackthorn	<i>Prunus spinosa</i>
Ash	<i>Fraxinus excelsior</i>
Elder	<i>Sambucus nigra</i>
Rowan	<i>Sorbus aucuparia</i>
Holly	<i>Ilex aquifolium</i>
Sycamore*	<i>Acer pseudoplatanus</i>
Hazel	<i>Corylus avellana</i>
Alder	<i>Alnus glutinosa</i>
Fuchsia*	<i>Fuchsia magellanica</i>
Beech*	<i>Fagus sylvatica</i>
Birch	<i>Betula spp.</i>
Leylandii*	<i>x Cupressocyparis leylandii</i>
Spruce*	<i>Picea spp.</i>
Wild Cherry	<i>Prunus avium</i>
Crab apple	<i>Malus sylvestris</i>
Elm	<i>Ulmus spp.</i>
Privet	<i>Ligustrum ovalifolium</i>

* non native

Hawthorn berries and ivy

HEDGEROW COMPOSITION

A wide range of woody species were recorded in Mayo's hedges. A total of 41 shrub and tree species, including 21 native species, were found in the shrub layer of hedgerows in the county, indicating the potential diversity and value for wildlife of hedgerows in Mayo. Whitethorn is the most frequently occurring shrub species, as is the case in other counties. Other common species in the shrub layer include gorse, willow, blackthorn, ash and elder. Rowan was more common in the hedges of Mayo than in other counties which have been surveyed.

HEDGEROW TREES

Ash is the most common hedgerow tree in Mayo, (i.e. growing up above and clear of the shrub layer). Other common trees include whitethorn (in tree form) and willow. Hedgerow trees add an extra structural dimension to hedgerows and are hugely important for wildlife. They also make a significant contribution to the scenic appearance of the landscape.





Wild rose

Appropriate management could greatly improve the ecological and agricultural value of hedgerows in Mayo, and the long-term sustainability of the hedgerow resource with enormous benefits for wildlife, landscapes and the environment.



HEDGEROW CLIMBERS

Woody climbing plants such as ivy, bramble, honeysuckle and wild rose are often found in hedgerows in Mayo. These climbers add to the diversity of the hedgerow providing additional food for wildlife. Ivy provides a winter source of food for birds and insects, although dense cover of ivy in the canopy of hedgerow trees can be problematic as it can lead to windthrow and loss of vigour. The sweet nectar of honeysuckle is tapped by moths, who are attracted to the musky scent released by the flowers at night.

HEDGE SPECIES RICHNESS

About 13% of hedges surveyed in Mayo can be described as ‘species rich’, with the majority of these found in the south-east of the county (based on having four or more native woody species in the two 30 m strips sampled). While this figure is low when compared with other counties, hedges in Mayo do contain a particularly wide range of hedgerow shrubs, trees and climbers. Hedges with large drains were found, on average, to contain greater species diversity than those with small or no drains. The presence of the native species holly, alder, rowan or hazel is a good indicator of a species-rich hedge in Mayo. Townland boundary and roadside hedgerows are marginally more diverse than other hedgerows. The greater the diversity of woody species within a hedgerow, the greater the diversity of wildlife a hedge will support.

HEDGEROW CONSTRUCTION

The survey results from Mayo suggest that most native hedgerows were not planted but probably arose opportunistically along stone walls and other field boundaries.

HEDGE STRUCTURE

The majority of hedgerows in Mayo are tall (>1.5 m) and bushy and therefore are probably good for wildlife, particularly birds, because they provide food and cover. Many hedges in the county, however, are quite gappy and not dense at the base, thus reducing their value for small mammals.

MANAGEMENT STATUS

Nearly half of the hedgerows surveyed in Mayo appear not to have been managed for some time (more than 5 years). This is a cause for concern in terms of the future sustainability of the hedgerow resource. Hedgerows require some form of management (i.e. cutting and/or trimming) in order to fulfill their function as a stock proof boundary and to maintain wildlife and landscape value. Hedges that are not cut eventually become treelines, which have their own intrinsic value but one that is quite different from hedgerows.



Hawthorn in full bloom







Purple loosestrife, meadow sweet and thistle in flower



Whitethorn



Blackthorn



Elder



Gorse

Common native hedgerow shrubs and trees in Mayo

Whitethorn (Sceach gheal) *Crataegus monogyna*

Whitethorn, our most common hedgerow shrub, puts on a beautiful show of white flowers in spring, and red berries in late summer and autumn. The leaves of whitethorn are lobed which differentiates it from blackthorn, which has simple, oval-shaped leaves. The thorny stems of whitethorn make it highly suited to forming stock-proof hedgerows. 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. Whitethorn 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 emerge (unlike whitethorn, the flowers of which appear *after* the leaves are out). Blackthorn can tolerate exposed and coastal sites. It forms a dense scrub, which will spread if not regularly trimmed or grazed back. The berries or sloes of blackthorn look like small plums but are very sour to eat. The thorny bush provides good nesting cover for birds while the berries are a valuable source of food for birds and small mammals.

Elder (Tromán) *Sambucus nigra*

Elder is a common shrub often found in hedgerows in Mayo. Some people consider elder a weed but it is highly valued by wildlife. Elder produces beautiful splays of creamy-coloured flowers, which can be used to make elderflower cordial or dried to make elderflower tea. The purple berries are also often used to make wine.

Gorse (Aiteann) *Ulex*

Highly recognisable, gorse (also known as furze or whin) produces spectacular displays of yellow flowers, which have a sweet perfume in spring or autumn. Gorse is commonly found in coastal and upland heaths, and in hedgerows. It can grow in exposed sites and withstands salt-laden winds. Gorse is good for insects and provides excellent nesting cover for birds. It is an important food-plant for the green hairstreak butterfly, and spiders often cover the bushes with their webs.

Hazel (Coll) *Corylus avellana*

A small tree or shrub, hazel is commonly found growing in hedgerows in areas with limey soils. The delicate catkins (clusters of tiny flowers) appear in the spring before the leaves emerge on the trees. In autumn the leaves turn various shades of yellow and brown. Hazelnuts are a good source of protein, highly valued by squirrels, mice and some birds.



Hazel

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. It is tolerant of exposed sites and makes an effective 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.



Holly

Rowan (Caorthan) *Sorbus aucuparia*

Rowan or mountain ash is an attractive, hardy tree, which is often found in upland areas and sometimes in hedgerows in Mayo. It produces clusters of beautiful creamy-white flowers in spring and orange-red berries in late summer. The leaves turn various shades of yellow, orange and bright red in autumn. Rowan jelly, made from the berries, was traditionally eaten with game. Rowan produces an important berry crop for wildlife.



Rowan

Willow/Sally (Saileach) *Salix*

There are several native willows in Ireland and some of them can be difficult to tell apart. Willows all tolerate damp soil and are often found along rivers, lake and peatland edges. 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.



Willow/sally

Ash (Fuinseóg) *Fraxinus excelsior*

Ash is very common as a woodland and hedgerow tree in county Mayo. A large handsome tree, it can grow in a wide range of conditions. Ash grows in exposed sites and windswept coastal areas. The seeds are valued by birds, small mammals and red squirrels.



Ash



Guelder rose berries



Rose hips

The future of the native hedgerow resource in Mayo

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 change in terms of their function, structure and wildlife value. Many hedgerows in Mayo have not been managed for some time and while they probably have considerable value for wildlife, because they are large and bushy, the long-term sustainability of the hedgerow resource in the county is under threat.

HEDGEROW CONSERVATION RECOMMENDATIONS

1. Species-rich hedgerows, townland boundary and road-side hedges should be prioritised for conservation because of their ecological, historical and landscape value, respectively.
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 Mayo should be encouraged to stock native trees and shrubs of local provenance for planting in hedgerows.
4. Appropriate management of hedgerows should be promoted through education and training to ensure the long-term sustainability of the hedgerow resource in the county, and to increase the agricultural and ecological value of Mayo's hedges.



Honeysuckle





Blackberries



HEDGEROW MANAGEMENT GUIDELINES

1. The main aim of hedgerow management should be to maintain a range of hedgerow types in terms of height, width, shape and species mix, in order to support a wide variety of wildlife.
2. No single management regime is appropriate for all hedgerows. The regime adopted depends on the aim of the management exercise and the type of hedgerows to be managed.
3. Stock-proof hedges with a dense base should be trimmed on their sides and shaped roughly into an A-shape leaving the top to grow free-form. Mature trees and new saplings should be retained at irregular intervals.
4. Hedge height should ideally not be reduced below 1.5 m in order to maintain bird populations.
5. Hedgerows that are trimmed should be cut in rotation approximately every three years. This will ensure some are 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).
6. Increasing tree planting and retention of saplings in hedgerows is required to increase the number of trees in hedgerows in Mayo.
7. Native species, preferably of local provenance, should be used for planting new hedgerows and planting up gappy hedges.
8. Invasive plants that occur in hedgerows (e.g. Rhododendron, Japanese knotweed and Himalayan balsam) should be controlled.

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. The Wildlife (Amendment) Act 2000 actually prohibits the cutting of hedgerows during the critical bird-nesting period in spring and summer (from 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.

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 and the local landscape.

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 an 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 roots of 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 (i.e. cut back to the base of the stem) 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 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 available on their environment website: www.environment.teagasc.ie



Hawthorn bush that was coppiced during winter months

PLANTING NEW NATIVE HEDGEROWS

Far too often, non-native hedging species are planted along the site boundaries of houses (e.g. Lawson cypress, Leylandii, Grisilinia). 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.



Site preparation is essential for the successful growth of a new hedge. Dig a trench 25 cm deep and 50 cm 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 25–40 cm 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 roots 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.

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

To ensure that your plants will grow in a 'bushy' form and to reduce the chance of plants being loosened by the wind, cut them back at least by half (you can cut down to 10 cm for whitethorn).

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.

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 for ideas). Whitethorn (hawthorn) is the most common hedgerow shrub in Mayo. For further information on hedgerow planting see Teagasc and Crann publications and websites (Appendix 1).

THE VALUE OF GROWING 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. Ask in your local garden centre or nursery when buying hedging plants.



Gorse hedge

SUITABLE PLANTS FOR NATIVE HEDGEROWS:

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

Wet ground: willow, alder

Hedgerow trees: ash, crab apple, whitebeam



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).

Grisilinia and *Escallonia* are more appropriate in a suburban rather than a rural setting.

* *can be invasive*







Appendix 1: Useful contacts for more information

MAYO COUNTY COUNCIL

www.mayococo.ie

CRANN

www.crann.ie

ENFO

www.enfo.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

www.hlai.ie

THE TREE COUNCIL

www.treecouncil.ie

FURTHER READING

Foulkes, N. 2007. County Mayo Hedgerow Survey Report. Mayo County Council

Hickie, D. 2004. Irish Hedgerows: Networks for Nature. Networks for Nature, Dublin.

Meyen, S. 2005. The ABC of Planting Trees. Crann

Murray, A. and Foulkes, N. 2006. A method for recording hedgerow extent, composition, structure and condition in Ireland. *Tearmann* 5, 79–94.

Purple loosestrife and meadowsweet

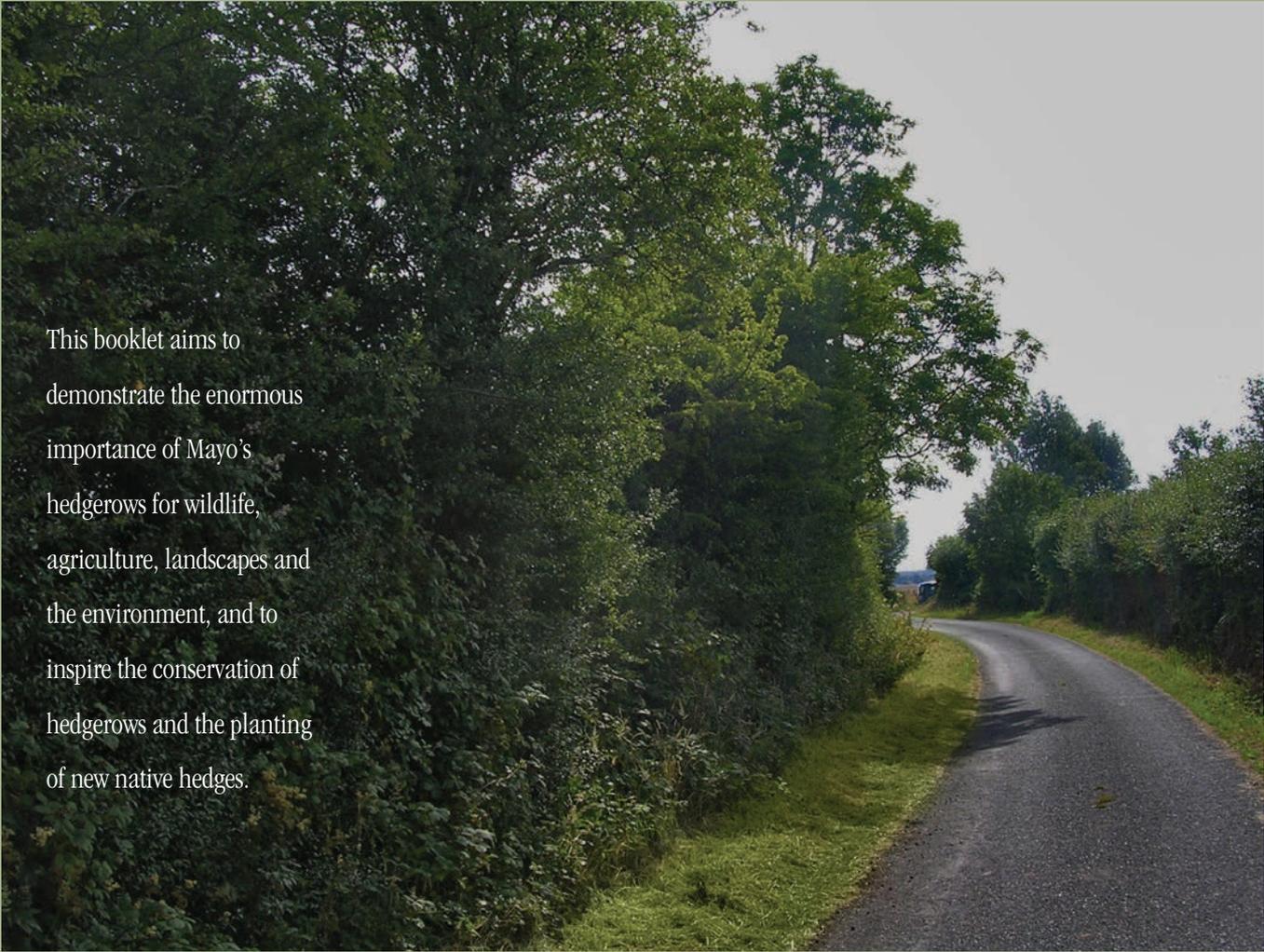
Appendix 2: Characteristics of native hedgerow trees and shrubs

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 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
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 and berries
Spindle	<i>Euonymus europaeus</i>	Prefers soils damp, lime-rich soils	Yes		M	Insects	Autumn colours, berries
Whitebeam, Irish*	<i>Sorbus aria</i>	Prefers neutral to lime-rich soils	Yes	Yes**	M	Birds, insects	Flowers and 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.





This booklet aims to demonstrate the enormous importance of Mayo's hedgerows for wildlife, agriculture, landscapes and the environment, and to inspire the conservation of hedgerows and the planting of new native hedges.

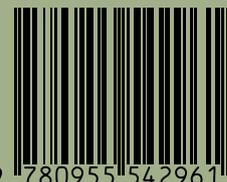
An Chomhairle Oidhreachta
The Heritage Council



Comhairle Contae Mhaigh Eo
Mayo County Council

An Action of the County Mayo Heritage Plan

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