NATURAL HERITAGE

Lichen, Corbo Bog.

Bluebells, Lough Key Forest Park.

Sphagnum Moss, Corbo Bog.

Reedbed, Cavetown Lake.

County Roscommon has a huge wealth of natural heritage, from the Shannon callows in the south, through the raised bogs and limestone pasture of the centre of the county to the mountains in the north. A huge diversity in native habitats, flora and fauna, all tied together by drystone walls and hedges exists in the county.

Natural heritage is composed of native plants, animals, geology and landscape, some common, some rare enough to be of European importance. All contribute the the rich biodiversity and natural heritage of the county.

Protection of sites of importance to natural heritage is in the form of three designations:

Natural Heritage Areas (NHAs)

Natural Heritage Areas (NHAs) are the national framework to provide for protected areas in Ireland.

NHAs cover sites of national or higher importance for wildlife, and also geological interest. NHAs include peatlands, native woodlands, grasslands, wetlands, rivers, lakes, machair, limestone pavement, islands, cliffs and estuaries. All other nature conservation designations overlap with NHAs.
The Wildlife Amendment Act (2000) contains provisions for designation of NHAs.

Special Areas of Conservation (SACs)

In 1992 the Council of the European Communities adopted the **EU Habitats Directive**, on **the conservation of natural and semi-natural habitats and species of flora and fauna.** It is the responsibility of each member state to designate SACs to protect habitats and species.
In the Habitats Directive, there is a list of habitats requiring conservation measures. **Priority Irish habitats include raised bogs, active blanket bogs, turloughs** and machair. Other Annex I habitats include heaths, lakes and woodlands among others. There is **also a list of species which must be afforded protection** and for Ireland this includes the Bottle-Nosed Dolphin, **Otter,** Freshwater Pearl Mussel and Killarney Fern. The list of species is called Annex II list.

Special Protection Areas (SPA's)

The Birds Directive came into force in 1979 and it requires each member state to designate "Special Protection Areas" for birds. The Directive contains annexes which are **lists of birds which require particular conservation measures** (Annex I), and also species which may be hunted, and species which may be sold. Annex I species include **Whooper Swan, Greenland White-fronted Goose**, Peregrine Falcon, Corncrake and Terns. Member states are also required to **protect sites which are important for migratory species** such as ducks, geese and waders.

For further information on designated sites see **Living with Nature** in the Heritage Publications downloads list.

The National Parks and Wildlife Service of the Department of Environment, Heritage and Local Government have a designated sites information line -
Freephone 1800 40 50 00.
Roscommon County Council have maps of designated sites available for inspection at the Planning Office of Roscommon County Council, Church Road, Roscommon, open 9.30am – 1.00pm, 2.00pm – 4.00pm Monday to Friday. Some further information on

designated sites in Co. Roscommon is available from the Heritage Section of www.environ.ie or from the Heritage Office of Roscommon County Council.

Natural Heritage Designated Sites in County Roscommon

Designation	Site Code	Site Name / Location	O/S Number
SAC	001626	Annaghmore Lough	23
NHA	001222	Ardagh Bog	5
NHA	001617	Ardakillin Lough	28
NHA	001618	Attishane Turlough	32
SAC	000588	Ballinturly Turlough	41
SAC	002339	BallynamonaBog & CorkipLough	48&51
NHA	000591	Bella Bridge Bog	9&15
SAC	000592	Ballinagare Bog	15
SPA	105	Ballinagare Bog	15
NHA	000594	Brierfield Turlough	28
SPA	101	Ballykenny/Fisherstown Bog (Lough Forbes Complex)	24&30
SAC	1818	Ballykenny/Fisherstown Bog (Lough Forbes Complex)	24&30
SAC	000595	Callow Bog	8
NHA	001623	Carricknynaghtan Bog	52&55
SAC	000597	Carrowbehy/Caher Bog	19
NHA	000597	Carrowreagh Turlough	27&28
NHA	000598	Castleplunket Turlough	27
SAC	001625	Castlesampson Esker	51
SAC	000600	Cloonchambers Bog	26
NHA	000599	Clooncraff / Cloonlarge Bog (now in SAC 440 Lough Ree)	40
SAC	000614	Cloonshanville Bog	15
SAC	000218	Coolcam Turlough	32
NHA	001627	Corbally Turlough	28
SAC	002349	Corbo Bog	36&40
SAC	002110	Corliska/Cloonfelliv/TrienBog	26&33
NHA	000603	Cornaveagh Bog	9
NHA	000596	Corrigeenroe Marsh	3
NHA	001630	Cranberry Lough	54
SAC	000604	Derrinea Bog	13
NHA	000605	Derrycanan Bog	36
SAC	000457	Derrynabrock Bog(now in SAC 2298 River Moy, 21/11/02 map)	8B
NHA	001631	Drum Bridge	6
SAC	002338	Drumalough Bog	19&20
NHA	001633	Drummans Island	6
SAC	000607	Errit Lough	19

NHA	001634	Feacle Turlough	48
NHA	001636	Fin Lough	6
SAC	001637	Four Roads Turlough	44
NHA	001638	Hogs Island	6
NHA	000608	Kilglass & Grange Loughs	17,18,23&24
SAC	002214	Killeglan Grassland	47&50
SAC	000609	Lisduff Turlough	41
NHA	002072	Lisnanarriagh Bog	40
SAC	001673	Lough Arrow	3
SPA	050	Lough Arrow	3
NHA	001642	Lough Boderg & Lough Bofin	18&24
SAC	000610	Lough Croan Turlough	44,45,47&48
NHA	001643	Lough Drumharlow	6&7
SAC,	001818	Lough Forbes Complex (Ballykenny/Fisherstown Bog)	24&30
SPA	101	Lough Forbes Complex (Ballykenny/Fisherstown Bog)	24&30
SAC	000611	Lough Funshinagh	45
NHA,	000587,	Lough Gara	5,8&9
SPA	048	Lough Gara	5,8&9
NHA	001644	Lough Glinn	20
NHA	000220	Lough Namucka Bog	33
SAC	000440	Lough Ree	36,37,40,42,46&49
SPA	064	Lough Ree	36,37,40,42,46&49
NHA	000221	Moorfield Bog/FarmCottage	26&33
SAC	000612	Mullygollan Turlough	28
NHA	001646	Newtown Turlough	34
NHA	001645	Lough O'Flynn	19&25
NHA	000613	Rathnalulleagh Turlough	34
SAC	002298	River Moy	8B
SAC	00216	River Shannon Callows	52,55&56
SPA	096	River Shannon Callows	52,55&56
NHA	001648	Shad Lough	28
SPA,	097	Suck River Callows	39,41,44,47,50,53,53A&56
NHA	000222	Suck River Callows	39,41,44,47,50,53,53A&56
NHA	001651	Tawnytaskin Wood	6
NHA	001652	Tullaghan Bog	9
SAC	002354	Tullaghanrock Bog	8
NHA	000617	Tullytawen Bog	2
SAC	001571	Urlar Lakes	13

Aside from the designated sites, natural heritage is all around us in the everyday landscape.

HEDGEROWS

Well managed hedge.

Flail use on too strong a branch causes damage.

CONSERVING HEDGEROWS

A hedge usually consists of a row of shrubs or trees planted along the line of a manmade earth or stone bank. A ditch from which the bank material was excavated runs parallel to the hedge. Hedges are used to delimit boundaries and to contain stock; they provide shelter from wind and facilitate drainage, and need continuous management in order to remain effective.

THE VALUE OF HEDGEROWS

Hedges are important heritage features. Varying greatly in form and species, they help to form the local and regional character of the landscape. Hedges on deep, fertile and well-drained soils are usually dominated by hawthorn and may have trees of ash, elm, sycamore or beech. Shallow or acid soils will give rise to gorse, while hedges on poorly drained land are likely to be dominated by willow. Ancient hedges are survivors of the woods that covered the country before it became agricultural land, and have a particular conservation value as they often contain a richer variety of plant life than more recent hedges. Ireland's hedgerow landscape, as we know it today, was established between 1750 and 1850 as landlords enclosed former commonage to form fields. Field boundaries are standing records of the area's history of land ownership and display evidence of local geology, local craftsmanship, and local farming practice. They show the work of many people; those that established and maintained them, and those that built the cut stone piers or forged the wrought iron gates.

Hedgerows provide food and shelter for insects, birds and other animals, forming corridors that permit wildlife to move between habitats. As many birds and small

mammals never venture more than a few metres from cover, populations would become isolated and vulnerable without hedges. Nearly two thirds of Ireland's bird species nest in hedges. In general, wide and high hedges with a wide diversity of plant species are the most beneficial to wildlife.

Hedges are durable and long-term. A properly maintained hedge will last for centuries, and is ultimately more cost effective than any alternative boundary. Hedges provide shelter from wind for stock, crops and road users. They alleviate the blinding effects of low sun, filter dust and fumes, and absorb road noise. Hedges provide springy, relatively safe crash barriers beside roads and are more interesting visually for visitors and local travellers than wood or cement boundaries; they are also more distinctively local in character and can be used to shield unsightly fences. Mature flowering hedgerows, predominantly of whitethorn, provide a strong visual impact on the countryside in early summer.

THREATS TO HEDGEROWS

(i) Hedges need regular maintenance in order to provide effective boundary and shelter. Neglected hedges grow tall and gappy, so that they cease to function as effective barriers. A gappy hedge is bad for both wildlife and for farming.

(ii) Neglected hedges may become overgrown with bramble and elder so that they encroach on fields or roadways and become inaccessible for maintenance.

(iii) Inappropriate management can damage hedges. This includes frequent (annual) cutting, and cutting during the bird nesting period.

(iv) Building developments in which all hedgerows are removed are a major threat.

(v) Road-widening programmes may threaten hedges. Although the removal of hedges may be necessary for public safety, in many cases it is possible to preserve the original boundary by moving it back from the road to a safer position.

(vi) Disturbances of roadsides to lay and maintain services such as telecommunications, sewage and water can cause disruption to hedgerow root systems, or hedges may be completely removed. This can be avoided with proper planning.

(vii) Poor roadside drainage can threaten hedges by rotting their root systems. It can also endanger road users. It is important to maintain drains, particularly to prevent blockage with plastic.

(viii) Hedges may be removed because there is a wish to open up views from roads in scenic areas. This is usually unnecessary if proper hedge maintenance is practiced.

(ix) Field enlargement is a threat to hedges. Farmers need to remove hedges in some cases, but should be encouraged to retain and maintain hedges, particularly along roadsides, as vital links in wildlife corridors.

PLANTING

(i) When planting new hedges, drainage must be considered at the outset. A bank and ditch may be desirable.

(ii) It is important to leave sufficient width for the established hedge (2 m).

(iii) Young plants should be closely spaced (50 cm maximum), and should be planted on a herringbone/zigzag line, not a straight line.

(iv) If at all possible, aim at linking up with existing hedges to provide the most effective wildlife corridor.

(v) It is important to use good quality plants. These should be native species already represented in hedgerows in the area. Crann can advise on growing plants from locally sourced seeds or cuttings (see contacts below). Once your hedge is established, other native species will colonise it.

(vi) New growth must be protected from weed competition until it is established.

(vii) Young hedges must be protected from browsing by livestock by fences at least 1 m away from the hedge on each side.

(viii) The young plants will need some clipping to encourage a good shape.

MAINTENANCE

Hedgerows must be managed to encourage their long-term conservation and development. Improper maintenance discourages flowering, fruiting, vigour, and wildlife potential. The age, condition, composition, and function of the hedgerow will dictate what maintenance is required. Mature hedgerows in good condition should be allowed to grow naturally, with maintenance confined to essential practices such as stockproofing, inplanting and the control of invasive species. Weak hedgerows, which

have lost their vigour and have little basal growth, will require more intervention such as laying or coppicing. A hedgerow should have a dense base, form an unbroken barrier, and be at least 1.5m high. An established hedge will need cutting every two to three years. There is considerable wildlife benefit if maintenance is done in rotation around the farm to ensure that there is growth at all stages. If possible, one side of the hedge should be trimmed at a time.

(i) Check every hedge to assess its general condition. Identify desirable species; the most valuable for wildlife include oak, birch, mountain ash, whitethorn, alder, willow, ash, holly, crab, and Scots pine. Where mechanical cutting is required, those saplings identified for retention should have the vegetation around them cleared manually and be clearly market to alert the machine operator.

(ii) Hedges should be cut while they are dormant, from the beginning of September to the end of February (Section 46 Wildlife Act 2000).

(iii) Hedges should be cut to an A-shaped profile, with a bushy top for maximum protection from wind. This will encourage the development of a dense hedge. Square cut hedges will put out a twiggy, lateral growth, encroaching on roads and paths so that summer cutting is requested for reasons of safety and convenience.

(iv) Overgrown or neglected hedges with sufficient vigour may be restored by coppicing – selective cutting at ground level to promote bushy regrowth.

(v) Hedge-laying involves the part cutting through of selected stems, bending them over at an angle of 70-80 degrees, and securing the stems. This can be part of the long-term maintenance cycle of a hedgerow and is recommended as a method of hedge-rejuvenation and stockproofing.

(vi) Gaps in hedgerows that cannot be closed by laying should be planted with hawthorn quicks, blackthorn or other suitable native species at not more than 1 ft spacing in prepared ground. The young plants should be cut back to half their height after planting to promote growth.

(x) Do not apply herbicides, pesticides or fertilisers within 1.5 metres of a hedgerow, as this leads to nutrient enrichment that can adversely affect biodiversity.

(vii) The preferable method of hedge maintenance is by hand tools. Remember the importance of sharp tools and regular maintenance of equipment.

(viii) The crushing of hedgerows by heavy machinery must not be permitted.

(ix) Finger bar cutters with a pair of reciprocating blades are very suitable for trimming young growth.

(x) A flail cutter should only be used on soft growth of thorny species, and never on heavy woody growth: the resulting ragged ends are unsightly and invite

disease. Smooth wood species such as willow, hazel and cherry are not well suited to flail cutting.

(xi) A circular saw should only be considered for coppicing and must not be used for general hedgerow maintenance.

(xii) Fencing wire must not be attached to hedgerow trees and shrubs.

(xiii) Where practicable, hedge trimmings should be piled in a non-intrusive manner to provide habitat. If hedge trimmings are to be removed or burned, this must be done immediately after cutting.

Hedges not only provide an invaluable refuge for native flora and fauna, but they are an important part of the landscape in County Roscommon.

BATS

Bat Box's can be used in gardens

Bats represent more than a third of Irish mammals with a total of nine species. Ireland has the second largest national population of lesser horseshoe bats in Europe and our population of Leisler's bats is of international importance. Bats are part of out natural heritage but are becoming increasingly vulnerable, being threatened by habitat loss, pesticide use and human disturbance.

Local authorities can help in the conservation of bats by considering their protection when addressing issues such as building construction, habitat management, and bridge maintenance. Many departments within the local authority can also contribute to the conservation of bats and their habitats by surveying for their presence and considering their needs as may arise through planning applications, housing inspections, demolition of buildings, and infrastructural works.

The threat to bats and their habitats is recognised by their protected status under a variety of National and European laws including the Wildlife Act 1976, The Bonn Convention, Eurobats Agreement and the Wildlife (Amendment Act) 2000. Under

these laws and agreements it is illegal to damage, destroy, obstruct or keep bats without a licence.

Holly

Christmas Decorations – some thoughts on Holly.

A sprig of Holly is very much a part of Christmas. Holly trees are green all year round, and along with ivy were traditionally used for mid-winter or Christmas decorations, as a sign of green life to come. In some areas it is considered unlucky to cut down holly.

Did you know that Holly or Cuileann (Ilex aquifolium) is a native tree species? It has been in Ireland since the early post glacial times, but only became common once the woodland had been thinned for agriculture from about 3,000BC.

Holly is one of the smaller woodland and hedgerow trees. Holly is slow growing and very dense. It is most usually found nowadays in hedges where it provides valuable shelter and year round cover, as an evergreen tree. It is also suitable for gardens, as it does not grow too large.

Holly trees are either male or female – only the female can bear the red, winterberries, so popular at Christmas time. Both sexes bear small creamy flowers.

It is important to be careful when collecting Holly for Christmas decoration, to only take a small amount from each tree, making sure to leave plenty of berries on each tree. These berries provide a valuable supply of winter feed to bird life, but also provide a link back through over 5,000 years of native vegetation in the county. Some berries must be left untouched on each tree, to allow for the continued survival of this native species.

Every year we hear stories of entire trees being cut down, just to get to the berries high up on the tree. This is a terrible attack on a slow growing, native, visually attractive tree. So, what can be done about it?

- When collecting Holly, take care to leave some berries untouched.
- When buying Holly, ask where it came from and was any planted in its place?
- Perhaps you could use some of the berries to plant your own Holly tree in your garden, in a few years you'd have your own private supply of Holly for Christmas decoration!

How to grow your own Holly Trees

Collection:
Collect berries anytime over the winter (use tough gloves) from trees in wild woods or hedges. Ask the permission of the landowner first.

Storage/Stratification:
It is difficult to remove the flesh from Holly berries. They should be stratified in damp sand and kept in a cool place for a year and sown in the second spring.

Sowing:
After a full year of stratification, sow thinly in rows 15-20 cm apart and cover to protect from mice and birds. The following year transplant and grow for a further 1-2 years before setting out in a permanent site.

If seeds are sown without stratification, they may take 2-3 years to germinate. Even with stratification, germination can be erratic.
The young plants do not transplant happily, so there is a case for growing them from seed on their final growing site, or in pots after their first year.

Propagation:
It is possible to take cuttings from Holly. A small side shoot about 15 cm with the 'heel' where it joins the main branch should be selected and grown in a suitable sand/loam mix. September is the best time to take cuttings, which are best grown under shelter.

Seedlings or cuttings should be moved once they are well established (but under 20cm tall) and when the soil is warm. They both need to be protected from frost damage. They are also at risk from grazing livestock. Although spiny, Holly is liked by most farm animals.

REF: Our Trees, A Guide to Growing Irelands Native Trees in Celebration of a New Millennium. The People's Millennium Forests Project 2000. Available free from The Forest Service.