

Northern Ireland Landscape Character Assessment 2000

LCA 82 Dromore Lowlands

Landscape

Last updated: 28 November 2006

Key Characteristics

- Small rounded drumlins surrounded by extensive, low-lying areas of moss and regenerating scrub.
- Principal roads and farm tracks follow low ridge-lines.
- Numerous small-holdings and cottages along local roads, often concentrated at junctions.
- Hedgerows, blocks of woodland and shelterbelts form strong lines in the landscape.
- Scattered hedgerow trees.
- Contrasts in texture between smooth pastures on low hills and scrubby areas of bog.

Landscape Description

The Dromore Lowlands is a relatively low-lying landscape to the south of the Kilwarlin Plateau. This is an area of small, rounded drumlins surrounded by low-lying rough pastures, moss and regenerating scrub. The largest of these, Big Bog, is an extensive, waterlogged area of low scrub. The network of narrow roads connects tracts of higher ground and their associated farms and settlements. The low hills are dominated by a smooth patchwork of pastures, bounded by straight hedgerows. This pasture contrasts with the rough texture of the moss. There are many small groups of farm and residential buildings along roads on higher land, with clusters of houses at the intersection of roads. Views open and close as roads skirt around the larger areas of moss. There are many hedgerow trees and stands of trees associated with farmsteads.

Landscape Condition and Sensitivity to Change

The condition of the landscape is generally good on the higher land, with a transition to scrub and moss in low-lying areas. The many hedgerow trees are in good condition and provide structure and a sense of scale. The landscape has a relatively low sensitivity to

change and could accommodate further development if it is carefully integrated with the landform and existing hedgerow and tree patterns; linear development along roads tends to predominate. However, vertical elements, such as transmission lines, would have a major visual impact.

Principles for Landscape Management

- Management of the remaining areas of moss will conserve their open character and ensure they do not become a neglected 'waste ground'.
- The siting and design of conifer plantations will be particularly important to ensure that bog habitats are not eliminated and that views are not obscured. Locally occurring deciduous species may be used to create an edge which is more characteristic of the area.

Principles for Accommodating New Development

- Planting extensive mixed woodlands in association with any future building development will help to reinforce the distinctive character and quality of this landscape.
- Clustered forms of development are appropriate to the area and can be more easily integrated with the landscape than linear, ribbon development.
- The re-use of existing stone buildings will ensure their contribution to landscape character is conserved; this is preferable to the introduction of suburban styles into a rural area.

Dromore Lowlands Geodiversity Profile

▪ *Last updated: 28 November 2006*

▪ **Outline Geomorphology and Landscape Setting**

- The use of a cultural overlay in defining Landscape Character Areas (LCAs) means that they frequently subdivide natural physiographic units. It is common therefore for significant geomorphological features to run across more than one LCA. It is also possible in turn, to group physiographic units into a smaller number of natural regions. These regions invariably reflect underlying geological, topographic and, often, visual continuities between their component physiographic units, and have generally formed the basis for defining landscape areas such as AONBs. It is essential therefore, that in considering the 'Geodiversity' of an individual LCA, regard should be given to adjacent LCAs and to the larger regions within which they sit. In the original Land Utilisation Survey of Northern Ireland, Symons (1962) identified twelve such natural regions.
- This LCA lies within the region described as the Uplands and Drift Covered Lowlands of Down and Armagh. The generally subdued relief associated with the underlying basement complex of highly folded Palaeozoic strata provides the unity of this region. Relative relief is provided in the north by the Silurian hills that overlook the lower Lagan Valley, The Newtownhamilton Plateau in south Armagh, the Caledonian igneous complex of Slieve Croob and the structural depression that underlies and defines Strangford Lough. Below ca 350m, there is an almost complete mantle of drumlins forming an internationally acknowledged type example of a 'drumlin swarm'.
- The Dromore Lowlands is a relatively low-lying landscape to the south of the Kilwarlin Plateau. This is an area of small, rounded drumlins surrounded by low-lying rough pastures, moss and regenerating scrub. The largest of these, Big Bog, is an extensive, waterlogged area of low scrub. The network of narrow roads connects tracts of higher ground and their associated farms and settlements. The drainage pattern of the numerous tributaries to the upper Lagan is very distinctive, and shows strong evidence of underlying geological control. Typically these streams flow west-southwest to east-northeast along valleys between bedrock ridges that are aligned along a series of faults. The streams then execute a series of right-angle turns, to break through the ridges, join the Lagan and ultimately flow northwestwards.

▪ **Pre-Quaternary (Solid) Geology**

- The stratigraphy of this area is made up of the mapped formations in the table, the youngest of which usually overlie the oldest. The older formations can be upside down (tectonically inverted).
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- **Stratigraphic Table (youngest rocks at the top of the table)**

Tertiary - various intrusives, about 55 million years old

Ordovician (predominant) - Moffat Shale and Gala Sandstone, between 490 and 420 million years old

- 99% of the LCA comprises Lower Palaeozoic (predominantly Ordovician) greywacke sandstones and shales, the remainder being Tertiary intrusives.
- The NE -SW orientation of the beds at outcrop is produced by faulting; the greywackes are of sandstone grade and vary from a few centimetres to a few metres in thickness with a large proportion of rock fragments and a fine-grained matrix. The greywackes are commonly quarried as a source of aggregate; they are interbedded with thinner beds of siltstone or mudstone, commonly arranged as fining-up cycles. Minor conglomerates and volcanic ash-beds (or bentonites) occur.
- **Quaternary (Drift) Geology**
- Northern Ireland has experienced repeated glaciations during the Pleistocene period that produced vast amounts of debris to form the glacial deposits that cover >90% of the landscape. Their present morphology was shaped principally during the last glacial cycle (the Midlandian), with subsequent modification throughout the post-glacial Holocene period. The Late Midlandian, the last main phases of ice sheet flow, occurred between 23 and 13ka B.P. from dispersion centres in the Lough Neagh Basin, the Omagh Basin and Lower Lough Erne/Donnegal. The clearest imprint of these ice flows are flow transverse rogen moraines and flow parallel drumlin swarms which developed across thick covers of till, mostly below 150m O.D. during a period that referred to as the Drumlin Readvance. At the very end of the Midlandian, Scottish ice moved southwards and overrode parts of the north coast. Evidence for deglaciation of the landscape is found in features formed between the glacial maximum to the onset of the present warm stage from 17 and 13ka B.P. - a period of gradual climatic improvement. Most commonly these are of glaciofluvial and glaciolacustrine origin and include: eskers, outwash mounds and spreads, proglacial lacustrine deposits, kame terraces, kettle holes and meltwater channels (McCarron et al. 2002). During the Holocene, marine, fluvial, aeolian and mass movement processes, combined with human activities and climate and sea-level fluctuations, have modified the appearance of the landscape. The landforms and associated deposits

derived from all of these processes are essentially fossil. Once damaged or destroyed they cannot be replaced since the processes or process combinations that created them no longer exist. They therefore represent a finite scientific and economic resource and are a notable determinant of landscape character.

- The drift geology map for this LCA shows it to be underlain for the most part by Late Midlandian till by ice that moved rapidly across the area from a centre in the Lough Neagh Basin. The large number of drumlins in this area and their orientation can be used to confirm the southeastwards flow of this ice. Within Northern Ireland drumlins take a variety of forms; some are rounded in plan, although the majority are elongated in the direction of ice flow. Some have sharp crests, whereas others are more whaleback in profile. Although most drumlins are composed of glacial till or tills, a small number are 'drumlinoid features' are rock-cored and some are composed of sand and gravel. Where drumlins are rock cored there may have been significant frost shattering prior to their shaping by ice flow. It is possible therefore to see tails of shattered debris within till leading away from the feature in the direction of flow (Davies and Stephens 1978). It is generally accepted that the drumlins of Northern Ireland were formed by deposition beneath fast flowing ice. In the majority of cases this has resulted in a thick layer of Upper (younger) Till overlying a core of Lower (older) Till. This pattern has been observed across Northern Ireland, apart from a limited area in the north of County Down. The precise temporal relationship between the two tills has not been definitively resolved, but Davies and Stephens (1978) refer to an organic layer between the tills in County Fermanagh that has been dated at $30\,500 \pm 1170/1030$ years B.P. and shelly material between the tills on the Ards Peninsula dated at $24\,050 \pm 650$ years B.P.. However, these deposits only indicate that the Lower Till is older than the dates obtained.
- In addition to the drumlins, recent studies (McCabe and Knight, in Knight 2002) have mapped in this general area a complex of earlier subglacial diamict (till) ridges or 'rogen moraines' that lie transverse to the Late Midlandian ice flow. Some of ridges were streamlined and overprinted by subsequent drumlin development, while others remained unaffected. This combination of subglacial bedforms is used to suggest that during the last deglacial phase ice masses were highly mobile and that flow was episodic due to variations in the subglacial thermal regime. One consequence of this was a high sediment flux to the ice margins that in turn generated significant glaciofluvial complexes.
- It can be argued that an equally important component of any 'drumlin landscape' are the similarly numerous inter-drumlin hollows. The majority of these hollows would have held open water from local runoff at the end of the Pleistocene. Whilst

some continue to exist as isolated small loughs, many have now been infilled by sediment washing off the surrounding drumlins. This has created typically flat-bottomed, marshy areas between the drumlins that are subject to seasonal inundation. Much of the infilling probably occurred early in the Holocene, as the landscape adjusted to increasingly temperate conditions. However, erosion may also have been accelerated in historical times, when rural population densities were considerably higher and much of the lowland landscape of Northern Ireland was more intensively cultivated. Whatever the stimulus for erosion and deposition, the sediments within these hollows typically contain an important record of local environmental change.

- The drift geology map for the LCA also clearly the alluvial deposits associated with the Lagan Valley and its geologically controlled tributaries.

Dromore Lowlands Biodiversity Profile

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In the following account of this LCA it should be noted that for consistency, the biodiversity section follows the standard order for all LCAs even though some of the communities discussed later may have more importance for biodiversity than those discussed earlier

Key Characteristics

- Little woodland in this LCA. Largest area is found at Moles wood, the rest exists as small parks, estate woodlands and wet woodland around fens but scope for new planting
- Many areas of fen originating from cutting of peat bogs with associated scrub woodland
- Improved grassland is dominant but there are significant areas of rough, damp grassland

Woodlands

Woodland accounts for approx. 3% of land cover in this LCA, the majority of which is broadleaved. The largest area of woodland is located to the west of Dromore and consists of a mature beech plantation. Moles Wood is approx. 130 years old with a varied ground flora featuring species such as bluebell and sanicle. There are several other small areas of woodland predominantly associated with houses with extensive gardens and small parklands such as Quilly House (**Lowland woodland pasture and parkland**). Beech, ash, sycamore, horse chestnut and Austrian pine are the most common species associated with these estates. At Gillhall, also west of Dromore, there are quite extensive conifer plantations, some young plantings of oak, beech and sycamore as well as mature trees associated with its parkland history (including beech, oak and a range of conifers).

There are also many small areas of **wet woodland** scattered throughout the LCA and associated with old cut over bog sites - many of these are now fen.

Grassland and Arable

Grassland covers approx. 80% of this LCA, the majority of which is improved (66%). There are several areas of rough grassland predominately to the east, along the River Lagan, and to the south of Dromore. These areas of rough grassland are generally damp and are important for breeding waders such as lapwing and snipe.

Arable land accounts for approx. 11% of land cover in this LCA and occurs in a belt around Dromore on higher ground above the lower lying damp pastures and fens. Farmland is an important habitat for wildlife especially decreasing farmland birds such as the skylark and tree sparrow, which have been recorded around the Balleny region. Leaving stubble over the winter and growing spring-sown cereals increases food supplies and creates favourable environments for other farmland birds such as the linnet.

Heath and Bogs

There are no extant peat bogs in the LCA, all have been cut over and either reclaimed for agriculture or have developed into fen.

Wetlands and Lakes

There is only one lake in this LCA, Skilyscolban Lough which is moderately enriched and is of little interest in terms of biodiversity.

This LCA is characterised by its many low-lying areas of fen and associated scrub woodland. These wetland areas are found throughout the LCA and many appear to have originated from cutting of peat in the past. The largest fen site in this LCA is Big Bog, a degraded area of old cut over bog with associated areas of wet woodland, which is generally of little ecological interest due to extensive eutrophication. Several other areas of fen in this LCA have experienced some level of enrichment and many have also been drained or been used for tipping. Although the fens are generally enriched there are a few that have good areas of bottle sedge fen and some notable species such as spiky bog-moss and rigid bog-moss and are important areas for breeding waders such as snipe and lapwing. The small fens represent examples of a relatively rare complex of habitats that are under threat and have declined over the recent past.

A small section of the River Lagan, a **crowfoot river** flows through the north-eastern corner of this LCA. Apart from the **otter**, there are no records of Priority Species in the streams, but the water quality of these can also be affected by agricultural activities. Adoption of Countryside Management Guidelines will assist in the avoidance of pollution incidents (from fertilizers, slurry, herbicides, pesticides and silage effluent).

Key Issues

General actions for UK and NI **Priority Habitats** and **Priority Species** are detailed in the **Habitat Action Plans** and **Species Action Plans**.

WOODLANDS

Issue: limited broadleaved woodlands, but including the NI Priority Habitats Lowland woodland pasture and parkland and wet woodland

Actions:

- enhance the biodiversity value of broadleaved woodlands by discouraging felling; halt any further felling or pollarding; by retention of fallen and veteran trees (particularly for bryophytes, ferns, fungi and fauna); encourage control of grazing in broadleaved woodlands to foster herb layer and regeneration and if necessary, encourage replanting of canopy species
- further study of the history and ecology of broadleaved woodlands within the LCA, particularly any ancient and long-established, as a key to future management; ensure that hazel scrub is not cleared
- ensure conservation of wet woodlands by allowing succession to take place and installing fencing to prevent trampling; ensure that they are not lost through drainage, reclamation, landfill or dumping/tipping
- improve biodiversity through measures to improve and extend the woodland cover such as The Woodland Grant Scheme or The Farm Woodland Premium Scheme; management plans for demesne woodland should be directed toward their survival, through natural regrowth or planting of native broadleaf species, particularly in field corners and set-aside fields

GRASSLAND AND ARABLE

Issue: improved grassland and arable of low biodiversity value, however, NI Priority Species skylark and treesparrow have been recorded around Balleny.

Actions:

- maintain and improve field boundaries, especially hedgerows where they occur through adoption of correct cutting cycles; hedge laying and replanting where necessary; leave saplings uncut to develop into hedgerow trees; avoidance of spraying

with fertilisers, slurry, herbicides; provision of wildlife strips and conservation headlands around fields; and limitation of field amalgamation

- encourage (through participation in Environmental Schemes) adoption/continuance of less intensive management of pastures to allow reversion to/continuance of more species-rich grassland and protect unsown areas of rough grassland for breeding waders
- maintain and enhance damp grassland by where, possible, restricting field or arterial drainage
- leave stubble over winter, rather than autumn ploughing to increase food resources for farmland birds; spring-sown cereals are beneficial to farmland birds

WETLANDS AND LAKES

Issue: NI Priority Habitat fens are subject to a range of threats and have declined in recent years in this LCA.

Actions:

- prevent further loss of fen through drainage, reclamation, land-fill and encroachment by scrub woodland; prevent dumping and fly-tipping and encourage removal of rubbish; divert the inflow of nutrient rich water from agricultural land into fens
- promote and encourage existing good farming practices (Countryside Management guidelines) by so that rivers such as the Lagan are not polluted by releases from silage effluent, herbicides, pesticides, fertilisers or sheep dip
- monitor streams in relation to expansion of rural/urban housing and associated septic tanks/sewage treatment plants