

APPENDIX 3

ECOLOGICAL SURVEY

Cherryhound Local Area Plan

Fingal County, Dublin

Ecology

Report prepared for MacCabe Durney Barnes

February 2011

1. INTRODUCTION

This report is written to describe and assess the value of the ecological features that occur in this, largely agricultural, area.

It is submitted as a contribution to the Local Area Plan being prepared by MacCabe Durney for Fingal County Council.

It follows fieldwork carried out in February 2011 and uses habitats as defined in the Heritage Council publication (Fossitt 2000). Latin names are given to plant species but are omitted for the trees after first mention.

2. DESCRIPTION OF AREA

Cherryhound occurs on the western side of the M2 motorway north of Kilshane, and runs southwest to Cruiserath. It is mainly in agricultural use (see habitat map) with a large and growing amount of tillage (arable crops BC1) and some remaining pasture (both improved agricultural grassland GA1 and dry calcareous and neutral grassland GS1). The fields have well-grown hedges (hedgerows WS1) between them with tall trees (treelines WL2) in places. There are in addition three woodland copses (mixed broadleaved woodland WD1) and an area of young willows (scrub WS1) beside the electricity sub-station

An out-of-use quarry (active quarries and mines ED4) is found in the shaley rock at the NE end with some recolonising bare ground (ED3) beside it.

The soil is heavy and requires drainage before being tilled so that the marginal drains around the fields are deep. They collect water and flow northwest to the Ward River catchment or southwest to the Pinkeen (Tolka). Most are small and some seasonal, the largest occurring at the northern end. The flora of such drains is small and only watercress *Rorippa nasturtium-aquaticum*, soft rush *Juncus effusus*, fool's watercress *Apium nodiflorum*, great willowherb *Epilobium hirsutum* and bittersweet *Solanum dulcamara* were encountered.

Where the soil is not drained it soon reverts to rushy grassland. There are a few field corners like this and a substantial area near the substation.

2.1 Vegetation

The typical field boundary consists of hawthorn *Crataegus monogyna*, bramble *Rubus fruticosus*, wild rose *Rosa canina*, elder *Sambucus nigra* and ash *Fraxinus excelsior* with ivy *Hedera helix* always a prominent feature. As the ash trees get taller the ivy climbs into their canopies so that in winter it tends to dominate the scene. There is occasional honeysuckle *Lonicera periclymenum* and blackthorn *Prunus spinosa* (at the SE corner) and privet *Ligustrum vulgare* also occurs locally. Willow *Salix cinerea* and English elm

Ulmus procera are present in some hedges, usually as suckering saplings, while wych elm *U. glabra* occurs in the edges of woodlands. Herbaceous species are few in these hedges but wood avens *Geum urbanum*, cow parsley *Anthriscus sylvestris*, herb robert *Geranium robertianum*, germander speedwell *Veronica chamaedrys*, false brome *Brachypodium sylvaticum*, red fescue *Festuca rubra* and hartstongue *Phyllitis scolopendrium* can generally be found. Cowslip *Primula veris* and ground ivy *Glechoma hederacea* are features of grazed banks where they occur at the base of the hedges. In the tillage fields, however, these have been overgrown and replaced by goosegrass *Galium aparine*, spear thistle *Cirsium vulgare*, scutch *Elytrigia repens* and spreading brambles *Rubus fruticosus*.

The tillage fields were mostly ploughed when visited but the character of the weed flora around the edges suggests that the common species include field speedwell *Veronica persica*, red deadnettle *Lamium purpureum*, knotgrass *Polygonum aviculare*, annual meadowgrass *Poa annua*, sow thistle *Sonchus asper* and nipplewort *Lapsana communis*, the generalised community of heavy soils.

2.1.1 Grassland

Certain fields have been improved by reseeded and fertilisation so the dominant species are ryegrass *Lolium perenne* and white clover *Trifolium repens* with weeds like docks *Rumex obtusifolius*, *R. crispus*, nettle *Urtica dioica* and creeping buttercup *Ranunculus repens*. However elsewhere a more permanent grassland occurs with all three buttercups (*Ranunculus repens*, *R. acris* and *R. bulbosus*) in a grass cover of crested dogstail *Cynosurus cristatus*, cocksfoot *Dactylis glomerata*, meadowgrass *Poa* spp and scutch *Elytrigia repens*. Additional broad-leaved plants include red clover *Trifolium pratense*, daisy *Bellis perennis*, self-heal *Prunella vulgaris*, ribwort plantain *Plantago lanceolata* and red bartsia *Odontites vernus*.

The occasional wet field corners and some land around the electricity transformer support wet grassland, a mixture of rushes *Juncus inflexus*, *J. effusus*, cocksfoot *Dactylis glomerata*, timothy *Phleum pratense* and hairy sedge *Carex hirta*. Within this in places are

<i>Epilobium hirsutum</i>	great willowherb
<i>Cirsium arvense</i>	creeping thistle
<i>Potentilla reptans</i>	cinquefoil
<i>Agrostis stolonifera</i>	creeping bent
<i>Glyceria fluitans</i>	sweet grass
<i>Carex otrubae</i>	false fox sedge
<i>Holcus lanatus</i>	Yorkshire fog
<i>Lathyrus pratensis</i>	meadow vetchling
<i>Cardamine pratensis</i>	lady's smock

2.1.2 Woodlands

Three planted clumps of trees occur in Killamonan, a kidney-shaped plot close to a house and two more circular ones to its northeast and southwest. The first is surrounded by a drain and a ring of old chestnuts *Aesculus hippocastanum* and beech *Fagus sylvatica*. Internally the trees are younger and are mostly strongly growing ash, beech, horse

chestnut, oak *Quercus robur* and Norway maple *Acer platanoides*. The ground flora contains a selection of characteristic species, e.g.

<i>Hyacinthoides non-scriptus</i>	bluebell
<i>Ranunculus ficaria</i>	celandine
<i>Glechoma hederacea</i>	ground ivy
<i>Anthriscus sylvestris</i>	cow parsley
<i>Brachypodium sylvaticum</i>	false brome
<i>Viola riviniana</i>	common violet
<i>Veronica chamaedrys</i>	germander speedwell

The NE clump is isolated in a cornfield and has wetter soils with rushes at one end. In addition it has been subject to some disturbance and dumping of building waste. The trees are much older and mainly of oak and horse chestnut. Many of the latter are decaying and subject to treefall but a number of the oaks are in good condition, as are some ash. An ancient ash of enormous girth is present on the northern side, though largely broken. This wood has an understorey of elder and some bramble with few young trees. Much of the regeneration has probably been grazed at times in the past as the wood is open to the surrounding fields. There is also a number of marginal flowering currant *Ribes sanguineum*. Celandine *Ranunculus ficaria* is again prominent on the floor but there is also some male fern *Dryopteris filix-mas*, hogweed *Heracleum sphondylium*, nettle *Urtica dioica* and burdock *Arctium minus*, all related to animal usage.

The SW tree clump currently occupies a roadside side and in the past had an additional road along its northern edge. It consists of a line of old beech along the present road with sycamore and a little ash inside. The trees are tall and most seem relatively sound. It again is open to grazing animals so that the ground flora is grassy and there is no regeneration (and no ivy). The richest flora occurs on the roadside bank where it is protected by a double fence. It adds hedge woundwort *Stachys sylvatica* and garlic mustard *Alliaria petiolata* to the lists above.

The last area of woodland beside the substation is much younger and is more scrub-like though it is developing a closed canopy. It appears to have been an open field until the transformer was built so retains grass and rushes between the trees. Goat willow *Salix caprea* and grey willow *S. cinerea* of 3-5m are the only woody species except for a little hawthorn. The ground flora includes most of those plants found in wet grassland with the addition of rosebay *Chamerion angustifolium*, the moss *Calliergonella cuspidatum*, glaucous sedge *Carex flacca* and ragwort *Senecio jacobaea*. A single planted dogwood *Cornus alba* shrub was seen and there is also some spreading pampas grass *Cortaderia riccardii*.

2.1.3 Recolonising ground

A significant area of ground exists around the sub-station where construction traffic, site clearance and fill has disturbed the pre-existing vegetation in a number of small fields. Currently this area is a mix of flattened fill (largely limestone chippings), scraped areas to the east and west and mounds of overburden pushed to the northern boundary as a berm. Apart from this bank the ground surface varies so that there are semi-permanent pools as well as wet, grassy areas. The small wetlands support bulrush *Typha latifolia*, jointed rush

Juncus articulatus, floating sweet grass *Glyceria fluitans*, duckweed *Lemna minor* and forget-me-not *Myosotis laxa* while the damp areas have a larger flora, including

<i>Agrostis capillaris</i>	common bent
<i>Holcus lanatus</i>	Yorkshire fog
<i>Juncus inflexus</i>	hard rush
<i>J. effusus</i>	soft rush
<i>Epilobium hirsutum</i>	great willowherb
<i>E. parviflorum</i>	hoary willowherb
<i>Equisetum arvense</i>	field horsetail
<i>Carex flacca</i>	glaucous sedge
<i>Hypericum tetrapterum</i>	square-stemmed St John's wort
<i>Rumex crispus</i>	curled dock

The northern berm has been planted with ash and alder *Alnus glutinosa* while the eastern edge carries planted dogwood *Cornus alba* and white willow *Salix alba*. Common gorse *Ulex europaeus* is spreading widely also and tending to dominate the northern part where there is also wild rose *Rosa canina*. Rosebay *Chamerion angustifolium* is widely spread and there is also much coltsfoot *Tussilago farfara*. Calcareous species are present in small amounts – presumably introduced with the fill. Centaury *Centaureum erythraea* and cinquefoil *Potentilla reptans* were seen.

The entrance to this facility runs through an overgrown field in which rosebay *Chamerion angustifolium*, bramble *Rubus fruticosus* and goosegrass *Galium aparine* form notable patches. There is also some knapweed *Centaurea nigra* and crested dogstail *Cynosurus cristatus* in the sward along with common ragwort *Senecio jacobaea* and hoary ragwort *S. erucifolius* – the only place where this species so characteristic of Co Dublin, was seen. Butterfly bush *Buddleja davidii* is spreading onto this area from the southern hedges and gardens where it is widespread.

2.1.4 Quarry

The quarry has been excavated recently so there are not extensive areas that have been abandoned for years and which have developed vegetation. Much of the surface and cliffed walls are bare, showing only bands or slopes of shaley limestone. Berms surround most sides and on the west and north support tall species such as

<i>Dactylis glomerata</i>	cocksfoot
<i>Elytrigia repens</i>	scutch
<i>Festuca rubra</i>	red fescue
<i>Agrostis capillaris</i>	common bent
<i>Tussilago farfara</i>	coltsfoot
<i>Cirsium arvense</i>	creeping thistle
<i>Epilobium ciliatum</i>	American willowherb
<i>Senecio jacobaea</i>	ragwort
<i>Rumex obtusifolius</i>	broad-leaved dock
<i>Lathyrus pratense</i>	meadow vetchling
<i>Arctium minus</i>	burdock
<i>Brassica rapa</i>	wild turnip

There is no sign of introduced species such as generally follow quarry workings though they may be present in small amounts. It may be that the quarry was dedicated to use one truck company rather than attract operators from several areas (with the potential to introduce a wider flora).

3. FAUNA

A single winter survey does not give a complete idea of the fauna of an area but the few observations made are relevant.

Rabbits are abundant everywhere and almost all the hedges and banks are full of burrows. Evidence of foxes was also seen and there is an old badger sett in the NE woodland copses. This may be in seasonal use and did not seem active in February. No other mammals were seen though the potential value of the woodlands and some of the treelines to bats is obvious. The older trees contain holes suitable for the roosting of some species. The north-western part of the LAP would seem the most valuable habitat as there is much suitable ground in Hollywood (off-site). Feeding bats could reach as far as the quarry along the hedges here though the SE part of the area is much less attractive.

The birds seen included:

Pheasant – small numbers along hedges. Birds fed in the kidney-shaped copse
Sparrowhawk – hunting along hedges. Could nest but more probably in Hollywood
Buzzard – disturbed from a hedge but generally present in small numbers
Rook – small numbers throughout and nesting in the most westerly copse (40 prs)
Jackdaw – nesting in peripheral trees of larger copse (and probably elsewhere)
Hooded crow – single birds seen, likely to nest
Magpie – single birds seen, likely to nest
Great tit – singing in copses
Bullfinch – pair seen in blackthorn hedges
Yellowhammer – small flock of wintering birds
Linnet – several times flushed from hedges. Likely to nest in gorse at substation

Other generalist species were met with in several places – woodpigeon, blackbird, song thrush, robin, dunnock, wren, blue tit, chaffinch.

The gorse banks and other cover north of the substation would seem ideal habitat for linnet, stonechat and whitethroat while the area of scrub to the south probably has willow warbler in summer and, possibly, blackcap.

4. EVALUATION

No habitats of high interest occur in the Cherryhound area. However the three woodland copses, the nearby hedges and the abandoned area around the substation all have a

relatively high biodiversity value when compared to the prevailing farmland. The copses should be maintained intact during development as it is impossible to create mature woodland quickly. Both will need some management and a knowledge of their use by bats and/or badgers is essential in planning such actions.

The extensive band of habitat around the substation can be let develop naturally and will form a reservoir for wildlife that will move outside it into other areas, at least on a sporadic basis. The willow scrub to the south is already an attractive area and could form the basis of a local nature park. Here again limited interventions will have to be made but the area could be used without much expenditure.

Species of interest in the area are likely to include bats, badger and yellowhammer. The mammals are protected by national legislation and their presence should be surveyed if new development is planned, especially in the NW part of the area. The yellowhammer requires cereal fields for feeding so is unlikely to survive if this land use changes. It is a red-listed species of conservation concern (Lynas *et al* 2007) that has declined by about 90% as a breeder in recent years. The eastern counties remain its headquarters in Ireland.

No plants of interest are recorded by Doogue *et al* (1998) who comment on the reduced flora of inland North Dublin. This is also shown in Preston *et al* (2002).

References

Doogue, D., Nash, D., Parnell, J., Reynolds, S. and Wyse Jackson, P. 1998. *Flora of County Dublin*. Dublin Naturalists' Field Club, Dublin.

Fossitt, J.A. 2000. *A guide to habitats in Ireland*. Heritage Council.

Lynas, P., Newton, S.F & Robinson, J.A. 2007. The status of birds in Ireland: an analysis of conservation concern 2008-2013. *Irish Birds* 8, 149-167.

Preston, C.D., Pearman D.A. & Dines T.D. 2002. *New atlas of the British and Irish flora*. Oxford University Press.