



### Site Name: Clonaslee Eskers and Derry Bog SAC

### Site Code: 000859

Located approximately 5 km west of the town of Clonaslee, and largely in Co. Laois, this site consists of a series of morainic hills and esker ridges which are the legacy of the last period of glaciation. To the north-west, the Derry Hills are two isolated hills situated in a bog, which forms part of the site. The main esker ridge runs along the southern part of the site.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (\* = priority; numbers in brackets are Natura 2000 codes):

[7220] Petrifying Springs*
[7230] Alkaline Fens
[1013] Geyer's Whorl Snail ( <i>Vertigo geyeri</i> )

An unusual assemblage of plants is found on the western part of the esker and on the Derry Hills. Calcicole species such as Mountain Everlasting (*Antennaria dioica*), Yellow-wort (*Blackstonia perfoliata*), Autumn Gentian (*Gentianella amarella*) and Carlina Thistle (*Carlina vulgaris*) grow with species more typical of acid heaths. These include Tormentil (*Potentilla erecta*), Fragrant Orchid (*Gymnadenia conopsea*), Goldenrod (*Solidago virgaurea*) and Heather (*Calluna vulgaris*). Wood Vetch (*Vicia sylvatica*) and Bitter-vetch (*Lathyrus montanus*) occur in limestone heath on the Derry Hills. These species are very restricted in their distribution in Ireland. Blue Moor-grass (*Sesleria albicans*) has also been recorded, a rare occurrence of this species in a location east of the River Shannon.

Small disused gravel pits occur within the site, which are vegetated by species such as Field Madder (*Sherardia arvensis*), Common Whitlowgrass (*Erophila verna*) and Thyme-leaved Sandwort (*Arenaria serpyllifolia*).

Both the southern esker and the Derry Hills support patches of woodland. In some areas, an open canopy of Sessile Oak (*Quercus petraea*) and Silver Birch (*Betula pendula*) occurs. Beneath this, the ground flora includes Wood Anemone (*Anemone nemorosa*), Wood Sage (*Teucrium scorodonia*) and Bilberry (*Vaccinium myrtillus*). In the south-western part of the site, woodland dominated by Hazel (*Corylus avellana*) is more common. Ash (*Fraxinus excelsior*), Hawthorn (*Crataegus monogyna*) and Sycamore (*Acer pseudoplatanus*) also occur, with Sessile Oak and Downy Birch.

To the east of the road water percolates down through the glacial material of the esker ridge and emerges in a series of small, calcium-rich springs which flow into cut-away bog to the north. This has resulted in the creation of a species-rich alkaline fen. Black Bog-rush (*Schoenus nigricans*) dominates the vegetation here. Also present are Pale Butterwort (*Pinguicula lusitanica*), Meadow Thistle (*Cirsium dissectum*), Round-leaved Sundew (*Drosera rotundifolia*) and the distinctive Fly Orchid (*Ophrys insectifera*). The latter species is confined to parts of the west and midlands of Ireland, where it occurs only occasionally.

At several points along the base of the esker ridge the calcium-rich springs emerge and then splay outwards and downslope creating zones of petrifying spring habitat. They include positive indicator species as well as weak paludal tufa formation. Among the tussocky vegetation (dominated by Black Bog-rush) species include Long-stalked Yellow-sedge (*Carex lepidocarpa*), Common Butterwort (*Pinguicula vulgaris*) and mosses such as *Palustriella commutata*, *Palustriella falcata*, *Scorpidium cossonii*, *Campylium stellatum* and *Bryum pseudotriquetrum*. The tufa zones occupy lower ground within the overall fen area.

Derry Bog, which is a cut-away raised bog, lies to the north-west of the site. This supports a typical range of bog mosses (*Sphagnum* spp.) and flowering plants, such as Heather and Bog Asphodel (*Narthecium ossifragum*).

The rare whorl snail *Vertigo geyeri* was recorded from the fen area at this site in 1998. This species is a glacial relic with a disjunct European population, which is considered vulnerable due to loss of habitat, particularly through drainage.

Two plant species protected under the Flora (Protection) Order, 2015, occur within the site. Wood Bitter-vetch (*Vicia orobus*) occurs in quantity among oak/birch scrub on the Derry Hills. This species has declined due to land reclamation and has only been seen at one other location since 1970. Basil Thyme (*Acinos arvensis*) occurs in a disused gravel pit and has been seen at only three other sites since 1970. This species favours open gravel and has declined due to the agricultural use of herbicides. Blue Fleabane (*Erigeron acer*) had been recorded with Basil Thyme at this site. This species is rare and threatened in Ireland, and is listed in the Red Data Book as a species confined mostly to open gravel habitats in central and south-eastern Ireland.

A significant land use practice within the site is the extraction of gravel. One quarry west of the road is currently being worked. This activity leads directly to destruction of the esker and irreparable damage to the site. Some of the esker grasslands (mostly at the western end) have been improved either for pasture or for arable farming.

This site is of conservation importance for the presence of alkaline fen vegetation, with petrifying springs, and is considered one of the best sites in the south-east region for this habitat. Also of interest is the extremely unusual assemblage of plants associated with the esker ridges, which includes three rare plants, two of which are legally protected in Ireland. Of further conservation importance is the presence of the rare snail *Vertigo geyeri*.

