# SITE SYNOPSIS

**Site Name: Arragh More (Derrybreen) Bog SAC**

**Site Code: 002207**

Arragh More (Derrybreen) Bog SAC occurs within the larger raised bog system that is designated as Arragh More Bog NHA (000640). It is situated 9.5 km north-east of Borrisokane in County Tipperary. It lies within the townlands of Arraghmore and Derrybreen.

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):

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| [7120] Degraded Raised Bog |

Degraded Raised Bog corresponds to those areas of high bog where the hydrology has been adversely affected by peat cutting, drainage and other land use activities, but which are capable of regeneration to Active Raised Bog (ARB) within 30 years.

Arragh More (Derrybreen) Bog SAC comprises 90.58 ha of raised bog (57.9 ha of high bog and 32.68 ha cutover) which occupies the north-western section of Arragh More Bog NHA (000640). Arragh More Bog NHA developed originally in at least 3 basins, aligned in a north–south direction, which were initially separated by low ridges of relatively impermeable glacial till overlying limestone bedrock. As these bogs grew they eventually coalesced over these low ridges to form one bog with a very complex shape. The SAC occupies the western parts of the 2 most northerly basins. The surface of the high bog in the central basin is lower than that to the east and south and receives significant amounts of runoff from them resulting in the development of an internal flush system. The SAC is bordered by forest plantations on cutaway to the north, raised bog and cutover to the east and south and agricultural grassland to the east.

The SAC was mostly afforested in the 1970s, with just over 12 ha (13%) of high bog in the north-east and south of the site being left unplanted. The remaining areas of intact high bog have been affected by drying out but still have vegetation typical of a Midland Raised Bog, consisting of Heather (*Calluna vulgaris*), Cottongrasses (*Eriophorum vaginatum* and *E.angustifolium*), Bog Asphodel (*Narthecium ossifragum*) and White Beak-sedge (*Rhynchospora alba).* Typical characteristic species for Midland Raised Bogs such as Bog Rosemary (*Andromeda polifolia*) and Cranberry (*Vaccinium oxycoccos)* are present. In addition to the more common hummock-forming bog mosses (*Sphagnum capillifolium, S. papillosum* and *S. subnitens*) which are widespread, some hummocks of the relatively scarce *S. austinii* and *S. fuscum* have been recorded. In the small remnants of the flush system at the extreme east of the site, Bog-myrtle

(*Myrica gale*), Bilberry (*Vaccinium myrtillus*), Purple Moor-grass (*Molinia caerulea*), Soft Rush (*Juncus effusus*) and the bog moss *Sphagnum recurvum* become more common. The most strongly flushed areas, which partly lie within the site, are dominated by wet woodland with Birch (*Betula pubescens*), Alder (*Alnus glutinosa*), Willow (*Salix* spp.) and Rowan (*Sorbus aucuparia*) with a ground layer of grasses and the bog species listed above. This area grades eastwards into a Common Reed (*Phragmites australis*) swamp which is within the NHA but outside the SAC.

The remainder of the site was covered by conifer plantations, which were mostly felled by 2013. All the intensive drainage systems associated with the plantation were blocked by 2014 as part of an EU-funded Coillte LIFE Project *Demonstrating Best Practice in Raised Bog Restoration in Ireland* so as to raise the water table and restore Active Raised Bog (ARB) on the site. Prior to the felling, there were relatively few bog species present in the plantations except along fire breaks. With the clear-felling of conifers and blocking of drains, the high bog is re-wetting, water-levels in some areas now remain high throughout the year and limited areas of wet flats and hollows are developing. As a consequence, raised bog vegetation has returned, with Heather and Hare's tail Cotton-grass (*Eriophorum vaginatum*) dominating, while Common Cotton-grass (*Eriophorum angustifolium*), Bog Asphodel and White Beak-sedge are locally common and small amounts of Bilberry and Cross-leaved Heath (*Erica tetralix)* are widespread. Bog mosses that are regenerating include *Sphagnum papillosum, S. capillifolium, S. palustre* and *S. subnitens*, with *S. recurvum* in drains. In the more flushed areas considerable amounts of Purple Moor-grass and Soft Rush are also present.

Two areas in the eastern section of the SAC are showing significant indications of recovery and represent Degraded Raised Bog (DRB) habitat. These areas are on two major water flow paths across the bog and now have standing surface water in the hollows and pools for most of the year and considerable areas of regenerating *Sphagnum* species. The larger and most easterly of these flow paths comes from areas of mineral soil and cutover bog to the east of the SAC. The areas fed by this flow path are likely to support vegetation characteristic of flushes and soaks and develop into areas of both Active Raised Bog (ARB) and possibly Bog Woodland. The other main flow path derives from the high bog and cutover to the south and will supply mainly bog water and therefore support a more standard ARB habitat. It is considered both areas will support some areas of ARB within 10–20 years and that these will continue to develop and spread over the following decades. It is expected that some of the area will develop further into Bog Woodland as the birch woodland develops on the more flushed areas of the site. There is a small area of Bog Woodland to the east but just outside the site. It contains the characteristic species for that habitat. In addition, it is estimated that restoration works carried out on this site may benefit the conservation of 3 ha of ARB in the adjacent area of Arragh More Bog NHA.

Arragh More (Derrybreen) Bog SAC is a site of considerable conservation significance, comprising as it does, a raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. Ireland has a high proportion of the total E.U. resource of Atlantic Raised Bog (over 50%) and so has a

special responsibility for its conservation at an international level. The large area of Degraded Raised Bog habitat present is of significant conservation value as it considered to be progressing to Active Raised Bog, which is a priority habitat in the E.U. and one that is scarce and under threat in Ireland and severely endangered in the EU. Some of the DRB in the more flushed parts of the bog may eventually develop into the very rare priority EU-Annexed habitat Bog Woodland (91D0), which would add further to the scientific interest of the site. The site is, and will continue to be, actively managed for conservation as part of the Coillte EU LIFE Project.