



Site Name: Callow Bog SAC

Site Code: 000595

Callow Bog is located approximately 7 km north-west of Frenchpark, Co. Roscommon, in the townlands of Callow or Runnawillin, Cloonmagunnaun, Keelbanada, Creggan and Ratra. It is situated on the south-western shore of Lough Gara and is underlain by Carboniferous limestone. The site includes both areas of high bog and cutover. The high bog consists of five lobes dissected by roads and a stream. Overall the high bog is relatively flat with slight slopes north to Lough Gara. Two wet areas with pools occur, and there are a number of tear pools to the north. The high bog also supports a very large central flush. The River Lung flows near the north-western boundary of the site and there is a low-relief drumlin to the north-west of the bog. To the south, the raised bog is surrounded by agricultural land.

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):

[7110] Raised Bog (Active)*
[7120] Degraded Raised Bog
[7150] Rhynchosporion Vegetation

Active raised bog comprises areas of high bog that are wet and actively peat-forming, where the percentage cover of bog mosses (*Sphagnum* spp.) is high, and where some or all of the following features occur: hummocks, pools, wet flats, *Sphagnum* lawns, flushes and soaks. Degraded raised bog corresponds to those areas of high bog whose hydrology has been adversely affected by peat cutting, drainage and other land use activities, but which are capable of regeneration. The Rhynchosporion habitat occurs in wet depressions, pool edges and erosion channels where the vegetation includes White Beak-sedge (*Rhynchospora alba*) and/or Brown Beak-sedge (*R. fusca*), and at least some of the following associated species, Bog Asphodel (*Narthecium ossifragum*), sundews (*Drosera* spp.), Deergrass (*Scirpus cespitosus*) and Carnation Sedge (*Carex panicea*).

Active raised bog at this site is confined largely to a few small portions of the largest, most northerly lobe, though parts of the other lobes may also be active. The active areas are wet, with a range of bog mosses including *S. papillosum*, *S. capillifolium* and *S. fuscum*. Well-developed hummocks appear to be rare. The main vascular plant species within the active areas are the cottongrassess *Eriophorum angustifolium* and *E. vaginatum*, Bog Asphodel, Carnation Sedge and Deergrass. Cover of dwarf woody shrubs such as Heather (*Calluna vulgaris*), Cross-leaved Heath (*Erica tetralix*) and Bog-rosemary (*Andromeda polifolia*) is relatively low due to the recent high frequency of

burning. Pool areas are frequent within the active areas, though most of them have little vegetation and appear to be tear pools of recent origin.

It is within the area of the pools that Rhynchosporion vegetation is best represented. Species representative of this habitat include the bog mosses *S. cuspidatum* and *S. auriculatum*, Bogbean (*Menyanthes trifoliata*), Great Sundew (*Drosera anglica*), Bog-sedge (*Carex limosa*), Common Cottongrass (*Eriophorum angustifolium*) and White Beak-sedge. The liverwort *Pleurozia purpurea* and the moss *Racomitrium lanuginosum* are frequently encountered in areas of active bog, and the presence of these species indicates that this bog is an example of a western raised bog.

The majority of the high bog at this site is classified as degraded raised bog. Most of the degraded area is dominated by Bog Asphodel, which often occurs as extensive, species-poor flats or hollows. Along the driest face-bank areas the peat surface is generally hard with Heather being the dominant species. Throughout most of the damp, degraded, high bog surface species such as Carnation Sedge, cottongrasses and Deersedge are locally abundant. Woody dwarf shrubs have a low cover and are low-growing due to the effects of recent burning. Pool areas are frequent, however as noted above, most are poorly vegetated which suggests that they are tear pools which are relatively recent in origin. Lichen cover is good on the high bog where no recent burning has occurred, with the main species being *Cladonia portentosa*. At the north-west corner of the site, some Birch (*Betula* sp.), Gorse (*Ulex europaeus*) and Bog-myrtle (*Myrica gale*) are encroaching onto the high bog.

Two flushes dominated by Purple Moor-grass (*Molinia caerulea*) occur, the larger one found in the centre of the main lobe and the smaller one a linear feature with swallow holes to the north-east. The main flush has good bog moss cover and also supports Cross-leaved Heath, Devil's-bit Scabious (*Succisia pratensis*) and Tormentil (*Potentilla erecta*). The rare Red Data Book species Alder Buckthorn (*Frangula alnus*) has been recorded from this central flush area.

The vegetation of the cutover is dominated by Heather on old peat banks, with stagnant pools in places and some regenerating peat to the south. To the south-east there is much Common Reed (*Phragmites australis*), Purple Moor-grass and Bulrush (*Typha latifolia*) on cutover. Scattered Gorse and willow (*Salix* spp.) occur in small amounts. To the north of the high bog the vegetation is dominated by White Beak-sedge, reflecting the disturbance from peat cutting in this area. Here also there is much bare peat. In places towards the centre of the site there are old tracks quite close to the high bog which support calcicole species and which are lined with Bracken (*Pteridium aquilinum*), willows, Gorse and Purple Moor-grass, along with some Bilberry (*Vaccinium myrtillus*).

Current land use on the site consists of peat-cutting along much of the bog margins, apart from the north-east where the presence of Lough Gara has curtailed access and the bog margins are relatively intact. Afforestation has occurred on the high bog to the north of the site. Damaging activities associated with this land use include drainage and burning. Fire damage was recorded in the 1980s when most of the bog

was badly damaged. More recently, the large central flush area has been burnt and there is evidence of regular burning throughout the area. Apart from a few small areas of high bog to the north-west and south, most of the high bog has suffered burning in the recent past. These are all activities that have resulted in loss of habitat and damage to the hydrological status of the site, and that pose a continuing threat to its viability.

Callow Bog is of considerable conservation significance as it consists of a raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. Its semi-natural lake margins and its northerly location add to its overall conservation value. Active raised bog is listed as a priority habitat on Annex I of the E.U. Habitats Directive, whilst degraded raised bog and *Rhynchosporion* vegetation are also listed on Annex I of this Directive. Priority status is given to habitats and species that are threatened throughout the E.U. Ireland has a high proportion of the total E.U. resource of this habitat type (over 60%) and so has a special responsibility for its conservation at an international level.