

Site Name: All Saints Bog and Esker SAC

Site Code: 000566

All Saints Bog is a lowland raised bog lying about 5 km north-west of Birr in Co. Offaly, and separated from the Little Brosna Callows by a fragmented esker ridge.

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):

[6210] Orchid-rich Calcareous Grassland*
[7110] Raised Bog (Active)*
[7120] Degraded Raised Bog
[7150] Rhynchosporion Vegetation
[91D0] Bog Woodland*

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*).

The active raised bog is dominated by bog mosses, e.g. *S. cuspidatum* in pools, *S. magellanicum* forming carpets and *S. imbricatum* forming hummocks. Heather (*Calluna vulgaris*) occurs on the hummocks. Characteristic species of midland raised bogs, such as Cranberry (*Vaccinium oxycoccos*) and Bog-rosemary (*Andromeda polifolia*), also occur. In the wettest areas, Rhynchosporion vegetation is relatively well-developed and widespread. Frequent species include Bogbean (*Menyanthes trifoliata*), Great Sundew (*Drosera anglica*), Bog Asphodel, White Beak-sedge and Common Cottongrass (*Eriophorum angustifolium*). The relatively rare Brown Beak-sedge has been noted from wet pools within the site. The presence of the liverwort *Pleurozia purpurea*, a western species, is notable.

Degraded raised bog dominates the drier areas of high bog surface within this site. The most frequent vascular plant species in the vegetation are Heather, Hare's-tail

Cottongrass (*Eriophorum vaginatum*), Deergrass, Bog Asphodel and Carnation Sedge. The *Sphagnum* cover in degraded raised bog areas is generally low, typically lying within the range of 5 to 20% ground cover. The presence, and local abundance, of moss species indicative of disturbance or drying-out, such as *Campylopus paradoxus*, *C. introflexus* and *Leucobryum glaucum*, is noteworthy. Locally, the cover of the lichen *Cladonia portentosa* can be high. However, the lichen cover is generally low due to frequent burning episodes which have affected the site in the recent past.

The site contains the largest stand of birch (*Betula* spp.) woodland growing on an active raised bog in the country. In the centre of the bog there is a elongated flushed area which is wooded, and this is surrounded by an outer non-wooded area. The non-wooded area is dominated by *Sphagnum recurvum* and *S. fimbriatum*, with hummocks of *S. palustre* and *S. capillifolium*. Hare's-tail Cottongrass is common and Heather, Crowberry (*Empetrum nigrum*) and Cranberry are abundant. The wooded area, which covers approximately 20 ha, is dominated by birch (mostly Downy Birch, *Betula pubescens*, but with a little Silver Birch, *B. pendula*), which grows to about 5-8 m high. There are scattered pines (*Pinus* spp.) and a shrub layer of willows (*Salix aurita* and *S. atrocinerea*), a dwarf shrub layer of Heather and Crowberry, and a thick mat of mosses and lichens with species such as *Sphagnum fimbriatum*, *S. palustre*, *Aulacomnium palustre*, *Polytrichum commune*, *Peltigera* cf. *canina* and *Cladonia portentosa*. In drier and more open areas, Bracken (*Pteridium aquilinum*) is locally dominant with grasses, e.g. Sweet Vernal-grass (*Anthoxanthum odoratum*), and the Field Wood-rush (*Luzula campestris*). Bottle Sedge (*Carex rostrata*) occurs in wetter areas. The rare Myxomycete fungus, *Badhamia lilacina*, has been recorded from the site.

The birch wood supports an interesting invertebrate fauna, with two rare species being recorded; a fly (*Dicthenida bimaculata*, Order Diptera) and a ladybird (*Hippodamia tredecimpunctata*, Order Coleoptera). There is a concentration of saproxylic invertebrates in the birch woodland, which suggests that the woodland is ancient. The bog has traditionally been used as an occasional refuge for part of the Little Brosna flock of Greenland White-fronted Goose, an Annex I species of the E.U. Birds Directive, although in recent years they have not been observed on the bog.

An extensive area in the north-east corner of the bog, representing about 20% of the bog surface, is being cut for turf, with drains running into the eastern edge of the birch woodland. This appears to be leading to the bog drying out, as the surface is reported to be much drier than when first surveyed in the mid-1980s.

To the south of the bog are the fragmented remains of an esker ridge, which may have an influence on the hydrology of the flush. It is included in the site partly for this reason, but also for its own intrinsic value. The area south-east of Coneycarn pit is steeply sloping and unfertilised, and supports a good example (though small in area) of species-rich calcareous esker grassland. Pyramidal Orchid (*Anacamptis pyramidalis*) and Common Spotted-orchid (*Dactylorhiza fuchsii*) have both been recorded. In addition, a large population of Green-winged Orchid (*Orchis morio*), a species listed in the Irish Red Data Book of vascular plants, occurs here. Coneycarn

pit itself supports populations of the legally protected (Flora (Protection) Order, 1999) Red Hemp-nettle (*Galeopsis angustifolia*) and the threatened Blue Fleabane (*Erigeron acer*). Both of these are annual species of ruderal habitats and are listed in the Irish Red Data Book of vascular plants.

All Saints' Bog is a unique bog, important for its vegetation types, plants, invertebrates and birds. To conserve the site peat cutting needs to stop, drains need to be blocked and marginal dams built to raise the water table. The esker supports species-rich grassland, including rare species, and this area should continue to be grazed but left unfertilized. Further gravel extraction should be prevented, although some disturbance may be required to conserve the Red Hemp-nettle and Blue Fleabane.