

Site Name: Peterswell Turlough SAC

Site Code: 000318

This elongated turlough, running north-east to south-west lies parallel to the Peterswell-Castledaly section of the Gort-Loughrea road in Co. Galway. The surrounding land is gently rolling and drift-covered.

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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| [3180] Turloughs* [3270] <i>Chenopodium rubri</i> p.p. and <i>Bidention</i> p.p. vegetation |
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The site can be divided into two main sections linked by a narrow wooded valley at Limepark: Blackrock or Peterswell Turlough which is confined to a deep circular basin at the south-western end, and to the north, Bullaunagh, a broader valley which also floods in winter. Bullaunagh itself can be divided into two parts, the northern part which at times of low flood is a waterbody with swallow holes separate from Peterswell, and the southern broad valley which tends to flood from rising water levels at Peterswell.

There are rock exposures at Blackrock and, on the south-eastern slopes, a sheet of limestone occurs. Boulders occur around much of the margin. Above Limepark the valley is covered with thick drift without outcrops, but with signs of alluvial deposition.

The site is the lower valley and sink for the Kilchreest River, with a tributary from Castledaly. At times of high flow the sink is in the north-centre of Blackrock but it works progressively northwards as the water-table declines. The river runs along an artificial channel and the valley bottom has signs of its former course in the form of pools, etc. A large swallow-hole occurs in the south-western slope of Blackrock. Sinks are generally along the river channel.

Blackrock has a flat base with a small low-lying section kept irrigated by the stream from the south-east corner. This has a cover of annual plants, including Toad Rush (*Juncus bufonius*) and the rare species Northern Yellow-cress (*Rorippa islandica*) and Mudwort (*Limosella aquatica*). Much of the rest of this central part consists of a stand of fairly uniform Common Sedge (*Carex nigra*), which also includes Silverweed (*Potentilla anserina*) and locally abundant Fen Violet (*Viola persicifolia*). As the soil thins towards the edge of the basin Creeping Cinquefoil (*Potentilla reptans*) occurs with Common Bird's-foot-trefoil (*Lotus corniculatus*), Northern Bedstraw (*Galium*

boreale) and Heath Dog-violet (*Viola canina*). Buckthorn (*Rhamnus catharticus*) forms a coherent woodland with Hawthorn (*Crataegus monogyna*) and Alder (*Alnus glutinosa*) along the south-eastern slope. On the boulder strewn areas a limestone grassland is characteristic.

The Limepark section of the site has notable areas of woodland. Turlough woodland along the narrow 'gorge' along the river commonly contains Ash (*Fraxinus excelsior*), Buckthorn and Spindle (*Euonymus europaeus*), and Crab Apple (*Malus sylvestris*) is also found here. The Ash dies back due to floods, and Hawthorn and Buckthorn tend to fill in the gaps. Above the flood levels a large area of good quality Ash woodland on limestone pavement occurs.

The Bullaunagh wetlands are eutrophic and much used for grazing. Damper areas have tall herbs where cattle cannot graze early in the season. Docks (*Rumex* spp.), tall Marsh Yellow-cress (*Rorippa palustris*) and Reed Canary-grass (*Phalaris arundinacea*) characterise these areas. Parts of the river bed and channels between swallow holes in the northern section have Floating Sweet-grass (*Glyceria fluitans*), Reed Canary-grass and Water Forget-me-not (*Myosotis scorpioides*), amongst others. The drier but still annually flooded parts resemble callowland having a damp grassland with Creeping Bent (*Agrostis stolonifera*), Meadow Foxtail (*Alopecurus pratensis*), Hawkbits (*Leontodon* spp.) and Hairy Sedge (*Carex hirta*), grading into more species-rich grassland with Yellow Rattle (*Rhinanthus minor*), Common Vetch (*Lathyrus pratensis*) and Sweet Vernal-grass (*Anthoxanthum odoratum*) in drier parts.

Three rare plant species, listed in the Irish Red Data Book, occur at the site. Mudwort colonises muddy areas around the turlough, Northern Yellow-cress is found in poached areas where water stands only in the winter and Fen Violet is found in damp unimproved grassland subject to periodic inundation. Mudwort is also listed under the Flora (Protection) Order, 1999. Red Goosefoot (*Chenopodium rubrum*), a scarce annual plant that is typical of certain turlough situations, also occurs at the site. Red Goosefoot is characteristic of the E.U. Habitats Directive Annex I habitat type 'rivers with muddy banks with *Chenopodium rubri* p.p. and *Bidention* p.p. vegetation'.

When flooded the site supports a good diversity of wintering waterbird species, including both grazing and diving ducks, which utilise every part of the site depending on the flood levels. At times of high flood the bird population spreads out to the middle section of this site. At times of lower flood the middle section is not flooded and Bullaunagh in the north and Peterswell in the south are separate bodies of water holding separate populations of waterfowl. There is interchange (sometimes daily) between this site and both Lough Coy and Ballylee Turloughs further south. Maximum counts (figures from 1996-97) at Blackrock are as follows (those for Bullaunagh, i.e. the northern quarter of the site are in square brackets): Mute Swan (5) [22], Whooper Swan (27) [42], Wigeon (466) [249], Teal (323) [30], Mallard (28) [35], Pochard (50) [60], Tufted Duck (26) [10], Lapwing (350) [300], Dunlin (190) [90], Curlew (30) [230] and Redshank (6) [11]. There is a Sand Martin colony in the sandy

alluvial river banks in the meanders at the northern end of the site. In 1996, 37 active nesting holes were counted.

Peterswell Turlough is a large and important site which shows an excellent range of vegetation along the turlough-callow gradient and includes a summer-dry turlough filled by a river. Further, Peterswell Turlough is part of a complex of turloughs running down to Lough Coy and Ballylee. Turloughs are listed on Annex I of the E.U. Habitats Directive with priority status. The presence of flooded woodland on limestone and drift, and a large dry woodland on limestone pavement enhances the ecological diversity of the site. Drainage works have been minimal at the site, though grazing continues to disrupt natural vegetation processes. The site includes populations of three rare Red Data Book vascular plant species as well as the scarce Red Goosefoot. It is regularly used by good numbers and a wide diversity of wintering waterbirds, including the E.U. Birds Directive Annex I species Whooper Swan and Golden Plover. A colony of breeding Sand Martin in the river alluvium adds further interest to the site.