

Country: Ireland

Ref: 7IE040

Name of wetland: Lough Ennell

Lough Ennell is a large, open steep-sided lake, located 3km south of Mullingar. The lake bottom is of limestone with a marl deposit. The water is markedly alkaline and mesotrophic, possibly owing to effluents received from Mullingar town and to fertilizer inputs from farmland surrounding the lake. The River Brosna flows into the lake from the north, at Butler's Bridge, and out from the south.

Much of the lakeshore is rather dry, stony ground, which was formerly part of the lake bed but is now exposed by drainage, and colonised by calcareous grassland. Species such as Mountain Everlasting (*Antennaria dioica*), Hairy Lady's Mantle (*Alchemilla filicaulis* subsp. *vestita*), Frog Orchid (*Coelglossum viride*), Fairy flax (*Linum catharticum*) and Yellow-wort (*Blackstonia perfoliata*) occur here.

In wet marshy patches along the shore Marsh-marigold (*Caltha palustris*), Brookweed (*Samolus valerandi*), Lesser Water-plantain (*Baldellia ranunculoides*) and others are common in these habitats.

Reedbeds and species-poor swamp vegetation occasionally fringe the lake, particularly around the points of inflow and outflow and on the eastern shore, around Tudenham Park. Common Reed (*Phragmites australis*) is abundant here, while Water-plantain (*Alisma plantago-aquatica*), Cowbane (*Cicuta virosa*) and others are common. Frogbit (*Hydrocharis morsus-ranae*) and Tufted Sedge (*Carex elata*) occur here. Both these species are of note in that they are occasional in the eastern Midlands but are rarely recorded elsewhere. The Rare Fibrous Tussock-sedge (*Carex appropinquata*) has been recorded here also. This species has a disjunct distribution, being recorded only from Co. Clare and from two Midland counties (Westmeath and Offaly).

Mixed woodland of Beech (*Fagus sylvatica*), Ash (*Fraxinus excelsior*) and Downy Birch (*Betula pubescens*) fringes the lakeshore to the northwest. Bluebell (*Hyacinthoides non-scriptus*) and Lords-and-ladies (*Arum Maculatum*) are among the woodland ground flora.

A species of blue-green alga (*Schizothrix fasciculata*), which forms little pebbles of lime that are cast up on the lakeshore, occurs in Lough Ennell and has not been recorded from anywhere else in Ireland.

Yellow Archangel (*Lamiastrum galeobdolon*), a rare plant listed in the Red Data Book, has been recorded in the woods along the eastern shores of Lough Ennell. This is the only record for the occurrence of this species outside the southeast of Ireland.

This site shares an internationally important Greenland White-fronted Goose flock with Loughs Iron, Glen and Owel. The numbers of Geese which visit Lough Ennell are lower than for the other lakes: 91 birds (3 year average peak). Nationally

important bird populations which have been recorded on Lough Ennell are: Cormorant (average peak 149; absolute maximum 448); Mute swan (average peak 424); Pochard (average peak 889; maximum 2,600 on 8/11/85); Tufted Duck (average peak 720) and Coot (average peak 639). All of these data were compiled from counts made over 3 seasons, 1984/85 - 1986/87. A single count of 522 Golden Plover was obtained in that period, i.e. a regionally important population.

Three species of Stonefly (*Order Trichoptera*) have been recorded in this site. One of these (*Tinodes maculicornis*) is rare and of European significance.

Lough Ennell is an important amenity area, much used for fishing, boating and camping. Sections of the shoreline are managed for visitor access and amenity. The chemical composition of effluent from the Mullingar sewage treatment plant has a significant impact on water quality of Lough Ennell. The mid-1970's saw the introduction of treatment of the sewage to reduce phosphates, with a resulting improvement in water quality (according to data compiled during 1987-90). However, levels of planktonic algal growth in the lake water continue to fluctuate, in response to the variable efficiency of the phosphate removal facility at the sewage treatment plant and the re-mobilization of phosphate from the sediments of the lake.

Lough Ennell is of significance as a highly productive lake which is rich in its range of lower plants and invertebrate species. Its lakeshore habitats provide important refuges for wildfowl, as well as supporting a diverse flora.