SITE SYNOPSIS

SITE NAME: LOUGH GOWER

SITE CODE: 000523

This small lake is located approximately 5km east of Kilkelly and lies in the catchment of the Boyle River in Co. Mayo. The surrounding land is mostly flat or gently undulating bog or improved pasture.

The lake bottom is sandy and colonised by aquatic mosses (*Drepanocladus* spp.). The lake water is a brownish colour, stained by peat and mineral substances, and shows no sign of eutrophication.

At its western end, the open water is colonised by swamp vegetation. Bottle Sedge (*Carex rostrata*), Bogbean (*Menyanthes trifoliata*) and Soft Rush (*Juncus effusus*) are abundant on a mat of the bog moss *Sphagnum cuspidatum*. Marsh Pennywort (*Hydrocotyle vulgaris*), Royal Fern (*Osmunda regalis*) and Floating Bur-reed (*Sparganium angustifolium*) also occur. The latter species is of note in that it is not commonly found in low-lying areas such as this.

A smaller lake once stood south of Lough Gower. This now is infilled with vegetation – no standing water remains but the vegetation forms a quaking mat. Bulrush (*Typha latifolia*) is abundant, with Soft Rush now dominant on the lake bed. Alder (*Alnus glutinosa*) and willows (*Salix* spp.) are colonising.

The northern lakeshore is bordered by sloping grassland which is partially colonised by Gorse (*Ulex europaeus*). Grassland species include Yorkshore-fog (*Holcus lanatus*) and Sweet Vernal-grass (*Anthoxanthum odoratum*). Towards the top of the slope this grades into wet heath, with abundant *Sphagnum* mosses and Heather (*Calluna vulgaris*).

South of the lake are fields which have been heavily improved for agricultural use. Perennial Rye-grass (*Lolium perenne*) is abundant in these grasslands.

The lake is small and nutrient-poor, with a slow turnover time. Thus, it is highly vulnerable to nutrient input and eutrophication. The inflowing streams are very small, and the lake is thus probably heavily influenced by direct drainage, i.e. run-off of substances from adjacent slopes. Pollution with organic substances would destroy the chemical composition of Lough Gower. Slopes north and south of the lake are included as buffer zones.

Lough Gower is of importance as a lake of low nutrient status, which shows no sign of eutrophication. Such lakes are uncommon in low-lying agricultural areas such as this. In addition, it is fringed by semi-natural reed-bed/swamp vegetation.

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