

Site Name: Kilkieran Lake and Castlefreke Dunes SAC

Site Code: 001061

Kilkieran Lake and Castlefreke Dunes are situated about 6 km south-east of Rosscarbery in Co. Cork. It is coastal site in which well-developed sand dunes have impounded two streams to create wetland areas of open water, freshwater marsh and swamp. The site also contains an area of mixed woodland.

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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| [1150] Coastal Lagoons* |
| [2110] Embryonic Shifting Dunes |
| [2120] Marram Dunes (White Dunes) |
| [2130] Fixed Dunes (Grey Dunes)* |

In the Castlefreke system the sand dune flora is rich for this area of west Cork. Embryonic shifting dunes occur along the seaward side of the dune system where there is some movement of sand. Marram (*Ammophila arenaria*) occurs thinly, along with Sea Couch (*Elymus pycnanthus*), Frosted Orache (*Atriplex laciniata*) and Sea Sandwort (*Honkenya peploides*). Marram dunes, dominated by Marram, are the principal dune type at the site. Over much of the system Marram is dense due to the absence of grazing in recent years. The system is undulating, with some dunes at least 15 m high. Other species present include Sea Bindweed (*Calystegia soldanella*) and Sea Couch. Bramble (*Rubus fruticosus* agg.) and Bracken (*Pteridium aquilinum*) are invading in parts.

Owing to the dominance of Marram across much of the dune system, fixed dune vegetation is rather limited. However, there are open areas, including a dune slack with standing water and Creeping Willow (*Salix repens*). Much of the area is dominated by Bracken, and some parts have a heathy character. A small stand of Monterey Pine (*Pinus radiata*) occurs.

There are two main waterbodies on the site. Kilkieran Lake is a natural sedimentary lagoon, connected to the sea by a narrow, intermittently blocked channel. The lagoon has a sandy bed with some stones and is fringed by Common Reed (*Phragmites australis*) and the club-rushes *Scirpus maritimus* and *S. lacustris*. The aquatic flora includes Fennel Pondweed (*Potamogeton pectinatus*) and Tasselweed (*Ruppia* sp.). Kilkieran Lake is brackish and receives freshwater from one main stream, and saltwater during breaches of the outlet channel by the sea. Saltwater probably also enters the lagoon through seepage. The lagoon is prone to algal blooms and the once

thriving trout fishery has now disappeared. The invertebrate fauna of the lagoon has been well-studied and several rare and lagoon-indicator species have been recorded. North-west of Kilkeran Lake areas of freshwater marsh, swamp and wet grassland are found, following the stream which enters the lagoon.

Lough Rahavarrig is largely overgrown, having been colonised by fen-type vegetation, including Greater Pond-sedge (*Carex riparia*) and Water Dock (*Rumex hydrolapathum*). Areas of willows (*Salix* spp.) and reedbeds occur on the margins of the lake, where Skullcap (*Scutellaria galericulata*) is also found.

Sharp-leaved Fluellen (*Kickxia elatine*), a rare Red Data Book species, has been recorded from arable fields in the site. The uncommon sedge hybrid, *Carex paniculata* x *C. remota* (*C. x boenninghausiana*) has also been recorded from the site, north-west of Kilkeran Lake.

Kilkeran Lake was formerly used by large numbers of diving duck (Pochard and Tufted Duck) but these no longer occur, possibly due to poor water visibility as a result of eutrophication. The site is now visited by only very low numbers of waterfowl in winter. It has breeding Little Grebe and Mute Swan, and there is a sizeable heronry nearby.

This site contains two priority habitats listed on Annex I of the E.U. Habitats Directive, lagoon and fixed dune. The presence of a lagoon on the site is of particular significance as these are becoming increasingly rare in Ireland as well as in Europe, and Kilkeran Lake is the best example of a sedimentary lagoon in south-west Ireland. The wide range of habitat types and high diversity of plant and animal species found adds considerably to the importance of the site. Part of the site is State-owned and managed for conservation purposes.