



Site Name: Lady's Island Lake SAC

Site Code: 000704

Lady's Island Lake SAC, situated in the south-east of Ireland in Co. Wexford, is comprised of a shallow, brackish coastal lagoon separated from the sea by a sand and shingle barrier. The site includes the intertidal reef of Carnsore Point, and the area of reef to the west of the point.

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):

[1150] Coastal Lagoons*
[1170] Reefs
[1220] Perennial Vegetation of Stony Banks

The littoral reef at Carnsore is strewn with boulders, cobbles and patches of sand. It is exposed to prevailing wind and swells from the west. Tidal streams tend to be moderate but are strong in some areas. The bedrock is igneous granite, felsite and other intrusive rocks rich in silica. There is an extensive lichen zone at the top of the shore with wide bands of the lichens *Ramalina* spp., *Verrucaria* sp. mixed with encrusting orange lichens, followed by a wide band of the black lichen *Verrucaria* sp. In the upper shore there is a very extensive zone of barnacles (*Semibalanus balanoides*), gastropod snails (*Littorina neritoides*) and limpets (*Patella vulgata*). This is followed by a narrow zone of the seaweeds *Fucus serratus* and *Mastocarpus stellatus*. At the bottom of the shore, the sublittoral fringe is characterised by the kelp *Laminaria digitata*, with serrated wrack *Fucus serratus* and thong weed *Himanthalia elongata* frequent, and *Alaria esculenta* occasional. An understory of red algae is present. The communities are representative of this type of shore.

The lagoon habitat within the site is an excellent example of a sedimentary lagoon with a sand/shingle barrier. It is by far the largest and best example of this type of lagoon in the country and is in a relatively natural condition, despite regular breaching of the gravel barrier. The flora is typically brackish with two species of Tasselweed (*Ruppia maritima* and *R. cirrhosa*) and the Red Data Book charophyte species *Lamprothamnion papulosum* and *Chara canescens* (both lagoonal specialists). The fauna of the lagoon is rich with 44 taxa recorded in a short period in 1996. At least 13 lagoonal specialist species have been recorded which is the highest number for any lagoonal habitat in the country, and at least four of these species appear to be rare. Three coleopteran indicator species were recorded in 1996, indicating an ecologically well developed site, and two of these are very rare species (*Atheta gyllenhalli* and *A. liliputana*).

The barrier system which stretches along the entire seaward part of this site from Carnsore Point westwards towards Tacumshin comprises the best example in Ireland of a landward moving (transgressive) system of gravel-based barrier. The sequence of back barrier washover and seepage structures are among the best in Europe, and, indeed, Lady's Island remains the last "intact" example in Europe. The substrate is predominantly sandy. The barrier is overlain for the most part by sand dunes, principally embryonic shifting dunes and marram dunes, but also some more fixed areas. The vegetation is very typical of shingle or stony bank habitat. Species present include Marram (*Ammophila arenaria*), Sea Rocket (*Cakile maritima*), Sea Samphire (*Crithmum maritimum*), Sea-holly (*Eryngium maritimum*), Yellow Horned-poppy (*Glaucium flavum*) Sea Sandwort (*Honkenya peploides*) and Sea Mayweed (*Matricaria maritima*). Of particular note is the occurrence of Cottonweed (*Otanthus maritimus*), an extremely rare plant which has its main Irish population here.

A rich swamp and freshwater marsh vegetation occurs at Ring Marsh. Elsewhere, the lagoon is fringed by marsh or wet grassland.

In addition to Cottonweed and the two charophyte species, three other Red Data Book species occur within the site: Lesser Centaury (*Centaureum pulchellum*), Pennyroyal (*Mentha pulegium*) and Golden Dock (*Rumex maritimus*). Cottonweed, Lesser Centaury and Pennyroyal are all protected under the Flora (Protection) Order, 1999.

The lagoon has an internationally important tern colony, with four species breeding regularly - Sandwich Tern (approx. 1,100 pairs), Roseate Tern (107 pairs), Common Tern (approx. 500 pairs) and Arctic Tern (approx. 215 pairs) (figures are for 1999). These breed mostly on Inish island (which is outside of the site), with only the Arctic Tern breeding on the smaller Sgarbheen Island in recent years. An excellent diversity of duck species breed here, including rare or scarce species such as Gadwall, Garganey, Shoveler and possibly Wigeon. Oystercatcher, Redshank and Lapwing breed on the islands. The site formerly supported internationally important numbers of wintering waterfowl, but in recent years numbers have declined drastically, possibly due to a decline in the abundance of their main food source, *Ruppia* spp. Nowadays numbers are of regional or local importance. Over the four winters 1994/95 to 1997/98 the main species were: Wigeon (652), Teal (200), Pochard (258), Tufted Duck (93), Scaup (46), Lapwing (1,080) and Curlew (221).

This site is of high conservation importance, having three habitats which are listed on Annex I of the E.U. Habitats Directive and one of these (lagoons) with priority status. The site also has important ornithological interests, as well as a suite of lagoonal specialists, and also a number of rare and scarce plants.