



### Site Name: Tralee Bay and Magharees Peninsula, West to Cloghane SAC

### Site Code: 002070

This large site in Co. Kerry stretches from Tralee town westwards to Fenit Harbour and Cloghane, encompassing Tralee Bay, Brandon Bay and the Magharees Peninsula. It includes extensive mudflats at the eastern end, the beaches of Derrymore Island, the sand dunes and lagoons of the Magharees Peninsula, as well as the rocky headlands at its end. The site includes two Statutory Nature Reserves, Tralee Bay and Derrymore Island, and much of the estuarine part of the site has been designated a Special Protection Area (SPA) for birds and their habitats.

The site is mostly underlain by limestone, but significant parts of this are covered with glacial drift or windblown sand. The main exposures occur at Fenit port, Oyster Hall, Blennerville and at Rough Point and Fahamore, but there are some other low outcrops on the beaches west to Castlegregory. Elsewhere the sandstones and slates of the Dingle Beds appear.

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):

- [1130] Estuaries
- [1140] Tidal Mudflats and Sandflats
- [1150] Coastal Lagoons\*
- [1160] Large Shallow Inlets and Bays
- [1170] Reefs
- [1210] Annual Vegetation of Drift Lines
- [1220] Perennial Vegetation of Stony Banks
- [1230] Vegetated Sea Cliffs
- [1310] *Salicornia* Mud
- [1330] Atlantic Salt Meadows
- [1410] Mediterranean Salt Meadows
- [2110] Embryonic Shifting Dunes
- [2120] Marram Dunes (White Dunes)
- [2130] Fixed Dunes (Grey Dunes)\*
- [2170] Dunes with Creeping Willow
- [2190] Humid Dune Slacks
- [6410] *Molinia* Meadows
- [91E0] Alluvial Forests\*

[1355] Otter (*Lutra lutra*)

[1395] Petalwort (*Petalophyllum ralfsii*)

Both the Tralee and Brandon (Owenmore) estuaries feature wide expanses of sheltered intertidal flats, often fringed with saltmarsh vegetation. Plant species are typically scarce on the flats, although there are some eelgrass (*Zostera* spp.) beds and patches of green algae (e.g. *Ulva* spp. and *Enteromorpha* spp.). The eelgrass beds at Derrymore Island include *Zostera noltii*, a species which has a limited distribution in Ireland. A variety of polychaetes (worms) and bivalve molluscs are also present in the intertidal sections.

The majority of Tralee Bay is shallow and composed of sublittoral sediments. In the more sheltered areas of the bay, there is a variety of important sublittoral sediment communities in which a number of rare species occur. Seagrass beds in sandy substrates are characterized by oysters and the rare anemone *Calliactis parasitica* which lives on shells inhabited by the hermit crab *Pagurus bernhardus*. The little known hydroid, *Laomedea angulata*, is also found on the fronds of the seagrass. The native oyster, *Ostrea edulis*, occurs in sediment communities throughout the bay. Maerl beds, composed of the free-living coralline algae *Lithothamnion corallioides* and *Phymatolithon calcareum*, and characterized by anemones (*Anthopleura balli*) and oysters, occur in the middle of the bay. The rare anemone *Halcampa chrysanthellum* has been recorded here.

The intertidal reefs of Tralee Bay and the Magharees peninsula range from being exposed to sheltered from wave action, and the communities present are good examples of the communities typically found on these types of shores. The barnacle/limpet community with the lichen *Lichina pygmaea* is an uncommon community and is found in the upper-mid shore at Rough Point. The low shore at Rough Point, which is moderately exposed to wave action, and the shore at Coosanea, which is sheltered from wave action, are both very species-rich. Rocky outcrops on the shore half way round the bay near Camp are known to support a community of the uncommon honeycomb worm *Sabellaria alveolata*. The sublittoral reefs support communities characterised by a variety of red foliose algae, as well as the brown algae *Dictyota dichotoma*, and are typical of communities that are subjected to sand scour as indicated by the presence of the red algae *Furcellaria lumbricalis* and *Polyides rotundus*.

In the transition zone between the intertidal flats and saltmarsh, specialised colonisers of mud predominate - swards of Common Cord-grass (*Spartina anglica*) are extensive on the leeward side of Derrymore Island, while swards of Glasswort (*Salicornia europaea* agg.) also occur in parts of the site.

Saltmarsh vegetation frequently fringes the mudflats, with the most extensive areas being found at Blennerville, Derrymore Island and Formoyle in Brandon Bay. The dominant type of saltmarsh present is Atlantic salt meadow. Characteristic species occurring include Common Saltmarsh-grass (*Puccinellia maritima*), Sea Aster (*Aster tripolium*), Thrift (*Armeria maritima*), Sea-milkwort (*Glaux maritima*), Sea Plantain

(*Plantago maritima*), Red Fescue (*Festuca rubra*), Creeping Bent (*Agrostis stolonifera*), Saltmarsh Rush (*Juncus gerardi*), Long-bracted Sedge (*Carex extensa*), Lesser Sea-spurrey (*Spergularia marina*) and Sea Arrowgrass (*Triglochin maritima*). Areas of Mediterranean salt meadows, characterised by clumps of Sea Rush (*Juncus maritimus*), occur occasionally.

Sandy beaches backed by strips of embryonic dunes and 'white' dunes are common along the southern shore of the site. The vegetation of these fore dune habitats is dominated by Sand Couch (*Elymus junceiformis*) and Marram (*Ammophila arenaria*). However, the main dune area on this southern shore occurs on the Magherees Peninsula - a tombolo which joins a number of the Magherees Islands with the mainland. Here there are extensive areas of fixed 'grey' dunes, which feature a number of damp hollows or dune slacks. The fixed dunes are species-rich, with characteristic species such as White Clover (*Trifolium repens*), Lesser Hawkbit (*Leontodon taraxacoides*), Common Centaury (*Centaureum erythraea*), Lady's Bedstraw (*Galium verum*) and grasses (e.g. *Festuca rubra*, *Poa trivialis* and *Avenula pubescens*).

Relatively scarce plants found on the dunes include the following: Fringed Rock-cress (*Arabis brownii*), Fragrant Orchid (*Gymnadenia conopsea*), Squinancywort (*Asperula cynanchica*), Autumn Lady's-tresses (*Spiranthes spiralis*) and Dodder (*Cuscuta epithimum*). Dune slack species include Strawberry Clover (*Trifolium fragiferum*), Chaffweed (*Anagallis minima*) and the fungus *Inocybe halophila*.

Lough Gill, a natural sedimentary lagoon, is located at the base of the Magherees Peninsula. The lagoon is only slightly brackish and therefore contains freshwater species along with lagoon specialists. Submerged flora present includes Beaked Tasselweed (*Ruppia maritima*) and Horned Pondweed (*Zannichellia palustris*), while species fringing the lagoon include Common Reed (*Phragmites australis*), Sea Club-rush (*Scirpus maritimus*) and Grey Club-rush (*S. lacustris* subsp. *tabernaemontani*).

Good examples of vegetated sea cliffs composed of boulder clay occur to the west of Derrymore Island.

Other coastal habitats that occur within the site include shingle beaches and rocky shores. The site also contains fragments of terrestrial habitats such as deciduous woodland, scrub, heath, dry limestone grassland, wet grassland and freshwater marshes.

There is some good limestone flora on the hill at Oyster Hall, with Burnet Rose (*Rosa pimpinellifolia*), Southern Polypody (*Polypodium australe*) and Hairy Rock-cress (*Arabis hirsuta*) occurring. There is an old record for the Red Data Book species, Sea-kale (*Crambe maritima*). At Fahamore and Rough Point it is the intertidal communities that are particularly rich, benefiting from a multitude of microhabitats in the eroded limestone. Red algae are frequent, including the agar seaweeds *Gelidium* and *Pterocladia*.

A small area of *Molinia* meadow is found in the site, with species such as Purple Moor-grass (*Molinia caerulea*), Devil's-bit Scabious (*Succisa pratensis*), Sharp-flowered

Rush (*Juncus acutiflorus*) being common, and species such as Greater Tussock-sedge (*Carex paniculata*), Tormentil (*Potentilla erecta*), Marsh Cinquefoil (*Potentilla palustris*), Wild Angelica (*Angelica sylvestris*) and Common Valerian (*Valeriana officinalis*) also frequent.

Beach features dominate the northern coast of the Dingle Peninsula with an excellent series of shingle ridges forming Derrymore Island and the tombolo which links former Magheree Islands (Rough Point, etc.) to the mainland. Here there is a large area of well developed sand dunes with an exceptionally rich flora and great topographic variation. The flora includes Fringed Rock-cress, Squinancywort, Dodder, Autumn Lady's-tresses and Chaffweed - all plants with a restricted distribution in the west of Ireland. These occur in a vegetation with abundant Red Fescue, scattered Marram, and herbs such as Lady's Bedstraw, Wild Thyme (*Thymus praecox*), Common Bird's-foot-trefoil (*Lotus corniculatus*) and Kidney Vetch (*Anthyllis vulneraria*). Yellow-rattle (*Rhinanthus minor*), eyebrights (*Euphrasia* spp.), Pyramidal Orchid (*Anacamptis pyramidalis*) and Heath Spotted-orchid (*Dactylorhiza maculata*) are four sensitive species which also occur here.

At the seaward edge drift line vegetation is often present. The more stable areas of shingle support Sea Beet (*Beta vulgaris* subsp. *maritima*), Sea Mayweed (*Matricaria maritima*), Sea Campion (*Silene vulgaris* subsp. *maritima*), Curled Dock (*Rumex crispus*), oraches (*Atriplex* spp.), Sea Sandwort (*Honkenya peploides*) and Silverweed (*Potentilla anserina*).

Between the dunes where erosion has removed the sand down to the water table there are temporary ponds or dune slacks with many additional species. Marsh Pennywort (*Hydrocotyle vulgaris*), Silverweed, various sedges (*Carex panicea* and *C. nigra*) and, in places, Strawberry Clover, Adder's-tongue (*Ophioglossum vulgatum*), Knotted Pearlwort (*Sagina nodosa*) and the orchids *Dactylorhiza majalis* and *D. incarnata* all occur. Some parts of the dune slacks feature a vegetation community characterised by the presence of Creeping Willow (*Salix repens*).

Woodland is rare on the Dingle Peninsula so the three stands included in this site are locally important. A deserted river valley at Killelton, the steep valley of the Finglas River at Camp and the west-facing slopes of Drom Hill opposite Cloghane all have features of significant interest. The last site has many species of lower plant (liverworts and lichens) that form distinctive elements of the westernmost natural woods in Ireland. At Garrahies Wood, adjacent to the Finglas River, there is an example of wet woodland on base-rich soils subject to flooding. The woodland type falls into the ash-alder alluvial forest category. The most common tree species are Alder (*Alnus glutinosa*), Downy Birch (*Betula pubescens*) and willows (*Salix* spp.). Bluebell (*Hyacinthoides non-scripta*), grasses and Bramble (*Rubus fruticosus* agg.) are the most common species in the ground layer.

The dune complex on the Magharees Peninsula supports the largest Irish breeding population of Natterjack Toads. Indeed, the population may be the largest breeding population in Britain and Ireland. The Natterjack Toad is listed as vulnerable in the

Red Data Book and is protected under both European and national legislation. The toads require shallow warm water to spawn in and sandy habitats for over-wintering. Their tadpoles are vulnerable to predation in permanent lakes but despite this they have some success in Lough Gill which is a shallow lake with flat shores of sand, wet grassland or marsh. Natterjack Toads also breed within the site at Fermoy, to the west. Also recorded from Fermoy is the rare whorl snail *Vertigo angustior*, a species listed on Annex II of the E.U. Habitats Directive. Two species of hover fly - *Platycheirus perpilladus* and *Sphaerophoria loewi* - have their only Irish records from the Magharees Peninsula dune system and a water beetle, *Cercyon sternalis*, was first recorded in Ireland in 1997 in Lough Gill.

The site supports populations of several rare plant species which have not been mentioned already. The bryophyte Petalwort (*Petalophyllum ralfsii*), which is listed on Annex II of the E.U. Habitats Directive, is known from the dune slacks on the Magharees Peninsula and Smooth Brome (*Bromus racemosus*), a Red Data Book grass, has been recorded from two wet meadows within the site. Several aquatic plants of interest grow in Lough Gill, the rarest being the Red Data Book stonewort *Chara canescens*. The Slender-leaved Pondweed (*Potamogeton filiformis*) occurs far to the south of its distribution elsewhere in Ireland and Britain, while there are also old records for Spiral Tasselweed (*Ruppia spiralis*). The marshes along the southern shore in the past support a rich variety of vegetation including several species rare in Kerry such as Water Dock (*Rumex hydrolapathum*) and Greater Spearwort (*Ranunculus lingua*), as well as sedges (*Carex dioica*, *C. limosa* and *C. diandra*) on patches of peat. Despite local reclamation it is likely that most of these still survive.

Otters regularly feed within this extensive site though it is not known if they breed. Otter is listed on Annex II of the E.U. Habitats Directive.

Tralee Bay, including Lough Gill, is an internationally important wetland for wintering waders and wildfowl. Species present which are listed on Annex I of the E.U. Birds Directive include Whooper Swans (24, mid-1980s), Golden Plover (3,053, 1994-95) and Bar-tailed Godwit (903, 1995-96). The dunes also provide an important feeding ground for Chough, a resident Annex I species.

Other wintering waders and wildfowl present include: Pale-bellied Brent Goose (944, mid-1980s), Shelduck (218, 1995-96), Gadwall (14, 1994-95), Teal (860, 1994-95), Pintail (56, 1995-96), Shoveler (144, mid-1980s), Scaup (1560, 1994-95), Scoter (620, 1994-95), Red-breasted Merganser (46, 1994-95), Ringed Plover (332, 1994-95), Grey Plover (674, 1995-96), Lapwing (5700, 1994-95), Knot (320, 1994-95), Sanderling (270, 1994-95), Purple Sandpiper (103, mid-1980s), Dunlin (4122, 1995-96), Black-tailed Godwit (508, 1994-95), Curlew (826, 1994-95), Redshank (352, 1995-96), Greenshank (21, 1994-95) and Turnstone (477, mid-1980s). Most of these species are present in nationally important numbers.

The dunes at this site face pressures from intensive farming practises and recreational use by visitors. The most threatening activities include fertilisation of the species-rich dune grasslands, over-grazing, and trampling of areas of dunes adjacent

to tourist facilities (e.g. caravan parks). These activities may lead to severe erosion and eutrophication of the dune grasslands and dune slacks. Parts of the dune system are also vulnerable to invasion by Sea Buckthorn (*Hippophae rhamnoides*).

Agricultural run-off from areas of fertilised dune grasslands in the vicinity of Lough Gill pose a continued threat to the nutrient status of the lagoon; algal blooms and fish kills have occurred in the past. Removal of sand has also occurred and poses a threat to the integrity of the system.

Generally, the intertidal areas are relatively robust, although certain communities are vulnerable. For example, *Spartina* has spread widely, and may oust less vigorous colonisers of mud and may also reduce the area of mudflat available to feeding birds. Other activities, such as land reclamation and aquaculture, pose potential threats in terms of damage to habitats and potential disturbance to wintering birds.

Domestic and industrial wastes are discharged into inner Tralee Bay, but water quality is generally satisfactory - except in the inner bay, reflecting the sewage load from Tralee Town. Further industrial development along the bay in the vicinity of Tralee Town and Fenit and water polluting operations are potential threats.

This site is of considerable ecological and conservation significance for the excellent diversity of habitats it contains, many of which are listed on Annex I of the E.U. Habitats Directive. The occurrence of a species listed on Annex II of the E.U. Habitats Directive adds further importance to the site. The presence of a number of Red Data Book species, including the largest population of Natterjack Toads in Ireland, is also notable, as is the occurrence of several species listed on Annex I of the E.U. Birds Directive.