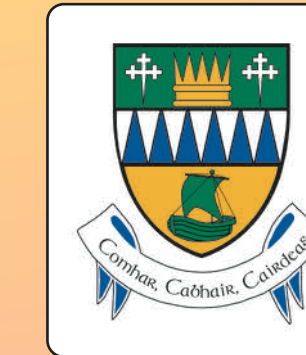


Sand Dunes of the Maharees



Illustrations and design: Michael O'Clery
www.michaelocleary.blogspot.ie

Welcome to the Maharees Peninsula – a ‘tombolo’, or finger-like spit that connects several offshore islands with the mainland. It separates Brandon Bay to the west from Tralee Bay to the east. The tombolo, which is made of sand, has developed an extensive system of sand dunes over geological time. The Maharees Peninsula now exhibits one of the largest sand dune systems in the south of Ireland – predominately found along the western and eastern shores.

Sand dunes are hills of wind-blown sand and are an incredibly diverse habitat (place where animals and plants live). They support a diverse array of plants, animals, birds and bugs – many unique to Ireland. Sand dunes are mobile by nature. Constantly evolving processes of sand erosion and accretion (deposition) occur naturally. However, changes in these processes over time, combined with human disturbances, are negatively affecting dune habitats. Here in the Maharees, ongoing scientific research has shown the seaward facing dunes to be under a constant battle with the sea.

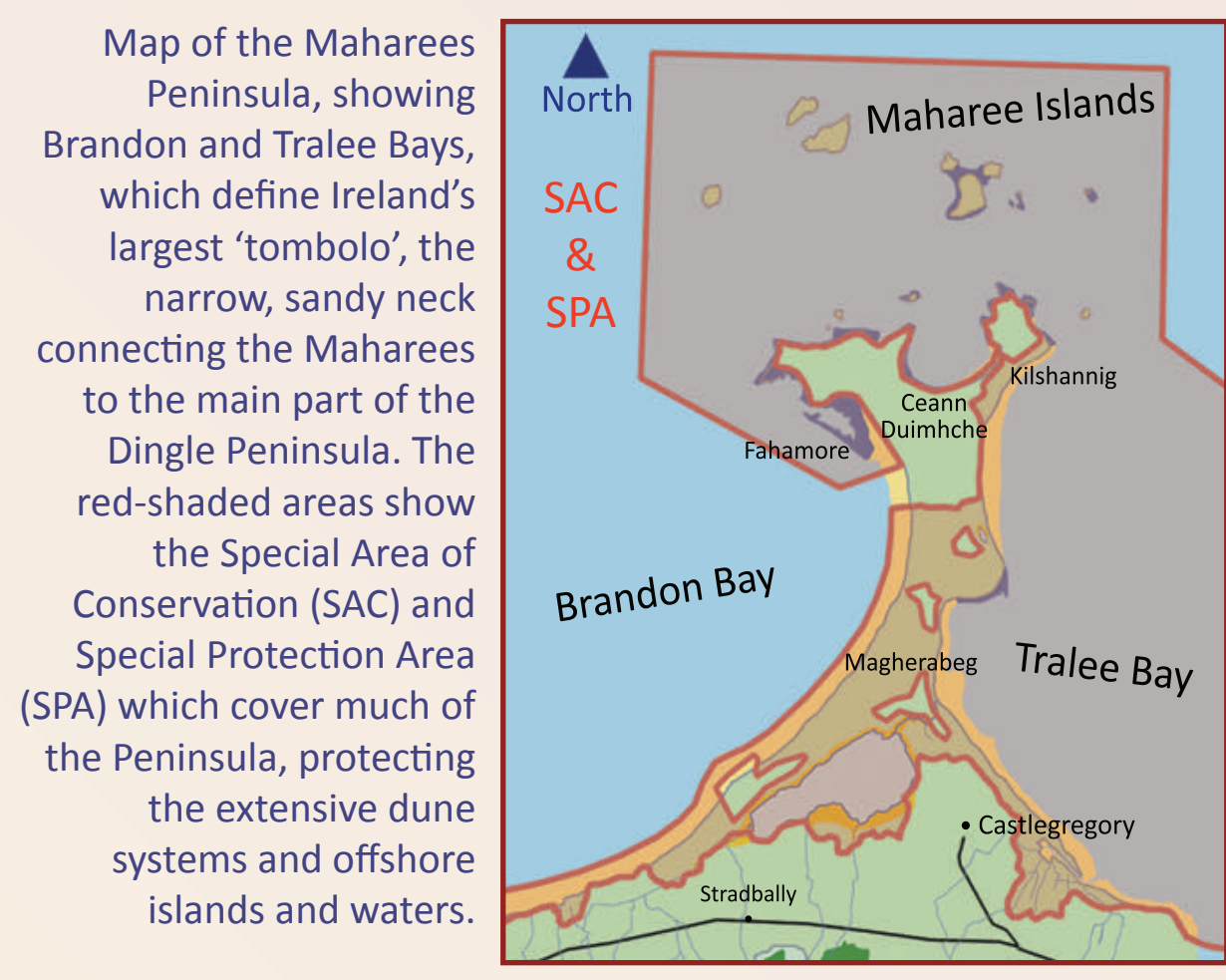
Birth of a Sand Dune – Pioneering Phase

As wind is blown from the sea towards land, debris, such as dried seaweed, captures sand particles. These ‘embryonic dunes’ are the birth of the mighty sand dunes that you see here in the Maharees. Embryonic dunes exist in a harsh environment. Wind and salt-laden air inhibits all but the hardiest of plants to survive. Yet over time foredunes grow, becoming sparsely colonised by species like Couch Grass, Sea Rocket and Saltwort. All the while, to the seaward side, embryonic dunes continue to form anew.

Growing Up – the Building Phase

Foredunes are highly mobile but eventually they are colonised by a plant happy to grow in this tough coastal environment – Marram Grass. The dense growth of Marram begins to stabilise the dunes and prevents excessive erosion. In the Maharees these patchy dunes of marram and bare sand are called ‘white dunes’.

Marram dunes can eventually grow to great heights. Behind the hilly dunes the harsh environmental conditions change as the sea loses its salty grip. Dunes stabilise, flatten out and become influenced by ground water. Known as ‘fixed dune’, the slightly damper conditions and more organic soils support an array of different plant life – Lady’s Bedstraw, Common Bird’s-foot trefoil, Ribwort plantain, Eyebright and grasses such as Red fescue. Dodder and Autumn’s Lady-tresses, now rare outside the southwest of Ireland, are frequently recorded. Fixed dune forms the most extensive sand dune habitat in the Maharees, particularly around Magherabeg.



Map of the Maharees Peninsula, showing Brandon and Tralee Bays, which define Ireland’s largest ‘tombolo’, the narrow, sandy neck connecting the Maharees to the main part of the Dingle Peninsula. The red-shaded areas show the Special Area of Conservation (SAC) and Special Protection Area (SPA) which cover much of the Peninsula, protecting the extensive dune systems and offshore islands and waters.

Growing Old – Climax Phase

Beyond the tall, hilly Marram and fixed dune systems, the final and oldest stage in the life cycle of a sand dune is found – dune slack. The once young, embryonic dunes have now reached old age. Dune slack is colonised by plants that favour nutrient-rich soil. This creates a mosaic of different ‘climax’ habitats. Species like Marsh Pennywort, Jointed Rush, Water Mint and Silverweed occur. Willow scrub is common in the Maharees, in fact it is one of only a few sites in Ireland where the habitat is found. Another rarity of the dune slack habitat in the Maharees is Petalwort, a species of liverwort.

It is the rich diversity of plants that support insects, birds and animals which in turn makes sand dunes a unique habitat. Kerry’s famous Natterjack Toad is found locally and the dunes are one of the most important breeding sites for the species in the southwest. The Maharees sand dunes are so ecologically important they have European protection as part of the *Tralee Bay and Maharees Peninsula West to Cloghane Special Area of Conservation (SAC)* and the *Tralee Bay Complex Special Protection Area (SPA)*.



Marram Grass planted by members of Maharees Conservation to protect a vulnerable area of the coastline.

Look out for other signs along the peninsula that provide information on the flora (plants), fauna (birds and animals) and geology of our area.

Species of the Maharees sand dune habitat



Erosion is a natural feature of dune systems but man-made effects can cause excessive damage. Marram Grass binds and stabilises sand dunes. Trampling and other damage causes dune grasses to become exposed and uprooted, leaving sand dunes exposed to strong winds. This accelerates erosion.

- Avoid cutting of vegetation.
- Avoid removal of sand.
- Avoid driving or trampling on dunes.
- And please, no lighting fires on the dunes.
- Finally, please keep to the main beach access routes.

HELP PROTECT OUR SAND DUNES AND THEIR RICH BIODIVERSITY

