

## What is seagrass?

Seagrass is the name given to species of plants that live in our estuaries and coastal waters. There are two species of seagrass in Ireland, *Zostera noltei* and *Zostera marina*. Seagrasses are the only angiosperms (plants that produce flowers and seeds) that grow in our marine waters. They are also commonly known as eelgrass.

Seagrass meadows grow in the intertidal, where they are exposed every time the tide goes out, and subtidally, where they are always under water. They are important habitats for a wide variety of other marine communities. They also act as nursery grounds for different fish and shellfish species. Some of the intertidal meadows are used by overwintering birds, such as Brent geese, that feed on the seagrass. Seagrasses are also recognised as important habitats for capturing and storing carbon in the sediments where they grow.

Seagrass meadows are found worldwide but are under increasing threat and in many places are in decline.



## Different seagrass communities

*Zostera noltei*, or dwarf seagrass, forms meadows in the mid to upper shore of sand and mudflats around Ireland. They can be present in small scattered patches or as more extensive large meadows reaching more than 200 hectares.



*Zostera noltei* at low tide. Can be found growing in clumps (L) or as extensive meadows (R)



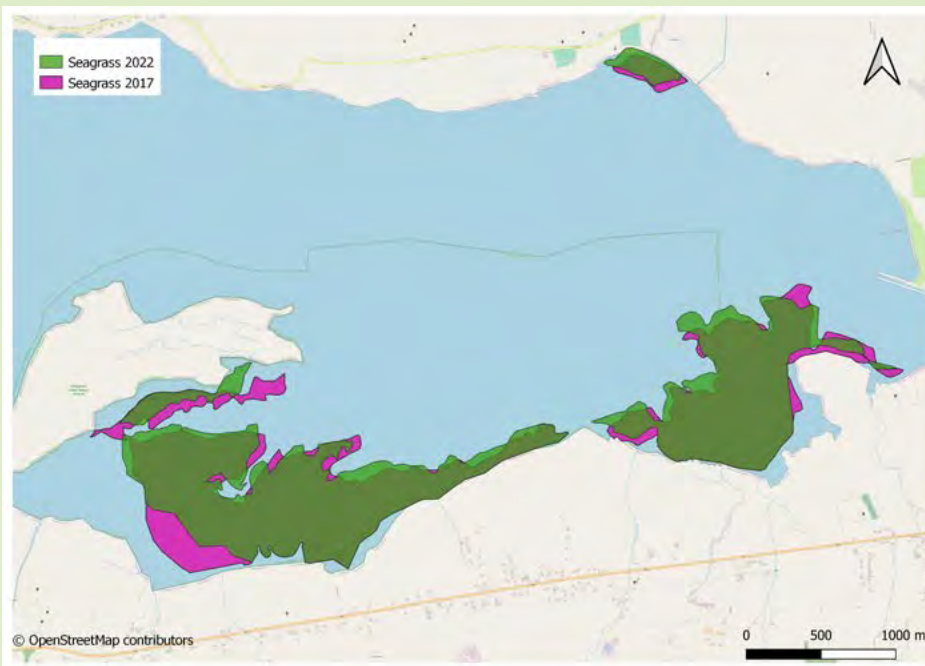
*Zostera marina* is generally found below the low water mark down to about 10m deep, although it can be exposed on some very low spring tides.

## How do we monitor seagrass?



Quadrats showing different cover

Seagrasses are known to be sensitive to pressures such as nutrient enrichment or physical disturbances like trampling or bait digging. A monitoring tool has been developed to assess the ecological health of intertidal seagrass meadows. The tool looks at change in the area covered by seagrass beds and changes to the cover of the leaves within these beds.



Map of outer edge of seagrass patches from different years

We map the outline of each meadow to measure how it changes from year to year. We measure the cover of the seagrass shoots within each meadow using a series of quadrats. A quadrat is a square divided into grids, by counting the number of grids containing seagrass the average cover can be calculated. The number of different seagrass species is also recorded.

These data are used to calculate three scores based on the area of seagrass, how dense it grows and the species present. We combine these scores to give an overall result for each water body. This means we can categorise water bodies into one of five status classes. 'High' is when ecology is not disturbed at all, and 'Bad' is when ecology is most affected.

**High**

**Good**

**Moderate**

**Poor**

**Bad**

Learn more about how the EPA Assesses Marine Water Quality: [www.epa.ie/publications/monitoring--assessment/freshwater--marine/Assessing-Marine-Water-Quality---EPA-Factsheet.pdf](http://www.epa.ie/publications/monitoring--assessment/freshwater--marine/Assessing-Marine-Water-Quality---EPA-Factsheet.pdf)

For the latest information go to [www.catchments.ie](http://www.catchments.ie) and <https://gis.epa.ie/EPAMaps/Water>