

Seagrass snapshot: Wilson Inlet 2020–21

Through the Healthy Estuaries WA program, the condition and area of seagrass are being monitored in five South West estuaries, including Wilson Inlet. This snapshot provides an update on the distribution of seagrass in Wilson Inlet in December 2020.

It updates information from previous years available at estuaries.dwer.wa.gov.au/seagrass.

Understanding seagrass
condition helps to guide
how we manage
our estuaries

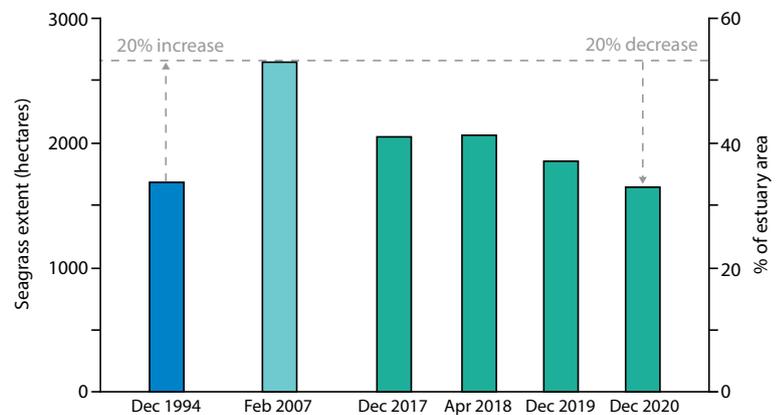
The Wilson Inlet is a shallow lagoon on the south coast of Western Australia, near Denmark. The estuary closes seasonally, due to a sandbar which isolates it from the ocean, often for several months of the year. The bar is artificially opened in winter most years to mitigate flooding.

Seagrass condition can be affected by the opening and closing of the bar, seasonal changes and environmental conditions.

Ruppia megacarpa is the only species of seagrass found in Wilson Inlet. Seagrass meadows provide food and habitat for animals and produce oxygen, making them an important part of estuary ecosystems. It is important the estuary continues to maintain seagrass meadows and, in turn, healthy ecosystems. However, an overabundance of seagrass has been problematic in previous years, likely due to excessive nutrients in the water (eutrophication).

Seagrass over time

- Eutrophication led to the extreme growth of seagrass in the 1920s and 1970s.
- In December 1994, seagrass spread across an area of 1,638 hectares – about 35 per cent of the total estuary area.
- Seagrass extent increased to 2,640 hectares – or more than 50 per cent of the estuary – in February 2007.
- Surveys show that the extent of seagrass in December 2020 was similar to that in December 1994, but the density of seagrass coverage was lower.



The Department of Water and Environmental Regulation monitored seagrass in December 2017, April 2018, December 2019 and December 2020. In the latest survey, we estimated that seagrass area (extent) was similar to what was recorded in 1994. Despite the similarity in extent, the overall density of seagrass cover has reduced. The density of seagrass coverage was high in 1995, 1996, 2017 and 2018, but has reduced to medium-high in 2019 and 2020.



Seagrass distribution in December 2020

Seagrass was estimated to cover 1,670 hectares in December 2020, which is about 35 per cent of the estuary area. The highest-density meadows were found along the Southern Flats, Eden Bank and near Karri Point. Seagrass is found in shallow areas of the estuary, with more than 70 per cent growing in water less than two metres deep.

Depending on the depth and conditions of the water, seagrass can sometimes reach the surface.

The most recent survey recorded an average canopy height of 30 centimetres, much less than previous years.

The department also observed the abundance of small organisms growing on the seagrass leaves (epiphytes), which can reduce light availability and impact seagrass growth. On average, the epiphyte cover was medium across the estuary in December 2020.

