Department of **Water and Environmental Regulation**
Department of **Primary Industries and Regional Development**
GOVERNMENT OF WESTERN AUSTRALIA

HEALTHY ESTUARIES WA

Seagrass snapshot: Wilson Inlet 2021–22

Through the Healthy Estuaries WA program, the condition and area of seagrass is 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 2021.

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

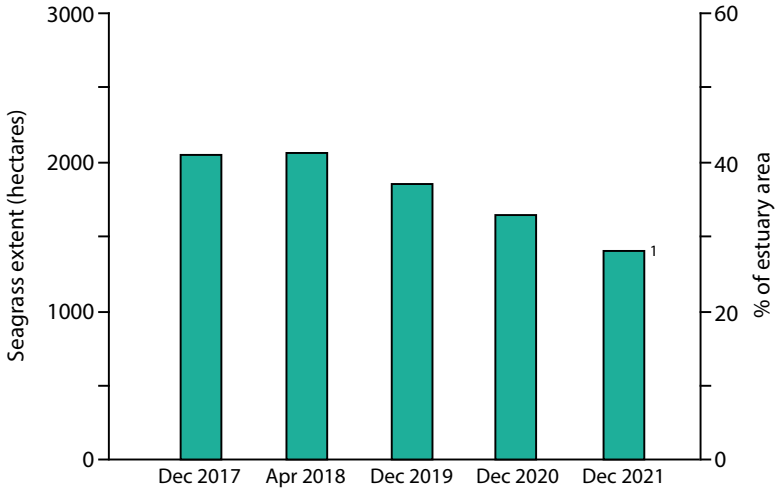
The Wilson Inlet is a shallow lagoon on the south coast of Western Australia, near Denmark. The estuary closes seasonally, because of a sandbar which isolates it from the ocean often for several months of the year. The bar is artificially opened in winter most years to mitigate flooding.

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; however, an overabundance of seagrass has been problematic in the past.

Seagrass over time

- Excessive nutrients in the estuary led to the extreme growth of seagrass historically.
- Studies have mapped seagrass in the estuary using various methods, with estimated areas ranging from 1,638 hectares in 1994 to 2,640 hectares in 2007.
- Surveys since 2017 have shown the area of seagrass is declining each year.[1]



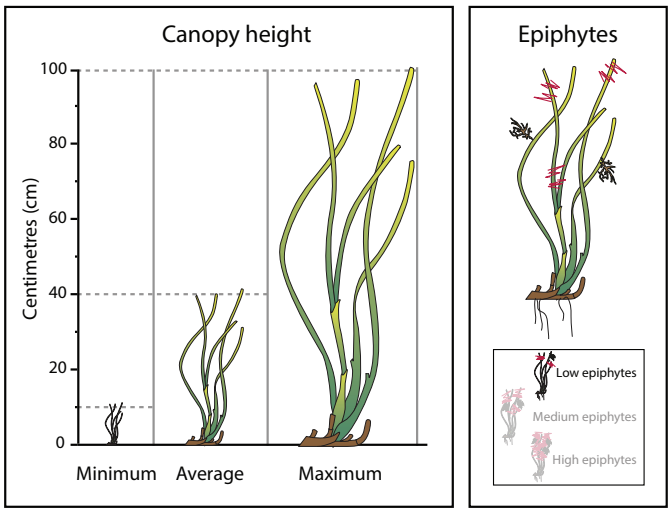
The Department of Water and Environmental Regulation has monitored seagrass with consistent methods since December 2017. In the latest survey, not only was the area smaller than in previous surveys, the density of seagrass coverage was also the lowest.

[1] This includes 132 hectares of the estuary where seagrass presence was inferred using satellite imagery. This area was inaccessible by boat at the time of the survey.

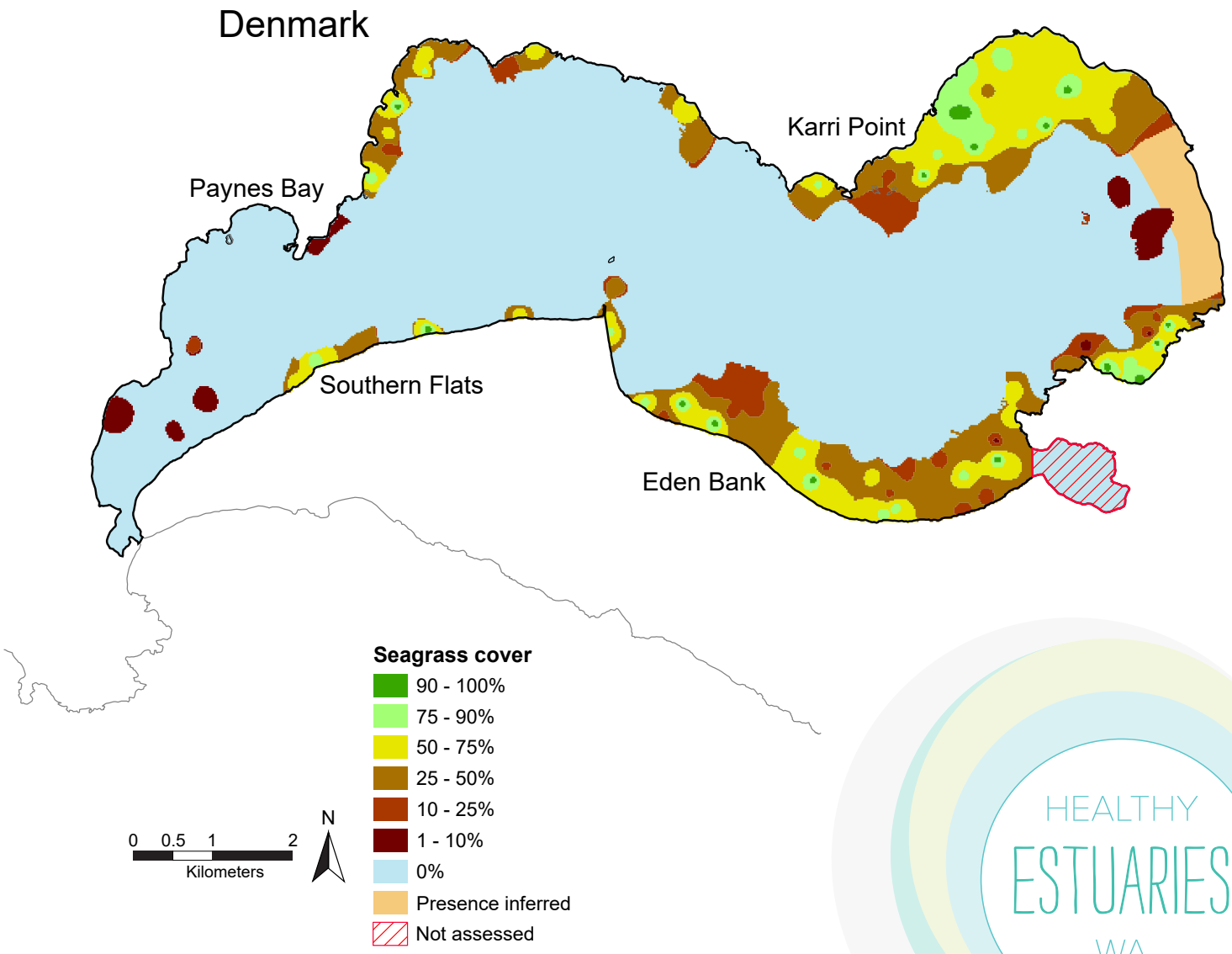
Seagrass distribution in December 2021

Seagrass was estimated to cover 1,348 hectares in December 2021, which is about 28 per cent of the estuary area. The highest-density meadows are found near Karri Point and along Eden Bank. While meadows have been dense near Southern Flats in previous years, the seagrass density was reduced at the time of the survey. Other areas of loss were seen around the mouth of the estuary, in Paynes Bay and along Eden Bank. Seagrass was found in shallow areas of the estuary, with more than 80 per cent growing in water less than 2 metres deep.

The canopy height was greater in this survey compared with December 2020. The abundance of small organisms growing on the seagrass leaves (epiphytes)[2] was low across the estuary in December 2021, an improvement from December 2020.



[2] Epiphytes can reduce light availability and affect seagrass growth.



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