

Seagrass snapshot: Leschenault Estuary 2022–23

Through the Healthy Estuaries WA program, the condition and area of seagrass is being monitored in five South West estuaries, including the Leschenault Estuary. This snapshot provides an update on the distribution of seagrass in the Leschenault Estuary in February 2023.

It updates information from previous years, forming part of a collection available at estuaries.dwer.wa.gov.au/seagrass.

Understanding seagrass condition helps to guide how we manage our estuaries

The Leschenault Estuary is a long, shallow coastal lagoon north of Bunbury. The estuary is permanently connected to the ocean by an artificial channel called The Cut. Seagrass meadows are a vital component of the estuary ecosystem as they provide food and habitat for animals and produce oxygen. Yet, over the years, seagrass extent within the estuary has decreased. This is likely because of changes in the catchment that affect water quality, as well as climate change. In recent years, the seagrass meadows are showing signs of recovery.

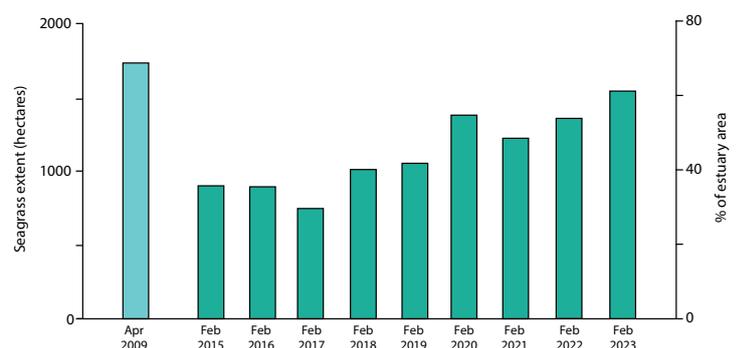
Three species of seagrass occur in the Leschenault Estuary. *Halophila ovalis* (left image) is dominant and is generally found throughout the estuary basin. *Ruppia megacarpa* (centre image) is often observed along the eastern shoreline. *Zostera muelleri* (right image) is found near The Cut, where the waters are more marine.



Seagrass over time

- Historically, seagrass was distributed throughout the estuary, except in a small area of deep water in the central basin.
- In April 2009, seagrass covered 1,741 hectares of the estuary – about 69 per cent of the estuary area.
- By 2014, there was a substantial loss of seagrass, particularly in the northern basin. This prompted regular monitoring to start in 2015.
- Seagrass is slowly recovering but is yet to return to the extent reached in 2009.

The Department of Water and Environmental Regulation monitored seagrass annually from 2015 to 2023. Seagrass distribution was lowest in 2017, increasing to more than 60 per cent in recent years. Seagrass started recolonising the northern estuary in 2020, which had not been observed since 2009.



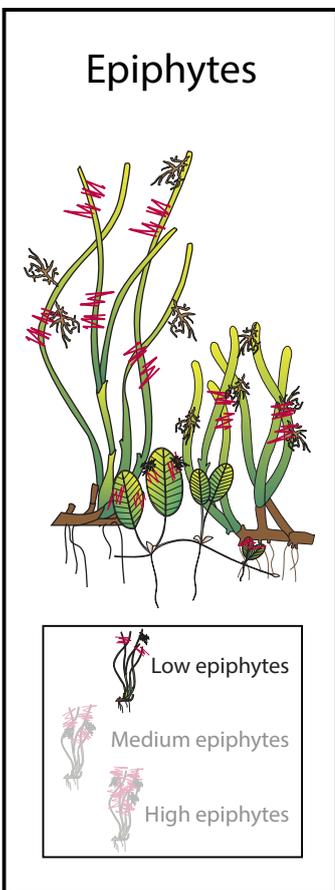
Seagrass distribution in February 2023

Seagrass was estimated to cover 1,549 hectares in February 2023, which is just over 60 per cent of the estuary area. Areas close to The Cut and along the eastern shoreline north of Australind continue to have the densest seagrass cover. Compared with 2022, there was a considerable increase in seagrass extent in the northern basin, and an increase in the density of cover observed north of Australind on the eastern shoreline.

The seagrass meadows are continuing to recover, particularly in the northern basin. *Halophila* was present across most areas of the estuary. *Ruppia* was dominant along the eastern shoreline and continues to expand its range in the north of the estuary. *Zostera* has maintained localised distribution close to The Cut, often in mixed meadows with *Halophila*.

While the abundance of small organisms growing on the seagrass leaves (epiphytes)¹ was low on average, there was medium to high abundance on the recovered meadows in the northern basin in February 2023.

Overall, seagrass in the Leschenault Estuary was in a stable and good condition in February 2023. The recovery of seagrass in the northern basin is ongoing and highlights the importance of continuing work to improve water quality.



¹ Epiphytes can reduce light availability and affect seagrass growth.

