

Seagrass Importance

Seagrass ecosystems provide food and are a source of livelihoods for Pacific Islanders. Seagrass meadows support high biodiversity that includes megafauna such as the dugong (*Dugong dugon*) & green sea turtle (*Chelonia mydas*) which are seagrass specialists and culturally important to Pacific Islanders.

Seagrasses provide critical ecosystem services such as habitat/coastal protection, nutrient cycling, improved water quality & mitigating pathogenic bacteria to the benefit of humans & fishes. The integration of carbon within seagrass tissues can affect local pH, mitigating the effects of ocean acidification affecting coral reefs. The retention of carbon within seagrass meadow sediments also contributes significantly to climate change mitigation

Seagrass-Watch

Seagrass-Watch (est. 1998), a not-for-profit organisation highly recognised for its scientific rigour, is one of the largest long-term seagrass observing networks globally (Global Seagrass Observing Network).

More than 25 countries participate in the Global Seagrass Observing Network (GSON), monitoring & researching the status and trends in seagrass condition.

The GSON involves communities and groups who are interested/concerned about the health of local seagrass and fosters collaboration/partnerships among community members, scientists, and environmental practitioners.

Protecting Seagrass

Seagrasses are economically and ecologically valuable to both humans and marine life. Seagrass is one of the most productive natural ecosystems in the world.

Seagrasses improve water quality by acting as nutrient sinks, buffering or filtering nutrient and chemical inputs to the marine environment. They also stabilise coastal sediments, helping to mitigate erosion.

Seagrass meadows are fragile ecosystems. Human impacts such as sewage discharge, oil spills, coastal runoff, dredging, boat propellers and anchors/moorings can damage or destroy seagrasses.

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Join
The Global Seagrass Observing
Network,
so marine life & oceans
can have a future.



Local eyes, Global wise
www.seagrasswatch.org



FIJI
Islands
Seagrasses

Fiji Is. seagrasses

Seagrasses are found in a range of habitats across the Fiji Islands, including; estuarine; barrier and patch reefs; island fringing reefs; bays and lagoons; and deepwater (>10m). Six seagrass species are confirmed, all of which are either opportunistic or colonising species.

Seagrass distribution

Syringodium isoetifolium typically inhabits shallow subtidal reef areas (1 to 6m deep), with some meadows occasionally exposed during extreme low tides on reef flats. Notably, *Syringodium isoetifolium* is also the only seagrass species reported from Rotuma. *Ruppia maritima* is exclusively found in brackish water estuarine habitats on Viti Levu. Meanwhile, *Halophila decipiens* is located in waters exceeding 6m in depth, particularly along the reef channels of Cakaulevu Reef (Great Sea Reef), northern Vanua Levu.

Halodule pinifolia occurs in the high intertidal to upper subtidal areas of sheltered bays and reef platforms. *Halodule uninervis* can be found from intertidal to a depth of 6m, growing in both sheltered or exposed coral reefs as well as shallow sand and mud banks, where it often forms dense meadows. *Halophila ovalis*, the most widespread of all seagrasses in Fiji, ranges from the intertidal to depths of 10 - 12 m and can be found in various habitats due to its ability to tolerate a wide variety of substrates.

Halodule pinifolia

- leaf tip rounded
- narrow leaf blades 0.25-1.2mm wide
- leaf with 3 distinct parallel veins, sheaths fibrous
- rhizome usually white with small black fibres at the nodes

Halodule uninervis

- leaf tip tri-dentate or pointed, not rounded
- leaf blades 0.5-5mm wide
- leaf with 3 distinct parallel veins, sheaths fibrous
- rhizome usually white with small black fibres at the nodes

Halophila decipiens

- leaf margins finely serrated
- fine hairs on both sides of leaf blade
- leaf apex rounded to slightly pointed
- leaf 10-25mm long and 3-10mm wide
- 6-8 cross vein pairs

Halophila ovalis

- cross veins 8 or more pairs
- leaf 5-40mm long and 5-20mm wide
- leaf margins smooth
- no leaf hairs

Ruppia maritima

- leaves fine and thread-like
- leaf tip pointed, sometimes serrated
- leaves up to 15cm long
- rhizome fragile
- inflorescence on a long stalk, sometimes spiralled

Syringodium isoetifolium

- leaves noodle/spaghetti like and taper to a point
- leaves contain air cavities
- leaves 7-30cm long