

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 avert 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



Solomon
Islands
Seagrasses

Solomon Is. seagrasses

Most seagrasses in the Solomon Islands occur in waters shallower than 10 m. These meadows can either be monospecific or contain a diverse range of species, with as many as six different species found in one location. Ten species of seagrass are confirmed from the Solomon Islands. The dominant species throughout the islands are *Enhalus acoroides* and *Thalassia hemprichii*.

Seagrass distribution

Seagrass distribution is mainly determined by the level of shelter from wave action (exposure) and the availability of nutrients. It is estimated that just over half of all seagrass meadows, on a per hectare basis, are found in Malaita Province, while other provinces each account for less than 12% of the country's total extent.

Seagrass habitat

The seagrass habitats of the Solomon Islands can be broadly classified into four categories: estuaries (incl. large shallow lagoons), coastal (incl. fringing reef), deep-water and reef (e.g., barrier or isolated). In calm localities with relatively wide lagoons, like Tetel Island (Florida Islands) and Komimbo (north-west Guadalcanal), the sand-mud sediments are generally dominated by *Thalassia hemprichii* shoreward and *Enhalus acoroides* seaward and often bordered by mangroves (*Avicennia*, *Rhizophora* and *Bruguiera*), particularly near rivers or streams.



Cymodocea rotundata

- leaf tip rounded with smooth edge
- leaf 2-4mm wide with 9-15 parallel veins
- leaf sheath scars continuous around stem
- old sheaths forming a fibrous mass at the base of each shoot



Cymodocea serrulata

- leaf tip rounded with serrated edge
- leaf 4-9mm wide with 13-17 parallel veins
- leaf sheath broadly flat and triangular, not fibrous
- leaf sheath scars not continuous around upright stem



Enhalus acoroides

- large plant, leaves >30 cm long, >1 cm wide
- inrolled edges of leaves
- long, black bristles protruding from thick rhizome



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 & 5-20mm wide
- leaf margins smooth
- no leaf hairs



Halophila minor

- less than 8 pairs of cross veins
- leaf 5-15mm long and 3.5-6mm wide
- leaf margins smooth
- no leaf hairs



Syringodium isoetifolium

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



Thalassia hemprichii

- leaf tip rounded, may be slightly serrated
- leaf 4-12mm wide with 9-11 parallel veins
- leaf with obvious red flecks, 1-2mm long
- leaf often distinctly curved
- rhizome thick with distinct scars, usually triangular in shape
- one short root per rhizome node



Thalassodendron ciliatum

- distinct upright stem
- clusters of curved leaves (>5 mm wide), margins serrated
- stem and rhizome woody

