


Seagrass Posters Developed for Training (English)

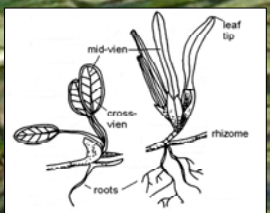
Seagrass

A flowering plant – not a seaweed

- ❖ Seagrasses evolved from land plants, and produce flowers, fruit and seeds.
- ❖ Do not confuse them with seaweeds, which are algae that evolved in the sea, and use other means of reproduction.
- ❖ Pollination occurs under water, or on the water surface for *Enhalus acoroides*.

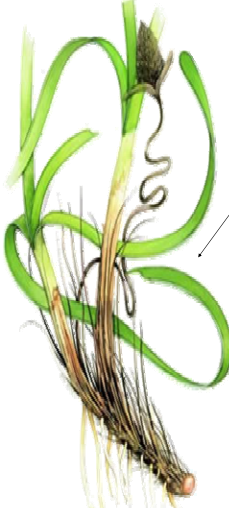


Female flower and fruit of *Enhalus acoroides*



- Roots anchor seagrass and absorb nutrients from sediments.
- Veins transport materials throughout the plant.
- Rhizomes are horizontal underground stems from which the plants grow and spread.
- Seagrass meadows can cover many km² of coastal intertidal and subtidal areas.


Seagrass species




Enhalus acoroides (Ea) (Tropical Eelgrass) may be more than 1 m high.

How many species are there?

- 50- 60 world wide
- 12 in Thailand
- 11 in Kuraburi district
- 5 near Ban Lion, including:
 - 1 very large
 - 2 small species with oval leaves
 - 2 with ribbon-like leaves, less than 30 cm long







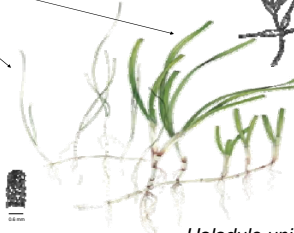
Halophila ovalis (Ho)
leaves in pairs, commonest species at Ban Lion



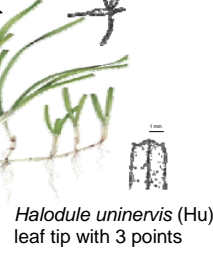
Halophila beccarii (Hb)
leaves in clusters of 4-8, leaves less than 1 cm long

Other species may be found near Ko Phra Thong


	<i>Cymodocea serrulata</i> (Cs) leaf tip saw-toothed, rhizome smooth
	<i>Cymodocea rotundata</i> (Cr) leaf tip rounded, rhizome smooth
	<i>Thalassia hemprichii</i> (Th) (Turtle grass) leaf tip rounded, rhizome scarred
	<i>Syrigodium isoetifolium</i> (Si) leaf cylindrical



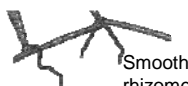
Halodule pinifolia (Hp)
leaf very narrow, tip not with 3 points



Halodule uninervis (Hu)
leaf tip with 3 points



Scarred rhizome



Smooth rhizome

Value of Seagrass



Dugong

Meadows support valuable local fisheries. Seagrasses are the foundation of meadow habitats, and support food-chains in a diverse community of large and small animals.

- Dugongs, green turtles, and some fish (e.g. parrotfish and rabbitfish) feed on seagrass.
- Many fish, crabs, shrimp, clams, snails, and sea cucumbers find shelter and forage for food in meadows.
- The smallest animals feed on algae growing on the leaves, or feed on decomposing leaves. They become prey for larger animals.



Green turtle



Seagrass parrotfish



Meadows are nursery areas for juvenile fish



Rabbitfish



Dog conch



Moon crab



Sea cucumber

Meadows stabilize substrates, trap sediments and nutrients, and improve water clarity and quality

Threats to Seagrass



Coastal erosion

The greatest threats come from reductions in light needed for plant photosynthesis due to:

- **Suspended sediments** in the water from shoreline erosion, runoff from streams and rivers, boat traffic, dredging and storms
- **Algal growth** on the surface of leaves, or as plankton, because of increased nutrients in the water from fertilizers, runoff and pollution.



Push net

Inappropriate fishing gear and boats can damage meadows.

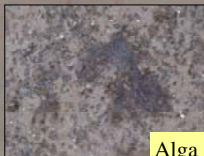


Waves from large storms erode meadows, as did the 2004 tsunami

Urchins can consume whole meadows



Other animals may eat seagrass, but damage is not so great



Alga growing over seagrass at Ko Phra Thong

