

# Seagrass Bioregional Species Key:

5 Tropical Indo-Pacific Bioregion

Species identification key including photo guide, global range maps, drawings, and flowers.

### From: SeagrassNet

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With ratings from:

**IUCN Red List of Threatened Species** 

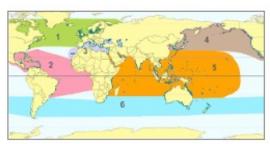
**Seagrass Red List** 

Bioregional Guide to the Seagrass Species of the World. 2025. F.T. Short. Available on-line www.SeagrassNet.org.

## Th *Thalassia hemprichii*



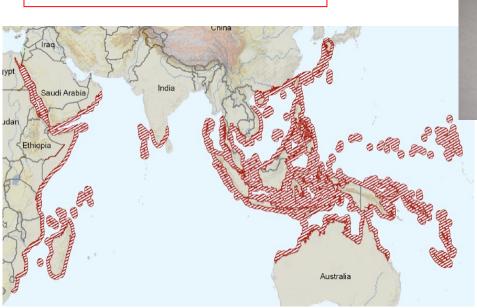


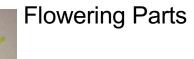


## <u>Key</u>

- Rounded serrated leaf tip
- Leaves 10-40 cm, often sickle-shaped
- Rhizome with scale leaves between shoots
- Dioecious
- Sometimes dark tannin spots on leaves
- Sometimes with red leaves in shallows









fruit

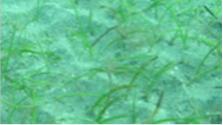


male

## Si **Syringodium isoetifolium**





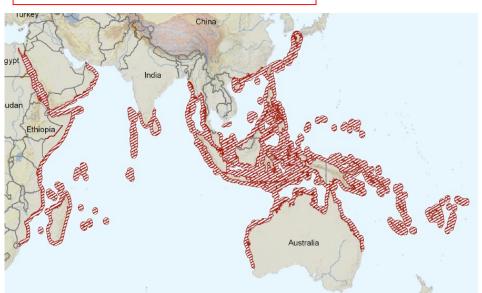




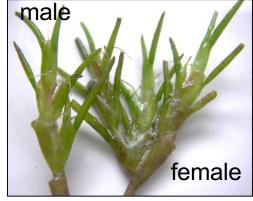
- Leaves cylindrical
- Leaf tips taper
- Leaves 7-30 cm long
- Dioecious

Bioregion

#### Extinction Risk: Least Concern



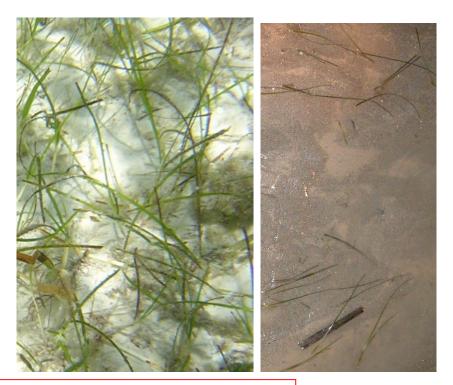






fruit

## Hp Halodule pinifolia



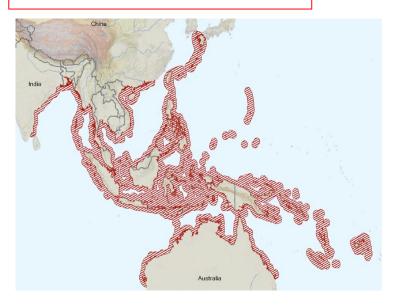




## <u>Key</u>

- Rounded leaf tips with marginal points
- One central leaf vein
- Pale rhizome with clean black leaf scars
- Leaves 10 30 cm long
- Depth intertidal to 20 m
- Dioecious

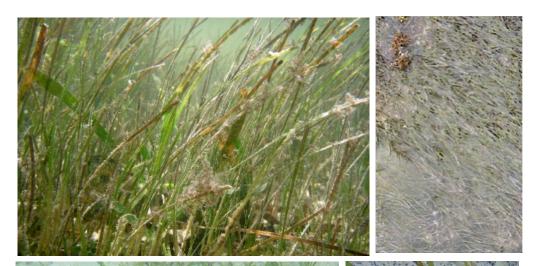
Extinction Risk: Least Concern



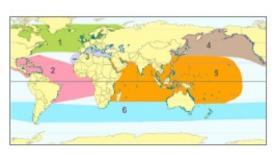




## Hu *Halodule uninervis*







## <u>Key</u>

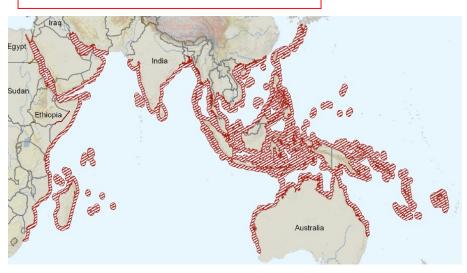
- Leaves flat
- Leaf tip with 3 points
- Rhizome whitish with black leaf scars
- Leaves 10 30 cm long
- Depth intertidal to 20 m
- Dioecious





Flowering Parts

Extinction Risk: Least Concern









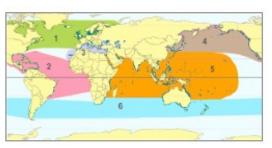
## Hw Halodule wrightii











#### <u>Key</u>

- Leaves flat and thin
- Leaf tip usually 2 points
- Leaves 2-22 cm long
- Rhizome whitish
- Dioecious
- Depth -1 to 20 m
- Sometimes leaves red or black

## Extinction Risk: Least Concern













## Cr *Cymodocea rotundata*



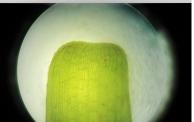




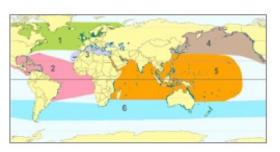
Extinction Risk: Least Concern





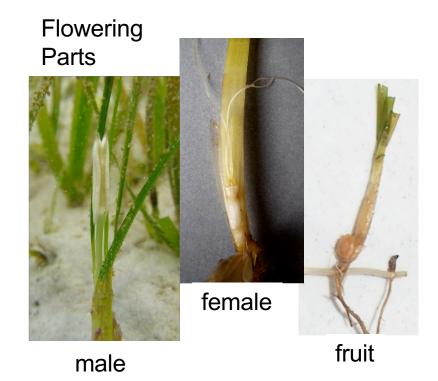






### <u>Key</u>

- Smooth rounded-to-squared leaf tip
- Leaf scar fully encircles vertical stem
- Narrow leaf blades (2-5 mm)
- Leaves 7-20 cm long with 9-15 veins
- Dioecious
- Often with red leaves

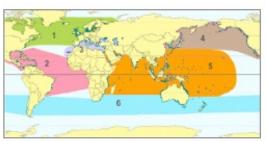


## Cymodocea serrulata





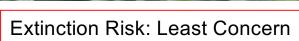


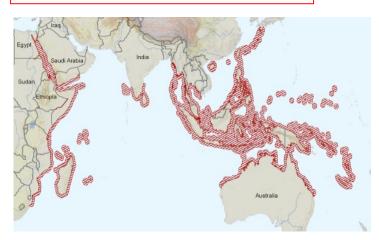


### <u>Key</u>

- Serrated rounded leaf tip
- Leaf scar not encircling vertical stem
- Wide leaf blades (4-12 mm)
- Leaves 6-15 cm with 13-17 veins
- Triangle shaped sheath
- Dioecious
- Often with red cross-stripes on leaves

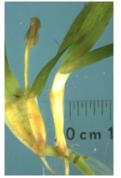
















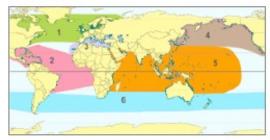


female

Seed

## Tc Thalassodendron ciliatum





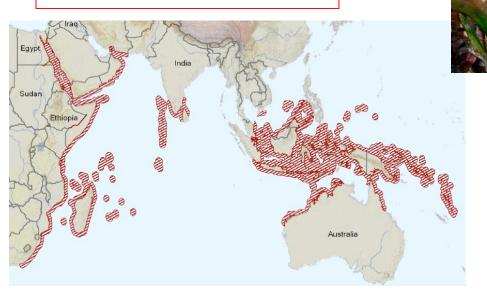




### <u>Key</u>

- · Cluster of leaves on an erect stem
- Leaves 10-20 cm
- Sickle-shaped leaves with serrated tips
- Rhizome woody
- Dioecious
- Leaves often have red cross-stripes

**Extinction Risk: Least Concern** 





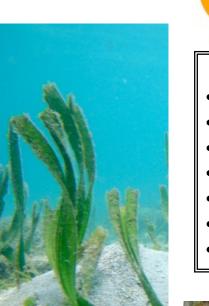




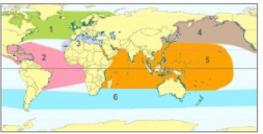
## Ea *Enhalus acoroides*











#### <u>Key</u>

- Smooth rounded leaf tip
- Leaves 30 cm 2m long
- Leaf edge rolls around tough fiber
  Wide leaf blades (10-20 mm)
- Rhizome with long black bristles
- Depth intertidal to 2 m
- Dioecious





seedling

seed release





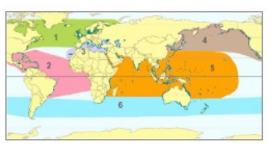






# Hd Halophila decipiens









### **Key**

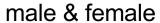
- Paddle-shaped leaves
- · Leaf hairs on both sides
- · Leaf margins serrated
- Leaves 1-4 cm long
- Monoecious
- Depth 0-30 m

#### **Extinction Risk: Least Concern**









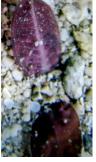


fruit

#### Ho Halophila ovalis

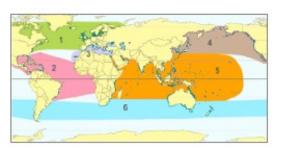












## <u>Key</u>

- Oval-shaped leaves
- Leaves 1-4 cm long
- No leaf hairs
- Leaf margins smooth
- Depth 0-10 m
- Dioecious



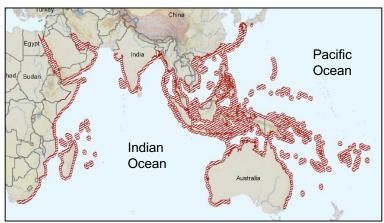
## Flowering Parts





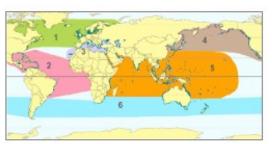
#### Extinction Risk: Least Concern



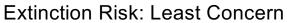


## Hm Halophila minor













**Key** 

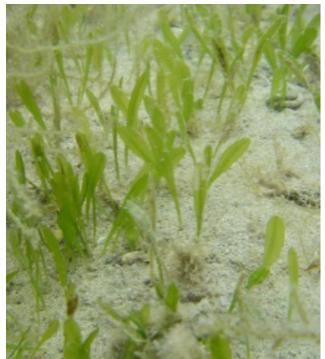
- Small oval leaves
- 4 8 cross veins
- Leaves 8 to 13 mm long
- No hairs on leaf surface
- Often intertidal
- Dioecious

Flowering Parts





# Ho Halophila hawaiiana





Extinction Risk: Vulnerable









## <u>Key</u>

- Leaves 1-4 cm long
- No leaf hairs
- Leaf margins smooth
- Dioecious
- Depth 0 -10 m





# Hn Halophila spinulosa



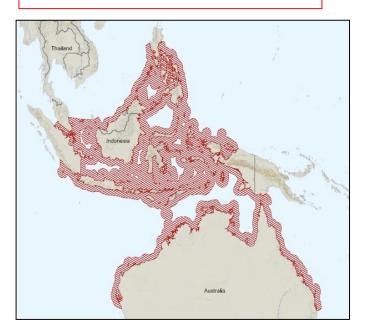




### Key

- Many oval-shaped leaves on a single stem
- Leaf edges finely serrated
- Wiry rhizome with stems to 30 cm
- Depth 0 -10 m
- Male and female different stems same plant

Extinction Risk: Least Concern





Flowering Parts female



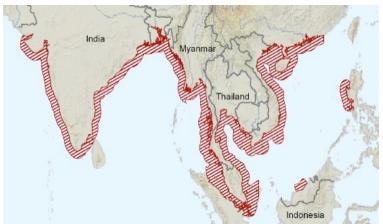


male

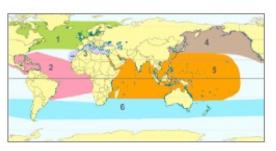
## Halophila beccarii Hb











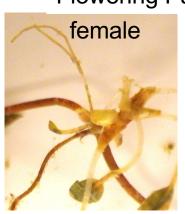
## <u>Key</u>

- 5+ elongated oval leaves in clusters
  Leaves 0.5 –2 mm wide
- Leaves up to 13 mm long
- Often intertidal
- Dioecious





Flowering Parts







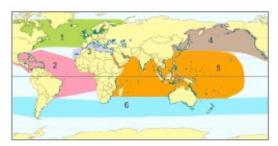
seed



Ht

# Halophila tricostata





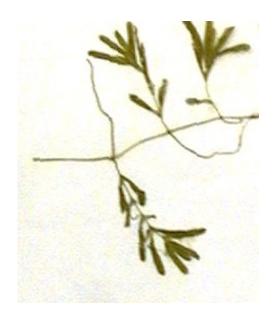


### <u>Key</u>

- Clusters of 3 leaves on vertical stem
- Leaf with mid-vein and no cross veins
- Leaf margins finely serrated
- Dioecious
- Depth 0-30 m

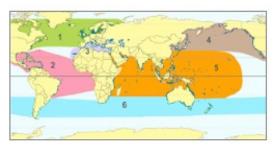
Extinction Risk: Least Concern





## Hs Halophila stipulacea







Leaf stippled and bullate, tip serrated

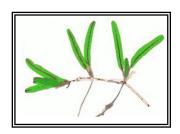
Elongated paddle-shaped leaves to 6cm

- Distinctive scales cover the stem
- Distillictive scales co
- Depth 0-60m
- Dioecious
- Range expanding

**Extinction Risk: Least Concern** 







Flowering Parts







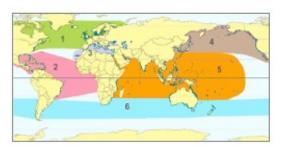
female

## Zj Nanozostera japonica







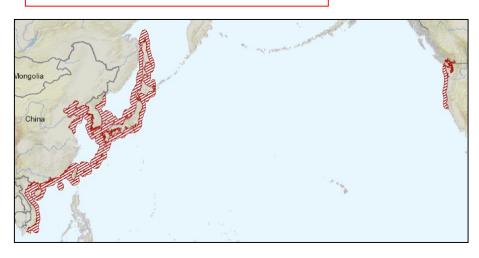


### <u>Key</u>

- Smooth rounded leaf tip
- Narrow leaf blades (2-5 mm)
- Leaves 7-20 cm long
- Monoecious
- Depth intertidal shallow subtidal



Extinction Risk: Least Concern





#### Nanozostera muelleri Zc











### Key

- Round leaf tip deeply notched
- Strap-like leaf blades (1-3 mm wide)
- Leaves 10-60 cm long
- Persistent leaf sheath
- Monoecious
- Previously known as Zostera capricorni

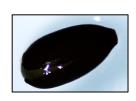
#### **Extinction Risk: Least Concern**







female

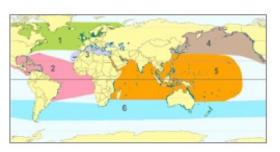


## Zp Nanozostera capensis









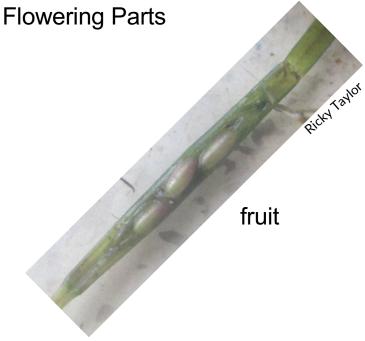
### <u>Key</u>

- Round indented leaf tip
- Leaf with staggered cross veins
- Strap-like leaf blades (0.5-2.5 mm)
- Leaves 10-115 cm long
- Persistent leaf sheath
- Monoecious

Extinction Risk: Least Concern





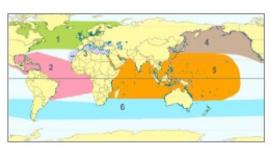


# Rm Ruppia maritima







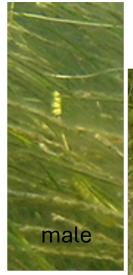


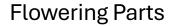
#### <u>Key</u>

- Leaves flat and thin
- Leaf tapers to tip
- Leaves 4-22 cm long
- Depth -1 to 20 m

Extinction Risk: Least Concern







female



#### **Global Seagrass Species References**

den Hartog, C., 1970. The Sea-Grasses of the World. North-Holland Publication Co., Amsterdam.

Short, F.T. and R.G. Coles (eds.). 2001. **Global Seagrass Research Methods**. Elsevier Science B.V., Amsterdam. 473 pp.

Green, E.P. and Short, F.T. (eds.). 2003. **World Atlas of Seagrasses**. University of California. Press, Berkeley, USA. 324 pp.

Short, F.T., Carruthers, T.J.B., Dennison, W.C., Waycott, M. 2007. **Global seagrass distribution and diversity: a bioregional model.** Journal of Experimental Marine Biology and Ecology 350: 3–20.

Short FT, Polidoro B, Livingstone SR, Carpenter KE, Bandeira S, Bujang JS, Calumpong HP, Carruthers TJB, Coles RG, Dennison WC, Erftemeijer PLA, Fortes MD, Freeman AS, Jagtap TG, Kamal AHM, Kendrick GA, Kenworthy WJ, La Nafie YA, Nasution IM, Orth RJ, Prathep A, Sanciangco JC, van Tussenbroek B, Vergara SG, Waycott M, Zieman, JC. 2011. **Extinction risk assessment of the world's seagrass species.** Biol Conserv. 44: 1961–71.

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van Tussenbroek, B. I., M-G. Barba-Santos, J. G., R., Wong, K. Van Dijk, M. Waycott. 2010. **A Guide to the tropical seagrasses of the Western Atlantic,** Universidad Nacional Autónoma de México, October 2010. ISBN: 978-607-02-1222-2

#### **Bioregion 5 Guides**

El Shaffai, A. 2016. **Field Guide to Seagrasses of the Red Sea.** Rouphael, A. and Abdulla, A. Second edition. Gland, Switzerland: IUCN and Courbevoie, France: Total Foundation. viii + 56 pp.

Waycott, M., K. McMahon, J. Mellors, A. Calladine and D. Kleine. 2004. A Guide to Tropical Seagrasses of the Indo-West Pacific. James Cook University, Townsville. 72 pp.

#### **Bioregion 6 Guide**

Waycott, M, K. McMahon, P. Lavery. 2014. **A Guide to Southern Temperate Seagrasses**. CSIRO Publication – April 28, 2014. 109 p.

Bioregional Guide to the Seagrass Species of the World. 2025. F.T. Short.