**Supplementary data**

**Table S1.** GenBank accession numbers for seagrass taxa and their location used in the phylogenetic analysis. na = non available. -: as above.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Taxa** | **Locations** | **GenBank accession number** | **Sources** |
|  | *Cymodocea nodosa* | Na | AF102272 | Direct submission |
|  | *Cymodocea rotundata* | India | KM609948 | [Nguyen, Thangaradjou, and Papenbrock (2013)](#_ENREF_20) |
|  | *Cymodocea serrulata* | India | KM609947 | - |
|  | *Enhalus acoroides* | Vietnam | KM609934 | - |
|  | *-* | India | KM609935 | - |
|  | *-* | na | AY870347 | [Les, Moody, and Soros (2006)](#_ENREF_16) |
|  | *Halodule uninervis* | Vietnam | KP739819 | [Nguyen, Thangaradjou, and Papenbrock (2013)](#_ENREF_20) |
|  | *Halodule pinifolia* | Vietnam | KP739820 | - |
|  | *-* | India | KM609950 | - |
|  | *-* | India | KM609951 | - |
|  | *Halophila beccarii* | Vietnam | KC175914 | [Nguyen, Holzmeyer, and Papenbrock (2013)](#_ENREF_20) |
|  | *Halophila decipiens*  | Vietnam | KC175913 | - |
|  | *Halophila engelmannii* | USA | AF366404 | [Waycott, Freshwater, York, Calladine, and Kenworthy (2002)](#_ENREF_41) |
|  | *Halophila major* | Vietnam | KC175910 | [Nguyen, Holzmeyer, and Papenbrock (2013)](#_ENREF_24) |
|  | *Halophila minor*  | Philippines | AF366406 | [Waycott, Freshwater, York, Calladine, and Kenworthy (2002)](#_ENREF_41) |
|  | *Halophila nipponica*  | Japan | HQ687164 | Direct submission |
|  | *Halophila ovalis* | USA | AF366425 | [Waycott, Freshwater, York, Calladine, and Kenworthy (2002)](#_ENREF_41) |
|  | *-* | Australia | AF366422 | - |
|  | *-* | Australia | AF366430 | - |
|  | *-* | Australia | AF366429 | - |
|  | *-* | Malaysia | AF366420 | - |
|  | *-* | Japan | AB243975 | [Uchimura, Jean-Faye, Shimada, Inoue, and Nakamura (2008)](#_ENREF_39) |
|  | *-* | Japan | AB243976 | - |
|  | *-* | Japan | AB243970 | - |
|  | *-* | Thailand | AB436938 | - |
|  | *-* | Thailand | KF620350 | [Nguyen, Höfler, Glasenapp, Thangaradjou, Lucas, and Papenbrock (2015)](#_ENREF_19) |
|  | *-* | Malaysia | KF620343 | - |
|  | *-* | Vietnam | KC175911 | [Nguyen, Holzmeyer, and Papenbrock (2013)](#_ENREF_24) |
|  | *-* | Thailand | KF620350 | [Nguyen, Höfler, Glasenapp, Thangaradjou, Lucas, and Papenbrock (2015)](#_ENREF_19) |
|  | *-* | Malaysia | KF620343 | - |
|  | *-* | Vietnam | KC175911 | [Nguyen, Holzmeyer, and Papenbrock (2013)](#_ENREF_24) |
|  | *Halophila spinulosa* | Malaysia | AF366440 | [Waycott et al. (2002)](#_ENREF_41) |
|  | *Halophila stipulacea* | Italy | AF366436 | [Waycott et al. (2002)](#_ENREF_41) |
|  |  | Italy | AY352634 | Ruggiero and Procaccini (2004) |
|  |  |  | AY352610 | - |
|  |  |  | AY352630 | - |
|  | *-* |  | AY352630 | - |
|  | *Thalassia hemprichii* | Vietnam | KM609936 | [Nguyen, Höfler, Glasenapp, Thangaradjou, Lucas, and Papenbrock (2015)](#_ENREF_19) |