**Table S1** *Sargassum* species recorded in Singapore. Species with specimens lodged at Singapore Herbarium and the Herbarium, Lee Kong Chian Natural History Museum are marked as \*1 and \*2 respectively. Validity of names checked against AlgaeBase (Guiry and Guiry, 2017) unless otherwise stated (Low, 2015). All locality sources also include Pham et al. (2011) and Low and Chou (2013) unless otherwise stated.

| Species (Valid name) | Remarks | Locality sources  |
| --- | --- | --- |
| *Sargassum angustifolium* C. Agardh | This species is neither listed in the online catalogue of the Bishop Museum nor mentioned in Ajisaka (2002). | Silva et al. (1996) |
|  |  |  |
| *Sargassum aquifolium* (Turner) C. Agardh \*1 \*2 | Valid name for (based on Mattio et al., 2009; 2010):*S. echinocarpum* J. Agardh;*S. binderi* Sonder ex J. Agardh. The Bishop Museum online catalogue lists this synonym instead of the valid one;*S. biserrula* J. Agardh;*S. odontocarpum* Sonder | Silva et al., (1996);Ajisaka (2002);Tseng and Lu (2002)Silva et al. (1996) |
|  |  |  |
| *Sargassum assimile* Harvey \*1 | This species is neither listed in the online catalogue of the Bishop Museum nor mentioned in Ajisaka (2002). | Silva et al. (1996) |
|  |  |  |
| *Sargassum baccularia* (Mertens) C. Agardh | Silva et al. (1996) indicated some uncertainty in the locality record.Teo & Wee (1983) reported this species for Singapore, but called it *Sargassum asperifolium* Hering & G. Martens ex J. Agardh (Ajisaka et al., 1999). No physical record of the specimen could be found. The record for this species is not updated in Algaebase. | Tseng & Lu (1992) |
|  |  |  |
| *Sargassum baccularia var. subcompressum* Grunow | This species is neither listed in the online catalogue of the Bishop Museum nor mentioned in Ajisaka (2002). Singapore is the only known locality for this species. | Silva et al. (1996) |
|  |  |  |
| *Sargassum belangeri* Bory de Saint-Vincent | This species is neither listed in the online catalogue of the Bishop Museum nor mentioned in Ajisaka (2002). | Silva et al. (1996) |
|  |  |  |
| *Sargassum biserrula var. singapoorense* Grunow | This species is neither listed in the online catalogue of the Bishop Museum nor mentioned in Ajisaka (2002). Singapore is the only known locality for this species. | Silva et al. (1996) |
|  |  |  |
| *Sargassum brevifolium var. pergracile* Grunow | This specie is neither listed in the online catalogue of the Bishop Museum, nor in Ajisaka (2002). Silva et al. (1996) suggested that this species falls within the circumspection of *S. polycystum*. Singapore is the only known locality for this species. | Silva et al. (1996) |
|  |  |  |
| *Sargassum cervicorne* Greville | This species is neither listed in the online catalogue of the Bishop Museum nor mentioned in Ajisaka (2002). | Silva et al. (1996) |
|  |  |  |
| *Sargassum cinereum* J. Agardh | First documented by Teo & Wee (1983), but voucher specimen could not be located locally. Although also reported in Silva et al. (1996), it is neither in the online catalogue of the Bishop Museum, nor mentioned in Ajisaka (2002). Tseng and Lu (1988) describe this as a primarily Chinese species, but also found in Ceylon and Australia. | Teo & Wee (1983);Phillips (1995); Silvaet al. (1996) |
|  |  |  |
| *Sargassum filifolium* C. Agardh | This species is neither listed in the online catalogue of the Bishop Museum nor mentioned in Ajisaka (2002). | Silva et al. (1996) |
|  |  |  |
| *Sargassum glaucescens* J. Agardh \*1 | This species is neither listed in the online catalogue of the Bishop Museum nor mentioned in Ajisaka (2002). | Silva et al. (1996) |
|  |  |  |
| *Sargassum glaucescens var. ivanii* (Montagne) Grunow | The only locality record for the Southeast Asia region is Singapore. | Silva et al. (1996) |
|  |  |  |
| *Sargassum gracile* J. Agardh | This species is neither listed in the online catalogue of the Bishop Museum nor mentioned in Ajisaka (2002). | Silva et al. (1996) |
|  |  |  |
| *Sargassum granuliferum* C. Agardh \*1 | One of the morphotypes examined by Low (unpublished data). | Silva et al. (1996) |
|  |  |  |
| *Sargassum granuliferum* C. Agardh *var. dubiosum* Grunow | This species is neither listed in the online catalogue of the Bishop Museum nor mentioned in Ajisaka (2002). | Silva et al. (1996) |
|  |  |  |
| *Sargassum grevillei* J. Agardh \*1 | The report of this species from Singapore was based on a specimen in the Singapore Herbarium, and was reported by Phamet al. (2011) from a list provided by this author (see also Low and Chou, 2013). Record is not yet updated in AlgaeBase. | Pham et al. (2011);Low and Chou(2013) |
|  |  |  |
| *Sargassum ilicifolium* (Turner) C. Agardh | Valid name for (based on Mattio et al., 2009):*S. cristaefolium* C. Agardh*S. duplicatum* Bory de Saint-Vincent*S. duplicatum* J. Agardh*S. ilicifolium var. venustum* GrunowTeo and Wee (1983) documented both *S. duplicatum* J. Agardh and *S. ilicifolium* (Turner) C. Agardh as occurring in Singapore, but no physical evidence could be found in either herbaria. This species is not listed in the online catalogue of theBishop Museum, nor mentioned in Ajisaka (2002). | Silva et al. (1996)Phillips (1995)Teo & Wee (1983)Silva et al. (1996). |
|  |  |  |
| *Sargassum ilicifolium var. pseudospinulosum* Grunow | This species is neither listed in the online catalogue of the Bishop Museum nor mentioned in Ajisaka (2002). | Silva et al. (1996) |
|  |  |  |
| *Sargassum latifolium*(Turner) C. Agardh | This species is neither listed in the online catalogue of the Bishop Museum nor mentioned in Ajisaka (2002). | Silva et al. (1996) |
|  |  |  |
| *Sargassum latifolium var. seychellarum* (*S. latifolium var. seychallense* Grunow) \*1 | The voucher sheet indicates that the name was determined by Setchell (1929), and this species may be a mis-spelling of *S. latifolium var. seychallense* Grunow, as "*seychellarum*" does not exist! This is the first mention of this specimen (assuming *S. latifolium var. seychallense* is the correct name) from Singapore.The report of this species from Singapore was based on a specimen in the Singapore Herbarium, and was reported by Pham et al. (2011) from a list provided by this author (see also Low and Chou, 2013). | Pham et al. (2011);Low and Chou(2013) |
|  |  |  |
| *Sargassum microcystum* J. Agardh | This species is neither listed in the online catalogue of the Bishop Museum nor mentioned in Ajisaka (2002). | Silva et al. (1996) |
|  |  |  |
| *Sargassum microcystum f. dilatatum* Grunow | This species is neither in the online catalogue of the Bishop Museum, nor mentioned in Ajisaka (2002). Singapore the onlyknown locality for this species. | Silva et al. (1996) |
|  |  |  |
| *Sargassum myriocystum var. grandifolium* Grunow  | This species is neither in the online catalogue of the Bishop Museum, nor mentioned in Ajisaka (2002). Type locality is listedas “near Singapore” (Silva et al., 1996; pp. 687), and the only known record is from Singapore. | Silva et al. (1996) |
|  |  |  |
| *Sargassum microphyllum* C. Agardh | This species is neither listed in the online catalogue of the Bishop Museum nor mentioned in Ajisaka (2002). | Silva et al. (1996) |
|  |  |  |
| *Sargassum obtusifolium var. reichelii* Grunow  | This species is neither in the online catalogue of the Bishop Museum, nor mentioned in Ajisaka (2002). Type locality is listedas “near Singapore” (Silva et al., 1996; pp. 689), and the only known record is from Singapore. | Silva et al. (1996) |
|  |  |  |
| *Sargassum oocyste var. chierchii* Grunow  | This species is neither in the online catalogue of the Bishop Museum, nor mentioned in Ajisaka (2002). Singapore the onlyknown locality for this species. | Silva et al. (1996) |
|  |  |  |
| *Sargassum parvifolium* (Turner) C. Agardh | This species is neither listed in the online catalogue of the Bishop Museum nor mentioned in Ajisaka (2002). | Silva et al. (1996) |
|  |  |  |
| *Sargassum plagiophyllum* C. Agardh | This species is neither in the online catalogue of the Bishop Museum, nor mentioned in Ajisaka (2002). It is the heterotypicsynonym of *S. stolonifolium* S.M.Phang & T.Yoshida (Mattio et al., 2010). | Silva et al. (1996) |
|  |  |  |
| *Sargassum plagiophyllum var. hebetatum* Grunow | This species is neither in the online catalogue of the Bishop Museum, nor mentioned in Ajisaka (2002). Singapore the onlyknown locality for this species. | Silva et al. (1996) |
|  |  |  |
| *Sargassum plagiophyllum var. singapoorense* Grunow | This species is neither in the online catalogue of the Bishop Museum, nor mentioned in Ajisaka (2002). Singapore the onlyknown locality for this species. | Silva et al. (1996) |
|  |  |  |
| *Sargassum polycystum* C. Agardh \*1 \*2 | Valid name for (based on Mattio et al., 2009; 2013):*S. myriocystum**S. gaudichaudii* Montagne*S. oligocystum* MontagneAjisaka et al. (1999) reported that *S. spathulaefolium* and *S. asperifolium* should be *S. polycystum*, based on the description provided in Teo and Wee (1983). | Teo & Wee (1983);Phillips (1995); Silvaet al. (1996); Ajisaka(2002)Silva et al. (1996)Silva et al. (1996) |
|  |  |  |
| *Sargassum pseudocystocarpum* Grunow | This species is neither in the online catalogue of the Bishop Museum, nor mentioned in Ajisaka (2002). Singapore the onlyknown locality for this species. | Silva et al. (1996) |
|  |  |  |
| *Sargassum pulchellum* Grunow | This species is neither listed in the online catalogue of the Bishop Museum nor mentioned in Ajisaka (2002). | Silva et al. (1996) |
|  |  |  |
| *Sargassum siliquosum* J. Agardh \*1 \*2  | Singapore is the type locality for this species (Tseng and Lu, 1992), but the holotype specimen from Singapore as described by Agardh (1848) could not be located (Phang et al., 1995). The sex of the type specimen was not stated, but has been reported as baring only male receptacles (Ang and Trono, 1987) as well as male and female receptacles (Yamada, 1942). There is strong agreement, however, that the "strongly triquetrous and twisted female receptacles" is the distinguishing feature of *S. siliquosum* (Ang & Trono, 1987; Trono, 1992). | Tseng & Lu (1992);Phang et al. (1995);Silva et al. (1996);Ajisaka (2002) |
|  |  |  |
| *Sargassum squarrosum* Greville | This species is neither listed in the online catalogue of the Bishop Museum nor mentioned in Ajisaka (2002). | Silva et al. (1996);Tseng & Lu (2002) |
|  |  |  |
| *Sargassum subspathulatum* (Grunow) Grunow | This species is neither listed in the online catalogue of the Bishop Museum nor mentioned in Ajisaka (2002). | Silva et al. (1996) |
|  |  |  |
| *Sargassum swartzii* C. Agardh \*1 | This species was first documented by Teo and Wee (1983) as *Sargassum spathulaefolium* J. Agardh, which is a heterotypic synonym of *S. swartzii* C. Agardh (Mattio et al., 2010). However, based on the description by Teo and Wee (“stems densely muricated”), Ajisaka et al. (1999) concluded that this specimen was misidentified and should be *S. polycystum*. Nonetheless, this species exists in Singapore, as documented by specimens in the herbaria. | Teo & Wee (1983);Phillips (1995); Silvaet al. (1996). |
|  |  |  |
| *Sargassum torvum* J. Agardh | First documented by Teo & Wee (1983) for Singapore, although they were unsure of its identity (listed as "undetermined species"). No archival record of this species could be found in either herbarium. | Teo & Wee (1983);Silva et al. (1996) |
|  |  |  |
| *Sargassum virgatum* C. Agardh | This species is neither listed in the online catalogue of the Bishop Museum nor mentioned in Ajisaka (2002). | Silva et al. (1996) |
|  |  |  |
| *Sargassum vulgare* C. Agardh \*1 | The report of this species from Singapore was based on a specimen in the Singapore Herbarium and was reported by Pham et al. (2011) from a list provided by this author (see also Low and Chou, 2013). A seemingly circum-global species (Guiry and Guiry, 2014), but perhaps not so common locally. |  |

**Table S2** *Sargassum* taxa from various localities included in DNA analyses, with herbarium accessions, collection or publication details, as well as GenBank numbers.

| Taxon | Herbarium Accession | Collection site(a) | Collection (b) or publication details | *ITS*-2 | *rbc*LS | *cox*3 |
| --- | --- | --- | --- | --- | --- | --- |
| *S. aquifolium* (Turn.) C. Ag. | IRD3927 | NC, Baie tortues | Jul-05, LM | FJ170433 | - | - |
| *S. aquifolium* (Turn.) C. Ag. | IRD3994 | NC, Côte Oubliée | Mar-07, CP | - | FJ170382 | FJ170408 |
| *S. aquifolium* (Turn.) C. Ag. | IRD3928 | NC, Ile des Pins | Nov-05, LM | FJ170436 | - | FJ170409 |
| *S. aquifolium* (Turn.) C. Ag. | IRD3914 | NC, Ile des Pins | Dec-05, CP | FJ170431 | - | - |
| *S. aquifolium* (Turn.) C. Ag. | IRD3916 | NC, Ile des Pins | Dec-05, LM | FJ170432 | - | - |
| *S. aquifolium* (Turn.) C. Ag. | IRD1622 | NC, Ile des Pins | Mattio et al. in press  | EU882252 | EU882262 | EU882241 |
| *S. aquifolium* (Turn.) C. Ag. | IRD1531 | NC, Ile des Pins | Mattio et al. 2008 as *S. echinocarpum* | EU100800 | EU100808 | EU882243 |
| *S. aquifolium* (Turn.) C. Ag. | IRD3920 | NC, île Nouaré | Oct-05, LM | FJ170437 | FJ170383 | FJ170410 |
| *S. aquifolium* (Turn.) C. Ag. | IRD1624 | NC, île Nouaré | Mattio et al. in press  | EU882253 | EU882263 | EU882242 |
| *S. aquifolium* (Turn.) C. Ag. | IRD3925 | NC, Ouano | Jun-05, LM | FJ170434 | FJ170380 | FJ170405 |
| *S. aquifolium* (Turn.) C. Ag. | IRD3948 | NC, Prony | Jun-07, GL | - | - | FJ170406 |
| *S. aquifolium* | IRD1587 | FJ, Navutulevu rf. | Mattio, 2007 | - | EU833465 | EU833409 |
| *S. aquifolium* | IRD1592 | FJ, Kiuva rf. | Mattio, 2007 | EU833433 | EU833466 | EU833411 |
| *S. aquifolium* | IRD1557 | FJ, Makuluva Is. | Mattio, 2007 | EU833431 | - | - |
| *S. aquifolium* | IRD 1530 | Solomon Islands | Payri, 2004 | EU100801 | - | - |
| *S. aquifolium* (Turn.) C. Ag. | IRD3949 | NC, Prony | Jun-07, GL | FJ170435 | FJ170381 | FJ170407 |
| *S. aquifolium* (Turn.) C. Ag. | IRD1582 |  FJ |  Mattio et al. 2009 |  EU833432 |  EU833464 |  EU833406 |
| *S. aquifolium* (Turn.) C. Ag. | UPF3976 |  FP |  Mattio et al. 2008 as *S. echinocarpum* |  EU100795 |  EU100809 |  EU100833 |
| *S. aquifolium* (Turn.) C. Ag. | Sherwood 01466 |  HI |  Mattio et al. 2008 as *S. echinocarpum* |  EU100796 |  EU100821 |  EU100835 |
| *S. aquifolium* (Turn.) C. Ag. | SAP073135 |  JP |  Stiger et al. 2000 as *S. crassifolium* |  AB043117 | - | - |
| *S. aquifolium* (Turn.) C. Ag. | WELT-A28413 |  K, Raoul Is | Mattio et al. in press  | EU882251 | - | - |
| *S. aquifolium* (Turn.) C. Ag. | SAP073148 |  M |  Stiger et al. 2000 as *S. binderi* |  AB043116 | - | - |
| *S. aquifolium* (Turn.) C. Ag. | IRD1660 |  S |  Mattio et al. 2009 |  EU833447 |  EU833462 |  EU833397 |
| *S. aquifolium* (Turn.) C. Ag. | IRD1681 |  Va |  Mattio et al. 2009 |  EU833456 |  EU833476 |  EU833412 |
| *S. aquifolium* | IRD1677 | S, Nggela ST842 | Payri, 2004 | EU833441 | EU833463 | EU833392 |
| *S. aquifolium* | IRD1668 | S, Nggela ST842 | Payri, 2004 | EU833442 | - | EU833393 |
| *S. aquifolium* | IRD1667 | S, Nggela ST842 | Payri, 2004 | EU833443 | - | - |
| *S. aquifolium* | IRD1666 | S, Nggela ST842 | Payri, 2004 | EU833444 | - | EU833394 |
| *S. aquifolium* | IRD1662 | S, Malaita ST848 | Payri, 2004 | EU833445 | - | EU833395 |
| *S. aquifolium* | IRD1661 | S, Malaita ST848 | Payri, 2004 | EU833446 | - | EU833396 |
| *S. aquifolium* | IRD1656 | S, Malaita ST852 | Payri, 2004 | EU833448 | - | EU833398 |
| *S. aquifolium* | IRD1653 | S, Malaita ST852 | Payri, 2004 | EU833449 | - | EU833400 |
| *S. aquifolium* | IRD1681 | Va, Santo | Mattio, 2006 | EU833456 | EU833476 | EU833412 |
| *S. aquifolium* | IRD1682 | Va, Santo | Mattio, 2006 | EU833455 | EU833477 | EU833413 |
| *S. aquifolium* ZT040 | - | SG, Pulau Tekukor | Jan-17, Yip | MG731829 | MG731768 | MG731788 |
| *S. aquifolium* ZT051 | - | SG, Pulau Hantu | Jan-17, Yip | MG731834 | MG731763 | - |
| *S. aquifolium* ZT061 | sinu\_algae 1037 | SG, Big Sister’s island | Jun-17, Yip  | MG731843 | MG731748 | MG731799 |
| *S. aquifolium* ZT080 | sinu\_algae 1056 | SG, Cyrene reef | Jul-17, Yip  | MG731861 | MG731735 | MG731817 |
| *S. aquifolium* ZT081 | sinu\_algae 1057 | SG, Cyrene reef | Jul-17, Yip | MG731862 | MG731736 | MG731818 |
|  |  |  |  |  |  |  |
| *S. swartzii* C. Ag. | IRD3912 | NC, îlot Maître | Mattio et al. in press  | EU882255 | EU882264 | - |
| *S. swartzii* C. Ag. | IRD1532 | NC, Thio | Mattio et al. 2008, in press  | EU882254 | EU100807 | KF413706 |
| *S. swartzii* JI\_20131205 005 | SING 0235297 | SG, Pulau Jong | Dec-13, Low | MG731864 | - | - |
| *S. swartzii* JI\_20131205\_006 | SING 0235298 | SG, Pulau Jong | Dec-13, Low | MG731865 | - | - |
| *S. swartzii* JI\_20131205\_007 | SING 0235299 | SG, Pulau Jong | Dec-13, Low | MG731866 | - | - |
| *S. swartzii* TPT 20131205\_008 | SING 0235300 | SG, Terumbu Pempang Tengah | Dec-13, Low | MG731867 | - | - |
|  |  |  |  |  |  |  |
| *S. carpophyllum* J. Ag. | SAP073140 |  JP |  Stiger et al. 2000 |  AB043067 | - | - |
| *S. carpophyllum* J. Ag. | IRD1516 | NC, Basse de Taui | Mattio et al. 2008, 2009 | EU100799 | EU100806 | EU833416 |
| *S. carpophyllum* J. Ag. | IRD1511 | NC, îlot Feycinet | Mattio et al. 2008, 2009 | EU100797 | EU100804 | EU833415 |
| *S. carpophyllum* J. Ag. | IRD1519 | NC, îlot Porc Epic | Mattio et al. 2008, 2009 | EU100798 | EU100805 | EU833417 |
|  |  |  |  |  |  |  |
| *S. turbinarioides* Grun. | IRD1604 | NC, Ile des Pins | Mattio et al. in press  | EU882256 | EU882265 | EU882245 |
|  |  |  |  |  |  |  |
| *S. polyporum* Mont. |  na. |  JP |  Phillips et Fredericq 2000 | - |  AF244327 | - |
|  |  |  |  |  |  |  |
| *S. polyphyllum* J. Ag. | IRD1611 | NC, Ouano | Mattio et al. 2009 | EU833425 | EU833459 | - |
| *S. polyphyllum* | IRD1574 | FJ, Navutulevu rf. | Mattio, 2007 | - | - | EU833402 |
| *S. polyphyllum* J. Ag. | na. ('NP136') | HI |  Phillips et al. 2005 | - |  AY518391 | - |
| *S. polyphyllum* J. Ag. | IRD3968 | NC, Ile des Pins | Nov-05, CP | FJ170450 | - | - |
| *S. polyphyllum* J. Ag. | IRD3953 | NC, îlot M’Bo | Jul-05, LM | FJ170449 | - | - |
| *S. polyphyllum* | IRD1613 | NC, Maître Is. | Mattio, 2005 | EU833424 | EU833458 | EU833385 |
| *S. polyphyllum* J. Ag. | IRD1566 |  FJ | Mattio et al. 2009 |  EU833426 | - |  EU833401 |
|  |  |  |  |  |  |  |
| *S. howeanum* Lucas | IRD3958 | NC, île aux Canards | May-05, LM | FJ170439 | FJ170385 | FJ170412 |
| *S. howeanum* Lucas | IRD3950 | NC, îlot Maître | Sept-05, LM | FJ170441 | FJ170386 | FJ170414 |
| *S. howeanum* Lucas | IRD3962 | NC, Ouano | Jun-05, LM | FJ170438 | FJ170384 | FJ170411 |
| *S. howeanum* Lucas | IRD3955 | NC, Rocher voile | May-05, LM | FJ170440 | - | FJ170413 |
|  |  |  |  |  |  |  |
| *S. spinuligerum* Sond. | IRD3972 | NC, Ile des Pins | Dec-05, CP | FJ170460 | FJ170397 | FJ170425 |
| *S. spinuligerum* Sond. | IRD3974 | NC, Ile des Pins | Dec-05, LM | - | FJ170398 | - |
| *S. spinuligerum* Sond. | IRD3903 | NC, îlot M’Bo | Jul-05, LM | FJ170461 | FJ170399 | FJ170426 |
| *S. spinuligerum* Sond. | IRD3985 | NC, Basse deTaui | Jul-05, LM | - | FJ170400 | FJ170427 |
| *S. spinuligerum* Sond. | IRD3978 | NC, îlot Signal | Sept-05, LM | FJ170462 | FJ170401 | FJ170428 |
| *S. spinuligerum* var. *crispata* J. Ag. | IRD3963 | NC, îlot M’Bo | Jul-05, LM | FJ170463 | FJ170402 | FJ170429 |
| *S. spinuligerum* var. *crispata* J. Ag. | IRD3965 | NC, îlot Maître | Sept-05, LM | FJ170465 | FJ170404 | FJ170430 |
| *S. spinuligerum* var. *crispata* J. Ag. | IRD3961 | NC, Rocher voile | May-05, LM | FJ170464 | FJ170403 | - |
|  |  |  |  |  |  |  |
| *S. scabridum* Hook. et Harv. | WELT-A28408 | K, Meyer Is. | Nov-05, CD | FJ170453 | FJ170390 |  FJ170420 |
| *S. scabridum* Hook. et Harv. | WELT-A28409 | K, Meyer Is. | Nov-05, CD | FJ170454 | FJ170391 |  FJ170421 |
| *S. scabridum* Hook. et Harv. | WELT-A28410 | K, Meyer Is. | Nov-05, CD | FJ170455 | FJ170392 |  FJ170422 |
| *S. scabridum* Hook. et Harv. | WELT-A28411 | K, Meyer Is. | Nov-05, CD | FJ170456 | FJ170393 |  FJ170423 |
| *S. scabridum* Hook. et Harv.  | WELT-A28412 | K, Meyer Is. | Nov-05, CD | FJ170457 | FJ170394 |  FJ170424 |
| *S. scabridum* Hook. et Harv. | WELT-A28417 | NZ, Auckland | Jan-05, WN | FJ170451 | FJ170388 |  FJ170418 |
| *S. scabridum* Hook. et Harv. | WELT-A28416 | NZ, Whangaparoa | Jul-05, TF | FJ170452 | FJ170389 |  FJ170419 |
|  |  |  |  |  |  |  |
| *S. pacificum* Bory | UPF 2783 | Raiatea, Society | Payri & Stiger, 2003 | EU100774 | EU100811 | EU100823 |
| *S. pacificum* Bory | UPF 3973 | Tahiti, Society | Payri & Stiger, 2003 | EU100776 | EU100810 | EU100826 |
| *S. pacificum* Bory | UPF 3974 | Tahiti, Society | Payri & Stiger, 2003 | EU100777 | EU100814 | EU100825 |
| *S. pacificum* Bory | UPF 3975 | Tahiti, Society | Payri & Stiger, 2003 | EU100775 | EU100817 | EU100827 |
| *S. pacificum* Bory | UPF 3972 | Raiatea, Society | Payri & Stiger, 2003 | EU100784 | EU100813 | EU100828 |
| *S. pacificum* Bory | UPF2754 |  FP |  Mattio et al. 2008 |  EU100783 |  EU100812 |  EU100824 |
| *S. pacificum* Bory | UPF 2743 | Raiatea, Society | Payri & Stiger, 2003 | EU100782 | - | - |
| *S. pacificum* Bory | UPF 2778 | Raiatea, Society | Payri & Stiger, 2003 | EU100779 | - | - |
| *S. pacificum* Bory | UPF2763 | Bora Bora, Society | Payri & Stiger, 2003 | EU100780 | - | - |
|  |  |  |  |  |  |  |
| *S. obtusifolium* | IRD1537 | HI, Maui | Rivera, 2006 | EU100794 | EU100820 | EU100834 |
| *S. obtusifolium* | IRD1633 | HI, Molokai W | Sauvage, 2007 | EU833427 | - | - |
| *S. obtusifolium* | IRD1538 | HI, Molokai SE | Sauvage, 2007 | EU833428 | - | - |
| *S. obtusifolium* | UPF2675 | FP, Rapa | Payri, 2002 | EU100786 | EU100815 | EU100831 |
| *S. obtusifolium* | IRD1539 | HI, Ho'okena | Sauvage, 2007 | - | - | EU833386 |
| *S. obtusifolium* | UPF 2621 | Rapa, Australs | Payri, 2002 | EU100789 | - | - |
| *S. obtusifolium* | UPF 2633 | Rapa, Australs | Payri, 2002 | EU100793 | - | - |
| *S. obtusifolium* | UPF 2636 | Rapa, Australs | Payri, 2002 | EU100790 | - | - |
| *S. obtusifolium* | UPF 2651 | Rapa, Australs | Payri, 2002 | EU100785 | EU100819 | EU100830 |
| *S. obtusifolium* | UPF 2656 | Rapa, Australs | Payri, 2002 | EU100792 | - | - |
| *S. obtusifolium* | UPF 2661 | Rapa, Australs | Payri, 2002 | EU100788 | EU100818 | EU100829 |
| *S. obtusifolium* | UPF 2662 | Rapa, Australs | Payri, 2002 | EU100787 | EU100816 | EU100832 |
| *S. obtusifolium* | UPF 2675 | Rapa, Australs | Payri, 2002 | EU100786 | EU100815 | EU100831 |
| *S. obtusifolium* | UPF 2676 | Rapa, Australs | Payri, 2002 | EU100791 | - | - |
|  |  |  |  |  |  |  |
| *S. plagiophyllum*  Mont. | SAP086286 |  M |  Stiger et al. 2003 as *S. stolonifolium* |  AB043613 |  - | - |
|  |  |  |  |  |  |  |
| *S. polycystum* C. Ag. | IRD1571 |  FJ |  Mattio et al. 2009 |  EU833422 |  EU833471 |  EU833405 |
| *S. polycystum* C. Ag. | IRD1590 |  FJ |  Mattio et al. 2009 |  EU833421 |  EU833472 |  EU833410 |
| *S. polycystum* C. Ag. | IRD1680 |  S |  Mattio et al. 2009 |  EU833423 | - |  EU833399 |
| *S. polycystum* C. Ag. | IRD1640 |  Va |  Mattio et al. 2009 |  EU833420 |  EU833475 |  EU833388 |
| *S. polycystum* C. Ag. | IRD1642 |  Va |  Mattio et al. 2009 |  EU833419 |  EU833474 |  EU833387 |
| *S. polycystum* C. Ag. | IRD1626 |  WLS |  Mattio et al. 2009 |  EU833418 | - | - |
| *S. polycystum* ZT032 | - | SG, Pulau Tekukor | Jan-17, Yip | MG731825 | MG731772 | MG731786 |
| *S. polycystum* ZT033 | - | SG, Pulau Tekukor | Jan-17, Yip | MG731826 | MG731771 | - |
| *S. polycystum* ZT041 | - | SG, Pulau Tekukor | Jan-17, Yip | MG731830 | MG731767 | MG731783 |
| *S. polycystum* ZT054 | - | SG, Seringat Kias | Jan-17, Yip | MG731836 | MG731761 | MG731792 |
| *S. polycystum* ZT057 | sinu\_algae 1034 | SG, Tanjung Rimau | Jun-17, Yip  | MG731839 | MG731758 | MG731798 |
| *S. polycystum* ZT058 | sinu\_algae 1035 | SG, Tanjung Rimau | Jun-17, Yip  | MG731840 | MG731757 | MG731797 |
| *S. polycystum* ZT059 | sinu\_algae 1036 | SG, Tanjung Rimau | Jun-17, Yip  | MG731841 | MG731756 | MG731796 |
| *S. polycystum* ZT060 | sinu\_algae 1037 | SG, Tanjung Rimau | Jun-17, Yip  | MG731842 | MG731747 | MG731795 |
| *S. polycystum* ZT062 | sinu\_algae 1039 | SG, Big Sister’s Island | Jun-17, Yip  | MG731844 | MG731749 | MG731800 |
| *S. polycystum* ZT063 | sinu\_algae 1040 | SG, Big Sister’s Island | Jun-17, Yip  | MG731845 | MG731750 | MG731801 |
| *S. polycystum* ZT064 | sinu\_algae 1041 | SG, Big Sister’s Island | Jun-17, Yip  | MG731846 | MG731751 | MG731802 |
| *S. polycystum* ZT065 | sinu\_algae 1042 | SG, Big Sister’s Island | Jun-17, Yip  | MG731847 | MG731752 | MG731803 |
| *S. polycystum* ZT066 | sinu\_algae 1043 | SG, Big Sister’s Island | Jun-17, Yip  | MG731848 | MG731754 | MG731804 |
| *S. polycystum* ZT079 | sinu\_algae 1055 | SG, Cyrene reef  | Jul-17, Yip  | MG731860 | MG731734 | MG731816 |
|  |  |  |  |  |  |  |
| *S.* cf. *granuliferum* ZT047 | - | SG, Pulau Hantu  | Jan-17, Yip | MG731833 | MG731765 | - |
| *S.* cf. *granuliferum* ZT050 | - | SG, Pulau Hantu  | Jan-17, Yip | MG731832 | MG731764 | MG731790 |
| *S.* cf*. granuliferum* ZT053 | - | SG, Pulau Hantu  | Jan-17, Yip | MG731835 | MG731762 | MG731791 |
| *S.* cf*. granuliferum* ZT069 | sinu\_algae 1046 | SG, One degree 15 marina pontoon | Jun-17, Yip  | MG731851 | MG731738 | MG731807 |
| *S.* cf*. granuliferum* ZT070 | sinu\_algae 1047 | SG, One degree 15 marina pontoon | Jun-17, Yip  | MG731852 | MG731739 | MG731808 |
| *S.* cf*. granuliferum* ZT074 | sinu\_algae 1050 | SG, Tanah Merah | Jun-17, Yip  | MG731855 | MG731742 | MG731811 |
| *S.* cf*. granuliferum* ZT076 | sinu\_algae 1052 | SG, East Coast Park  | Jun-17, Yip  | MG731857 | MG731744 | MG731813 |
|  |  |  |  |  |  |  |
| *S.* sp. | IRD1644 | S | Mattio et al. 2009 |  EU833450 | - | - |
| *S.* sp. | IRD1634 | Va | Mattio et al. 2009  |  EU833457 |  EU833473 |  EU833414 |
| *S. sp.* | IRD1609 | NC, Rocher voile | Mattio et al. in press  | EU882248 | EU882259 | EU882237 |
| *S.* sp.ZT055 | - | SG, Seringat Kias | Jan-17, Yip | MG731837 | MG731760 | MG731793 |
| *S.* sp.ZT056 | - | SG, Seringat Kias | Jan-17, Yip | MG731838 | MG731759 | MG731794 |
| *S.* sp.ZT067 | sinu\_algae 1044 | SG, Big Sister’s Island | Jun-17, Yip  | MG731849 | MG731755 | MG731805 |
| *S.* sp*.* ZT068 | sinu\_algae 1045 | SG, Big Sister’s Island | Jun-17, Yip | MG731850 | MG731753 | MG731806 |
| *S.* sp*.* ZT077 | sinu\_algae 1053 | SG, East Coast Park  | Jun-17, Yip | MG731858 | MG731745 | MG731814 |
| *S.* sp*.* ZT078 | sinu\_algae 1054 | SG, East Coast Park | Jun-17, Yip | MG731859 | MG731746 | MG731815 |
| *S.* sp.ZT082 | sinu\_algae 1058 | SG, Cyrene reef  | Jul-17, Yip  | MG731863 | MG731737 | MG731819 |
|  |  |  |  |  |  |  |
| *S. ilicifolium* (Turn.) C. Ag. | IRD3931 | NC, Crouy | Jun-06, LM | FJ170443 | FJ170387 | FJ170416 |
| *S. ilicifolium* (Turn.) C. Ag. | IRD3938 | NC, Ile des Pins | Nov-05, CP | FJ170446 | - | FJ170417 |
| *S. ilicifolium* (Turn.) C. Ag. | IRD3944 | NC, Ile des Pins | Nov-05, CP | FJ170447 | - | - |
| *S. ilicifolium* (Turn.) C. Ag. | IRD3935 | NC, Ile des Pins | Dec-05, LM | FJ170442 | - | FJ170415 |
| *S. ilicifolium* (Turn.) C. Ag. | IRD1616 | NC, Ile des Pins | Mattio et al. 2009 | EU833435 | EU833460 | EU833391 |
| *S. ilicifolium* (Turn.) C. Ag. | IRD3908 | NC, île Nouaré | Oct-05, LM | FJ170448 | - | - |
| *S. ilicifolium* (Turn.) C. Ag. | IRD1618 | NC, île Nouaré | Mattio et al. 2009 | EU833434 | EU833461 | EU833390 |
| *S. ilicifolium* (Turn.) C. Ag. | IRD3930 | NC, île aux Canards | May-05, LM | FJ170444 | - | - |
| *S. ilicifolium* (Turn.) C. Ag. | IRD1620 | NC, Rocher voile | May-05, LM ; Mattio et al. in press | FJ170445 | - | EU882238 |
| *S. ilicifolium* | IRD1562 | FJ, Makuluva Is. | Mattio, 2007 | EU833436 | EU833468 | - |
| *S. ilicifolium* | IRD1578 | FJ, Navutulevu rf. | Mattio, 2007 | EU833440 | - | EU833404 |
| *S. ilicifolium* | IRD1586 | FJ, Navutulevu rf. | Mattio, 2007 | EU833438 | - | EU833407 |
| *S. ilicifolium* | IRD1588 | FJ, Kiuva rf. | Mattio, 2007 | - | EU833467 | EU833408 |
| *S. ilicifolium* | IRD1589 | FJ, Kiuva rf. | Mattio, 2007 | EU833439 | EU833470 | - |
| *S. ilicifolium* | IRD1652 | S, Malaita ST852 | Payri, 2004 | EU833451 | - | - |
| *S. ilicifolium* | IRD1651 | S, Nggela ST842 | Payri, 2004 | EU833454 | - | - |
| *S. ilicifolium* | IRD1647 | S, Malaita ST852 | Payri, 2004 | EU833452 | - | - |
| *S. ilicifolium* | IRD1645 | S, Malaita ST852 | Payri, 2004 | EU833453 | - | - |
| *S. ilicifolium* ZT001 | - | SG, Pulau Hantu | Dec-16, Yip  | MG731823 | MG731777 | MG731780 |
| *S. ilicifolium\_*ZT002 | - | SG, Pulau Hantu | Dec-16, Yip  | MG731822 | MG731774 | MG731785 |
| *S. ilicifolium* ZT003 | - | SG, Pulau Hantu | Dec-16, Yip  | MG731821 | MG731776 | MG731779 |
| *S. ilicifolium* ZT004 | - | SG, Pulau Hantu | Dec-16, Yip  | MG731820 | MG731775 | MG731778 |
| *S. ilicifolium\_*ZT010 | - | SG, Pulau Hantu | Dec-16, Yip  | MG731824 | MG731773 | MG731781 |
| *S. ilicifolium* ZT034 | - | SG, Pulau Tekukor | Jan-17, Yip | MG731827 | MG731770 | MG731787 |
| *S. ilicifolium* ZT039 | - | SG, Pulau Tekukor | Jan-17, Yip | MG731828 | MG731769 | MG731782 |
| *S. ilicifolium* ZT042 | - | SG, Pulau Tekukor | Jan-17, Yip | MG731831 | MG731766 | MG731789 |
| *S. ilicifolium* ZT071 | sinu\_algae 1048 | SG, Raffles Lighthouse | Jun-17, Yip  | MG731853 | MG731740 | MG731809 |
| *S. ilicifolium* ZT072 | sinu\_algae 1049 | SG, Raffles Lighthouse | Jun-17, Yip  | MG731854 | MG731741 | MG731810 |
| *S. ilicifolium* ZT075 | sinu\_algae 1051 | SG, East Coast Park  | Jun-17, Yip  | MG731856 | MG731743 | MG731812 |
|  |  |  |  |  |  |  |
| *S. thunbergii* (Mert. ex Roth) Kuntze | SAP084972 |  JP |  Stiger et al. 2003 |  AB043573 | - | - |
| *S. thunbergii* (Mert. ex Roth) Kuntze | na. ('nep86') |  JP |  Phillips et al. 2005 | - |  AF244332 | - |
|  |  |  |  |  |  |  |
| *S. horneri* Harv. | SAP073146 |  JP |  Stiger et al. 2000 |  AB043108 | - | - |
|  |  |  |  |  |  |  |
| *S. ringoldianum* J. Ag. | SAP085026 |  JP |  Stiger et al. 2003 |  AB043565 | - | - |
|  |  |  |  |  |  |  |
| *S. siliquastrum* (Turn.) C. Ag. | SAP073142 |  JP |  Stiger et al. 2000 |  AB043106 | - | - |
|  |  |  |  |  |  |  |
| *S. sinclairii* Hook. et Harv. | WELT-A28415 | NZ, Auckland | Jul-05, WN | FJ170458 | FJ170395 | - |
| *S. sinclairii* Hook. et Harv. | WELT-A28414 | NZ, Auckland | Jul-05, WN | FJ170459 | FJ170396 | - |
|  |  |  |  |  |  |  |
| *S. fallax* Sond. | na. ('nep116') |  A |  Phillips et Fredericq 2000 | - |  AF244333 | - |
|  |  |  |  |  |  |  |
| *S. muticum* (Yendo) Fensh. | na. ('nep106') |  C |  Phillips et Fredericq 2000 |  - |  AF292068 | - |
|  |  |  |  |  |  |  |
| *Sargassopsis decurrens* C. Ag. | SAP073149 | NC | Stiger et al. 2000 as *S. boryi* | AB043121 | - | - |
| *S. decurrens* (Brown ex Turn.) C. Ag. | IRD4010 | NC, île aux Canards | Mattio et al. in press  | EU882257 | EU882266 | EU882246 |
| *S. decurrens* (Brown ex Turn.) C. Ag. | IRD1526 | NC, îlot Konduyo | Mattio et al. 2008 | EU100803 | EU100803 | EU100822 |
| *S. decurrens* (Brown ex Turn.) C. Ag. | IRD1602 | NC, îlot M’Bo | Mattio et al. in press  | EU882258 | EU882267 | EU882247 |
|  |  |  |  |  |  |  |
| *Turbinaria ornata* (Turn.) J. Ag. | IRD1536 | NC, île Nouaré | Mattio et al. 2008, 2009 | EU100772 | EU100802 | EU833384 |
| *Turbinaria ornate* (Turn.) J. Ag.  | UPF3977 | NC | Mattio et al. 2008 | EU100771 | - | - |

(a) Sampling area abbreviations: A, Australia; FJ, Fiji; FP, French Polynesia; HI, Hawaii; JP, Japan; K, the Kermadec Islands; M, Malaysia; NC, New Caledonia; NZ, New Zealand; S, the Solomon Islands; SG, Singapore; Va, Vanuatu; WLS, Wallis.

(b) CB: C. Bertault, CD: C. Duffy, CP: C. Payri, GL: G. Lasne, LM: L. Mattio, RS: R. Stanley, TF: T. Farr, WN: W. Nelson.

**Table S3** GPS coordinates of collection sites.

|  |  |  |
| --- | --- | --- |
| Locality  | Latitude (º) | Longitude (º) |
| Tanah Merah  | 1.31234  | 103.99268 |
| East Coast Park  | 1.29449 | 103.89733 |
| One°15 Marina | 1.24512 | 103.84051 |
| Pulau Tekukor | 1.23143 | 103.83770 |
| Seringat Kias | 1.22775 | 103.85425 |
| Big Sister's Island | 1.21325 | 103.83402 |
| Tanjung Rimau  | 1.25934 | 103.80676 |
| Berlayer Creek  | 1.26457 | 103.80652 |
| Cyrene  | 1.25623 | 103.74715 |
| Raffles lighthouse  | 1.15989 | 103.74102 |
| Pulau Hantu  | 1.22435 | 103.75093 |

**Table S4** Primer sequences used in PCR to isolate the respective genes with annealing temperatures (AT) and reference sources.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Markers  | AT | Primers | Alignment length | Primer sequences | Source  |
| *ITS-2* | 55 | 5.8S-BF | 748 | 5'-CGATGAAGAACGCAGCGAAATGCGAT-3' | Yoshida et al. 2000 |
|  |  | 25BR-2 |  | 5'-TCCTCCGCTTAGTATATGCTTAA-3' |  |
| *rbc*LS  | 44 | 3F | 434 | 5’-CATCGTGCTGGTAACTCTAC-3’ | Phillips 1998 |
|  |  | S97R |  | 5’-CATCTGTCCATTCWACACTAAC-3’ | Peters and Ramirez 2001b |
| *cox3*  | 42 | CAF4A | 748 | 5'-ATGTTTACTTGGTGRAGRGA-3' | Kogame et al. 2005 |
| CAR4A |  | 5'-CCCCACCARTAWATNGTNAG-3' |

a W= A or T, R= A or G, Y= C or T, N= A, T, C or G.

b Modified by J. Buchanan.

**Fig. S1** Phylogenetic reconstruction of *Sargassum* (Phaeophyceae) with *Turbinaria* as outgroup, based on *ITS-2* alignment. Maximum Likelihood (ML) tree, bootstrap proportion (BP) indicated for maximum parsimony (MP)/ maximum likelihood (ML) when > 50 and posterior probabilities for Bayesian inference (BI) when > 0.8. Singapore specimens are in bold and herbarium accessions are indicated. Sections within the subgenus *Sargassum* are denoted at the respective nodes (Mattio & Payri, 2011).

**Fig. S2** Phylogenetic reconstruction of *Sargassum* (Phaeophyceae) with *Turbinaria* as outgroup, based on *cox*3 alignment. Maximum Likelihood (ML) tree, bootstrap proportion (BP) indicated for maximum parsimony (MP)/ maximum likelihood (ML) when > 50 and posterior probabilities for Bayesian inference (BI) when > 0.8. Singapore specimens are in bold and herbarium accessions indicated. Sections within the subgenus *Sargassum* are denoted at the respective nodes (Mattio & Payri, 2011).

**Fig. S3** Phylogenetic reconstruction of *Sargassum* (Phaeophyceae) with *Turbinaria* as outgroup, based on *rbc*LS alignment. Maximum Likelihood (ML) tree, bootstrap proportion (BP) indicated for maximum parsimony (MP)/ maximum likelihood (ML) when > 50 and posterior probabilities for Bayesian inference (BI) when > 0.8. Singapore specimens are in bold and herbarium accessions are indicated. Sections within the subgenus *Sargassum* are denoted at the respective nodes (Mattio & Payri, 2011).

**References**

Ajisaka T (2002) Sargassum specimens from Singapore and Malaysia in the Herbarium of the

Bishop Museum. In: I. A. Abbott and K. J. McDermid (eds). Taxonomy of Economic Seaweeds with reference to some Pacific species, Vol. VIII, pp. 77-88. California Sea Grant College, La Jolla, California.

Ajisaka T, Phang SM, Yoshida T (1999) Preliminary report of Sargassum species collected

from Malaysian coast. In Abbott IA (ed), Taxonomy of Economic Seaweeds with Reference to Some Pacific Species VII. California Sea Grant College, University of California, La Jolla, California, pp. 23–42

Ang PO Jr, Trono GC Jr. (1987) The genus Sargassum (Phaeophyta, Sargassaceae) from Balibago, Calatagan, Philippines. Bot. Mar 30: 387-397.

Guiry MD, Guiry GM (2017) AlgaeBase. World-wide electronic publication, National University of Ireland, Galway. http://www.algaebase.org; searched on 07 March 2017.

Kogame K, Uwai S, Shimada S, Masuda M (2005) A study of sexual and asexual populations of Scytosiphon lomentaria (Scytosiphonaceae, Phaeophyceae) in Hokkaido, northern Japan, using molecular markers. Eur. J. Phycol. (2005), 40(3): 313–322

Low J, Chou LM (2013) Sargassum in Singapore: What, Where and When? Taxonomy of Southeast Asian Seaweeds II; Phang & Lim (eds), 2013, 219-236

Low JKY (2015) Sargassum on Singapore's reefs. PhD. National University of Singapore, 1–183pp.

Mattio L, Payri CE, Verlaque M (2009) Taxonomic revision and geographic distribution of the subgenus Sargassum (Fucales, Phaeophyceae) in the Western and Central Pacific islands based on morphological and molecular analyses. J Phycol 45:1213-1227

Mattio L, Payri CE, Verlaque M, de Reviers B (2010) Taxonomic revision of Sargassum sect.

Acanthocarpicae (Fucales, Phaeophyceae). Taxon 59(3): 896-904.

Mattio L, Zubia M, Loveday B, Crochelet E, Duong N, Payri CE, Bhagooli R, Bolton JJ

(2013) Sargassum (Fucales, Phaeophyceae) in Mauritius and Réunion, western Indian Ocean: taxonomic revision and biogeography using hydrodynamic dispersal models. Phycologia Vol. 52, No. 6, pp. 578-594

Peters AF, Ramírez ME (2001) Molecular phylogeny of small brown algae, with special

reference to the systematic position of Caepidium antarcticum (Adenocystaceae, Ectocarpales). Cryptogamie Algologie, 22, 187–200.

Pham MN, Tan HTW, Mitrovic S, Yeo HHT (2011) A checklist of the algae of Singapore,

2nd edition. 99 pp.

Phang SM, Noro T, Yoshida T (1995) Variation in Sargassum siliquosum J. Agardh (Fucales,

Phaeophyta) found in Malaysia and Singapore. In: Abbott, I. A. (ed). Taxonomy of economic seaweeds, Vol. 5, pp. 55-66. California Sea Grant College System, University of California, La Jolla, California.

Phillips N (1995) Biogeography of Sargassum (Phaeophyta) in the Pacific basin. In I. A.

Abbott (ed). Taxonomy of Economic Seaweeds, Vol. 5. California Sea Grant College Program, La Jolla, California, pp. 107-144.

Phillips N (1998) Molecular phylogenetic analysis of the pan-Pacific genus Sargassum

(C.Agardh). Unpublished Ph.D. diss., University of Hawaii, Honolulu.

Silva PC, Basson PW, Moe RL (1996) Catalogue of the benthic marine algae of the Indian

Ocean. University of California Publication in Botany, Los Angeles, California.

Teo LW, Wee YC (1983) Seaweeds of Singapore. Singapore University Press, Singapore.

123 pp.

Trono GC Jr. (1992). The genus Sargassum in the Philippines. In: I. A. Abbott (ed)

Taxonomy of economic seaweeds with reference to some Pacific and Western Atlantic species. University of California, La Jolla, California. Pp. 43-94.

Tseng CK, Lu B (1992) Studies on the malacocarpic Sargassum of China II. Racemosae J.

Agardh. In: Taxonomy of Economic Seaweeds with reference to some Pacific and Western Atlantic species. (Abbott, I.A. Eds) Vol.3, pp. 11-34. La Jolla, California: California Sea Grant College.

Tseng CK, Lu B (1988) Studies on Chinese species of zygocarpic Sargassum. In: Taxonomy

of economic seaweeds with reference to some Pacific and Caribbean species. (Abbott, I.A. Eds) Vol. 2, pp. 23-54. La Jolla: California Sea Grant College Program.

Tseng CK, Lu B (2002) Some new species and records of Sargassum (Sargassaceae,

Phaeophyta) from the China Sea. In: I. A. Abbott and K. J. McDermid (eds). Taxonomy of Economic Seaweeds with reference to some Pacific species. Vol. VIII, pp. 135-148. California Sea Grant College, La Jolla, California.

Yamada Y (1942) [Notes on Sargassum from the southern parts of Japan, III]. Journal of

Japanese Botany 18: 553-562.

Yoshida T, Stiger V, Horiguchi T (2000) Sargassum boreale sp. nov. (Fucales,

Phaeophyceae) from Hokkaido, Japan. Phycological Research 48: 125-132.