

Supplementary Document

Tables

TABLE 1. Information on free-floating *Ulva* samples

Sample no.	Collection site location (Latitude, longitude)	Collection date
S096	P01, Huangdao District, Qingdao City (35°53' N, 120°10' E)	29 Jul 07
S196	P02, Sculpture Park, Qingdao City (36°04' N, 120°27' E)	15 Jun 08
S275	P03, Haiyang County (36°43' N, 121°19' E)	23 Jun 08
S313	P04, Lianyungang City (34°48' N, 119°32' E)	11 Jul 08
S326	P05, Weihai City (36°46' N, 121°40' E)	17 Jul 08
S342	P06, South Yellow Sea (34°31' N, 120°45' E)	11 Jul 08
S345	P07, South Yellow Sea (34°16' N, 120°45' E)	11 Jul 08
S346	P08, South Yellow Sea (34°14' N, 120°59' E)	10 Jul 08
S347	P09, South Yellow Sea (34°00' N, 120°59' E)	10 Jul 08
S349	P10, South Yellow Sea (35°30' N, 120°27' E)	13 Jul 08
S350	P11, South Yellow Sea (35°44' N, 120°40' E)	13 Jul 08
S351	P12, South Yellow Sea (35°45' N, 120°31' E)	13 Jul 08
S356	P13, Yangkou Harbor, Rudong County (32°33' N, 121°03' E)	17 Jul 08
S357	P13, Yangkou Harbor, Rudong County (32°33' N, 121°03' E)	17 Jul 08
S363	P14, Dafeng County (32°44' N, 121°16' E)	17 Jul 08
S364	P14, Dafeng County (32°44' N, 121°16' E)	17 Jul 08
S376	P15, South Yellow Sea (33°30' N, 121°45' E)	25 Jul 08
S377	P16, South Yellow Sea (34°30' N, 121°00' E)	25 Jul 08
S378	P17, South Yellow Sea (34°30' N, 121°30' E)	24 Jul 08
S379	P18, South Yellow Sea (34°30' N, 121°45' E)	24 Jul 08
S380	P19, South Yellow Sea (35°15' N, 121°15' E)	23 Jul 08
S381	P20, South Yellow Sea (35°38' N, 122°00' E)	23 Jul 08
S383	P21, South Yellow Sea (34°58' N, 120°18' E)	25 Jul 08
S384	P22, South Yellow Sea (34°39' N, 120°51' E)	25 Jul 08
S385	P23, South Yellow Sea (34°00' N, 121°15' E)	25 Jul 08
S386	P24, South Yellow Sea near Sheyang County (33°45' N, 121°30' E)	25 Jul 08
S402	P25, South Yellow Sea (33°29' N, 121°17' E)	26 Jun 08

TABLE 2. PCR primers for four genetic markers

Target sequence	Primers	Source of PCR profiles
ITS	FW: 5'-TCGTAACAAGGTTTCCGTAGG-3' RV: 5'-TTCCTTCCGCTTATTGATATGC-3'	Leskinen and Pamilo [1]
5S spacer region	FW: 5'-GGTTGGGCAGGATTAGTA-3' RV: 5'-AGGCTTAAGTTGCGAGTT-3'	Shimada et al. [2]
<i>rbcL</i>	FW: 5'-TAAAGCAGGTGCAGGATTAAAGC-3' RV: TATCAAATTCAAATTTAATTTCTTTCCAAAC	Blomster et al. [3]
<i>psbA</i>	FW: 5'-YHTAYCCWATHTGGGAAGC-3' RV: 5'-GGGAAGTTRTGNGCRTTRCG-3'	Blomster et al. [3]

References:

1. Leskinen, E.; Pamilo, P., Evolution of the ITS sequences of ribosomal DNA in *Enteromorpha* (Chlorophyceae). *Hereditas* **1997**, *126*, (1), 17-23.
2. Shimada, S.; Yokoyama, N.; Arai, S.; Hiraoka, M., Phylogeography of the genus *Ulva* (Ulvophyceae, Chlorophyta), with special reference to the Japanese freshwater and brackish taxa. *Journal of Applied Phycology* **2008**, *20*, (5), 979-989.
3. Blomster, J.; Maggs, C. A.; Stanhope, M. J., Molecular and morphological analysis of *Enteromorpha intestinalis* and *E. compressa* (Chlorophyta) in the British Isles. *Journal of Phycology* **1998**, *34*, (2), 319-340.