

Table S1. Geographic and environmental information of the study locations. S and W indicate summer and winter of 2017, respectively.

Date	Region	Site	Latitude	Longitude	Depth (m)	Temperature (°C)	Salinity	Seagrass species
11/7/2017 (S)	Duba	S1	27.30	35.64	7	30.27	40.16	<i>Thalassodendron ciliatum</i>
12/7/2017 (S)	Duba	S2	26.92	36.01	5	29.93	40.07	<i>Halodule uninervis</i> , <i>Halophila stipulacea</i> , <i>Thalassia hemprichii</i>
14/7/17 (S)	Al Waj	S3	25.16	37.16	3	30.8	39.95	<i>Halophila stipulacea</i> , <i>Thalassodendron ciliatum</i>
13/8/17 (S)	Yanbu	S4	24.19	37.93	2	31	40	<i>Halodule uninervis</i> , <i>Halophila stipulacea</i> , <i>Halophila ovalis</i> , <i>Thalassia hemprichii</i>
16/8/17 (S)	Thuwal	S5	22.25	39.07	2.5	32.3	40	<i>Halophila stipulacea</i> , <i>Halophila ovalis</i>
19/7/17 (S)	Al Lith	S6	20.16	40.22	1	31.1	38.7	<i>Halodule uninervis</i> , <i>Thalassia hemprichii</i>
17/7/17 (S)	Farasan Banks	S7	18.23	41.33	0.5	31.5	38.22	<i>Halodule uninervis</i> , <i>Thalassia hemprichii</i>
20/1/17 (W)	Duba	S8	27.15	35.74	3.5	23.8	40.2	<i>Halophila stipulacea</i>
28/3/17 (W)	Yanbu	S4	24.19	37.93	1	27.5	39.6	<i>Halodule uninervis</i> , <i>Halophila ovalis</i> , <i>Thalassia hemprichii</i>
21/3/17 (W)	Thuwal	S5	22.25	39.07	2.5	25	39.5	<i>Halophila stipulacea</i> , <i>Halophila ovalis</i>
18/3/17 (W)	Al Lith	S6	20.16	40.22	1	26.6	38	<i>Halodule uninervis</i> , <i>Thalassia hemprichii</i>