

Table S5. Genetic features per locus of four populations of *Gracilaria vermiculophylla*, including: number of alleles at each locus,  $N_A$ ,  $\pm$  standard error (SE); mean allelic richness,  $A_E$ , based on the smallest global sample size of 46 alleles (23 diploid individuals)  $\pm$  SE; mean observed heterozygosity,  $H_O$ ,  $\pm$  SE; mean expected heterozygosity,  $H_E$ ,  $\pm$  SE.

Locus	Akkeshi				Elkhorn Slough				Fort Johnson				Nordstrand			
	$N_A$	$A_E$	$H_O$	$H_E$	$N_A$	$A_E$	$H_O$	$H_E$	$N_A$	$A_E$	$H_O$	$H_E$	$N_A$	$A_E$	$H_O$	$H_E$
Gverm_5276	5	4.7	0.355	0.682	4	3.5	0.333	0.378	3	3	0.632	0.524	3	3	0.783	0.530
Gverm_6311	5	4.7	0.290	0.510	3	3	0.567	0.657	2	2	0.526	0.417	2	2	0.130	0.125
Gverm_8036	4	3.9	0.323	0.482	1	1	NA	NA	3	3	0.947	0.659	2	2	0.609	0.502
Gverm_3003	2	2	0.097	0.204	3	3	0.500	0.447	2	2	0.474	0.417	2	2	0.783	0.510
Gverm_1203	4	3.7	0.516	0.450	2	2	0.600	0.499	2	2	0.632	0.484	2	2	0.739	0.496
Gverm_1803	3	3	0.258	0.593	3	3	0.200	0.368	2	2	0.842	0.501	1	1	NA	NA
Gverm_804	3	2.7	0.516	0.450	2	2	0.600	0.499	2	2	0.632	0.484	2	2	0.739	0.496
Gverm_10367	2	1.9	0.065	0.063	1	1	NA	NA	1	1	NA	NA	1	1	NA	NA
Gverm_2790	1	1	NA	NA	1	1	NA	NA	1	1	NA	NA	2	2	0.957	0.510