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Supplemental Information for:

Signs of local adaptation by genetic selection and isolation promoted by extreme temperature and salinity in the Mediterranean seagrass *Posidonia oceanica*

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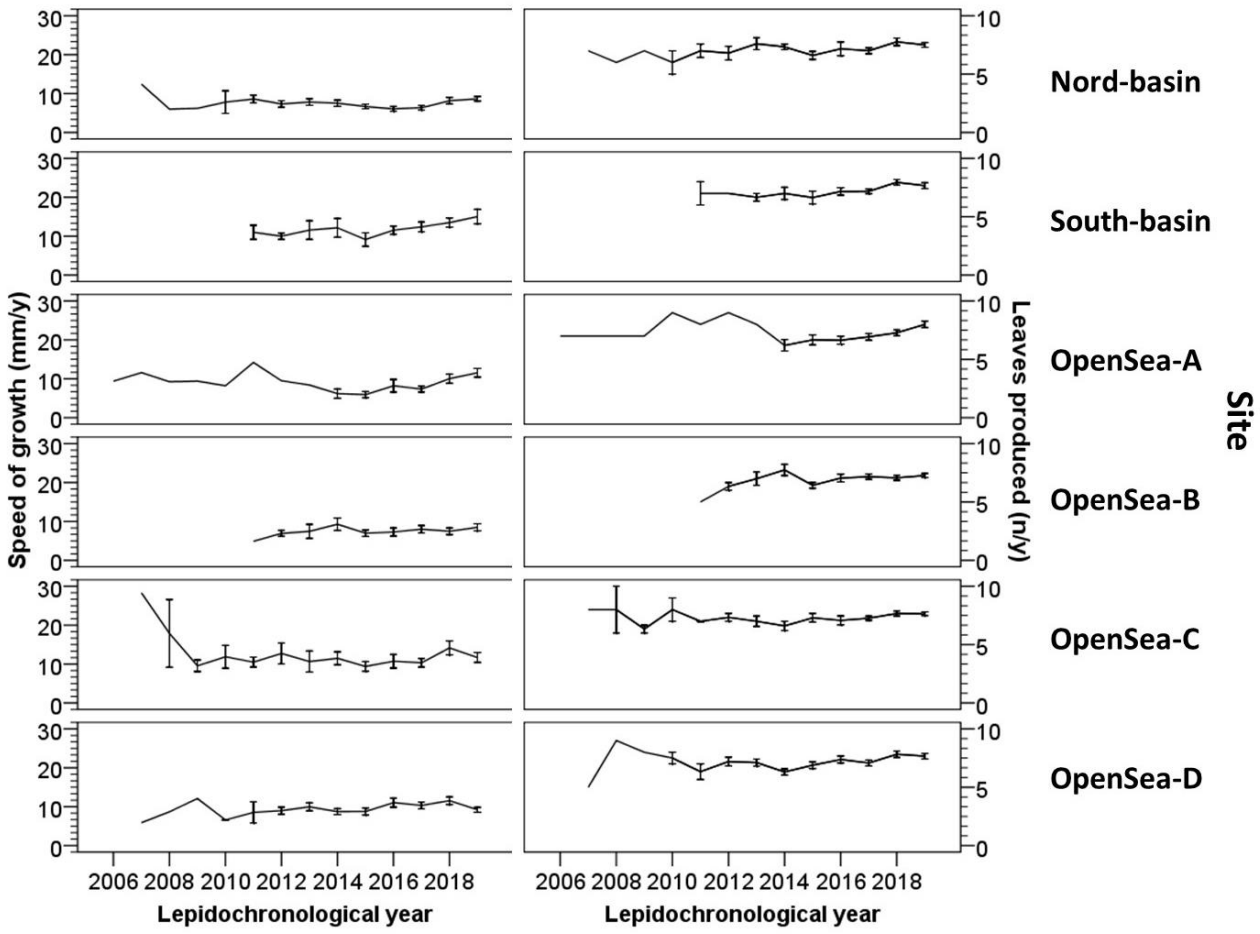

Figure S1 Average and S.E. of speed of growth (**a**) and number of leaves produced (**b**) across lepidochronological years in different sites.

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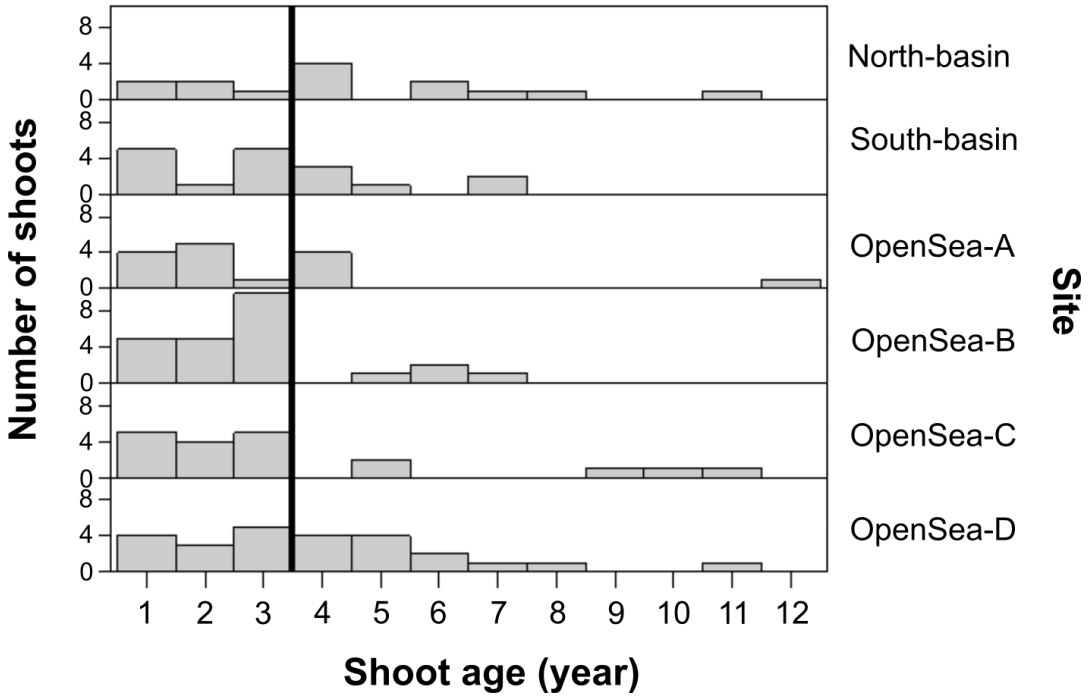

Figure S2 Shoots age histograms of frequency across stations. The vertical line represents the general mean. Note that the frequencies have been obtained excluding the most recent three years.

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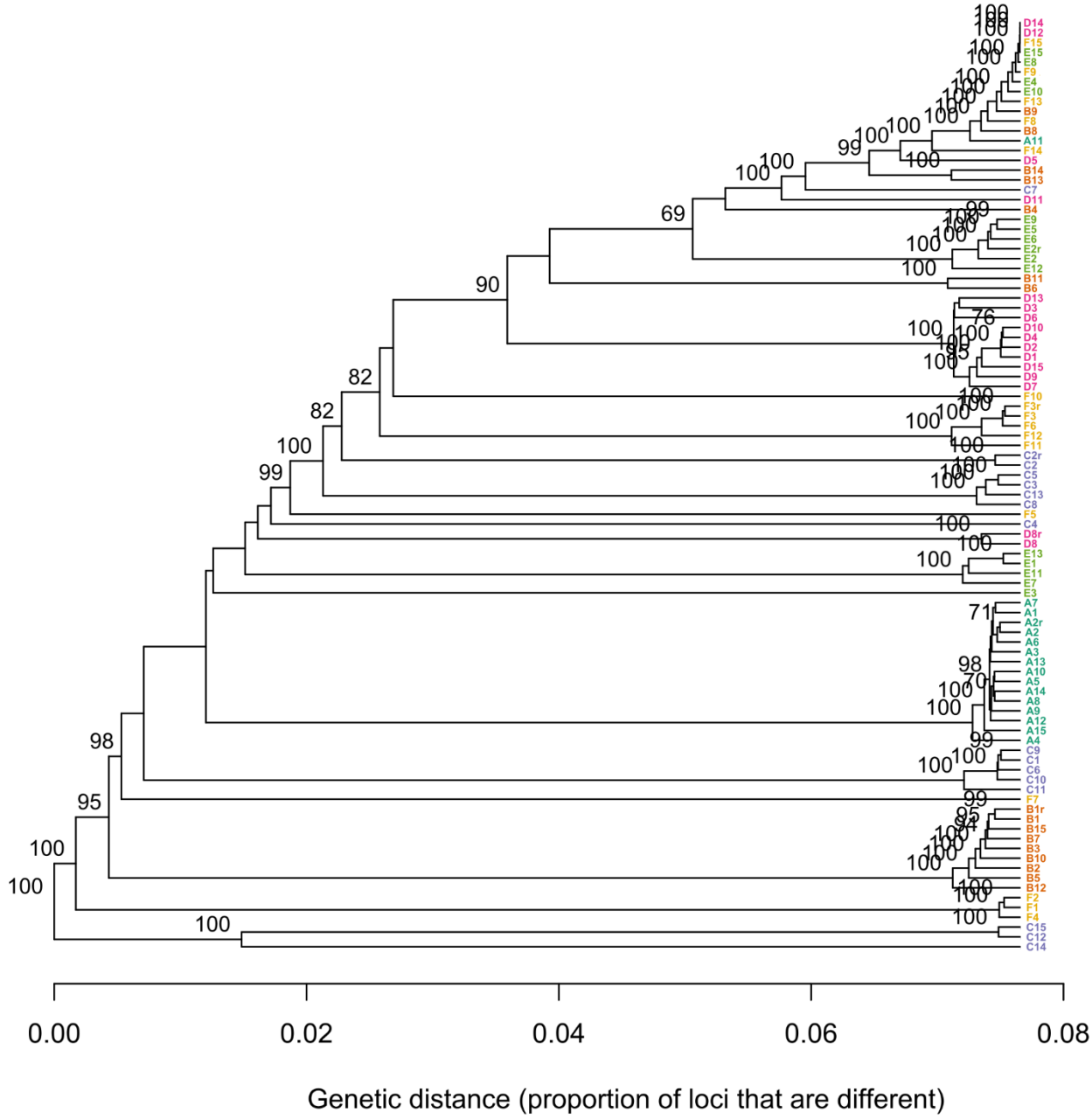

Figure S3 Genetic distance among samples. Technical replicates are indicated with "r" after the sample name.

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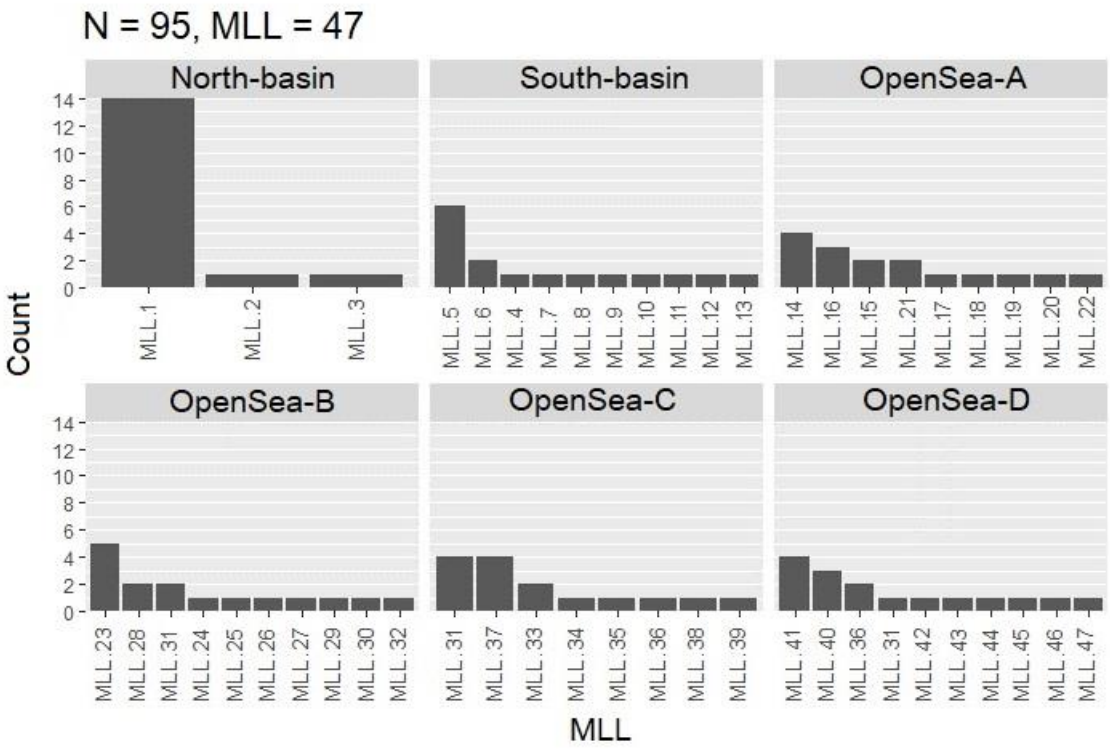

Figure S4 List of multilocus lineages (MLLs) for each population.

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Table S1 Tamhane T2 post-hoc comparisons for leaf number per shoot.

Site	Site	Mean Difference (1-6)	S. E.	*p*
North-basin	South-basin	-1.064(*)	0.318	0.025
	OpenSea-A	-1.951(*)	0.383	0.000
	OpenSea-B	-1.578(*)	0.299	0.000
	OpenSea-C	-1.898(*)	0.256	0.000
	OpenSea-D	-2.397(*)	0.267	0.000
South-basin	North-basin	1.064(*)	0.318	0.025
	OpenSea-A	-0.887	0.399	0.383
	OpenSea-B	-0.514	0.318	0.833
	OpenSea-C	-0.834	0.278	0.068
	OpenSea-D	-1.333(*)	0.289	0.001
OpenSea-A	North-basin	1.951(*)	0.383	0.000
	South-basin	0.887	0.399	0.383
	OpenSea-B	0.373	0.383	0.998
	OpenSea-C	0.052	0.351	1.000
	OpenSea-D	-0.446	0.360	0.977
OpenSea-B	North-basin	1.578(*)	0.299	0.000
	South-basin	0.514	0.318	0.833
	OpenSea-A	-0.373	0.383	0.998
	OpenSea-C	-0.320	0.256	0.974
	OpenSea-D	-0.819	0.268	0.051
OpenSea-C	North-basin	1.898(*)	0.256	0.000
	South-basin	0.834	0.278	0.068
	OpenSea-A	-0.052	0.351	1.000
	OpenSea-B	0.320	0.256	0.974
	OpenSea-D	-0.499	0.219	0.331
OpenSea-D	North-basin	2.397(*)	0.267	0.000
	South-basin	1.333(*)	0.289	0.001
	OpenSea-A	0.446	0.360	0.977
	OpenSea-B	0.819	0.268	0.051
	OpenSea-C	0.499	0.219	0.331
***p < 0.05**				

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Table S2 Tamhane T2 post-hoc comparisons for leaf length.

Site	Site	Mean Difference (1-6)	S. E.	*p*
North-basin	South-basin	-11.169(*)	3.026	0.005
	OpenSea-A	-11.822(*)	3.036	0.002
	OpenSea-B	-12.244(*)	2.742	0.000
	OpenSea-C	-20.216(*)	3.310	0.000
	OpenSea-D	-13.447(*)	2.787	0.000
South-basin	North-basin	11.169(*)	3.026	0.005
	OpenSea-A	-0.652	3.576	1.000
	OpenSea-B	-1.074	3.330	1.000
	OpenSea-C	-9.046	3.811	0.243
	OpenSea-D	-2.277	3.367	1.000
OpenSea-A	North-basin	11.822(*)	3.036	0.002
	South-basin	0.652	3.576	1.000
	OpenSea-B	-0.421	3.339	1.000
	OpenSea-C	-8.393	3.819	0.356
	OpenSea-D	-1.624	3.376	1.000
OpenSea-B	North-basin	12.244(*)	2.742	0.000
	South-basin	1.074	3.330	1.000
	OpenSea-A	0.421	3.339	1.000
	OpenSea-C	-7.971	3.590	0.339
	OpenSea-D	-1.202	3.114	1.000
OpenSea-C	North-basin	20.216(*)	3.310	0.000
	South-basin	9.046	3.811	0.243
	OpenSea-A	8.393	3.819	0.356
	OpenSea-B	7.971	3.590	0.339
	OpenSea-D	6.769	3.625	0.623
OpenSea-D	North-basin	13.447(*)	2.787	0.000
	South-basin	2.277	3.367	1.000
	OpenSea-A	1.624	3.376	1.000
	OpenSea-B	1.202	3.114	1.000
	OpenSea-C	-6.769	3.625	0.623
**** p < 0.05***				

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Table S3 Tamhane T2 post-hoc comparisons for shoot surface.

Site	Site	Mean Difference (1-6)	S. E.	*p*
North-basin	South-basin	-65.871(*)	13.743	0.001
	OpenSea-A	-94.528(*)	16.591	0.000
	OpenSea-B	-106.592(*)	12.787	0.000
	OpenSea-C	-133.844(*)	16.976	0.000
	OpenSea-D	-108.180(*)	11.263	0.000
South-basin	North-basin	65.871(*)	13.743	0.001
	OpenSea-A	-28.658	20.028	0.926
	OpenSea-B	-40.721	17.011	0.267
	OpenSea-C	-67.974(*)	20.348	0.023
	OpenSea-D	-42.309	15.897	0.148
OpenSea-A	North-basin	94.528(*)	16.591	0.000
	South-basin	28.658	20.028	0.926
	OpenSea-B	-12.063	19.384	1.000
	OpenSea-C	-39.316	22.370	0.736
	OpenSea-D	-13.651	18.415	1.000
OpenSea-B	North-basin	106.592(*)	12.787	0.000
	South-basin	40.721	17.011	0.267
	OpenSea-A	12.063	19.384	1.000
	OpenSea-C	-27.253	19.715	0.942
	OpenSea-D	-1.588	15.078	1.000
OpenSea-C	North-basin	133.844(*)	16.976	0.000
	South-basin	67.974(*)	20.348	0.023
	OpenSea-A	39.316	22.370	0.736
	OpenSea-B	27.253	19.715	0.942
	OpenSea-D	25.665	18.763	0.947
OpenSea-D	North-basin	108.180(*)	11.263	0.000
	South-basin	42.309	15.897	0.148
	OpenSea-A	13.651	18.415	1.000
	OpenSea-B	1.588	15.078	1.000
	OpenSea-C	-25.665	18.763	0.947
***p* < 0.05**				

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Table S4 Average and S.E. of leaf biometry and dating measures. * the most recent three lepidochronological years have been excluded for statistics calculation.

Site	Leaf length (cm)			shoot surface (cm^2)			leaf number (n/bundle)			n of leaves produced (n/y)			*speed of growth (mm/y)			*rhizome length (mm)		*shoot age (y)	
	n	*mean*	*SE*	*n*	*mean*	*SE*	*n*	*mean*	*SE*	*n*	*mean*	*SE*	*n*	*mean*	*SE*	*mean*	*SE*	*mean*	*SE*
North-basin	69	25.7	1.7	22	65.6	5.6	22	3.1	0.2	22	7.5	0.1	14	6.7	0.4	31.3	5.7	4.5	0.8
South-basin	105	36.9	2.5	25	131.5	12.5	25	4.2	0.2	24	7.5	0.2	17	11.5	0.9	35.3	5.5	3.1	0.5
OpenSea-A	117	37.5	2.5	23	160.1	15.6	23	5.1	0.3	19	7.3	0.2	15	7.5	1.0	23.1	6.5	3.0	0.7
OpenSea-B	132	38.0	2.2	28	172.2	11.5	28	4.7	0.2	30	7.1	0.1	24	8.3	1.0	21.7	3	2.9	0.3
OpenSea-C	146	45.9	2.9	29	199.5	16.0	29	5.0	0.1	28	7.5	0.1	19	10.4	1.1	39.5	10.3	3.6	0.7
OpenSea-D	166	39.2	2.2	30	173.8	9.8	30	5.5	0.2	30	7.3	0.2	25	9.5	0.7	38.5	5.7	4.0	0.5
Total	735	38.4	1.0	157	154.4	6.0	157	4.7	0.1	153	7.4	0.1	114	9.1	0.4	31.7	2.6	3.5	0.2

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Table S5 Number of reads obtained from each sample. Technical replicates are indicated with "r" after the sample name.

Sample	Number of reads	Sample	Number of reads	Sample	Number of reads	Sample	Number of reads
D14	2177	*E12*	190261	*C3*	760448	*A12*	1614655
E15	2200	*D9*	190282	*D4*	900398	*A6*	1703157
D12	4170	*F12*	198442	*C5*	971937	*B2*	1846718
F9	5489	*E7*	221341	*F2*	1009698	*C13*	1863636
F13	6473	*E9*	258829	*A4*	1013726	*F4*	1874842
F15	9390	*F1*	264443	*E3*	1039327	*E5*	1927004
F14	10785	*D15*	266109	*E13*	1068772	*F6*	1987498
E4	13336	*C8*	274256	*A15*	1088458	*A1*	2163453
E10	17096	*D8r*	315103	*D10*	1102535	*A7*	2214056
E8	22660	*B13*	336880	*A3*	1143587	*C15*	2448024
F8	28152	*E2*	368650	*A8*	1143949	*B3*	2531812
F11	34034	*D7*	382807	*D2*	1169715	*C2*	2740332
E2r	44297	*B12*	393468	*D1*	1193099	*A2r*	2826177
D5	54852	*C7*	396426	*A14*	1205379	*C6*	2882131
D6	54923	*E6*	401775	*C2r*	1206803	*B1r*	2969399
B8	83442	*B6*	419510	*F3*	1227224	*C14*	3261000
F10	87753	*D8*	432221	*C4*	1263156	*B15*	3409147
D13	91326	*C12*	462233	*A5*	1303982	*B1*	3425295
F5	95204	*B14*	480071	*B7*	1348959	*C10*	3658732
E11	115417	*F3r*	485992	*B5*	1353391	*A2*	4700284
B9	138877	*C9*	652166	*C1*	1404238		
D3	161398	*A9*	663695	*A10*	1421530		
D11	166437	*B4*	668335	*B10*	1545871		
F7	177983	*E1*	748529	*B11*	1565780		
C11	181843	*A11*	755677	*A13*	1592405		

Table S6 ADMIXTURE's cross-validation errors of different K values. The smallest number is in **red**.

K value	Cross-validation error
1	0.407
2	0.352
3	0.298
4	0.263
5	0.247
6	0.222
7	0.219
8	0.185
9	**0.177**
10	0.179
11	0.182
12	0.195
13	0.197
14	0.236
15	0.265

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Table S7 Results of identification of outlier SNPs from three genome-scanning algorithms (Bayescan, OutFLANK and pcadapt).

No	OutFLANK & pcadapt	OutFLANK & Bayescan	OutFLANK	pcadapt	Bayescan
1	>99732 NS=82 _pos211	>145013 NS=85 _pos198	>52527 NS=86 _pos122	>125884 NS=75 _pos208	>26742 NS=72 _pos149
2	>102786 NS=76 _pos191	>34231 NS=78 _pos44	>131912 NS=76 _pos268	>12167 NS=79 _pos73	>66729 NS=80 _pos236
3	>108769 NS=74 _pos254	>65929 NS=77 _pos122	>95390 NS=77 _pos279	>143393 NS=85 _pos117	>4437 NS=86 _pos176
4	>21310 NS=82 _pos84	>107233 NS=79 _pos235	>153790 NS=76 _pos224	>138157 NS=79 _pos182	>34943 NS=73 _pos194
5	>21853 NS=76 _pos40	>37103 NS=76 _pos253	>12077 NS=80 _pos113	>8685 NS=80 _pos151	
6		>126268 NS=72 _pos268	>102356 NS=74 _pos249	>7458 NS=74 _pos26	
7		>91253 NS=73 _pos17	>143480 NS=76 _pos247	>77895 NS=82 _pos68	
8		>4564 NS=81 _pos98	>120582 NS=75 _pos274	>104188 NS=72 _pos101	
9		>65929 NS=77 _pos159	>77497 NS=83 _pos233	>125974 NS=84 _pos226	
10			>94022 NS=83 _pos153	>188977 NS=73 _pos227	
11			>31531 NS=72 _pos238	>55357 NS=81 _pos86	
12			>153249 NS=77 _pos97	>2069 NS=77 _pos265	
13			>20290 NS=72 _pos192	>63227 NS=77 _pos159	
14			>31531 NS=72 _pos200	>152734 NS=77 _pos117	
15			>737259 NS=72 _pos323	>110815 NS=76 _pos165	
16			>83702 NS=73 _pos101	>121965 NS=79 _pos272	
17			>132304 NS=83 _pos98	>107773 NS=79 _pos22	
18			>67571 NS=80 _pos240	>130643 NS=82 _pos181	
19			>71710 NS=89 _pos240	>144037 NS=74 _pos41	
20			>124466 NS=78 _pos199	>77828 NS=74 _pos101	
21			>83702 NS=73 _pos262	>82732 NS=78 _pos79	
22			>114954 NS=80 _pos45	>142324 NS=72 _pos112	
23			>67191 NS=74 _pos115	>77996 NS=80 _pos190	
24			>92630 NS=79 _pos119	>71406 NS=78 _pos265	
25			>153790 NS=75 _pos96	>106079 NS=82 _pos55	
26			>146976 NS=82 _pos125	>113954 NS=81 _pos237	
27			>88868 NS=72 _pos182	>85358 NS=81 _pos194	
28			>94022 NS=81 _pos154	>77267 NS=85 _pos69	
29			>116071 NS=77 _pos194	>153287 NS=81 _pos254	
30			>772055 NS=75 _pos52	>106451 NS=79 _pos262	
31			>133586 NS=77 _pos231	>129681 NS=84 _pos66	
32			>121720 NS=81 _pos257	>107639 NS=76 _pos26	
33			>85113 NS=75 _pos103	>155911 NS=79 _pos98	
34			>6445 NS=72 _pos246	>51717 NS=83 _pos240	
35			>71710 NS=89 _pos252	>117800 NS=85 _pos230	

36			>50489 NS=73 _pos119	>85070 NS=88 _pos196	
37			>124466 NS=79 _pos192	>22370 NS=74 _pos230	
38			>28166 NS=76 _pos73	>131979 NS=87 _pos216	
39			>36872 NS=72 _pos250	>77091 NS=76 _pos108	
40			>7189 NS=82 _pos87	>50022 NS=85 _pos69	
41			>83702 NS=72 _pos279	>67951 NS=78 _pos252	
42			>56598 NS=85 _pos213	>132406 NS=77 _pos168	
43			>772055 NS=79 _pos265	>124498 NS=73 _pos162	
44			>106294 NS=75 _pos219	>8087 NS=81 _pos221	
45			>20290 NS=72 _pos93	>119729 NS=72 _pos167	
46			>7189 NS=81 _pos277	>100073 NS=72 _pos32	
47			>154070 NS=81 _pos46	>64733 NS=78 _pos215	
48			>89452 NS=79 _pos43	>715459 NS=77 _pos263	
49			>57390 NS=73 _pos61	>122582 NS=83 _pos114	
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51			>70800 NS=84 _pos84	>138143 NS=80 _pos69	
52			>67571 NS=79 _pos268	>97492 NS=77 _pos170	
53			>109961 NS=73 _pos18	>106406 NS=76 _pos162	
54			>107233 NS=79 _pos246	>2684 NS=78 _pos252	
55			>67571 NS=79 _pos133	>150354 NS=75 _pos179	
56			>131912 NS=75 _pos72	>101128 NS=77 _pos30	
57			>104563 NS=79 _pos51	>65263 NS=77 _pos52	
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59			>71710 NS=89 _pos98	>124053 NS=84 _pos68	
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63			>57390 NS=73 _pos184	>121268 NS=76 _pos126	
64			>134664 NS=75 _pos202	>146981 NS=86 _pos173	
65			>54433 NS=75 _pos81	>158012 NS=79 _pos274	
66			>20290 NS=72 _pos69	>56590 NS=83 _pos270	
67			>67571 NS=79 _pos96	>99074 NS=73 _pos251	
68			>50489 NS=73 _pos114	>53767 NS=79 _pos55	
69			>51833 NS=84 _pos188	>25329 NS=82 _pos171	
70				>7830 NS=77 _pos84	
71				>110732 NS=78 _pos244	
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73				>86547 NS=83 _pos12	
74				>62052 NS=80 _pos246	
75				>89728 NS=79 _pos274	
76				>78517 NS=80 _pos254	

77				>55250 NS=79 _pos87	
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87				>111196 NS=73 _pos58	
88				>150469 NS=76 _pos251	
89				>63106 NS=86 _pos97	
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112				>128026 NS=74 _pos280	
113				>46694 NS=78 _pos163	
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116				>65091 NS=75 _pos132	
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118				>118765 NS=79 _pos200	
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120				>151037 NS=78 _pos198	
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171				>192914 NS=74 _pos13	
172				>93675 NS=81 _pos173	
173				>152056 NS=82 _pos54	
174				>142065 NS=76 _pos251	
175				>12014 NS=78 _pos184	
176				>20361 NS=79 _pos73	
177				>113065 NS=80 _pos35	
178				>156572 NS=76 _pos112	
179				>90579 NS=78 _pos202	
180				>100881 NS=84 _pos228	
181				>574378 NS=80 _pos23	
182				>51791 NS=73 _pos55	
183				>100518 NS=75 _pos158	
184				>770090 NS=76 _pos212	
185				>121278 NS=77 _pos132	
186				>30369 NS=76 _pos188	
187				>65263 NS=76 _pos129	
188				>138157 NS=79 _pos197	
189				>104782 NS=85 _pos66	
190				>29541 NS=75 _pos150	
191				>32740 NS=84 _pos77	
192				>154649 NS=74 _pos239	
193				>86547 NS=83 _pos232	
194				>21590 NS=77 _pos169	
195				>116283 NS=79 _pos110	
196				>71406 NS=78 _pos120	
197				>123299 NS=79 _pos63	
198				>94080 NS=75 _pos21	
199				>152618 NS=79 _pos180	

200				>148343 NS=83 _pos265	
201				>146165 NS=83 _pos257	
202				>147596 NS=83 _pos233	
203				>154496 NS=75 _pos193	
204				>148683 NS=79 _pos54	
205				>77660 NS=75 _pos242	
206				>77660 NS=75 _pos275	
207				>99095 NS=83 _pos254	
208				>138157 NS=79 _pos160	
209				>54054 NS=82 _pos172	
210				>131423 NS=80 _pos180	
211				>138565 NS=82 _pos242	
212				>114564 NS=73 _pos106	
213				>156853 NS=79 _pos260	
214				>128416 NS=83 _pos272	
215				>157260 NS=79 _pos196	
216				>139433 NS=75 _pos246	
217				>70505 NS=81 _pos11	
218				>92935 NS=76 _pos43	
219				>54054 NS=82 _pos58	
220				>98194 NS=74 _pos182	
221				>157581 NS=78 _pos55	
222				>154398 NS=74 _pos85	
223				>526 NS=79 _pos204	
224				>87747 NS=85 _pos246	
225				>74470 NS=78 _pos208	
226				>106451 NS=79 _pos261	
227				>12630 NS=79 _pos258	
228				>142324 NS=72 _pos110	
229				>50238 NS=76 _pos119	
230				>91343 NS=75 _pos89	
231				>114761 NS=75 _pos123	
232				>73647 NS=87 _pos119	
233				>77160 NS=75 _pos113	
234				>71406 NS=78 _pos264	
235				>56601 NS=85 _pos189	
236				>61265 NS=76 _pos250	
237				>66795 NS=75 _pos275	
238				>90840 NS=84 _pos9	
239				>141984 NS=80 _pos236	
240				>90545 NS=77 _pos122	

241				>34045 NS=78 _pos120	
242				>11939 NS=81 _pos97	
243				>125847 NS=73 _pos216	
244				>129681 NS=84 _pos103	
245				>126122 NS=78 _pos26	
246				>141927 NS=83 _pos25	
247				>52984 NS=77 _pos33	
248				>142332 NS=81 _pos234	
249				>50253 NS=77 _pos214	
250				>2782 NS=85 _pos221	
251				>140072 NS=79 _pos69	
252				>103844 NS=76 _pos65	
253				>12268 NS=78 _pos43	
254				>120013 NS=75 _pos93	
255				>51465 NS=79 _pos77	
256				>58826 NS=78 _pos95	
257				>156603 NS=75 _pos86	
258				>41615 NS=79 _pos54	
259				>145435 NS=81 _pos233	
260				>715459 NS=77 _pos148	
261				>574378 NS=80 _pos71	
262				>71406 NS=78 _pos22	
263				>83968 NS=84 _pos106	
264				>109543 NS=73 _pos193	
265				>30858 NS=88 _pos37	
266				>8623 NS=75 _pos246	
267				>116125 NS=85 _pos236	
268				>118765 NS=79 _pos76	
269				>107479 NS=85 _pos208	
270				>13248 NS=79 _pos27	
271				>83721 NS=80 _pos125	
272				>33061 NS=76 _pos241	
273				>136895 NS=77 _pos230	
274				>106809 NS=78 _pos80	
275				>656 NS=79 _pos203	
276				>143275 NS=81 _pos28	
277				>155691 NS=85 _pos236	
278				>96721 NS=85 _pos61	

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Table S8 BLASTn and BLASTx results of the 14 outlier SNPs identified by at least two methods. – means no hits. Per. Ident: Percentage of Identity.

	BLASTn: SNP_Chr_sequences vs *P. oceanica* transcriptome					BLASTx: *P. oceanica* sequences vs. UniProt database						
SNP_Outlier_ID	**Best hits_SeqName**	**Query range**	**E-value**	**Bit score**	**Per. Ident (%)**	**Annotation of top BLASTx hit (UniProt database)**	**Related function**	**Species**	**E-value**	**Bit score**	**Per. Ident (%)**	**Accession number**
>102786 NS=76_pos191	se3_TRINITY_DN69865_c0_g1_i1	192-259	1.00E-11	72	88	Glutaredoxin domain-containing protein	Glutathione oxidoreductase activity	*Dichanthelium oligosanthes*	9.90E+00	74	40	A0A1E5W751
>4564 NS=81_pos98	pe1_TR4069|c3_g4_i2	1-135	6.00E-38	159	90	Receptor-like serine/threonine-protein kinase	Protein serine/threonine kinase activity	*Rosa chinensis*	3.20E+00	77	20	A0A2P6Q381
>99732 NS=83_pos211	se3_TRINITY_DN43626_c2_g1_i2	146-279	2.00E-46	186	93	Protein kinase domain-containing protein	Protein serine/threonine kinase activity	*Helianthus annuus*	1.40E+00	76	55	A0A251RZQ7
>126268 NS=74_pos268	pe2_TRINITY_DN38724_c7_g2_i2	174-275	2.00E-34	147	93	Leucine-rich repeat extensin-like protein 3	Cell wall and growth modification	*Coffea arabica*	1.50E-05	137	26	A0A6P6UM88
>145013 NS=85_pos198	pe2_TRINITY_DN37108_c6_g1_i1	146-280	2.00E-56	220	95	LRRNT_2 domain-containing protein	Cell wall and growth modification	*Mikania micrantha*	2.10E+00	88	37	A0A5N6MZW6
>37103 NS=76_pos253	pe1_TR40976|c0_g1_i1	160-257	2.00E-22	107	88	C2 domain-containing protein	Signal transduction and membrane trafficking	*Ensete ventricosum*	3.60E+00	74	47	A0A444DYZ0
>91253 NS=75_pos17	pe1_TR12750|c4_g1_i1	1-106	3.00E-39	163	94	AP-5 complex subunit beta-1	Protein transport	*Jatropha curcas*	6.30E+00	76	44	A0A067JTT7
>34231 NS=78_pos44	pe1_TR41875|c1_g6_i1 len=601	1-124	5.00E-26	119	87	Probable purine permease	Purine nucleobase transmembrane transporter activity	*Malus baccata*	4.80E-01	89	46	A0A540NHL2
>21853 NS=76_pos40	se3_TRINITY_DN46451_c0_g1_i9	1-135	8.00E-71	268	100	WD repeat-containing protein WRAP73	Regulators of plant-specific developmental events	*Cinnamomum micranthum*	0	1558	74	A0A3S3N7C1
>108769 NS=74_pos254	pe1_TR23905|c0_g1_i1	153-282	6.00E-44	178	92	Retrotrans_gag domain-containing protein	Retrotransposon	*Camellia sinensis*	1.30E-22	264	45	A0A7J7G4T9
>107233 NS=81_pos235	pe1_TR32410|c2_g1_i4	146-260	9.00E-40	165	93	AAI domain-containing protein	Plant lipid transfer protein	*Leersia perrieri*	3.10E+00	82	39	A0A0D9WSI5
>21310 NS=83_pos84	se3_TRINITY_DN55574_c6_g3_i1	5-126	5.00E-38	159	92	-	-	-	-	-	-	-

>65929 NS=79_pos159	pe2_TRINITY_DN37820_c16_g1_i1	54-135	7.00E-16	86	89	-	-	-	-	-	-	-
>65929 NS=79_ pos122	pe2_TRINITY_DN37820_c16_g1_i1	54-135	7.00E-16	86	89	-	-	-	-	-	-	-

Table S9 Allelic frequencies obtained by *genepop* for the 14 outlier SNPs identified by at least two methods.

	>102786 NS=76_pos191		**>4564 NS=81_pos98**		**>99732 NS=83_pos211**		**>126268 NS=74_pos268**		**>145013 NS=85_pos198**		**>107233 NS=81_pos235**		**>91253 NS=75_pos17**	
	Allele 1	*Allele 2*	*Allele 1*	*Allele 2*	*Allele 1*	*Allele 2*	*Allele 1*	*Allele 2*	*Allele 1*	*Allele 2*	*Allele 1*	*Allele 2*	*Allele 1*	*Allele 2*
North-basin	1.000	0.000	0.000	1.000	1.000	0.000	1.000	0.000	0.000	1.000	0.000	1.000	1.000	0.000
South-basin	1.000	0.000	1.000	0.000	0.944	0.056	0.167	0.833	1.000	0.000	1.000	0.000	0.286	0.714
OpenSea-A	1.000	0.000	0.438	0.562	1.000	0.000	0.750	0.250	0.556	0.444	0.214	0.786	0.778	0.222
OpenSea-B	0.250	0.750	1.000	0.000	0.333	0.667	0.000	1.000	1.000	0.000	0.875	0.125	0.000	1.000
OpenSea-C	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	0.125	0.875	0.143	0.857	1.000	0.000
OpenSea-D	1.000	0.000	0.583	0.417	1.000	0.000	0.857	0.143	0.857	0.143	0.857	0.143	1.000	0.000
	>34231 NS=78_pos44		**>21853 NS=76_pos40**		**>108769 NS=74_pos254**		**>37103 NS=76_pos253**		**>21310 NS=83_pos84**		**>65929 NS=79_pos159**		**>65929 NS=79_ pos 122**	
	Allele 1	*Allele 2*	*Allele 1*	*Allele 2*	*Allele 1*	*Allele 2*	*Allele 1*	*Allele 2*	*Allele 1*	*Allele 2*	*Allele 1*	*Allele 2*	*Allele 1*	*Allele 2*
North-basin	0.000	1.000	1.000	0.000	1.000	0.000	0.000	1.000	0.500	0.500	1.000	0.000	1.000	0.000
South-basin	1.000	0.000	1.000	0.000	1.000	0.000	0.900	0.100	0.278	0.722	0.250	0.750	0.250	0.750
OpenSea-A	0.444	0.556	0.944	0.056	1.000	0.000	0.889	0.111	1.000	0.000	0.778	0.222	0.778	0.222
OpenSea-B	1.000	0.000	0.188	0.812	0.214	0.786	0.000	1.000	1.000	0.000	0.000	1.000	0.000	1.000
OpenSea-C	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	0.750	0.250	1.000	0.000	1.000	0.000
OpenSea-D	0.600	0.400	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000