

The importance of genetic make-up in seagrass restoration: a case study of the seagrass *Zostera noltei*

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Supplement.

Table S1. Assignment test. Shown is the number of individuals that get assigned to their own population (Self Pop), to another population (Other Pop) and information on which other population they get assigned to (To) as calculated in GeneClass2.

Pop	Self Pop	Other Pop	To
Berre 2009	24	12	Arc 2013, Berre 2013, Arc transplant, Vaïne 2013, Arc 2009
Arc 2009	28	4	Arc transplant, Vaïne 2013, Berre 2009
Arc transplant	4	0	
Arc 2013	16	3	Berre 2009, Vaïne 2013
Berre 2013	17	2	Vaïne 2013, Berre 2009
Vaïne 2013	28	8	Berre 2013, Arc 2013, Berre 2009, Arc 2009
Carteau 2009	31	0	
Total	148	29	
Percent	84%	16%	

Table S2. Pairwise table of F_{ST} values and $N_m F_{ST}$ estimates based on F_{ST} . #Pop indicates the number of distinct genotypes in each population.

Pop1	Pop2	F_{ST}	N_m	#Pop1	#Pop2
Carteau 2009	Berre 2009	0.101	2.217	31	36
Carteau 2009	Arc 2009	0.109	2.034	31	32
Berre 2009	Arc 2009	0.070	3.306	36	32
Carteau 2009	Arc transplant	0.095	2.368	31	4
Berre 2009	Arc transplant	0.088	2.578	36	4
Arc 2009	Arc transplant	0.113	1.953	32	4
Carteau 2009	Arc 2013	0.140	1.531	31	19
Berre 2009	Arc 2013	0.079	2.924	36	19
Arc 2009	Arc 2013	0.083	2.757	32	19
Arc transplant	Arc 2013	0.096	2.357	4	19
Carteau 2009	Berre 2013	0.130	1.674	31	19
Berre 2009	Berre 2013	0.045	5.276	36	19
Arc 2009	Berre 2013	0.084	2.730	32	19
Arc transplant	Berre 2013	0.103	2.170	4	19
Arc 2013	Berre 2013	0.080	2.857	19	19
Carteau 2009	Vaïne 2013	0.125	1.747	31	36
Berre 2009	Vaïne 2013	0.057	4.160	36	36
Arc 2009	Vaïne 2013	0.090	2.527	32	36
Arc transplant	Vaïne 2013	0.118	1.869	4	36
Arc 2013	Vaïne 2013	0.071	3.266	19	36
Berre 2013	Vaïne 2013	0.067	3.493	19	36

Table S3. Pairwise estimate of N_m _freq values based on frequencies of rare alleles. Mean N, mean number of individuals per population comparison; mean p, mean frequency of private alleles.

Pop1	Pop2	Mean N	Mean p	N_m (N=10)	N_m (N=25)	N_m (N=50)	N_m (N)
Carteau	Berre 2009	33.5	0.109	1.055	0.554	0.394	0.413
Carteau	Arc 2009	33	0.118	0.904	0.486	0.348	0.368
Carteau	Arc transplant	23	0.115	0.939	0.502	0.359	0.546
Carteau	Arc 2013	26	0.147	0.575271	0.331	0.243	0.318
Carteau	Berre 2013	25	0.146	0.584	0.336	0.246	0.336
Carteau	Vaïne	33.5	0.137	0.662	0.373	0.271	0.279
Berre 2009	Arc 2009	35.5	0.088	1.623	0.799	0.556	0.563
Berre 2009	Arc transplant	25.5	0.135	0.677	0.380	0.276	0.373
Berre 2009	Arc 2013	28.5	0.083	1.844	0.890	0.615	0.781
Berre 2009	Berre 2013	27.5	0.052	4.825	2.015	1.327	1.832
Berre 2009	Vaïne	36	0.064	3.133	1.396	0.940	0.970
Arc 2009	Arc transplant	25	0.157	0.499	0.293	0.216	0.293
Arc 2009	Arc 2013	28	0.092	1.494	0.745	0.520	0.665
Arc 2009	Berre 2013	27	0.090	1.551	0.769	0.536	0.712
Arc 2009	Vaïne	35.5	0.095	1.405	0.707	0.495	0.498
Arc transplant	Arc 2013	18	0.217	0.258	0.167	0.128	0.233
Arc transplant	Berre 2013	17	0.230	0.229	0.152	0.116	0.135
Arc transplant	Vaïne	25.5	0.203	0.296	0.188	0.143	0.185
Arc 2013	Berre 2013	20	0.128	0.759	0.419	0.303	0.524
Arc 2013	Vaïne	28.5	0.112	0.993	0.527	0.375	0.462
Berre 2013	Vaïne	27.5	0.119	0.876	0.473	0.340	0.430

Table S4. Summary of pairwise directional migration rates based on nine microsatellite loci. N_m _Bay values were estimated using a multi-locus genotype based MCMC approach as implemented in BayesAss.

To	From						
	Carteau 2009	Berre 2009	Arc 2009	Arc transplant	Arc 2013	Berre 2013	Vaïne 2013
Carteau 2009		0.2914	0.279	0.2945	0.279	0.2759	0.279
Berre 2009	0.2664		0.3672	0.2664	0.3816	4.5828	0.2952
Arc 2009	0.288	0.6272		0.2816	0.672	0.6656	1.4752
Arc transplant	0.122	0.122	0.1224		0.4656	0.1324	0.22
Arc 2013	0.2793	0.276	0.2945	0.2831		1.3281	0.3667
Berre 2013	0.2413	0.6612	0.342	0.2432	0.7201		0.3629
Vaïne 2013	0.2844	0.6192	1.4112	0.2808	0.558	1.8036	