

Supplementary material

Table S1. List of pairs of populations modelled in Migrate-n.

<i>Gobius geniporus</i>		
1	W Cyprus	E Cyprus
2	W Cyprus	Greece
3	W Cyprus	Sicily
4	E Cyprus	Greece
5	E Cyprus	Sicily
6	Montenegro	Croatia
7	Montenegro	Greece
8	Sicily	Croatia
9	Sicily	Greece
10	Sicily	Montenegro
<i>Gobius cruentatus</i>		
1	Portugal	France
2	Sicily	Croatia
3	Sicily	W Cyprus
4	Sicily	France
5	Spain	Portugal

Table S2. Diversity measures for *Gobius geniporus* and *G. cruentatus* calculated per each locality based on cytochrome b and S7 sequences. N - number of sequences, S - number of segregating sites, Nh - number of haplotypes, Hd - haplotype diversity, π - nucleotide diversity.

Species	Locality	Cyt B					S7				
		N	S	Nh	Hd	π	N	S	Nh	Hd	π
<i>Gobius geniporus</i>	France	2	1	2	1.000	0.001	4	0	1	0.000	0.0000
	Sicily	16	20	15	0.992	0.004	30	0	1	0.000	0.0000
	Croatia	10	19	9	0.978	0.005	20	0	1	0.000	0.0000
	Montenegro	13	14	8	0.897	0.004	26	1	2	0.077	0.0001
	Greece	10	14	6	0.889	0.004	20	1	2	0.100	0.0002
	Cyprus W	12	12	6	0.848	0.002	24	1	2	0.083	0.0001
	Cyprus E	11	9	9	0.964	0.002	22	1	2	0.091	0.0002
<i>Gobius cruentatus</i>	Portugal	4	5	4	1.000	0.002	8	2	3	0.464	0.0009
	Spain	5	5	3	0.700	0.002	6	1	2	0.333	0.0006
	France	4	9	3	0.833	0.004	8	0	1	0.000	0.0000
	Sicily	12	19	10	0.970	0.005	24	1	2	0.159	0.0003
	Croatia	11	26	11	1.000	0.008	22	2	3	0.325	0.0006
	Montenegro	2	12	2	1.000	0.011	4	0	1	0.000	0.0000
	Cyprus W	3	6	3	1.000	0.004	6	0	1	0.000	0.0000

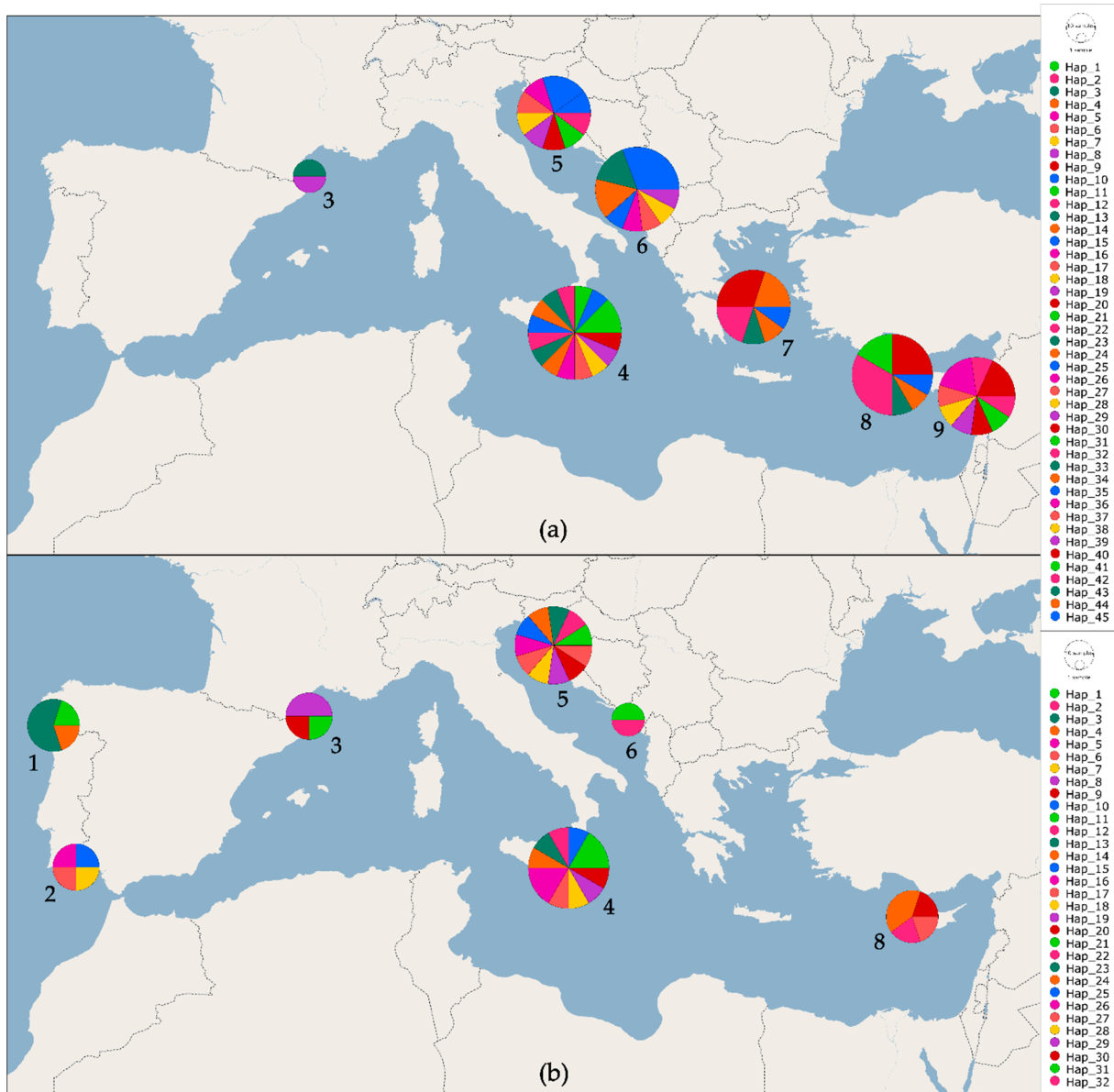


Figure S1: Cytochrome b haplotype frequencies at studied localities, *Gobioides geniporus* (a), *G. cruentatus* (b).

Table S3a. Posterior distribution table of Migrate-n analyses for *Gobius geniporus*. Theta – mutation-scaled population size, D – divergence time (generations*mutation rate), M – mutation scaled immigration rate. Divergence and migration direction from population 1 to population 2.

Parameter	2.5%	25.0%	mode	75.0%	97.5%	median	mean	population 1	population 2
Theta_1	0.00273	0.00383	0.00432	0.00485	0.00581	0.00431	0.00693	W Cyprus	E Cyprus
Theta_2	0.00128	0.00297	0.00384	0.00452	0.00557	0.00357	0.00600		
M_1->2	666.67	666.67	4900.00	8933.33	8933.33	7566.67	5302.44		
D_1->2	0.00000	0.00000	1.63333	19.40000	40.00000	25.03333	50.03454		
S_1->2	0.00000	8.53333	23.36667	33.46667	40.53333	25.10000	50.02228		
Theta_1	0.00234	0.00350	0.00414	0.00483	0.00569	0.00408	0.00628	E Cyprus	Greece
Theta_2	0.00146	0.00322	0.00405	0.00487	0.00585	0.00390	0.00690		
M_1->2	466.67	466.67	1900.00	3266.67	3266.67	5633.33	1940.03		
D_1->2	0.00000	12.13333	20.50000	37.13333	42.20000	25.16667	49.97603		
S_1->2	0.00000	14.73333	22.83333	35.73333	39.66667	25.03333	50.00962		
Theta_1	0.00235	0.00366	0.00422	0.00483	0.00582	0.00418	0.00657	W Cyprus	Greece
Theta_2	0.00171	0.00311	0.00402	0.00487	0.00567	0.00384	0.00680		
M_1->2	466.67	466.67	2366.67	4200.00	4200.00	5833.33	2379.58		
D_1->2	0.00000	8.26667	15.10000	32.26667	40.66667	25.10000	50.01200		
S_1->2	0.00000	12.26667	35.43333	37.33333	40.93333	25.10000	50.03770		
Theta_1	0.00315	0.00373	0.00448	0.00529	0.00583	0.00449	0.00791	Montenegro	Croatia
Theta_2	0.00236	0.00310	0.00424	0.00540	0.00581	0.00419	0.00775		
M_1->2	466.67	466.67	2166.67	3733.33	3733.33	5700.00	2157.47		
D_1->2	0.00000	9.26667	12.70000	31.86667	40.73333	25.10000	50.01304		
S_1->2	0.00000	24.26667	36.70000	37.33333	40.20000	25.10000	50.00492		
Theta_1	0.00179	0.00315	0.00401	0.00483	0.00565	0.00386	0.00661	Greece	Montenegro
Theta_2	0.00280	0.00359	0.00434	0.00519	0.00580	0.00434	0.00720		
M_2->1	533.33	533.33	2766.67	4866.67	4866.67	6100.00	2814.56		
D_2->1	0.00000	3.20000	9.70000	28.26667	39.66667	25.03333	49.95628		
S_2->1	0.00000	12.66667	36.70000	37.73333	41.73333	25.16667	50.01297		
Theta_1	0.00297	0.00361	0.00444	0.00537	0.00587	0.00444	0.00823	Croatia	Sicily
Theta_2	0.00319	0.00426	0.00450	0.00472	0.00582	0.00450	0.00821		
M_2->1	400.00	400.00	1233.33	2000.00	2000.00	5366.67	1492.02		

D_2->1	0.00000	8.00000	12.43333	22.13333	40.93333	25.10000	50.01276		
S_2->1	0.00000	0.00000	0.03333	9.60000	40.33333	25.03333	50.03248		
Theta_1	0.00355	0.00421	0.00468	0.00514	0.00587	0.00469	0.00883	Sicily	Croatia
Theta_2	0.00225	0.00257	0.00420	0.00562	0.00577	0.00412	0.00751		
M_1->2	466.67	466.67	2166.67	3800.00	3800.00	5766.67	2198.14		
D_1->2	0.00000	0.00000	0.03333	10.33333	40.26667	25.10000	50.01039		
S_1->2	0.00000	0.00000	0.03333	24.93333	39.40000	24.96667	49.98654		
Theta_1	0.00181	0.00318	0.00390	0.00457	0.00557	0.00378	0.00541	Sicily	E Cyprus
Theta_2	0.00319	0.00407	0.00464	0.00523	0.00606	0.00465	0.00870		
M_2->1	0.00000	0.00000	33.33333	3200.00000	9266.66667	3233.33333	308.17360		
D_2->1	0.00000	11.00000	17.43333	36.00000	42.26667	25.16667	50.00214		
S_2->1	0.00000	5.86667	12.63333	22.40000	41.20000	25.10000	50.03951		
Theta_1	0.00213	0.00341	0.00403	0.00468	0.00563	0.00395	0.00578	E Cyprus	Sicily
Theta_2	0.00337	0.00451	0.00458	0.00464	0.00585	0.00458	0.00865		
M_1->2	0.00000	0.00000	33.33333	3800.00000	10400.00000	3833.33333	718.84016		
D_1->2	0.00000	0.00000	0.03333	24.93333	39.26667	24.96667	49.96886		
S_1->2	0.00000	14.26667	30.50000	37.60000	40.86667	25.10000	50.01211		
Theta_1	0.00354	0.00440	0.00466	0.00492	0.00585	0.00467	0.00875	Sicily	Greece
Theta_2	0.00134	0.00314	0.00384	0.00440	0.00560	0.00360	0.00558		
M_1->2	400.00	400.00	1100.00	1733.33	1733.33	5300.00	1305.67		
D_1->2	0.00000	12.33333	34.83333	37.33333	41.46667	25.16667	50.01545		
S_1->2	0.00000	0.00000	0.03333	13.86667	40.26667	25.10000	49.99825		
Theta_1	0.00319	0.00418	0.00450	0.00483	0.00584	0.00451	0.00847	Greece	Sicily
Theta_2	0.00251	0.00344	0.00425	0.00515	0.00578	0.00422	0.00696		
M_2->1	400.0000	400.0000	833.3333	1200.0000	1200.0000	5233.3333	1232.4174		
D_2->1	0.00000	0.00000	0.03333	23.86667	39.73333	25.03333	49.99314		
S_2->1	0.00000	0.00000	0.03333	25.00000	39.66667	25.03333	50.02086		
Theta_1	0.00341	0.00408	0.00464	0.00520	0.00591	0.00465	0.00864	Sicily	Montenegro
Theta_2	0.00190	0.00351	0.00401	0.00454	0.00565	0.00389	0.00624		
M_1->2	400.00	400.00	1166.67	1866.67	1866.67	5233.33	1220.39		
D_1->2	0.00000	0.00000	0.03333	15.20000	39.40000	24.96667	49.97101		

S_1->2	0.00000	0.00000	0.03333	10.73333	40.26667	25.03333	50.03242		
Theta_1	0.00122	0.00261	0.00355	0.00429	0.00549	0.00340	0.00446	Sicily	W Cyprus
Theta_2	0.00346	0.00404	0.00466	0.00530	0.00592	0.00468	0.00875		
M_2->1	0.00000	0.00000	33.33333	3733.33333	10333.33333	3766.66667	451.39377		
D_2->1	0.00000	6.13333	12.76667	31.20000	40.66667	25.03333	49.95625		
S_2->1	0.00000	0.00000	0.03333	24.73333	39.40000	25.03333	49.95732		

Table S3b. Posterior distribution table of Migrate-n analyses for *Gobius cruentatus*. Theta – mutation-scaled population size, D – divergence time (generations*mutation rate), M – mutation scaled immigration rate. Divergence and migration direction from population 1 to population 2.

Parameter	2.5%	25.0%	mode	75.0%	97.5%	median	mean	population 1	population 2
Theta_1	0.00321	0.00577	0.00689	0.00774	0.00999	0.00668	0.00658	Portugal	France
Theta_2	0.00187	0.00773	0.00778	0.00792	0.00999	0.00602	0.00587		
M_1->2	66.67	733.33	1433.33	2933.33	7800.00	2633.33	3163.20		
D_1->2	66.06667	67.06667	67.23333	67.40000	67.73333	50.16667	50.02839		
S_1->2	71.80000	72.46667	72.63333	72.73333	72.80000	50.10000	50.03600		
Theta_1	0.00163	0.00648	0.00650	0.00654	0.00999	0.00579	0.00570	France	Portugal
Theta_2	0.00391	0.00753	0.00787	0.00823	0.00999	0.00715	0.00701		
M_2->1	66.67	866.67	1900.00	4333.33	14000.00	4033.33	5557.24		
D_2->1	87.80000	90.46667	90.63333	90.73333	92.33333	50.10000	50.01651		
S_2->1	91.06667	91.20000	91.30000	91.46667	91.46667	50.03333	49.98973		
Theta_1	0.00489	0.00833	0.00996	0.00999	0.00999	0.00815	0.00784	Croatia	Sicily
Theta_2	0.00639	0.00885	0.00992	0.00999	0.00999	0.00882	0.00857		
M_2->1	266.67	600.00	1033.33	1533.33	3266.67	1366.67	1526.78		
D_2->1	83.73333	85.46667	85.70000	85.73333	87.06667	50.10000	50.01393		
S_2->1	61.33333	61.33333	61.50000	61.53333	63.66667	50.10000	49.99714		
Theta_1	0.00403	0.00795	0.00997	0.00999	0.00999	0.00766	0.00737	Cyprus W	Sicily
Theta_2	0.00387	0.00773	0.00794	0.00896	0.00999	0.00726	0.00707		
M_2->1	200.00	800.00	1566.67	2533.33	6400.00	2233.33	2675.68		
D_2->1	88.60000	88.73333	88.83333	88.86667	90.20000	50.03333	49.99724		
S_2->1	57.33333	57.86667	58.10000	58.20000	59.40000	50.03333	49.96830		
Theta_1	0.00615	0.00883	0.00995	0.00999	0.00999	0.00864	0.00840	Sicily	Cyprus W

Theta_2	0.00124	0.00776	0.00778	0.00779	0.00999	0.00546	0.00541		
M_1->2	0.00	533.33	2033.33	5600.00	21733.33	5366.67	7640.97		
D_1->2	5.00000	5.00000	5.16667	5.26667	6.46667	50.03333	49.98392		
S_1->2	52.80000	55.13333	55.23333	55.26667	56.40000	49.90000	49.93391		
Theta_1	0.00421	0.00807	0.00916	0.00999	0.00999	0.00760	0.00736	France	Sicily
Theta_2	0.00407	0.00797	0.00929	0.00976	0.00999	0.00756	0.00731		
M_2->1	0.0000	266.6667	633.3333	1266.6667	3400.0000	1166.6667	1377.1253		
D_2->1	90.26667	92.20000	92.36667	92.40000	93.40000	50.10000	50.01148		
S_2->1	96.80000	97.00000	97.16667	97.20000	99.20000	50.03333	50.00300		
Theta_1	0.00622	0.00875	0.00996	0.00999	0.00999	0.00869	0.00844	Sicily	France
Theta_2	0.00156	0.00803	0.00805	0.00807	0.00999	0.00574	0.00567		
M_1->2	0.0000	333.3333	966.6667	2000.0000	7600.0000	1900.0000	2628.8497		
D_1->2	51.26667	51.46667	51.70000	51.73333	54.73333	50.16667	50.04143		
S_1->2	55.20000	55.80000	56.16667	56.40000	60.53333	50.10000	49.98403		
Theta_1	0.00259	0.00398	0.00529	0.00673	0.00966	0.00578	0.00586	Spain	Portugal
Theta_2	0.00163	0.00835	0.00836	0.00842	0.00999	0.00578	0.00569		
M_1->2	66.67	800.00	1966.67	4400.00	15266.67	4033.33	5704.34		
D_1->2	28.66667	28.73333	28.83333	29.00000	30.60000	50.03333	49.99471		
S_1->2	81.20000	83.00000	83.10000	83.20000	86.13333	50.03333	50.00238		
Theta_1	0.00068	0.00108	0.00207	0.00429	0.00856	0.00438	0.00470	Portugal	Spain
Theta_2	0.00270	0.00423	0.00554	0.00683	0.00999	0.00595	0.00600		
M_2->1	0.00	533.33	1366.67	3066.67	11266.67	2900.00	4014.92		
D_2->1	31.40000	33.80000	33.90000	33.93333	34.26667	50.03333	49.96595		
S_2->1	59.33333	59.60000	59.76667	59.86667	60.73333	50.10000	49.99993		