

Supplementary Information

Table S1: Sampling site locations.

Population	Long_GPS	Lat_GPS	samples
Gulf of Lion	42.9964	4.0003	81
Malta	35.9375	14.3754	45
Greece	35.4855	26.1071	3
Azores	39.3582	-26.0585	49
Spain	44.5000	-7.4166	26
Hawaii	19.8968	-155.5828	9
New Zealand	-43.6500	165.8333	30
Australia	-33.5740	152.2667	16

For each sampling site, the mean longitude (Long_GPS) and latitude (Lat_GPS) and the number of blue sharks sampled.

Table S2: Pairwise Phi_{ST} between sampling sites for mitochondrial DNA.

	Gulf of Lion	Malta	Greece	Azores	Spain	Hawaii	New Zealand
Malta	0.00807						
Greece	-0.15538	-0.19760					
Azores	0.05812**	0.03727	-0.14019				
Spain	-0.00018	-0.01964	-0.20840	0.04670			
Hawaii	0.04711	0.03570	-0.13793	-0.05225	0.05996		
New Zealand	0.09411**	0.08308*	-0.06349	-0.01471	0.10734*	-0.05816	
Australia	0.10132*	0.11887*	-0.01155	-0.01292	0.15010*	-0.04426	-0.02840

The significance of the Phi_{ST} values was assessed via 1000 permutations: * for p-values < 0.05, ** for p-values < 0.01 and *** for p-values < 0.001. Once corrected for multiple tests (using the False Discovery Rate, Storey 2003), no Phi_{ST} remained significant with a q-value bellows 0.05.