ELECTRONIC APPENDIX

This is the Electronic Appendix to the article

Low effective population size and evidence for inbreeding in an overexploited flatfish, plaice (*Pleuronectes platessa* L.)

by

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Table S1. Summary of genetic variation at eight microsatellite loci on both juvenile and otolith samples. N = sample size, N_A = number of alleles, H_e = unbiased expected heterozygosity (Nei 1978), H_{obs} = observed heterozygosity, and f = inbreeding coefficient (Weir and Cockerham 1984). ^{NS} = not significant, * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$. P-values have been corrected for multiple tests.

		Balgzand (The Netherlands) 2002-juveniles						North Sea-otoliths		Alftanes (Iceland) 2002-juveniles				Iceland-otoliths		
	Cohort	0 (eggs)	1	2	3	4	5	1950	1970	1	2	3	4	1924	1948	1972
Sampling week		-	-	1	3	7	9	-	-	1	5	7	11	-	-	-
Mean length (mm)		-	-	14.6	14.5	13.3	29.2	-	-	15.5	15	28.5	53	-	-	-
	N	64	64	64	61	48	48	50	64	37	52	52	51	64	64	64
Locus																
PL06	N_A	29	31	27	21	24	28	-	-	25	26	25	25	-	-	-
	H_e	0.9503	0.9630	0.9206	0.9524	0.9595	0.9640	-	-	0.9288	0.9123	0.9108	0.9349	-	-	-
	H_{obs}	0.5806	0.5918	0.667	0.3182	0.5455	0.6000	-	-	0.5143	0.3750	0.3617	0.5600	-	-	-
	f	**0.3909*****	**0.3879*****	**0.2775*****	**0.6711*****	**0.4375*****	**0.3810*****	-	-	**0.4499*****	**0.5915*****	**0.6055*****	**0.4035*****	-	-	-
PL09	N_A	24	28	29	29	27	25	--	-	14	17	19	12	-	-	-
	H_e	0.9416	0.8516	0.9128	0.9102	0.9517	0.9397	-	-	0.5542	0.6154	0.6892	0.5797	-	-	-
	H_{obs}	0.5882	0.4375	0.5000	0.5667	0.4894	0.5000	-	-	0.4000	0.4490	0.5882	0.5882	-	-	-
	F	**0.3788*****	**0.4882*****	**0.4543*****	**0.3794*****	**0.4885*****	**0.4708*****	-	-	**0.2817*****	**0.2725*****	**0.1477***	-0.0149	-	-	-
PL92	N_A	22	28	25	25	20	28	19	21	15	18	15	15	12	12	14
	H_e	0.9023	0.9248	0.9010	0.8964	0.9129	0.9092	0.881	0.901	0.9143	0.8951	0.8910	0.8604	0.804	0.727	0.733
	H_{obs}	0.7500	0.8906	0.8281	0.8197	0.8958	0.8723	0.859	0.861	0.7222	0.8077	0.7692	0.8627	0.823	0.746	0.719
	F	**0.1699*****	0.0373	**0.0814***	**0.0862****	0.0189	0.0409	0.024	0.046	**0.2125*****	0.0985	**0.1378****	-0.0027	-0.023	-0.027	0.019
PL115	N_A	15	17	19	16	21	17	12	18	12	12	15	12	19	19	13
	H_e	0.7158	0.7307	0.7575	0.8025	0.7618	0.7580	0.644	0.765	0.6964	0.7644	0.8083	0.7449	0.877	0.878	0.878
	H_{obs}	0.5556	0.6557	0.7969	0.6066	0.7500	0.5957	0.660	0.656	0.5278	0.5385	0.7885	0.6078	0.807	0.828	0.797
	F	**0.2253*****	**0.1033***	-0.0524	**0.2457*****	0.01571	**0.2158*****	-0.024	0.143	**0.2448*****	**0.2976*****	0.0247	**0.1855*****	0.081	0.057	**0.093****
PL142	N_A	24	29	25	25	22	21	19	20	18	21	20	18	14	19	18
	H_e	0.8984	0.8970	0.8625	0.8724	0.9075	0.8463	0.876	0.843	0.8878	0.9108	0.8956	0.8790	0.827	0.872	0.868
	H_{obs}	0.8281	0.7031	0.8095	0.8361	0.6875	0.5208	0.796	0.641	0.7838	0.8846	0.8462	0.5800	0.741	0.850	0.688
	F	**0.0788****	**0.2175*****	0.0619	0.0419	**0.2443*****	**0.3871*****	0.093	**0.242*****	**0.1186***	0.0290	0.0558	**0.3424*****	0.106	0.026	**0.209*****
PL167	N_A	32	35	31	37	32	40	34	34	24	28	26	27	22	25	22
	H_e	0.9563	0.9856	0.9451	0.9553	0.9638	0.9678	0.957	0.957	0.9354	0.9390	0.9341	0.9321	0.935	0.922	0.918
	H_{obs}	0.6271	0.8906	0.7031	0.7869	0.6250	0.8750	0.698	0.857	0.6944	0.6863	0.7500	0.8039	0.836	0.817	0.844

	F	**0.3461*****	**0.0782****	**0.2576*****	**0.1775*****	**0.3539*****	**0.0968*****	**0.105***	**0.272*****	**0.2604*****	**0.2711*****	**0.1986*****	**0.1387*****	**0.106***	**0.115****	**0.082****
List1001	N_A	5	7	5	6	6	6	5	9	5	8	5	5	7	6	6
	H_e	0.5863	0.5687	0.6654	0.5789	0.6147	0.6504	0.586	0.620	0.7693	0.7562	0.7397	0.7290	0.769	0.755	0.736
	H_{obs}	0.6032	0.5938	0.7031	0.5000	0.5417	0.6042	0.596	0.672	0.7297	0.7308	0.8077	0.7451	0.781	0.797	0.719
	F	-0.0290	-0.0445	-0.0572	0.1372	0.1193	0.0718	-0.017	-0.084	0.0522	0.0339	-0.0929	-0.0223	-0.017	-0.055	0.023
List1003	N_A	9	9	7	12	11	7	8	9	6	7	6	5	6	7	8
	H_e	0.3878	0.4599	0.4401	0.4364	0.5548	0.4406	0.478	0.477	0.3580	0.3182	0.4757	0.4122	0.355	0.360	0.380
	H_{obs}	0.4127	0.4688	0.4219	0.4590	0.5625	0.4375	0.578	0.531	0.3514	0.2941	0.5000	0.4118	0.406	0.349	0.422
	f	-0.0647	-0.0194	0.0417	-0.0523	-0.0139	0.0070	**-0.211****	0.115	0.0189	0.0764	-0.0516	0.0010	-0.145	0.031	0.111
Mean N_A, excluding PL06 & PL09		17.8	20.8	18.7	20.2	18.7	19.8	16.2	18.5	13.3	15.7	14.5	13.7	13.3	14.7	13.5
Multilocus H_e, excluding PL06 & PL09		0.7411	0.7611	0.7619	0.7569	0.7857	0.7620	0.7370	0.7605	0.7602	0.7639	0.7907	0.7596	0.7612	0.7523	0.7521
Multilocus *f*		**0.2215*****	**0.1788*****	**0.1534*****	**0.2387*****	**0.2333*****	**0.2291*****	-	-	**0.2210*****	**0.2219*****	**0.1484*****	**0.1516*****	-	-	-
Multilocus *f*, excluding PL06 & PL09		**0.1518*****	**0.0762****	**0.0680****	**0.1183*****	**0.1397*****	**0.1471*****	0.017 ^{NS}	**0.111*****	**0.1668*****	**0.1412*****	**0.0602****	**0.1209*****	0.038 ^{NS}	0.028 ^{NS}	**0.072*****

Table S2. Microsatellite data quality. n.t.= not tested .

	Microsatellite loci							
	PL06	PL09	PL92	PL115	PL142	PL167	List1001	List1003
Amplification failure	4%	4%	<1%	0	0	<1%	<1%	0
Stuttering	no	no	no	slight	moderate	moderate	no	no
Brookfield test Presence of null alleles	yes	yes	no	no	no	no	no	no
Effect of relaxed annealing temperature.	Locus eliminated	Locus eliminated	none	none	none	none	none	none
Large allele drop-out			no	no	no	no	no	no
New PCR primers designed			no	no	yes	yes	no	no
Effect of new primers on the number of homozygotes			n.t	n.t	none	none	n.t	n.t

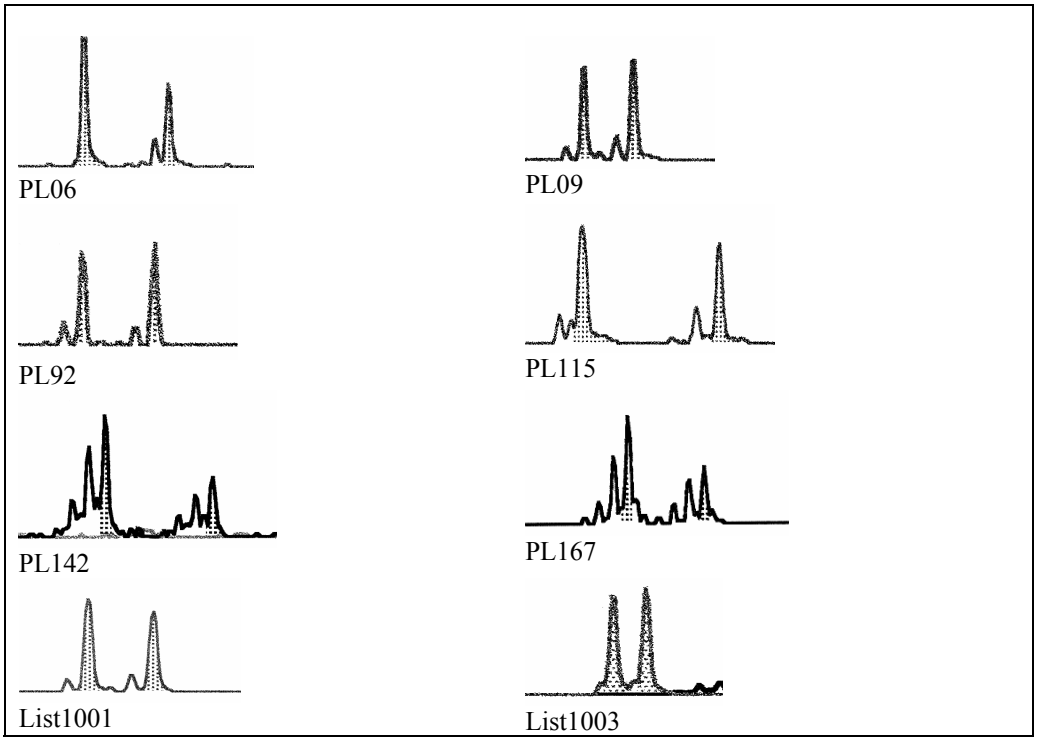

Fig. S1. Peak shapes as indicator of microsatellite data quality.