

## Electronic Supplementary Material

Section 1. P-values of two-tailed t-tests for differences between age classes of additive genetic variance (elements above the diagonal) and heritability (elements below the diagonal) of laying date. Highlighted in bold are P-values smaller than  $\alpha = 0.05$ .

	3	4	5	6	7	8	9	10	11	12-13	14-15	16-20
3		0.5911	0.2105	0.2105	0.2106	0.2107	0.2108	0.8784	0.2110	0.5438	0.1173	0.3142
4	0.5910		0.2255	0.2255	0.2256	0.2256	0.2257	0.7301	0.2257	0.1707	<b>0.0355</b>	0.2217
5	0.1702	0.2091		1	1	1	1	0.3018	1	<b>0.0206</b>	<b>0.0092</b>	0.1517
6	0.1703	0.2092	1		1	1	1	0.3018	1	<b>0.0206</b>	<b>0.0092</b>	0.1519
7	0.1704	0.2092	1	1		1	1	0.3019	1	<b>0.0207</b>	<b>0.0093</b>	0.1520
8	0.1705	0.2093	1	1	1		1	0.3020	1	<b>0.0207</b>	<b>0.0093</b>	0.1522
9	0.1706	0.2093	1	1	1	1		0.3021	1	<b>0.0208</b>	<b>0.0094</b>	0.1524
10	0.6405	0.9602	0.2765	0.2766	0.2767	0.2768	0.2768		0.3022	0.4428	0.0935	0.2851
11	0.1708	0.2094	1	1	1	1	1	0.2770		<b>0.0209</b>	<b>0.0095</b>	0.1528
12-13	0.9674	0.4294	<b>0.0022</b>	<b>0.0022</b>	<b>0.0022</b>	<b>0.0022</b>	<b>0.0022</b>	0.5290	<b>0.0023</b>		0.2390	0.4365
14-15	0.3391	<b>0.0158</b>	<	<	<	<	<	<b>0.0474</b>	<	<b>0.0500</b>		0.8984
			<b>0.0001</b>	<b>0.0001</b>	<b>0.0001</b>	<b>0.0001</b>	<b>0.0001</b>		<b>0.0001</b>			
16-20	0.5880	0.1452	<b>0.0016</b>	<b>0.0016</b>	<b>0.0016</b>	<b>0.0016</b>	<b>0.0017</b>	0.2078	<b>0.0017</b>	0.3708	0.6093	

Section 2. Age-specific selection differentials ( $S$ ) for laying date in the mute swan.  $n$  = number of breeding attempts.

age	fitness = number of hatchlings					fitness = number of recruited offspring				
	n	$S$	SE	t	$p$ -value	n	$S$	SE	t	$p$ -value
3	141	-0.169	0.064	-2.64	0.0092	120	-0.414	0.276	-1.5	0.1356
4	270	-0.173	0.034	-5.16	<.0001	198	-0.414	0.154	-2.68	0.0079
5	320	-0.207	0.030	-6.98	<.0001	248	-0.486	0.131	-3.71	0.0003
6	279	-0.252	0.033	-7.61	<.0001	226	-0.374	0.128	-2.93	0.0038
7	230	-0.185	0.037	-5.05	<.0001	184	-0.166	0.165	-1.01	0.3155
8	186	-0.325	0.044	-7.44	<.0001	150	-0.486	0.186	-2.61	0.01
9	168	-0.197	0.038	-5.22	<.0001	126	-0.346	0.184	-1.89	0.0615
10	139	-0.148	0.036	-4.14	<.0001	86	-0.481	0.191	-2.51	0.0138
11	121	-0.202	0.046	-4.41	<.0001	74	-0.464	0.168	-2.76	0.0073
12	97	-0.146	0.054	-2.7	0.0082	61	-0.129	0.214	-0.6	0.5493
13	63	-0.089	0.080	-1.1	0.2737	36	-0.020	0.253	-0.08	0.9371
14	45	-0.089	0.075	-1.19	0.241	25	-0.332	0.311	-1.07	0.2968
15	25	-0.286	0.121	-2.36	0.0272	11	-0.070	0.355	-0.2	0.8482
16	20	-0.187	0.087	-2.16	0.0444	9	-1.700	0.616	-2.76	0.0281
17	13	-0.402	0.171	-2.36	0.0379	5	0.462	1.433	0.32	0.7684
18	5	-0.436	0.066	-6.56	0.0072					
overall	2122	-0.194	0.012	-17.43	<.0001	1559	-0.357	0.053	-7.09	<.0001