

# Escaped farmed Atlantic salmon grow, migrate and disperse throughout the Arctic Ocean like wild salmon

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## Supplement

**Table S1.** *Salmo salar*. Identification of farmed salmon among Atlantic salmon sampled at Svalbard. Fish ID: Sval (Svalbard)\_sampling year (2008, 2009 and 2010)\_individual number. Scale analysis: identification of fish as having had natural or hatchery life history from analyses of growth patterns on fish scales. STRUCTURE p(wild): minimum estimate of proportion of wild genome membership from pairwise comparisons with 12 farmed strains. Direct assignment: either wild or farm, depending on if the fish was assigned to any of 12 farmed strains, or to any of 60 wild salmon populations. Average p farm: average probability of belonging to any of 12 farmed strains. No. of farms p > 0.01: number of farmed strains to which a fish had a probability >0.01 of belonging. NA: data not available. Individuals classified as escaped farmed Atlantic salmon are **in bold**

ID	Scale analysis	STRUCTURE p(wild)	Direct assignment	Average p farm	No. of farms p > 0.01
Sval_08_01	Wild	0.974	Wild	0.000	0
Sval_08_02	Wild? (poor scale quality)	0.990	Wild	0.000	0
Sval_08_03	Wild	0.971	Wild	0.000	0
Sval_08_04	Wild	0.669	Wild	0.006	2
Sval_08_05	NA	0.982	Wild	0.000	0
Sval_08_06	Wild	0.931	Wild	0.002	1
Sval_08_07	NA	0.961	Wild	0.000	0
Sval_08_08	Wild	0.903	Wild	0.000	0
Sval_08_09	Wild	0.986	Wild	0.000	0
<b>Sval_08_10</b>	<b>Farmed/stocked as smolt</b>	<b>0.037</b>	<b>Wild</b>	<b>0.039</b>	<b>10</b>
Sval_08_11	Wild	0.676	Wild	0.000	0
Sval_08_12	Wild	0.985	Wild	0.000	0
Sval_08_13	Wild	0.984	Wild	0.000	0
Sval_08_14	Wild	NA	NA	NA	NA
Sval_08_15	Wild	0.909	Wild	0.000	0
Sval_08_16	NA	0.991	Wild	0.000	0
Sval_08_17	Wild	0.984	Wild	0.001	0

Sval_08_18	Wild	0.928	Wild	0.000	0
Sval_08_19	Wild	0.986	Wild	0.000	0
Sval_08_20	Wild	0.654	Wild	0.001	0
Sval_08_21	Wild	NA	NA	NA	NA
Sval_08_22	Wild	0.988	Wild	0.000	0
Sval_08_23	Wild	0.962	Wild	0.000	0
Sval_08_24	Wild	0.966	Wild	0.000	0
Sval_08_25	Wild	0.984	Wild	0.000	0
Sval_08_26	Wild? (poor scale quality)	0.861	Wild	0.000	0
Sval_08_27	Wild? (poor scale quality)	0.888	Wild	0.002	0
Sval_08_28	Wild	0.770	Wild	0.000	0
Sval_08_29	Wild	0.987	Wild	0.000	0
Sval_08_30	Wild	0.986	Wild	0.000	0
Sval_08_31	Wild	0.978	Wild	0.000	0
Sval_08_32	Wild? (poor scale quality)	0.921	Wild	0.005	1
Sval_08_33	Wild	0.978	Wild	0.000	0
Sval_08_34	Wild	0.971	Wild	0.000	0
Sval_08_35	Wild	0.973	Wild	0.000	0
Sval_08_36	Wild	0.879	Wild	0.000	0
Sval_08_37	Wild	0.694	Wild	0.000	0
Sval_08_38	Wild	0.972	Wild	0.000	0
Sval_08_39	Wild	0.987	Wild	0.000	0
Sval_08_40	Wild	0.977	Wild	0.002	1
Sval_08_41	Wild	0.986	Wild	0.000	0
Sval_08_42	Wild	NA	NA	NA	NA
Sval_09_01	Wild	0.988	Wild	0.001	0
Sval_09_02	Wild	0.907	Wild	0.000	0
Sval_09_03	Wild	0.926	Wild	0.000	0
Sval_09_04	Wild	0.988	Wild	0.000	0
Sval_09_05	Wild	0.983	Wild	0.000	0
Sval_09_06	Wild	0.974	Wild	0.000	0
Sval_09_07	Wild	NA	NA	NA	NA
<b>Sval_09_08</b>	<b>Farmed/stocked as smolt</b>	<b>0.009</b>	<b>Farm</b>	<b>0.052</b>	<b>7</b>
Sval_09_09	Wild	0.975	Wild	0.000	0
Sval_09_10	Wild	0.654	Wild	0.000	0
Sval_09_11	Wild	0.938	Wild	0.000	0
Sval_09_12	Wild	0.986	Wild	0.000	0
Sval_09_13	Wild	0.943	Wild	0.000	0
Sval_09_14	Wild	0.965	Wild	0.000	0
Sval_09_15	Wild	0.939	Wild	0.000	0
Sval_09_16	Wild	0.972	Wild	0.000	0
Sval_09_17	Uncertain	0.909	Wild	0.001	0
Sval_09_18	Wild	0.919	Wild	0.001	0
Sval_09_19	Wild	0.911	Wild	0.000	0
Sval_09_20	Wild	0.910	Wild	0.000	0
Sval_09_21	Wild	NA	NA	NA	NA

Sval_09_22	Wild	0.844	Wild	0.001	0
<b>Sval_09_23</b>	<b>Farmed/stocked as smolt</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
<b>Sval_09_24</b>	<b>Farmed/stocked as smolt</b>	<b>0.519</b>	<b>Wild</b>	<b>0.001</b>	<b>0</b>
<b>Sval_09_25</b>	<b>Farmed/stocked as smolt</b>	<b>0.035</b>	<b>Wild</b>	<b>0.121</b>	<b>11</b>
Sval_09_26	Wild	0.964	Wild	0.000	0
Sval_09_27	Wild	0.994	Wild	0.000	0
Sval_09_28	Wild	0.988	Wild	0.000	0
Sval_09_29	Wild	0.985	Wild	0.000	0
Sval_09_30	Wild	0.989	Wild	0.000	0
Sval_09_31	Wild	0.979	Wild	0.000	0
Sval_09_32	Wild	0.906	Wild	0.000	0
Sval_09_33	Wild	0.993	Wild	0.000	0
Sval_09_34	Wild	0.972	Wild	0.000	0
Sval_09_35	Wild	0.487	Wild	0.018	7
Sval_09_36	Wild	0.984	Wild	0.000	0
Sval_09_37	Wild	0.990	Wild	0.000	0
Sval_09_38	Wild	0.939	Wild	0.001	0
<b>Sval_09_39</b>	<b>Farmed/stocked as smolt</b>	<b>0.005</b>	<b>Farm</b>	<b>0.162</b>	<b>10</b>
Sval_09_40	Wild	0.920	Wild	0.000	0
Sval_09_41	Wild	0.969	Wild	0.000	0
Sval_10_01	Wild	0.875	Wild	0.000	0
Sval_10_02	Wild	0.991	Wild	0.000	0
Sval_10_03	Wild	0.955	Wild	0.001	1
Sval_10_04	Wild	0.960	Wild	0.000	0
Sval_10_05	Wild	0.970	Wild	0.000	0
Sval_10_06	Wild	0.985	Wild	0.000	0
Sval_10_07	Wild	0.850	Wild	0.000	0
Sval_10_08	Wild	0.988	Wild	0.000	0
Sval_10_09	Wild	0.566	Wild	0.001	0
Sval_10_10	Wild	0.945	Wild	0.000	0
Sval_10_11	Wild	0.868	Wild	0.000	0
Sval_10_12	Wild	0.979	Wild	0.001	0
Sval_10_13	Wild	0.938	Wild	0.000	0
Sval_10_14	Wild	0.854	Wild	0.000	0
Sval_10_15	Wild	0.652	Wild	0.002	0
Sval_10_16	Wild	0.991	Wild	0.000	0
Sval_10_17	Wild	0.983	Wild	0.000	0
Sval_10_18	Wild	0.982	Wild	0.000	0
Sval_10_19	Wild	0.874	Wild	0.000	0
Sval_10_20	Wild	0.967	Wild	0.000	0
Sval_10_21	Wild	0.976	Wild	0.000	0
Sval_10_22	Wild	0.954	Wild	0.000	0
<b>Sval_10_23</b>	<b>Farmed/stocked as smolt</b>	<b>0.149</b>	<b>Wild</b>	<b>0.079</b>	<b>9</b>
Sval_10_25	Wild	0.980	Wild	0.000	0
Sval_10_26	Wild	0.984	Wild	0.000	0
Sval_10_27	Wild	0.992	Wild	0.000	0

Sval_10_28	Wild	0.991	Wild	0.000	0
Sval_10_29	Wild	0.585	Wild	0.001	0
Sval_10_30	Wild	NA	NA	NA	NA
Sval_10_31	Wild	NA	NA	NA	NA
Sval_10_32	Wild	0.979	Wild	0.000	0
Sval_10_33	Uncertain	NA	NA	NA	NA
Sval_10_34	Wild	0.874	Wild	0.000	0
Sval_10_35	Wild	NA	NA	NA	NA
<b>Sval_10_36</b>	<b>Farmed/stocked as smolt</b>	<b>0.787</b>	<b>Wild</b>	<b>0.000</b>	<b>0</b>
Sval_10_37	Wild	0.912	Wild	0.000	0
Sval_10_38	Wild	0.988	Wild	0.000	0
Sval_10_39	Wild	0.935	Wild	0.003	1
Sval_10_40	Wild	0.954	Wild	0.000	0
Sval_10_41	Wild	0.982	Wild	0.000	0
Sval_10_42	Wild	0.861	Wild	0.000	0
Sval_10_43	Wild	0.981	Wild	0.001	0
Sval_10_44	Wild	0.988	Wild	0.000	0
Sval_10_45	Wild	0.933	Wild	0.001	0
<b>Sval_10_46</b>	<b>Farmed/stocked as smolt</b>	<b>0.465</b>	<b>Wild</b>	<b>0.004</b>	<b>2</b>
Sval_10_47	Wild	0.877	Wild	0.053	12
Sval_10_48	Wild	0.940	Wild	0.001	0
Sval_10_49	Wild	0.689	Wild	0.000	0
Sval_10_50	Wild	0.708	Wild	0.010	3
<b>Sval_10_51</b>	<b>Uncertain</b>	<b>0.036</b>	<b>Wild</b>	<b>0.029</b>	<b>7</b>
Sval_10_52	Wild	0.986	Wild	0.000	0
Sval_10_53	NA	0.989	Wild	0.000	0
<b>Sval_10_54</b>	<b>NA</b>	<b>0.068</b>	<b>Wild</b>	<b>0.030</b>	<b>9</b>
Sval_10_55	NA	0.984	Wild	0.000	0
Sval_10_56	NA	0.950	Wild	0.000	0