

TITLE: Influence of warming temperatures on coregonine embryogenesis within and among species

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ESM 2 Phenotypic variance component analysis for length-at-hatch (mm) and yolk-sac volume (mm³) from Lake Southern Konnevesi vendace (LK-Vendace (*Coregonus albula*)), Lake Superior cisco (LS-Cisco (*C. artedii*)), and Lake Ontario cisco (LO-Cisco) across each incubation temperature treatment (°C).

Trait	Study Group	T°C	Female			Male			Female:Male			Error	
			σ^2	<i>P</i>	%	σ^2	<i>P</i>	%	σ^2	<i>P</i>	%	σ^2	%
Length-at-Hatch	LK-Vendace	2.2	0.06	<0.001	37.01	0.02	0.011	11.06	0.0	1.0	0.0	0.08	51.93
		4.0	0.07	<0.001	41.39	0.02	0.007	9.74	0.0	1.0	0.0	0.09	48.87
		6.9	0.08	<0.001	49.84	0.0	1.0	0.0	0.01	0.227	3.82	0.08	46.34
		8.0	0.05	<0.001	34.13	0.01	0.239	6.14	0.02	0.033	9.92	0.08	49.81
	LS-Cisco	2.0	0.49	<0.001	61.71	0.01	0.490	1.55	0.01	0.783	0.86	0.28	35.87
		4.4	0.20	<0.001	30.63	<0.01	0.999	<0.01	<0.01	0.910	0.56	0.44	68.81
		6.9	0.18	0.006	31.62	0.0	1.0	0.0	0.11	0.007	18.89	0.28	49.48
		8.9	0.10	0.001	29.00	0.01	0.465	3.17	0.0	1.0	0.0	0.23	67.83
	LO-Cisco	2.0	0.12	<0.001	29.51	<0.01	0.908	0.23	0.0	1.0	0.0	0.28	70.26
		4.4	0.07	<0.001	13.63	<0.01	0.999	<0.01	0.0	1.0	0.0	0.42	86.37
		6.9	0.04	0.001	16.36	0.01	0.208	4.66	0.84	0.840	1.02	0.19	77.96
		8.9	0.02	0.078	8.95	0.0	1.0	0.0	0.05	0.050	12.60	0.21	78.44
	LK-Vendace	2.2	<0.01	0.007	14.06	0.0	1.0	0.0	<0.01	0.830	1.12	<0.01	84.82

Yolk-sac Volume		4.0	<0.01	0.005	20.51	<0.01	0.179	6.71	<0.01	0.373	4.69	<0.01	66.38
		6.9	<0.01	0.007	28.09	<0.01	0.991	0.07	<0.01	<0.001	23.51	<0.01	43.19
		8.0	<0.01	<0.001	32.74	<0.01	0.697	1.39	<0.01	0.008	9.53	<0.01	35.93
	LS-Cisco	2.0	0.02	0.030	25.48	0.0	1.0	0.0	0.01	0.001	20.11	0.04	54.42
		4.4	0.01	0.008	33.64	<0.01	0.784	1.78	0.01	0.050	13.49	0.02	51.10
		6.9	<0.01	0.151	14.07	<0.01	0.846	1.81	0.01	0.058	17.15	0.04	66.98
		8.9	0.02	0.230	8.87	0.01	0.487	4.93	0.02	0.192	10.90	0.13	75.31
	LO-Cisco	2.0	0.02	<0.001	39.32	<0.01	0.816	0.39	0.0	1.0	0.0	0.03	57.63
		4.4	0.02	<0.001	56.43	<0.01	0.468	1.57	0.01	0.293	2.89	0.01	39.11
		6.9	0.04	<0.001	41.84	<0.01	0.999	<0.01	<0.01	0.096	5.55	0.05	52.61
		8.9	0.05	<0.001	32.90	<0.01	0.699	0.80	0.0	1.0	0.0	0.10	66.30