

The following supplement accompanies the article

Migration effort and wild population size influence the prevalence of hybridization between escaped farmed and wild Atlantic salmon

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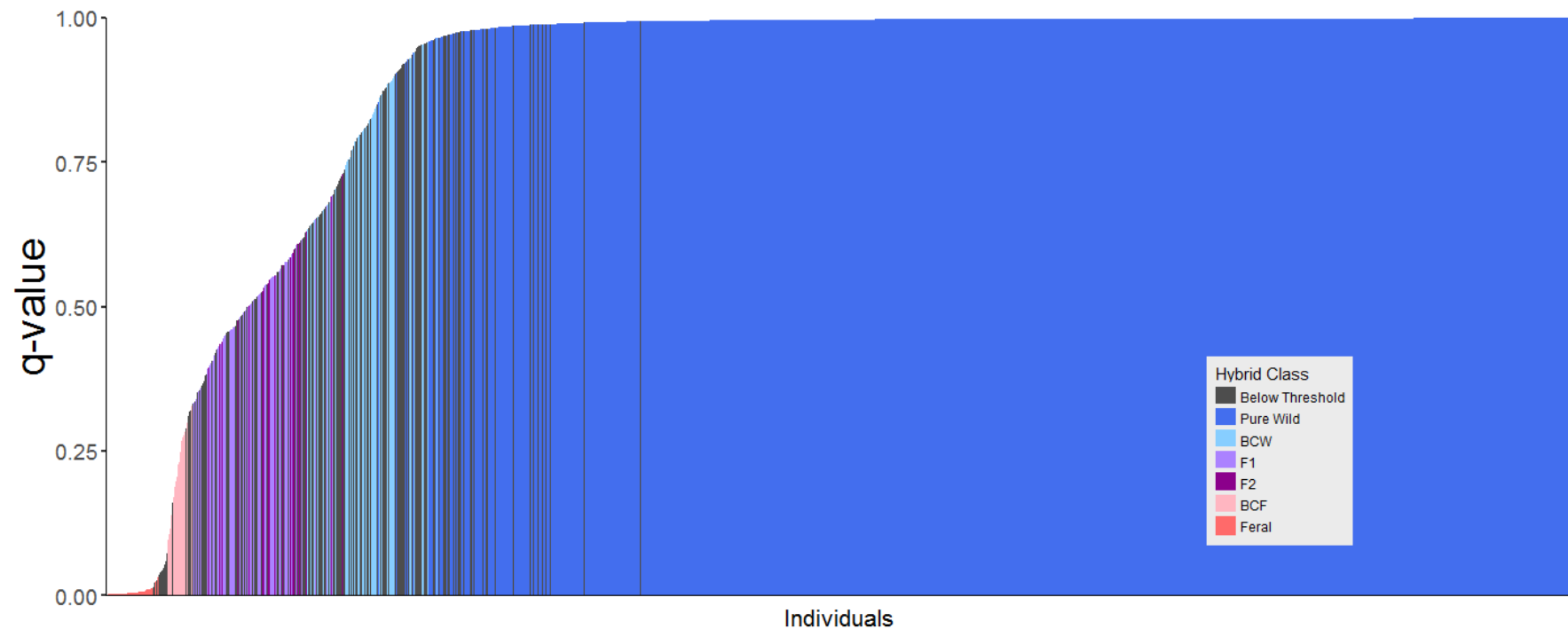


Figure S1: Structure q-values plotted by increasing q-value for $k=2$ analyses using the Karlsson et al. (2014) method (running each individual with simulated, centered baseline individuals: 100 each farmed and wild). Colours indicate classification inferred using NewHybrids, applied at posterior probability threshold of 0.8.



Figure S2: Covariance heat map across among environmental variables

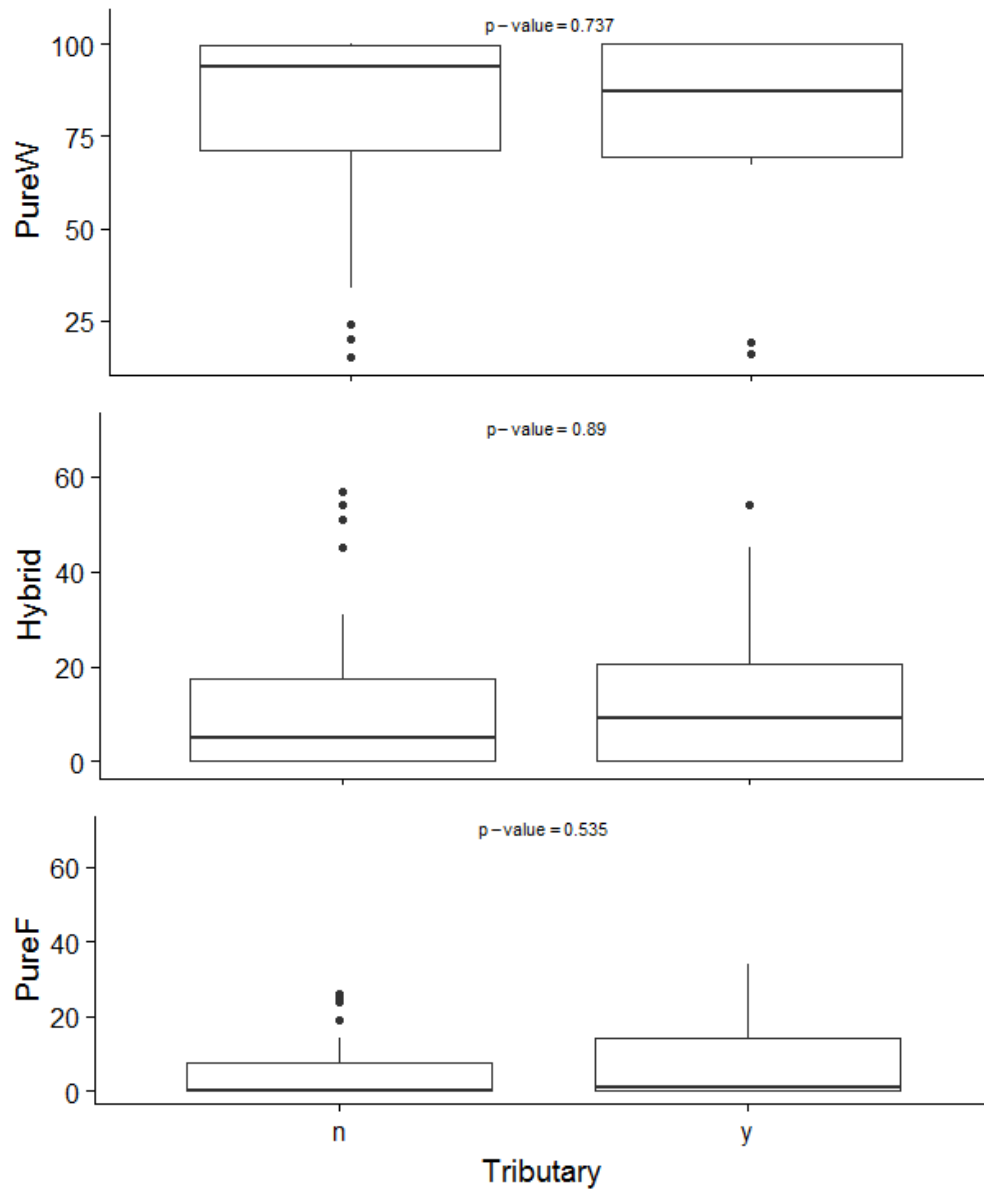


Figure S3: Difference in class composition for each class (pure wild, hybrid, pure farmed) between fish collected along the main river stem (n) and within small tributaries (y). P-values indicate results of t-tests.

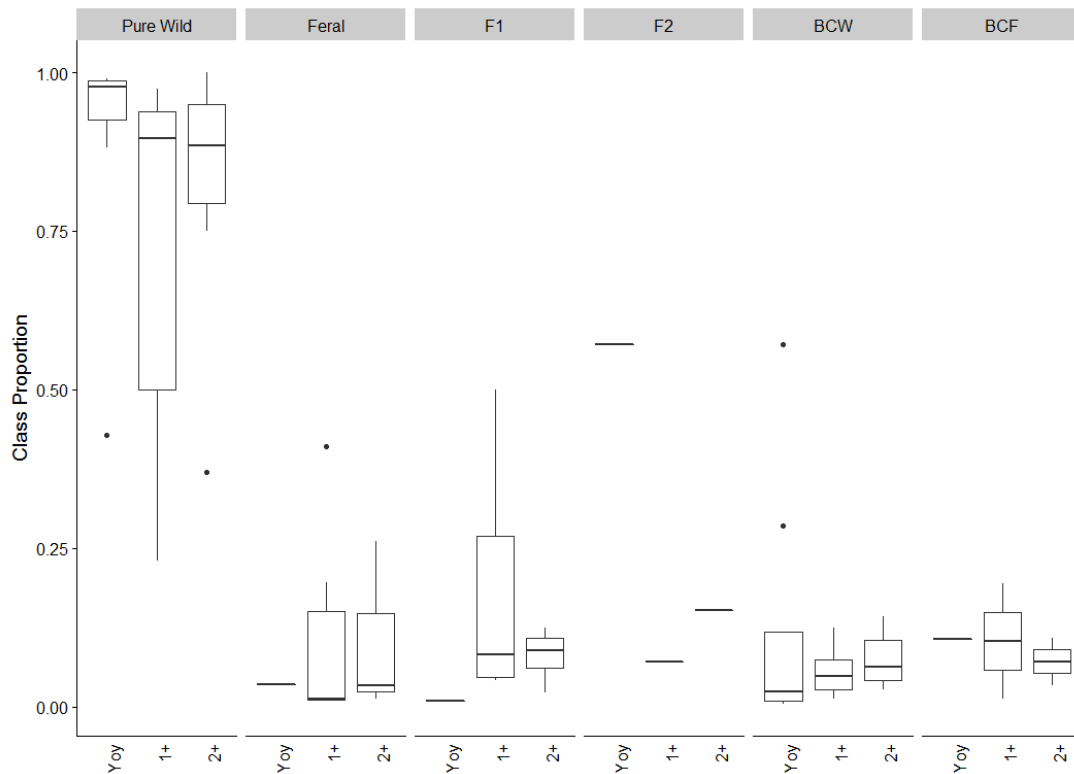


Figure S4: Proportion of individuals assigned to a given hybrid class (facets) by age class. Boxplots represent proportions measured across rivers.

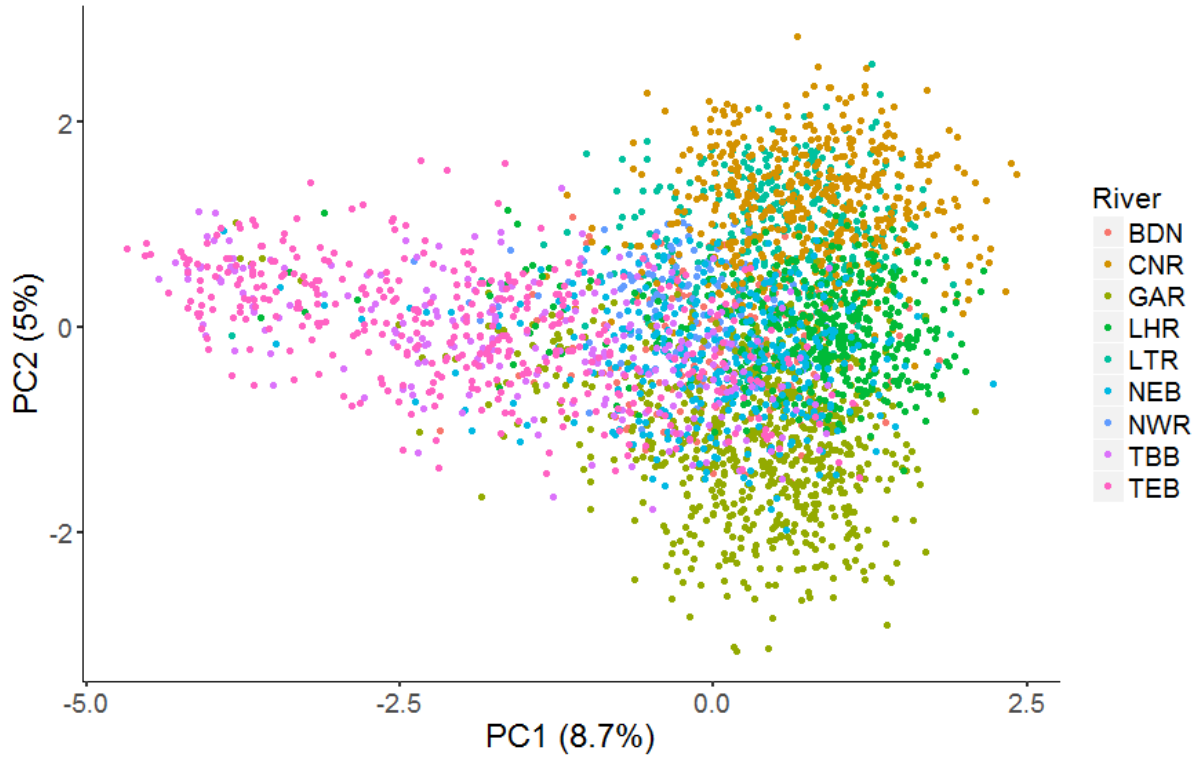


Figure S5: PCA analyses of sampled individuals, coloured according to river of origin

Table S1: Binomial mixed models (model number plus additional terms) for each age class (shown as: “Akaike Information Criteria (marginal R^2 (mR^2), conditional R^2 (cR^2)). Asterisks indicate models in which additional parameters were statistically significant. Bold AICs indicate models with best fit (lowest AIC with significant additional term).

Age No	Model	Wild		Hybrid		Feral	
Yoy	1 Group(River)	172.2*	(-, 0.74)	178.6 *	(-, 0.65)		
	2 1 + Propagule Pressure	173.3	(0.05, 0.75)	180	(0.03, 0.65)		
	3 1 + Basin Area	173.4	(0.08, 0.74)	179.8	(0.85, 0.65)		
	4 1 + Mean Width	174	(0.04, 0.74)	180.2	(0.05, 0.65)		
	5 1 + Perimeter	173.1	(0.09, 0.73)	179.4	(0.09, 0.63)		
	6 1 + Axial Length	172	(0.16, 0.72)	178.2 *	(0.16, 0.62)		
	7 1 + Tributary	173.1	(0.0, 0.74)	179.5	(0.0, 0.65)		
	8 1 + Obstructions	155.2***	(0.20, 0.80)	161.7 ***	(0.22, 0.73)		
	9 1 + Elevation	169.1*	(0.02, 0.73)	175.6 *	(0.02, 0.63)		
	10 1 + Distance	170.6	(0.02, 0.73)	177	(0.02, 0.63)		
	11 1 + Elevation * Distance	172.9	(0.02, 0.73)	179.3	(0.03, 0.63)		
	12 8 + Elevation	156.7	(0.24, 0.83)	163.3	(0.25, 0.76)		
	13 8 + Axial Length	151.9**	(0.43, 0.77)	157.4 *	(0.44, 0.70)		
	14 13+ Elevation	153.1	(0.44, 0.80)	158.9	(0.44, 0.72)		
1+	1 Group(River)	639.8**	(-, 0.36)	432.5 ***	(-, 0.26)	237.6 ***	(-, 0.56)
	2 1 + Propagule Pressure	641	(0.01, 0.36)	434.3	(0.0, 0.26)	237.7	(0.12, 0.55)
	3 1 + Basin Area	640.6	(0.07, 0.36)	433.9	(0.04, 0.25)	236 *	(0.25, 0.56)
	4 1 + Mean Width	640.7	(0.09, 0.37)	433.8	(0.06, 0.26)	237.1	(0.18, 0.57)
	5 1 + Perimeter	639.9	(0.09, 0.35)	433.4	(0.05, 0.24)	235.6 *	(0.30, 0.54)
	6 1 + Axial Length	637.8*	(0.17, 0.35)	431.8	(0.11, 0.23)	234.3 **	(0.40, 0.51)
	7 1 + Tributary	566 ***	(0.04, 0.40)	387.3 ***	(0.04, 0.29)	236.8	(0.0, 0.57)
	8 1 + Obstructions	475.2***	(0.12, 0.59)	326.8 ***	(0.09, 0.50)	214.5 ***	(0.26, 0.64)
	9 1 + Elevation	501.3***	(0.36, 0.54)	339.3 ***	(0.34, 0.45)	216.7 ***	(0.27, 0.66)
	10 1 + Distance	614.2***	(0.31, 0.45)	394.1 ***	(0.34, 0.40)	239.4	(0.05, 0.53)
	11 1 + Elevation * Distance	401.7***	(0.52, 0.68)	321 ***	(0.64, 0.69)	144.8 ***	(0.45, 0.87)
	12 11 + Obstructions	393.9**	(0.52, 0.69)	310.5 **	(0.64, 0.69)	146.8	(0.45, 0.86)
	13 11 + Axial Length	399.5*	(0.61, 0.70)	320.4	(0.64, 0.68)	140.6 **	(0.70, 0.86)
	14 11 + Tributary	358 ***	(0.51, 0.70)	295.5 ***	(0.60, 0.69)	137.9 **	(0.62, 0.92)
	15 14 + Obstructions	339.6***	(0.51, 0.72)	273.1 ***	(0.60, 0.69)	139.1	(0.59, 0.91)
	16 14 + Axial Length	355.8*	(0.61, 0.72)	294.9	(0.63, 0.68)	134.1 **	(0.78, 0.91)
	17 15 + Axial Length	337 *	(0.62, 0.74)	272.4	(0.63, 0.69)	134 **	(0.80, 0.89)
2+	1 Group(River)	556 **	(-, 0.47)	495.9 ***	(-, 0.27)	392.4 **	(-, 0.07)
	2 1 + Propagule Pressure	557.8	(0.01, 0.46)	497.9	(0.0, 0.28)	391.5	(0.04, 0.07)
	3 1 + Basin Area	557.7	(0.04, 0.44)	497.6	(0.03, 0.23)	391.7	(0.06, 0.10)
	4 1 + Mean Width	557.4	(0.07, 0.46)	497.3	(0.07, 0.23)	393	(0.0, 0.06)
	5 1 + Perimeter	557.8	(0.02, 0.45)	497.7	(0.01, 0.24)	392.6	(0.02, 0.07)
	6 1 + Axial Length	557.5	(0.05, 0.44)	497.5	(0.03, 0.22)	391.7	(0.03, 0.09)
	7 1 + Tributary	552.3*	(0.00, 0.48)	470 ***	(0.02, 0.27)	380.4 ***	(0.01, 0.15)
	8 1 + Obstructions	494.7***	(0.38, 0.61)	420.4 ***	(0.37, 0.49)	388.4	(0.01, 0.06)
	9 1 + Elevation	439.3***	(0.26, 0.56)	421.9 ***	(0.27, 0.33)	343.7 ***	0.01, 0.07)
	10 1 + Distance	471.5***	(0.19, 0.55)	440.1 ***	(0.17, 0.35)	353.8 ***	(0.01, 0.08)
	11 1 + Elevation * Distance	438.6***	(0.23, 0.55)	425.2 ***	(0.26, 0.32)	343.5 **	(0.97, 0.98)
	12 11 + Obstructions	440	(0.40, 0.56)	407.5 ***	(0.41, 0.41)	322.1 ***	(0.97, 0.98)
	13 11 + Axial Length	440.2	(0.30, 0.56)	427	(0.30, 0.30)	343.2	(0.99, 0.99)
	14 11 + Tributary	387.8***	(0.27, 0.52)	353 ***	(0.33, 0.33)	333.6 ***	(0.94, 0.95)
	15 14 + Obstructions	389.4	(0.46, 0.54)	345.7 **	(0.43, 0.44)	288 ***	(0.90, 0.90)