

Table S1. Summary AMOVA table carried out on subpopulations sorted by altitude, age, and survival in both Saucillo and Caucon populations and in both studied genes (SNPGORK and SNPPIP1). df, degrees of freedom; SS, sum of squares; MS, Mean squares; Est. Var, Estimated variance (%). Significant results are highlighted in bold.

	Source	df	SS	MS	Est. Var.	%	F-Statistics	Value	P-value/FDR
Saucillo/Survival/ GORK	Among Pops	1	0.618	0.618	0.020	8	Fst	0.082	0.073/0.31
	Among Indiv	39	10.211	0.262	0.033	13	Fis	0.146	0.141
	Within Indiv	41	8.000	0.195	0.195	78	Fit	0.216	0.068
	Total	81	18.829		0.249	100			
CauconCaucon/Survival/ GORK	Among Pops	1	1.357	1.357	0.065	24	Fst	0.267	0.004/0.03
	Among Indiv	76	11.386	0.150	0.000	0	Fis	-0.156	0.910
	Within Indiv	78	16.000	0.205	0.205	76	Fit	0.152	0.092
	Total	155	28.744		0.270	100			
Saucillo/Altitude/ GORK	Among Pops	2	0.274	0.137	0.000	0	Fst	-0.024	0.630/0.9
	Among Indiv	38	10.556	0.278	0.041	17	Fis	0.175	0.110
	Within Indiv	41	8.000	0.195	0.195	83	Fit	0.155	0.115
	Total	81	18.829		0.236	100			
Caucon/Altitude/ GORK	Among Pops	2	0.660	0.330	0.004	2	Fst	0.024	0.150/0.45
	Among Indiv	70	10.326	0.148	0.000	0	Fis	-0.130	0.903
	Within Indiv	73	14.000	0.192	0.192	98	Fit	-0.104	0.748
	Total	145	24.986		0.196	100			
Saucillo/Altitude/ PIP1	Among Pops	2	0.602	0.301	0.000	0	Fst	-0.030	0.787/0.93
	Among Indiv	38	20.325	0.535	0.219	69	Fis	0.691	0.001

	Within	41	4.000	0.098	0.098	31	Fit	0.682	0.001
	Indiv	81	24.927		0.316	100			
...									
Table S1 (continuation)									
	Source	df	SS	MS	Est. Var.	%	F-Statistics	Value	P-value/FDR
...									
Caucon/Altitude/ PIP1	Among	2	0.455	0.227	0.001	0	Fst	-0.007	0.510/0.9
	Pops								
	Among	70	21.504	0.307	0.065	27	Fis	0.266	0.018
	Indiv								
Saucillo/Age/ GORK	Within	73	13.000	0.178	0.178	73	Fit	0.261	0.017
	Indiv								
	Total	145	34.959		0.243	100			
Caucon/Age/ GORK	Among	2	0.444	0.222	0.001	0	Fst	-0.005	0.418/0.9
	Pops								
	Among	33	8.167	0.247	0.013	5	Fis	0.054	0.361
	Indiv								
Saucillo/Age/ PIP1	Within	36	8.000	0.222	0.222	95	Fit	0.050	0.356
	Indiv								
	Total	71	16.611		0.235	100%			
Caucon/Age/ GORK	Among	2	0.308	0.154	0.001	0	Fst	0.001	0.362/0.83
	Pops								
	Among	70	10.678	0.153	0.001	0	Fis	-0.114	0.853
	Indiv								
Saucillo/Age/ PIP1	Within	73	14.000	0.192	0.192	100	Fit	-0.114	0.792
	Indiv								
	Total	145	24.986		0.192	100			
Caucon/Age/ GORK	Among	2	1.444	0.722	0.012	4	Fst	0.041	0.118/0.45
	Pops								
	Among	33	14.500	0.439	0.164	57	Fis	0.596	0.001
	Indiv								
Saucillo/Age/ PIP1	Within	36	4.000	0.111	0.111	39	Fit	0.613	0.001
	Indiv								
	Total	71	19.944		0.287	100			
Caucon/Age/ GORK	Among	2	0.147	0.074	0.001	0	Fst	-0.020	0.944/0.94

PIP1	Pops Among Indiv	70	21.812	0.312	0.067	27	Fis	0.273	0.011
	Within Indiv	73	13.000	0.178	0.178	73	Fit	0.258	0.020
	Total	145	34.959		0.245	100			
