Mix: 0.5, refuges: 1, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.5, refuges: 1, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.5, refuges: 1, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**3.0 2.5 2.0 2.5 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.5, refuges: 3, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.5, refuges: 3, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.5, refuges: 3, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 2.5 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 --40 2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.5, refuges: 4, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15 -7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.5, refuges: 4, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0

Mix: 0.5, refuges: 4, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15**-**0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 **-**0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_WEIBULL.shape FIT\_DISTRIBUTION\_GAMMA.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0

Mix: 0.5, refuges: 5, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 3.0 2.5 2.0 2.5 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.5, refuges: 5, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 -20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.5, refuges: 5, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 3.0 2.5 2.0 2.5 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.25, refuges: 1, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.25, refuges: 1, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**3.0 2.5 2.0 2.5 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.25, refuges: 1, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5

Mix: 0.25, refuges: 3, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.25, refuges: 3, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.25, refuges: 3, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 2.5 3.0 2.0 3.0 2.0 2.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0

Mix: 0.25, refuges: 4, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15 -7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.25, refuges: 4, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.75 -0.0 -0.2 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 -0.09 -7.5 -15 **-**0.07 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 2.5 2.5 2.5 3.0 2.5 2.0 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.20 -0.25 -15 -0.15 -0.00 -10 0.10 --0.25 **-**5 -0.05 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -150 -100 -–25 **-**50 -

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Mix: 0.25, refuges: 4, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.75 -0.0 -0.2 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 -0.09 -7.5 -15 **-**0.07 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 2.5 2.5 2.5 3.0 2.5 2.0 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.20 -0.25 -15 -0.15 -0.00 -10 0.10 --0.25 **-**5 -0.05 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -150 -100 -–25 **-**50 -

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Mix: 0.25, refuges: 5, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 3.0 2.5 2.0 2.5 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.25, refuges: 5, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 3.0 2.5 2.0 2.5 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 -20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.25, refuges: 5, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 -20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0

Mix: 0.1, refuges: 1, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**3.0 2.5 2.0 2.5 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.1, refuges: 1, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**3.0 2.5 2.0 2.5 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.1, refuges: 1, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**3.0 2.5 2.0 2.5 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.1, refuges: 3, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.1, refuges: 3, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 2.5 3.0 2.0 3.0 2.0 2.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.1, refuges: 3, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 2.5 3.0 2.0 3.0 2.0 2.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 2.5 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 --40 2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.1, refuges: 4, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15 -7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.1, refuges: 4, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.shape FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 · 20 -0.09 -15 -7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 -0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0

Mix: 0.1, refuges: 4, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15**-**0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 **-**0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.shape FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 -0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5

2.0

2.5

3.0

2.0

2.5

3.0

2.0

longmean

3.0

2.0

2.5

3.0

Mix: 0.1, refuges: 5, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 3.0 2.5 2.0 2.5 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.1, refuges: 5, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 -20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.1, refuges: 5, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 3.0 2.5 2.0 2.5 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.slope FST\_STATS.pval FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.05, refuges: 1, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.05, refuges: 1, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**3.0 2.5 2.0 2.5 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.05, refuges: 1, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**3.0 2.5 2.0 2.5 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.05, refuges: 3, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.05, refuges: 3, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 2.5 3.0 2.0 3.0 2.0 2.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.05, refuges: 3, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 2.5 3.0 2.0 3.0 2.0 2.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0

longmean

Mix: 0.05, refuges: 4, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15 -7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.05, refuges: 4, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5

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Mix: 0.05, refuges: 4, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.75 -0.0 -0.2 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 -0.09 -7.5 -15 **-**0.07 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 2.5 2.5 2.5 3.0 2.5 2.0 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.20 -0.25 -15 -0.15 -0.00 -10 0.10 --0.25 **-**5 -0.05 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -150 -100 -–25 **-**50 -

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Mix: 0.05, refuges: 5, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 3.0 2.5 2.0 2.5 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.05, refuges: 5, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 3.0 2.5 2.0 2.5 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 -20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.05, refuges: 5, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 3.0 2.5 2.0 2.5 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 -20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.5, refuges: 1, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.5, refuges: 1, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5

longmean

Mix: 0.5, refuges: 1, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.5, refuges: 3, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 2.0 3.0 2.0 3.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 3.0 2.5 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.5, refuges: 3, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.5, refuges: 3, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.5, refuges: 4, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15**-**0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.5 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.0 2.5 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 **-**0.15 -0.00 -0.3 -10 -0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 2.5 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.5, refuges: 4, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15 -7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.0 2.5 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5

2.5

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longmean

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Mix: 0.5, refuges: 4, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 -0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.5, refuges: 5, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.5, refuges: 5, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 FEROZYGOSITY\_STATS.mean\_high HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0

longmean

Mix: 0.5, refuges: 5, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.25, refuges: 1, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.5 TEROZYGOSITY\_STATS.mean\_low EROZYGOSITY\_STATS.mean\_high FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.25, refuges: 1, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.25, refuges: 1, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 EROZYGOSITY\_STATS.mean\_high HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.25, refuges: 3, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.25, refuges: 3, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.25, refuges: 3, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.25, refuges: 4, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15**-**0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.5 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.0 2.5 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 -0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -

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Mix: 0.25, refuges: 4, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_WEIBULL.shape FIT\_DISTRIBUTION\_GAMMA.shape FST\_STATS.intercept 20 · 20 -0.09 -15 -7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.0 2.5 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 -0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 2.5 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -

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Mix: 0.25, refuges: 4, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15**-**0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15 -7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 2.5 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.25, refuges: 5, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 2.5 FEROZYGOSITY\_STATS.mean\_high HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.25, refuges: 5, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.25, refuges: 5, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 3.0 2.5 2.0 2.5 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.1, refuges: 1, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.1, refuges: 1, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.1, refuges: 1, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.1, refuges: 3, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 2.5 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 --40 2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.1, refuges: 3, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 2.5 3.0 2.0 3.0 2.0 2.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.1, refuges: 3, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.1, refuges: 4, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15**-**0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.5 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.0 2.5 2.5 3.0 2.0 2.5 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 **-**0.15 -0.00 -0.3 -10 -0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 2.5 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.1, refuges: 4, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.5 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15 -7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.0 2.5 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 **-**0.15 -0.00 -0.3 -10 -0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -

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Mix: 0.1, refuges: 4, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_WEIBULL.shape FIT\_DISTRIBUTION\_GAMMA.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.0 2.5 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 **-**0.15 -0.00 -0.3 -10 -0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.1, refuges: 5, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 FEROZYGOSITY\_STATS.mean\_high HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.1, refuges: 5, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 3.0 2.5 2.0 2.5 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 FEROZYGOSITY\_STATS.mean\_high HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0

Mix: 0.1, refuges: 5, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 3.0 2.5 2.0 2.5 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.05, refuges: 1, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.05, refuges: 1, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.05, refuges: 1, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.05, refuges: 3, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.05, refuges: 3, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.05, refuges: 3, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.05, refuges: 4, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.5 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.shape FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.0 2.5 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0

Mix: 0.05, refuges: 4, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15 -7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 **-**0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0

Mix: 0.05, refuges: 4, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.shape FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 · 20 -0.09 -15 -7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 **-**0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 2.5 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.05, refuges: 5, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 3.0 2.5 2.0 2.5 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 2.5 FEROZYGOSITY\_STATS.mean\_high HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.05, refuges: 5, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 3.0 2.5 2.0 2.5 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.05, refuges: 5, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 3.0 2.5 2.0 2.5 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.5, refuges: 1, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.5, refuges: 1, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.5, refuges: 1, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.5, refuges: 3, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 2.0 3.0 2.0 3.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.5, refuges: 3, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.5, refuges: 3, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.5, refuges: 4, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15 -7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 **-**0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.5, refuges: 4, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 **-**0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0

Mix: 0.5, refuges: 4, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15**-**0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 **-**0.15 -0.00 -0.3 -10 -0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0

Mix: 0.5, refuges: 5, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.5, refuges: 5, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.5, refuges: 5, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 -20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.25, refuges: 1, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5

Mix: 0.25, refuges: 1, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.25, refuges: 1, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.25, refuges: 3, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 . 5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 3.0 2.5 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.25, refuges: 3, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 . 5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.25, refuges: 3, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 . 5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 TEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.25, refuges: 4, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_WEIBULL.shape FIT\_DISTRIBUTION\_GAMMA.shape FST\_STATS.intercept 20 · 20 -0.09 -15 -7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.25, refuges: 4, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_WEIBULL.shape FIT\_DISTRIBUTION\_GAMMA.shape FST\_STATS.intercept 20 · 20 -0.09 -15 -7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 **-**0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.25, refuges: 4, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15**-**0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 **-**0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 **-**0.15 -0.00 -0.3 -10 -0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -

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longmean

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3.0

Mix: 0.25, refuges: 5, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0

Mix: 0.25, refuges: 5, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 -20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.25, refuges: 5, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 -20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 FEROZYGOSITY\_STATS.mean\_high HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.1, refuges: 1, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.1, refuges: 1, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.1, refuges: 1, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.1, refuges: 3, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.1, refuges: 3, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.1, refuges: 3, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 2.5 3.0 2.0 3.0 2.0 2.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.1, refuges: 4, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_WEIBULL.shape FIT\_DISTRIBUTION\_GAMMA.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 -0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.1, refuges: 4, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.shape FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 -0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0

Mix: 0.1, refuges: 4, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 -0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0

Mix: 0.1, refuges: 5, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 2.5 FEROZYGOSITY\_STATS.mean\_high HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.1, refuges: 5, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.1, refuges: 5, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.05, refuges: 1, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.05, refuges: 1, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.05, refuges: 1, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.05, refuges: 3, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 3.0 2.5 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.05, refuges: 3, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.05, refuges: 3, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.05, refuges: 4, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15 -7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.05, refuges: 4, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15 -7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.05, refuges: 4, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15**-**0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 **-**0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0

Mix: 0.05, refuges: 5, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0

Mix: 0.05, refuges: 5, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.05, refuges: 5, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.5, refuges: 1, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.5, refuges: 1, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.5, refuges: 1, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5

Mix: 0.5, refuges: 3, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 2.0 3.0 2.0 3.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.5, refuges: 3, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 2.0 3.0 2.0 3.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.5, refuges: 3, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.5, refuges: 4, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15**-**0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 -0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_mid\_ TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.5, refuges: 4, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_WEIBULL.shape FIT\_DISTRIBUTION\_GAMMA.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.0 2.5 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 2.5 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.5, refuges: 4, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15**-**0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_WEIBULL.shape FIT\_DISTRIBUTION\_GAMMA.shape FST\_STATS.intercept 20 · 20 -0.09 -15 -7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 -0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 2.5 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -

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Mix: 0.5, refuges: 5, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 2.5 FEROZYGOSITY\_STATS.mean\_high HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.5, refuges: 5, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 FEROZYGOSITY\_STATS.mean\_high HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0

Mix: 0.5, refuges: 5, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 FEROZYGOSITY\_STATS.mean\_high HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0

Mix: 0.25, refuges: 1, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.25, refuges: 1, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5

Mix: 0.25, refuges: 1, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.25, refuges: 3, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 2.0 3.0 2.0 3.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 . 5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 3.0 2.5 TEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.25, refuges: 3, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 2.0 3.0 2.0 3.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 2.5 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 --40

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Mix: 0.25, refuges: 3, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0

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Mix: 0.25, refuges: 4, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15**-**0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.5 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.0 2.5 FST\_STATS.rsq FST\_STATS.pval FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 2.5 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

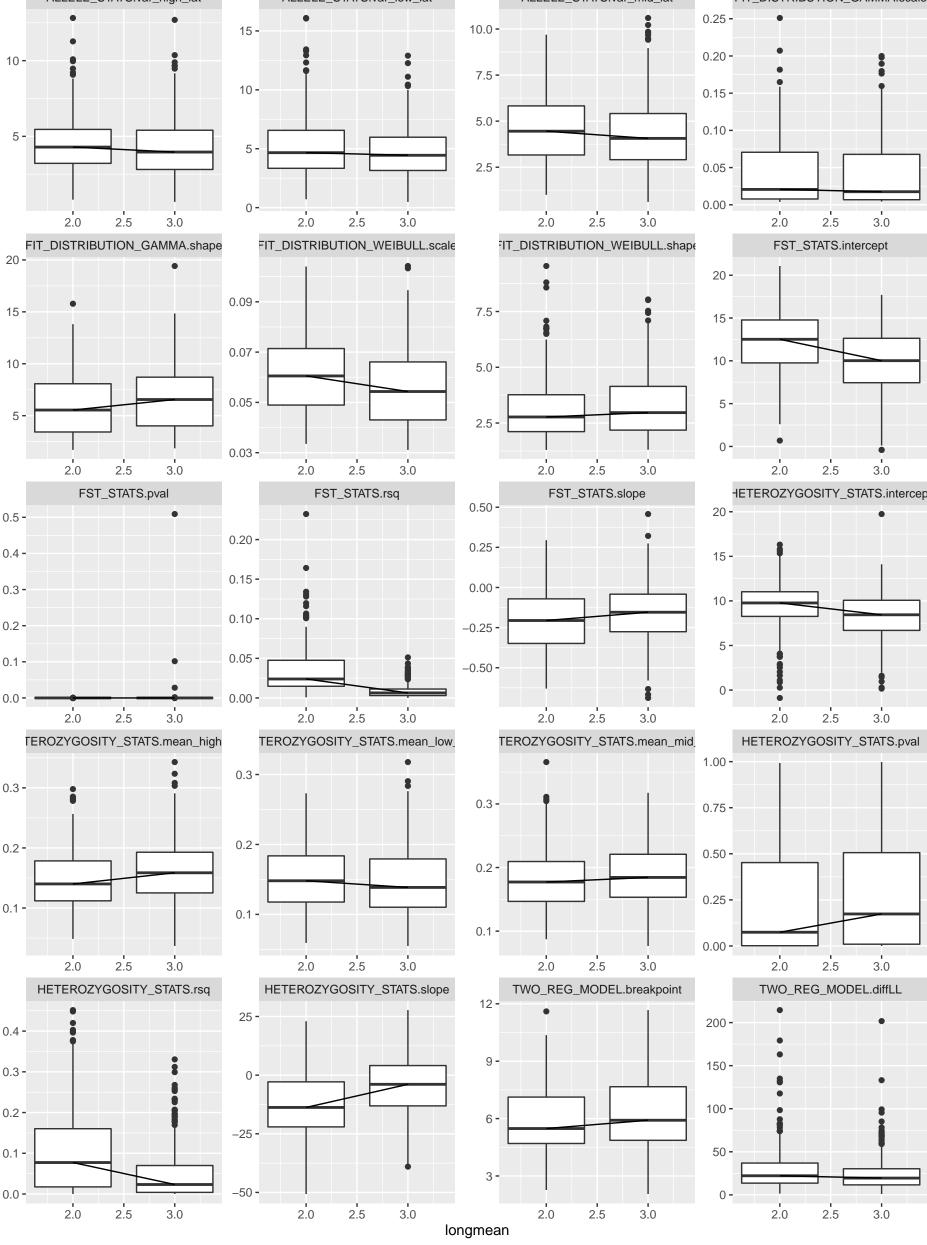
Mix: 0.25, refuges: 4, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.75 -0.0 -0.2 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 -0.09 -7.5 -15 **-**0.07 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 2.5 2.5 2.5 3.0 2.0 2.5 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.20 -0.25 -15 -0.15 -0.00 -10 0.10 --0.25 **-**5 -0.05 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.5 2.0 2.5 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -150 -100 -

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Mix: 0.25, refuges: 4, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15**-**0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 -0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 2.5 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -

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Mix: 0.25, refuges: 5, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.25, refuges: 5, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 FEROZYGOSITY\_STATS.mean\_high HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0

Mix: 0.25, refuges: 5, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.1, refuges: 1, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.1, refuges: 1, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 -10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**3.0 2.5 2.0 2.5 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.1, refuges: 1, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5

Mix: 0.1, refuges: 3, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.1, refuges: 3, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.1, refuges: 3, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.1, refuges: 4, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15**-**0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.5 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.0 2.5 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 -0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.1, refuges: 4, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.5 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_WEIBULL.shape FIT\_DISTRIBUTION\_GAMMA.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.0 2.5 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 -0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 2.5 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.1, refuges: 4, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15**-**0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.0 2.5 2.5 3.0 2.0 2.5 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 -0.15 -0.00 -0.3 -10 -0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 2.5 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -

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Mix: 0.1, refuges: 5, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 2.5 FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.1, refuges: 5, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 3.0 2.5 2.0 2.5 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.1, refuges: 5, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 FEROZYGOSITY\_STATS.mean\_high HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0

Mix: 0.05, refuges: 1, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low EROZYGOSITY\_STATS.mean\_high FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.05, refuges: 1, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.05, refuges: 1, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.25 -20 -0.3 -0.75 -0.00 -15 **-**0.2 -0.50 10--0.25 **-**0.1 -5 -0.25 --0.500.00 0.0 --0.75 **-**2.5 2.0 2.5 3.0 2.0 3.0 2.0 3.0 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat 12.5 0.20 -10.0 -10 -10-0.15 -7.5 -0.10 -5.0 -0.05 -2.5 -0.00 -2.5 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 10.0 -20 -0.09 -7.5 -15 -10 -0.07 -10 -5.0 -5 -0.05 0.03 -3.0 value 2.0 2.5 3.0 2.5 2.0 2.5 3.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.12 -15 **-**0.25 -0.75 -0.08 -0.00 -10 0.50 --0.25 · 0.04 -5 -0.25 --0.50 **-**0.00 -0.00 -2.5 2.0 2.5 3.0 3.0 2.5 2.0 2.5 HETEROZYGOSITY\_STATS.pval EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 -2.0 2.5 2.0 3.0 2.5 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 200 -20 -9 -0.4 -150 **-**0 -100 -0.2 --20 **-**50 -0.0 -0 -2.5 2.0 3.0 3.0 2.5 2.0 2.5 3.0 2.0 3.0 2.0 2.5 longmean

Mix: 0.05, refuges: 3, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 TEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.05, refuges: 3, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 2.0 3.0 2.0 3.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 2.5 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 --40 2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0

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Mix: 0.05, refuges: 3, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.3 -0.3 -20 -0.75 -0.0 -0.2 -15 **-**0.50 --0.3 **-**10 -0.1 -0.25 --0.6 **-**0.00 -0.0 2.5 3.0 3.0 2.0 3.0 2.0 2.0 2.5 2.5 2.0 2.5 3.0 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 9 -0.15 -10 -10 -0.10 -0.05 -3 -0.00 -2.0 2.0 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape IT\_DISTRIBUTION\_WEIBULL.shap FIT\_DISTRIBUTION\_WEIBULL.scale FST\_STATS.intercept 20 -0.100 -10.0 -12**-**15 **-**7.5 -0.075 -10 -5.0 -0.050 -5 · 2.5 2.0 2.5 3.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 16 **-**0.25 -0.6 -0.09 -12 -0.00 -0.4 -0.06 --0.250.2 -0.03 --0.50 **-**0.00 --0.75 **-**2.5 3.0 2.0 2.5 3.0 2.5 2.5 3.0 HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid FEROZYGOSITY\_STATS.mean\_high 0.4 -0.3 -1.00 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.1 -0.25 -0.1 -0.1 -0.00 2.0 2.5 2.5 3.0 3.0 2.0 2.5 2.0 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 20 -0.4 -9 -200 -0 -6 -0.2 -100 --20 **-**3 -0.0 -2.5 3.0 2.5 2.5 2.0 2.0 3.0 2.0 3.0 2.0 2.5 3.0 Iongmean

Mix: 0.05, refuges: 4, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.5 2.0 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_WEIBULL.shape FIT\_DISTRIBUTION\_GAMMA.shape FST\_STATS.intercept 20 · 20 -0.09 -15**-**7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.0 2.5 FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 **-**0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_mid\_ TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 2.5 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.0 2.5 3.0 longmean

Mix: 0.05, refuges: 4, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.3 -0.75 -0.0 -0.2 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 -0.09 -7.5 -15 **-**0.07 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 2.5 2.5 2.5 3.0 2.0 2.5 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.20 -0.25 -15 **-**0.15 -0.00 -10 0.10 --0.25 **-**5 -0.05 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_high 1.00 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 2.5 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -150 -100 -–25 **-**50 -

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Mix: 0.05, refuges: 4, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.3 -20 -0.75 -15 -0.0 -0.2 -10 -0.50 -0.1 --0.5 **-**0.25 -0.00 0.0 -2.0 2.5 2.5 3.0 2.5 3.0 2.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.25 -10.0 -15 -0.20 -10 -7.5 **-**10 -0.15 -5.0 -0.10 -2.5 -0.05 -0.00 2.0 2.5 2.0 2.5 3.0 2.0 2.5 3.0 2.0 3.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale FIT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 · 20 -0.09 -15 -7.5 -15 **-**0.07 -10 -10 -5.0 -0.05 2.5 -0.03 -3.0 3.0 2.0 value 2.5 2.5 2.5 3.0 2.5 2.0 HETEROZYGOSITY\_STATS.intercep FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope 0.50 20 -0.5 -0.20 -0.25 -0.4 -15 **-**0.15 -0.00 -0.3 -10 0.10 -0.2 --0.25 **-**5 -0.05 -0.1 --0.50 **-**0.00 2.5 2.0 2.5 2.5 3.0 2.0 2.5 TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_mid\_ HETEROZYGOSITY\_STATS.pval 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.2 -0.50 -0.2 -0.25 -0.1 -0.1 -0.00 -2.5 3.0 2.0 2.5 2.0 2.0 2.5 2.0 2.5 3.0 HETEROZYGOSITY\_STATS.rsq HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint TWO\_REG\_MODEL.diffLL 25 **-**200 -0.4 -150 -0.3 -100 -0.2 -–25 **-**50 -0.1 -0.0 -0 -

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Mix: 0.05, refuges: 5, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean

Mix: 0.05, refuges: 5, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 FEROZYGOSITY\_STATS.mean\_high HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0

longmean

Mix: 0.05, refuges: 5, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -20 -0.3 -0.75 -15 **-**0.0 -0.2 -0.50 -10 -0.1 --0.5 · 0.25 -0.00 -0.0 3.0 2.5 2.5 2.0 2.5 3.0 3.0 2.0 2.0 2.5 3.0 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale 12.5 16**-**0.20 -15 **-**10.0 -12 -0.15 -7.5 -10 -8 -0.10 -5.0 -0.05 -2.5 -0.00 2.5 2.5 3.0 2.0 2.0 3.0 2.0 2.5 3.0 2.0 2.5 3.0 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 20 0.11 -20 -15 -10 -0.09 -15 **-**10 -0.07 -10 5 -5 -0.05 -0.03 -2.0 3.0 value 2.5 3.0 2.5 3.0 2.5 2.0 2.5 FST\_STATS.pval FST\_STATS.slope FST\_STATS.rsq HETEROZYGOSITY\_STATS.intercep 0.20 20 -0.25 -0.10 -15 -0.15 -0.00 -10 . 0.10 --0.250.05 -0.05 --0.50 **-**0 -0.00 -0.00 --0.75 **-**2.5 2.5 2.0 2.5 3.0 2.0 2.0 3.0 2.5 HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low\_ TEROZYGOSITY\_STATS.mean\_mid 1.00 -0.3 -0.3 -0.3 -0.75 -0.2 -0.50 -0.2 -0.2 -0.25 0.1 -0.1 -0.00 2.5 2.0 2.5 2.0 3.0 2.0 3.0 HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq TWO\_REG\_MODEL.diffLL 0.6 -20 -10.0 -200 -0.4 -7.5 -100 -5.0 --20 **-**0.2 -2.5 --40 **-**0.0 -2.0 3.0 2.0 2.5 2.5 3.0 2.0 2.5 3.0 2.0 2.5 3.0 longmean