Mix: 0.1, longmean: 1.5, shortscale: 0.5, Glac front: 20, Marginal decrease: 1 ALLELE_STATS.rsq ALLELE_STATS.intercept ALLELE_STATS.pval ALLELE_STATS.slope 25 -1.00 -0.0 -0.6 20 0.75 --0.2 **-**0.4 15 0.50 --0.4 -0.2 -0.6 0.25 -10 --0.8 0.00 -0.0 ALLELE_STATS.var_high_lat ALLELE_STATS.var_low_lat ALLELE_STATS.var_mid_lat FIT_DISTRIBUTION_GAMMA.scale 25 -16 -20 -0.20 20 -12 15 **-**0.15 15 **-**8 10 -0.10 -10-0.05 0.00 -0 -FIT_DISTRIBUTION_GAMMA.shape FIT_DISTRIBUTION_WEIBULL.scale IT_DISTRIBUTION_WEIBULL.shap FST_STATS.intercept 25 -16-0.4 -5 20 -12 **-**0.3 -15 8 -0.2 -10 -0.1 IETEROZYGOSITY_STATS.intercep FST_STATS.pval FST_STATS.rsq FST_STATS.slope 15 **-**1.0e-04 **-**0.0 -0.3 -12 -7.5e-05 **-**-0.2 · 0.2 -5.0e-05 --0.4 **-**0.1 -0.6 2.5e-05 -6 --0.8 0.0e+00 -0.0 -EROZYGOSITY_STATS.mean_high TEROZYGOSITY_STATS.mean_low FEROZYGOSITY_STATS.mean_mid HETEROZYGOSITY_STATS.pval 1.00 0.25 -0.3 -0.3 0.20 -0.75 0.15 -0.2 -0.2 -0.50 0.10 -0.25 0.1 0.05 HETEROZYGOSITY_STATS.rsq TWO_REG_MODEL.diffLL HETEROZYGOSITY_STATS.slope TWO_REG_MODEL.breakpoint 12 -20 -0.6 -400 -9 0 -300 -0.4 --20 **-**6 -200 -0.2 100 --40 **-**

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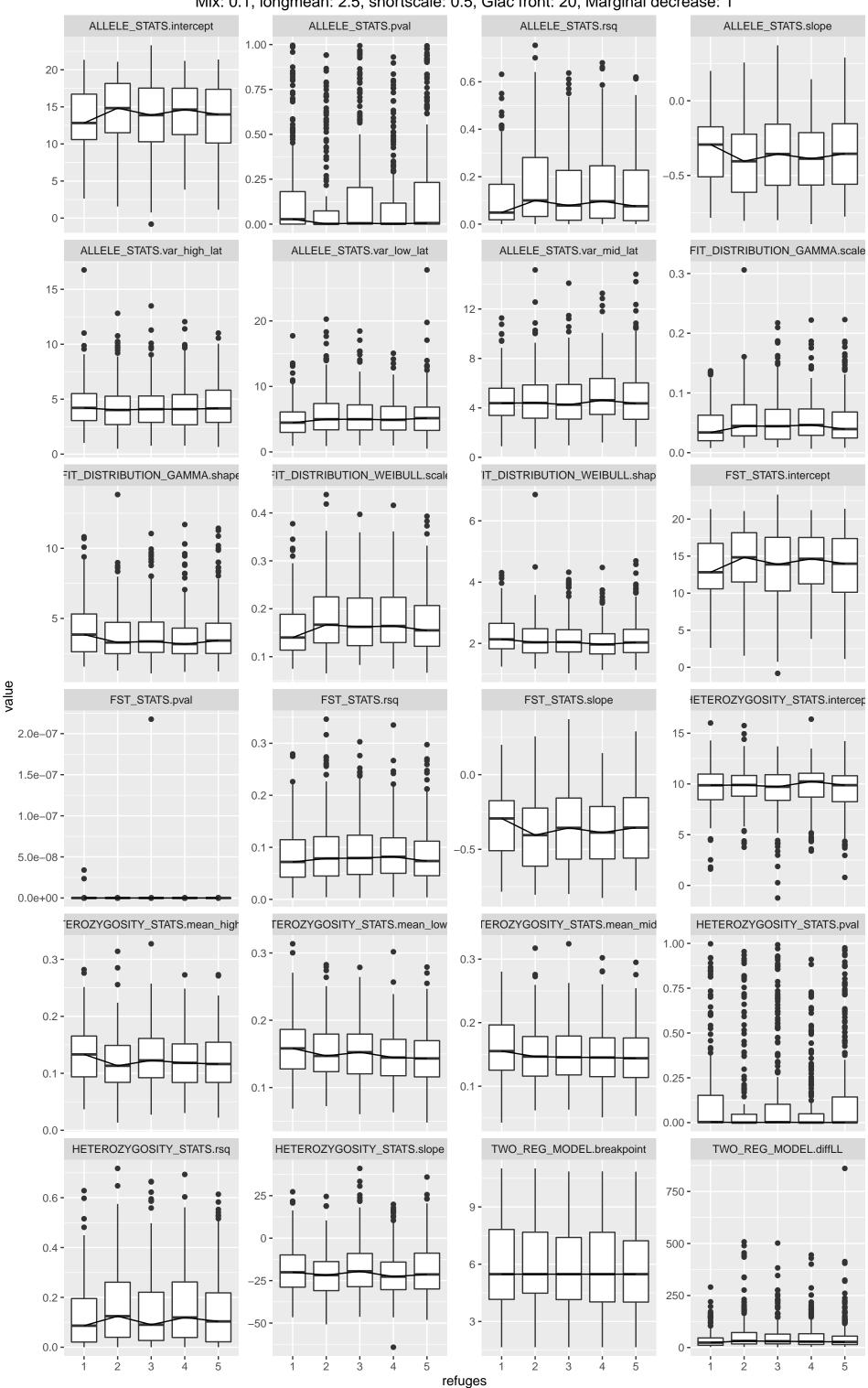
refuges

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Mix: 0.1, longmean: 2, shortscale: 0.5, Glac front: 20, Marginal decrease: 1 ALLELE_STATS.rsq ALLELE_STATS.intercept ALLELE_STATS.pval ALLELE_STATS.slope 1.00 -0.3 -20 0.6 -0.75 -0.0 -15 0.4 -0.50 --0.3 **-**10 0.2 -0.25 --0.6 **-**5 -0.00 -0.0 -0 -ALLELE_STATS.var_high_lat ${\sf ALLELE_STATS.var_low_lat}$ ALLELE_STATS.var_mid_lat FIT_DISTRIBUTION_GAMMA.scale 15 **-**0.15 -10-20 -10 -0.10 -10-5 -5 -0.05 0 -0.00 -FIT_DISTRIBUTION_GAMMA.shape FIT_DISTRIBUTION_WEIBULL.scale IT_DISTRIBUTION_WEIBULL.shape FST_STATS.intercept 0.4 -6 -15 **-**20 0.3 -15 -4 -10 10 -0.2 -5 -2 -5. value HETEROZYGOSITY_STATS.intercep FST_STATS.pval FST_STATS.rsq ${\sf FST_STATS}. {\sf slope}$ 8e-08 0.3 -15**-**0.3 -6e-08 -0.0 -0.2 -10-4e-08 --0.3 **-**2e-08 5 --0.6 **-**0e+00 **-**0.0 -FEROZYGOSITY_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 -0.2 -0.25 -0.1 0.1 -0.00 -HETEROZYGOSITY_STATS.rsq HETEROZYGOSITY_STATS.slope TWO_REG_MODEL.breakpoint TWO_REG_MODEL.diffLL 12 -500 -20 -0.6 -400 -9 -0 -300 -0.4 6 -200 --20 **-**0.2 100 -3 --40 **-**0.0 -0 -3 5 3 2 3 4 2 3 5 5 4 5 2 4 refuges

Mix: 0.1, longmean: 2.5, shortscale: 0.5, Glac front: 20, Marginal decrease: 1



Mix: 0.1, longmean: 3, shortscale: 0.5, Glac front: 20, Marginal decrease: 1 ALLELE_STATS.intercept ALLELE_STATS.pval ALLELE_STATS.rsq ALLELE_STATS.slope 1.00 -0.6 -20 -0.75 -0.0 -15 **-**0.4 -0.50 10 --0.5 **-**0.2 -0.25 -5 -0.00 -0 -0.0 -ALLELE_STATS.var_high_lat ALLELE_STATS.var_mid_lat ALLELE_STATS.var_low_lat FIT_DISTRIBUTION_GAMMA.scale 20 -0.20 -15 **-**15 **-**10-0.15 10 -10 -0.10 -5 -5 -0.05 -0.00 FIT_DISTRIBUTION_GAMMA.shape FIT_DISTRIBUTION_WEIBULL.scale FIT_DISTRIBUTION_WEIBULL.shape FST_STATS.intercept 20 -20 -0.4 15 **-**15 0.3 -10 -10 0.2 -5 · 5 value HETEROZYGOSITY_STATS.intercep FST_STATS.pval FST_STATS.rsq FST_STATS.slope 15 0.3 -0.75 -0.0 -10 -0.2 0.50 --0.5 **-**0.25 -0.1 -5 0.0 0.00 -FEROZYGOSITY_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 -0.2 -0.50 -0.1 -0.25 -0.1 -0.1 HETEROZYGOSITY_STATS.rsq HETEROZYGOSITY_STATS.slope TWO_REG_MODEL.breakpoint TWO_REG_MODEL.diffLL 12 -0.6 -20 750 **-**9 -0 -0.4 -500 -6 --20 **-**0.2 -250 **-**-40 **-**3 -3 2 5 2 3 5 3 5 4 5 3

Mix: 0.05, longmean: 1.5, shortscale: 0.5, Glac front: 20, Marginal decrease: 1 ALLELE_STATS.intercept ALLELE_STATS.pval ALLELE_STATS.rsq ALLELE_STATS.slope 25 -1.00 -0.0 -0.6 20 0.75 --0.2 **-**0.4 15 0.50 --0.4 -0.2 -0.6 0.25 -10 --0.8 0.00 -0.0 ALLELE_STATS.var_high_lat ALLELE_STATS.var_low_lat ALLELE_STATS.var_mid_lat FIT_DISTRIBUTION_GAMMA.scale 25 -16 -20 -0.20 20 -12 15 **-**0.15 15 **-**8 10 -0.10 -10-0.05 0.00 -0 -FIT_DISTRIBUTION_GAMMA.shape FIT_DISTRIBUTION_WEIBULL.scale IT_DISTRIBUTION_WEIBULL.shap FST_STATS.intercept 25 -16-0.4 -5 20 -12 **-**0.3 -15 8 -0.2 -10 0.1 value IETEROZYGOSITY_STATS.intercep FST_STATS.pval FST_STATS.rsq FST_STATS.slope 15 **-**1.0e-04 **-**0.0 -0.3 -12 -7.5e-05 **-**-0.2 · 0.2 -5.0e-05 --0.4 **-**0.1 -0.6 2.5e-05 -6 --0.8 0.0e+00 -0.0 -EROZYGOSITY_STATS.mean_high TEROZYGOSITY_STATS.mean_low FEROZYGOSITY_STATS.mean_mid HETEROZYGOSITY_STATS.pval 1.00 0.25 -0.3 -0.3 0.20 -0.75 0.15 -0.2 -0.2 -0.50 0.10 -0.25 0.1 0.05 HETEROZYGOSITY_STATS.rsq TWO_REG_MODEL.diffLL HETEROZYGOSITY_STATS.slope TWO_REG_MODEL.breakpoint 12 -20 -0.6 -400 -9 0 -300 -0.4 --20 **-**6 -200 -0.2 100 --40 **-**0.0 -0 --60 5 2 2 3 5 ż 3 5 3 4 5

Mix: 0.05, longmean: 2, shortscale: 0.5, Glac front: 20, Marginal decrease: 1 ALLELE_STATS.intercept ALLELE_STATS.pval ALLELE_STATS.rsq ALLELE_STATS.slope 1.00 -0.3 -20 0.6 -0.75 -0.0 -15 0.4 -0.50 --0.3 **-**10 0.2 -0.25 --0.6 **-**5 -0.00 -0.0 -0 -ALLELE_STATS.var_high_lat ${\sf ALLELE_STATS.var_low_lat}$ ALLELE_STATS.var_mid_lat FIT_DISTRIBUTION_GAMMA.scale 15 **-**0.15 -10-20 -10 -0.10 -10-5 -5 -0.05 0 -0.00 -FIT_DISTRIBUTION_GAMMA.shape FIT_DISTRIBUTION_WEIBULL.scale IT_DISTRIBUTION_WEIBULL.shape FST_STATS.intercept 0.4 -6 -15 **-**20 0.3 -15 -4 -10 -10 -0.2 -5 -2 -5. value HETEROZYGOSITY_STATS.intercep FST_STATS.pval FST_STATS.rsq ${\sf FST_STATS}. {\sf slope}$ 8e-08 0.3 -15**-**0.3 -6e-08 -0.0 -0.2 -10-4e-08 --0.3 **-**2e-08 5 --0.6 **-**0e+00 **-**0.0 -FEROZYGOSITY_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 -0.2 -0.25 -0.1 0.1 -0.00 -HETEROZYGOSITY_STATS.rsq HETEROZYGOSITY_STATS.slope TWO_REG_MODEL.breakpoint TWO_REG_MODEL.diffLL 12 -500 -20 -0.6 -400 -9 -0 -300 -0.4 6 -200 --20 **-**0.2 100 -3 --40 **-**0.0 -0 -3 5 3 2 3 4 2 3 5 5 4 5 2 4 refuges

Mix: 0.05, longmean: 2.5, shortscale: 0.5, Glac front: 20, Marginal decrease: 1 ALLELE_STATS.intercept ALLELE_STATS.pval ALLELE_STATS.rsq ALLELE_STATS.slope 1.00 -20 -0.6 0.75 -0.0 -15 -0.4 -0.50 -10 -0.2 --0.50.25 -5 -0 -0.00 -0.0 ALLELE_STATS.var_high_lat ALLELE_STATS.var_low_lat ALLELE_STATS.var_mid_lat FIT_DISTRIBUTION_GAMMA.scale 0.3 -15 -12 -20 -0.2 -10 -10 -0.1 0.0 -FIT_DISTRIBUTION_GAMMA.shape FIT_DISTRIBUTION_WEIBULL.scale IT_DISTRIBUTION_WEIBULL.shap FST_STATS.intercept 0.4 -20 6 -10 -15 0.3 -10 -0.2 -5 0 value FST_STATS.pval FST_STATS.slope IETEROZYGOSITY_STATS.intercep FST_STATS.rsq 2.0e-07 -15 -0.3 -0.0 1.5e-07 **-**10 -0.2 -1.0e-07 -5 0.1 --0.5 5.0e-08 -0 -0.0e+00 -0.0 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 -0.2 -0.50 -0.1 -0.25 -0.00 0.0 -HETEROZYGOSITY_STATS.slope TWO_REG_MODEL.breakpoint TWO_REG_MODEL.diffLL HETEROZYGOSITY_STATS.rsq 750 -25 -0.6 -9 0 -500 -0.4 6 -–25 **-**250 -0.2 --50 **-**3 -0.0 -

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refuges

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Mix: 0.05, longmean: 3, shortscale: 0.5, Glac front: 20, Marginal decrease: 1 ALLELE_STATS.rsq ALLELE_STATS.intercept ALLELE_STATS.pval ALLELE_STATS.slope 1.00 -0.6 -20 -0.75 -0.0 -15 **-**0.4 -0.50 10 --0.50.2 -0.25 -5 -0.00 -0 -0.0 ALLELE_STATS.var_high_lat ALLELE_STATS.var_mid_lat ALLELE_STATS.var_low_lat FIT_DISTRIBUTION_GAMMA.scale 20 -0.20 -15 **-**15 **-**10-0.15 10 -10 -0.10 -5 -5 -0.05 0.00 FIT_DISTRIBUTION_GAMMA.shape FIT_DISTRIBUTION_WEIBULL.scale FIT_DISTRIBUTION_WEIBULL.shape FST_STATS.intercept 20 -20 -0.4 15 **-**15 0.3 -10 -10 0.2 -5 · 5 value HETEROZYGOSITY_STATS.intercep FST_STATS.pval FST_STATS.rsq FST_STATS.slope 15 0.3 -0.75 -0.0 -10 -0.50 -0.2 -0.5 **-**0.25 -0.1 -5 0.0 0.00 -FEROZYGOSITY_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 -0.2 -0.50 -0.1 -0.25 -0.1 -0.1 TWO_REG_MODEL.breakpoint HETEROZYGOSITY_STATS.rsq HETEROZYGOSITY_STATS.slope TWO_REG_MODEL.diffLL 12 -0.6 -20 750 **-**9 -0 -0.4 -500 -6 --20 **-**0.2 -250 **-**-40 **-**3 -

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refuges

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Mix: 0.01, longmean: 1.5, shortscale: 0.5, Glac front: 20, Marginal decrease: 1 ALLELE_STATS.rsq ALLELE_STATS.intercept ALLELE_STATS.pval ALLELE_STATS.slope 25 -1.00 -0.0 -0.6 20 0.75 --0.2 **-**0.4 15 0.50 --0.4 -0.2 -0.6 0.25 -10 --0.8 0.00 -0.0 ALLELE_STATS.var_high_lat ALLELE_STATS.var_low_lat ALLELE_STATS.var_mid_lat FIT_DISTRIBUTION_GAMMA.scale 25 -16 -20 -0.20 20 -12 15 **-**0.15 15 **-**8 10 -0.10 -10-0.05 0.00 -0 -FIT_DISTRIBUTION_GAMMA.shape FIT_DISTRIBUTION_WEIBULL.scale IT_DISTRIBUTION_WEIBULL.shap FST_STATS.intercept 25 -16-0.4 -5 20 -12 **-**0.3 -15 8 -0.2 -10 -0.1 value IETEROZYGOSITY_STATS.intercep FST_STATS.pval FST_STATS.rsq FST_STATS.slope 15 **-**1.0e-04 **-**0.0 -0.3 -12 -7.5e-05 **-**-0.2 · 0.2 -5.0e-05 --0.4 **-**0.1 -0.6 2.5e-05 -6 --0.8 0.0e+00 -0.0 -EROZYGOSITY_STATS.mean_high TEROZYGOSITY_STATS.mean_low FEROZYGOSITY_STATS.mean_mid HETEROZYGOSITY_STATS.pval 1.00 0.25 -0.3 -0.3 0.20 -0.75 0.15 -0.2 -0.2 -0.50 0.10 -0.25 0.1 0.05 HETEROZYGOSITY_STATS.rsq TWO_REG_MODEL.diffLL HETEROZYGOSITY_STATS.slope TWO_REG_MODEL.breakpoint 12 -20 -0.6 -400 -9 0 -300 -0.4 --20 **-**6 -200 -0.2 100 --40 **-**0.0 -0 --60 5 2 2 3 5 ż 3 5 3 4 5

Mix: 0.01, longmean: 2, shortscale: 0.5, Glac front: 20, Marginal decrease: 1 ALLELE_STATS.intercept ALLELE_STATS.pval ALLELE_STATS.rsq ALLELE_STATS.slope 1.00 -0.3 -20 0.6 -0.75 -0.0 -15 0.4 -0.50 --0.3 **-**10 0.2 -0.25 --0.6 **-**5 -0.00 -0.0 -0 -ALLELE_STATS.var_high_lat ${\sf ALLELE_STATS.var_low_lat}$ ALLELE_STATS.var_mid_lat FIT_DISTRIBUTION_GAMMA.scale 15 **-**0.15 -10-20 -10 -0.10 -10-5 -5 -0.05 0 -0.00 -FIT_DISTRIBUTION_GAMMA.shape FIT_DISTRIBUTION_WEIBULL.scale IT_DISTRIBUTION_WEIBULL.shape FST_STATS.intercept 0.4 -6 -15 **-**20 0.3 -15 -4 -10 -10 -0.2 -5 -2 -5. value HETEROZYGOSITY_STATS.intercep FST_STATS.pval FST_STATS.rsq ${\sf FST_STATS}. {\sf slope}$ 8e-08 0.3 -15**-**0.3 -6e-08 -0.0 -0.2 -10-4e-08 --0.3 **-**2e-08 5 --0.6 **-**0e+00 **-**0.0 -FEROZYGOSITY_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 -0.2 -0.25 -0.1 0.1 -0.00 -HETEROZYGOSITY_STATS.rsq TWO_REG_MODEL.breakpoint HETEROZYGOSITY_STATS.slope TWO_REG_MODEL.diffLL 12 -500 -20 -0.6 -400 -9 -0 -300 -0.4 6 -200 --20 **-**0.2 100 -3 --40 **-**0.0 -0 -3 5 3 2 3 4 2 3 5 5 4 5 2 4 refuges

Mix: 0.01, longmean: 2.5, shortscale: 0.5, Glac front: 20, Marginal decrease: 1 ALLELE_STATS.intercept ALLELE_STATS.pval ALLELE_STATS.rsq ALLELE_STATS.slope 1.00 -20 -0.6 0.75 -0.0 -15 -0.4 -0.50 -10 -0.2 --0.50.25 -5 -0 -0.00 -0.0 ALLELE_STATS.var_high_lat ALLELE_STATS.var_low_lat ALLELE_STATS.var_mid_lat FIT_DISTRIBUTION_GAMMA.scale 0.3 -15 -12 -20 -0.2 -10 -10 -0.1 0.0 -FIT_DISTRIBUTION_GAMMA.shape FIT_DISTRIBUTION_WEIBULL.scale IT_DISTRIBUTION_WEIBULL.shap FST_STATS.intercept 0.4 -20 6 -10 -15 0.3 -10 -0.2 -5 0 -FST_STATS.pval FST_STATS.slope IETEROZYGOSITY_STATS.intercep FST_STATS.rsq 2.0e-07 -15 -0.3 -0.0 1.5e-07 **-**10 -0.2 -1.0e-07 -5 0.1 --0.5 5.0e-08 -0 -0.0e+00 -0.0 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 -0.2 -0.50 -0.1 -0.25 -0.00 0.0 -HETEROZYGOSITY_STATS.slope TWO_REG_MODEL.breakpoint TWO_REG_MODEL.diffLL HETEROZYGOSITY_STATS.rsq 750 -25 -0.6 -9 0 -500 -0.4 6 -–25 **-**250 -0.2 --50 **-**3 -

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Mix: 0.01, longmean: 3, shortscale: 0.5, Glac front: 20, Marginal decrease: 1 ALLELE_STATS.intercept ALLELE_STATS.pval ALLELE_STATS.rsq ALLELE_STATS.slope 1.00 -0.6 -20 -0.75 -0.0 -15 **-**0.4 -0.50 10 --0.5 0.2 -0.25 -5 -0.00 -0 -0.0 ALLELE_STATS.var_high_lat ALLELE_STATS.var_mid_lat ALLELE_STATS.var_low_lat FIT_DISTRIBUTION_GAMMA.scale 20 -0.20 -15 **-**15 **-**10-0.15 10 -10 -0.10 -5 -5 -0.05 0.00 FIT_DISTRIBUTION_GAMMA.shape FIT_DISTRIBUTION_WEIBULL.scale FIT_DISTRIBUTION_WEIBULL.shape FST_STATS.intercept 20 -20 -0.4 15 **-**15 0.3 -10 -10 0.2 -5 · 5 value HETEROZYGOSITY_STATS.intercep FST_STATS.pval FST_STATS.rsq FST_STATS.slope 15 0.3 -0.75 -0.0 -10 -0.2 0.50 --0.5 **-**0.25 -0.1 -5 0.0 0.00 -FEROZYGOSITY_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 -0.2 -0.50 -0.1 -0.25 -0.1 -0.1 TWO_REG_MODEL.breakpoint HETEROZYGOSITY_STATS.rsq HETEROZYGOSITY_STATS.slope TWO_REG_MODEL.diffLL 12 -0.6 -20 750 **-**9 -0 -0.4 -500 -6 --20 **-**0.2 -250 **-**-40 **-**3 -

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refuges

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Mix: 0.001, longmean: 1.5, shortscale: 0.5, Glac front: 20, Marginal decrease: 1 ALLELE_STATS.pval ALLELE_STATS.intercept ALLELE_STATS.rsq ALLELE_STATS.slope 25 -1.00 -0.0 -0.6 20 0.75 --0.2 **-**0.4 15 0.50 --0.4 -0.2 -0.6 0.25 -10 --0.8 0.00 -0.0 ALLELE_STATS.var_high_lat ALLELE_STATS.var_low_lat ALLELE_STATS.var_mid_lat FIT_DISTRIBUTION_GAMMA.scale 25 -16 -20 -0.20 20 -12 15 **-**0.15 15 **-**8 10 -0.10 -10-0.05 0.00 -0 -FIT_DISTRIBUTION_GAMMA.shape FIT_DISTRIBUTION_WEIBULL.scale IT_DISTRIBUTION_WEIBULL.shap FST_STATS.intercept 25 -16-0.4 -5 20 -12 **-**0.3 -15 8 -0.2 -10 -0.1 value IETEROZYGOSITY_STATS.intercep FST_STATS.pval FST_STATS.rsq FST_STATS.slope 15 **-**1.0e-04 **-**0.0 -0.3 -12 -7.5e-05 **-**-0.2 · 0.2 -5.0e-05 --0.4 **-**0.1 -0.6 2.5e-05 -6 --0.8 0.0e+00 -0.0 -EROZYGOSITY_STATS.mean_high TEROZYGOSITY_STATS.mean_low FEROZYGOSITY_STATS.mean_mid HETEROZYGOSITY_STATS.pval 1.00 0.25 -0.3 -0.3 0.20 -0.75 0.2 -0.15 -0.2 -0.50 0.10 -0.25 0.1 0.05 HETEROZYGOSITY_STATS.rsq TWO_REG_MODEL.diffLL TWO_REG_MODEL.breakpoint HETEROZYGOSITY_STATS.slope 12 -20 -0.6 -400 -9 0 -300 -0.4 --20 **-**6 -200 -0.2 100 --40 **-**0.0 -0 --60 5 2 2 3 5 ż 3 5 3 4 5

Mix: 0.001, longmean: 2, shortscale: 0.5, Glac front: 20, Marginal decrease: 1 ALLELE_STATS.intercept ALLELE_STATS.pval ALLELE_STATS.rsq ALLELE_STATS.slope 1.00 -0.3 -20 0.6 -0.75 -0.0 -15 0.4 -0.50 --0.3 **-**10 0.2 -0.25 --0.6 **-**5 -0.00 -0.0 -0 -ALLELE_STATS.var_high_lat ${\sf ALLELE_STATS.var_low_lat}$ ALLELE_STATS.var_mid_lat FIT_DISTRIBUTION_GAMMA.scale 15 **-**0.15 -10-20 -10 -0.10 -10-5 -5 -0.05 0 -0.00 -FIT_DISTRIBUTION_GAMMA.shape FIT_DISTRIBUTION_WEIBULL.scale IT_DISTRIBUTION_WEIBULL.shape FST_STATS.intercept 0.4 -6 -15 -20 0.3 -15 -4 -10 -10 -0.2 -5 -2 -5. value HETEROZYGOSITY_STATS.intercep FST_STATS.pval FST_STATS.rsq ${\sf FST_STATS}. {\sf slope}$ 8e-08 0.3 -15**-**0.3 -6e-08 -0.0 -0.2 -10-4e-08 --0.3 **-**2e-08 5 --0.6 **-**0e+00 **-**0.0 -FEROZYGOSITY_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 -0.2 -0.25 -0.1 0.1 -0.00 -TWO_REG_MODEL.breakpoint HETEROZYGOSITY_STATS.rsq HETEROZYGOSITY_STATS.slope TWO_REG_MODEL.diffLL 12 -500 -20 -0.6 -400 -9 -0 -300 -0.4 6 -200 --20 **-**0.2 100 -3 --40 **-**0.0 -0 -3 5 3 2 3 4 2 3 5 5 4 5 2 4 refuges

Mix: 0.001, longmean: 2.5, shortscale: 0.5, Glac front: 20, Marginal decrease: 1 ALLELE_STATS.rsq ALLELE_STATS.intercept ALLELE_STATS.pval ALLELE_STATS.slope 1.00 -20 -0.6 0.75 -0.0 -15 -0.4 -0.50 -10 -0.2 --0.50.25 -5 -0 -0.00 -0.0 ALLELE_STATS.var_low_lat ALLELE_STATS.var_high_lat ALLELE_STATS.var_mid_lat FIT_DISTRIBUTION_GAMMA.scale 0.3 -15 -12 -20 -0.2 -10 -10 -0.1 0.0 -FIT_DISTRIBUTION_GAMMA.shape FIT_DISTRIBUTION_WEIBULL.scale IT_DISTRIBUTION_WEIBULL.shap FST_STATS.intercept 0.4 -20 6 -10-15 0.3 -10 -0.2 -5 0 -FST_STATS.pval FST_STATS.slope IETEROZYGOSITY_STATS.intercep FST_STATS.rsq 2.0e-07 -15 -0.3 -0.0 1.5e-07 **-**10 -0.2 -1.0e-07 -5 0.1 --0.5 5.0e-08 -0 -0.0e+00 -0.0 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 -0.2 -0.50 -0.1 -0.25 -0.00 0.0 -HETEROZYGOSITY_STATS.slope TWO_REG_MODEL.breakpoint TWO_REG_MODEL.diffLL HETEROZYGOSITY_STATS.rsq 750 -25 -0.6 -9 0 -500 -0.4 6 -–25 **-**250 -0.2 -

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refuges

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-50 **-**

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value

0.0 -

Mix: 0.001, longmean: 3, shortscale: 0.5, Glac front: 20, Marginal decrease: 1 ALLELE_STATS.pval ALLELE_STATS.rsq ALLELE_STATS.intercept ALLELE_STATS.slope 1.00 -0.6 -20 -0.75 -0.0 -15 **-**0.4 -0.50 10 --0.5 0.2 -0.25 -5 -0.00 -0 -0.0 ALLELE_STATS.var_high_lat ALLELE_STATS.var_mid_lat ALLELE_STATS.var_low_lat FIT_DISTRIBUTION_GAMMA.scale 20 -0.20 -15 **-**15 **-**10-0.15 10 -10 -0.10 -5 -5 -0.05 0.00 FIT_DISTRIBUTION_GAMMA.shape FIT_DISTRIBUTION_WEIBULL.scale FIT_DISTRIBUTION_WEIBULL.shape FST_STATS.intercept 20 -20 -0.4 15 **-**15 0.3 -10 -10 0.2 -5 · 5 value HETEROZYGOSITY_STATS.intercep FST_STATS.pval FST_STATS.rsq FST_STATS.slope 15 0.3 -0.75 -0.0 -10 -0.50 -0.2 -0.5 **-**0.25 -0.1 -5 0.0 0.00 -FEROZYGOSITY_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 -0.2 -0.50 -0.1 -0.25 -0.1 -0.1 HETEROZYGOSITY_STATS.rsq HETEROZYGOSITY_STATS.slope TWO_REG_MODEL.breakpoint TWO_REG_MODEL.diffLL 12 -0.6 -20 750 **-**9 -0 -0.4 -500 -6 --20 **-**0.2 -250 **-**-40 **-**3 -3 2 5 2 3 5 3 5 4 5 3

Mix: 0.15, longmean: 1.5, shortscale: 0.5, Glac front: 20, Marginal decrease: 1 ALLELE_STATS.rsq ALLELE_STATS.intercept ALLELE_STATS.pval ALLELE_STATS.slope 25 -1.00 -0.0 -0.6 20 0.75 --0.2 **-**0.4 15 0.50 --0.4 -0.2 -0.6 0.25 -10 --0.8 0.00 -0.0 ALLELE_STATS.var_high_lat ALLELE_STATS.var_low_lat ALLELE_STATS.var_mid_lat FIT_DISTRIBUTION_GAMMA.scale 25 -16 -20 -0.20 20 -12 15 **-**0.15 15 **-**8 10 -0.10 -10-0.05 0.00 -0 -FIT_DISTRIBUTION_GAMMA.shape FIT_DISTRIBUTION_WEIBULL.scale IT_DISTRIBUTION_WEIBULL.shap FST_STATS.intercept 25 -16-0.4 -5 20 -12 **-**0.3 -15 8 -0.2 -10 -0.1 value IETEROZYGOSITY_STATS.intercep FST_STATS.pval FST_STATS.rsq FST_STATS.slope 15 **-**1.0e-04 **-**0.0 -0.3 -12 -7.5e-05 **-**-0.2 · 0.2 -5.0e-05 --0.4 **-**0.1 -0.6 2.5e-05 -6 --0.8 0.0e+00 -0.0 -EROZYGOSITY_STATS.mean_high TEROZYGOSITY_STATS.mean_low FEROZYGOSITY_STATS.mean_mid HETEROZYGOSITY_STATS.pval 1.00 0.25 -0.3 -0.3 0.20 -0.75 0.15 -0.2 -0.2 -0.50 0.10 -0.25 0.1 0.05 HETEROZYGOSITY_STATS.rsq TWO_REG_MODEL.diffLL HETEROZYGOSITY_STATS.slope TWO_REG_MODEL.breakpoint 12 -20 -0.6 -400 -9 0 -300 -0.4 --20 **-**6 -200 -0.2 100 --40 **-**0.0 -0 --60 5 2 2 3 5 ż 3 5 3 4 5

Mix: 0.15, longmean: 2, shortscale: 0.5, Glac front: 20, Marginal decrease: 1 ALLELE_STATS.intercept ALLELE_STATS.pval ALLELE_STATS.rsq ALLELE_STATS.slope 1.00 -0.3 -20 0.6 -0.75 -0.0 -15 0.4 -0.50 --0.3 **-**10 0.2 -0.25 --0.6 **-**5 -0.00 -0.0 -0 -ALLELE_STATS.var_high_lat ${\sf ALLELE_STATS.var_low_lat}$ ALLELE_STATS.var_mid_lat FIT_DISTRIBUTION_GAMMA.scale 15 **-**0.15 -10-20 -10 -0.10 -10-5 -5 -0.05 0 -0.00 -FIT_DISTRIBUTION_GAMMA.shape FIT_DISTRIBUTION_WEIBULL.scale IT_DISTRIBUTION_WEIBULL.shape FST_STATS.intercept 0.4 -6 -15 -20 0.3 -15 -4 -10 -10 -0.2 -5 -2 -5. value HETEROZYGOSITY_STATS.intercep FST_STATS.pval FST_STATS.rsq ${\sf FST_STATS}. {\sf slope}$ 8e-08 0.3 -15**-**0.3 -6e-08 -0.0 -0.2 -10-4e-08 --0.3 **-**2e-08 5 --0.6 **-**0e+00 **-**0.0 -FEROZYGOSITY_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 -0.2 -0.25 -0.1 0.1 -0.00 -HETEROZYGOSITY_STATS.rsq TWO_REG_MODEL.breakpoint HETEROZYGOSITY_STATS.slope TWO_REG_MODEL.diffLL 12 -500 -20 -0.6 -400 -9 -0 -300 -0.4 6 -200 --20 **-**0.2 100 -3 --40 **-**0.0 -0 -3 5 3 2 3 4 2 3 5 5 4 5 2 4

Mix: 0.15, longmean: 2.5, shortscale: 0.5, Glac front: 20, Marginal decrease: 1 ALLELE_STATS.pval ALLELE_STATS.intercept ALLELE_STATS.rsq ALLELE_STATS.slope 1.00 -20 -0.6 0.75 -0.0 -15 -0.4 -0.50 -10 -0.2 --0.50.25 -5 -0 -0.00 -0.0 ALLELE_STATS.var_high_lat ALLELE_STATS.var_low_lat ALLELE_STATS.var_mid_lat FIT_DISTRIBUTION_GAMMA.scale 0.3 -15 -12 -20 -0.2 -10 -10 -0.1 0.0 -FIT_DISTRIBUTION_GAMMA.shape FIT_DISTRIBUTION_WEIBULL.scale IT_DISTRIBUTION_WEIBULL.shap FST_STATS.intercept 0.4 -20 6 -10 -15 0.3 -10 -0.2 -5 0 -FST_STATS.pval FST_STATS.slope IETEROZYGOSITY_STATS.intercep FST_STATS.rsq 2.0e-07 -15 -0.3 -0.0 1.5e-07 **-**10 -0.2 -1.0e-07 -5 0.1 --0.5 5.0e-08 -0 -0.0e+00 -0.0 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 -0.2 -0.50 -0.1 -0.25 -0.00 0.0 -HETEROZYGOSITY_STATS.slope TWO_REG_MODEL.breakpoint TWO_REG_MODEL.diffLL HETEROZYGOSITY_STATS.rsq 750 -25 -0.6 -9 0 -500 -0.4 6 -–25 **-**250 -0.2 --50 **-**3 -

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refuges

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Mix: 0.15, longmean: 3, shortscale: 0.5, Glac front: 20, Marginal decrease: 1 ALLELE_STATS.rsq ALLELE_STATS.intercept ALLELE_STATS.pval ALLELE_STATS.slope 1.00 -0.6 -20 -0.75 -0.0 -15 **-**0.4 -0.50 10 --0.5 0.2 -0.25 -5 -0.00 -0 -0.0 ALLELE_STATS.var_high_lat ALLELE_STATS.var_mid_lat ALLELE_STATS.var_low_lat FIT_DISTRIBUTION_GAMMA.scale 20 -0.20 -15 **-**15 **-**10-0.15 10 -10 -0.10 -5 -5 -0.05 0.00 FIT_DISTRIBUTION_GAMMA.shape FIT_DISTRIBUTION_WEIBULL.scale FIT_DISTRIBUTION_WEIBULL.shape FST_STATS.intercept 20 -20 -0.4 15 **-**15 0.3 -10 -10 0.2 -5 · 5 value HETEROZYGOSITY_STATS.intercep FST_STATS.pval FST_STATS.rsq FST_STATS.slope 15 0.3 -0.75 -0.0 -10 -0.50 -0.2 -0.5 **-**0.25 -0.1 -5 0.0 0.00 -FEROZYGOSITY_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 -0.2 -0.50 -0.1 -0.25 -0.1 -0.1 TWO_REG_MODEL.breakpoint HETEROZYGOSITY_STATS.rsq HETEROZYGOSITY_STATS.slope TWO_REG_MODEL.diffLL 12 -0.6 -20 750 **-**9 -0 -0.4 -500 -6 --20 **-**0.2 -250 **-**-40 **-**3 -

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