Mix: 0.5, longmean: 2, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.5, longmean: 2, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**7.5 -100 -

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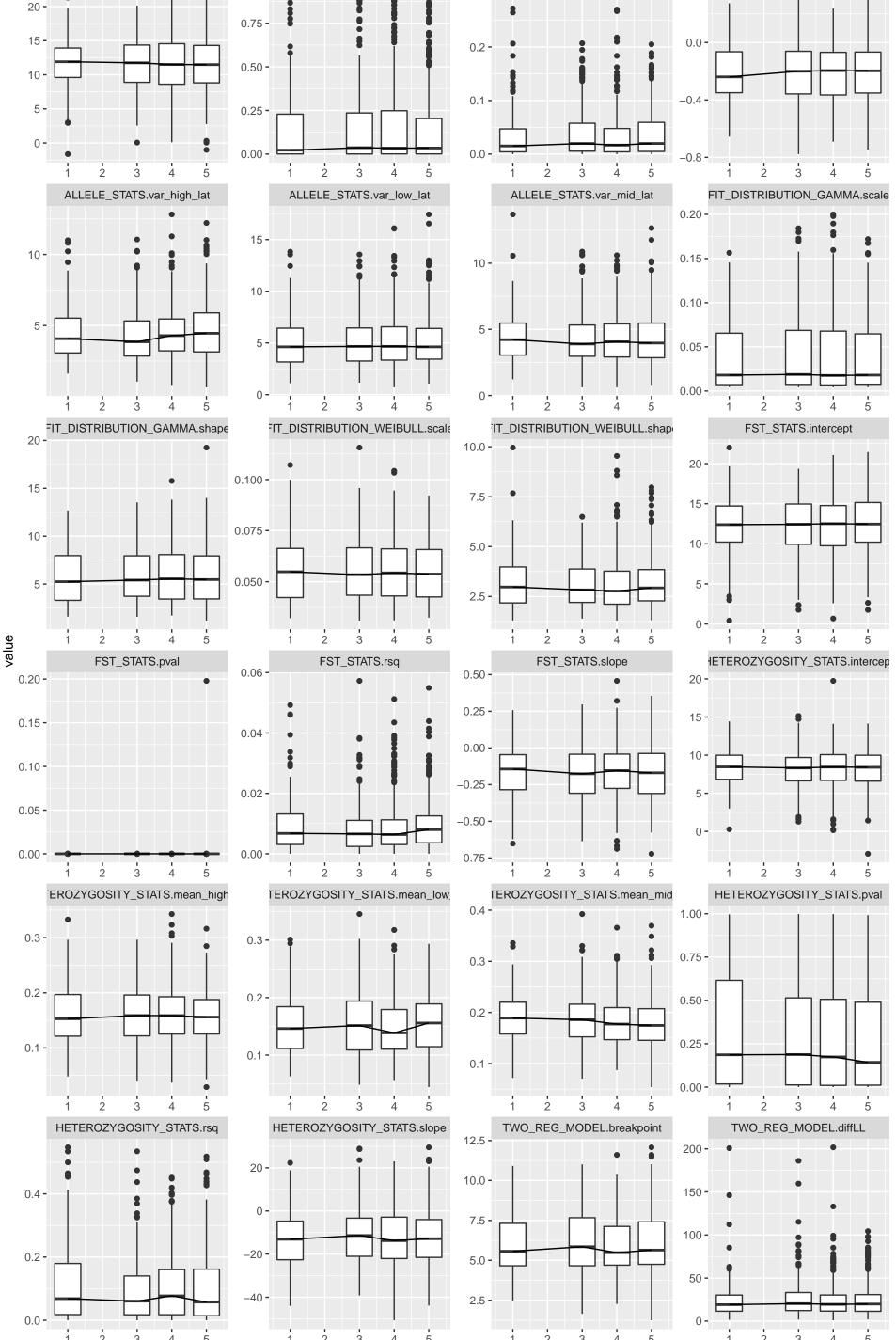
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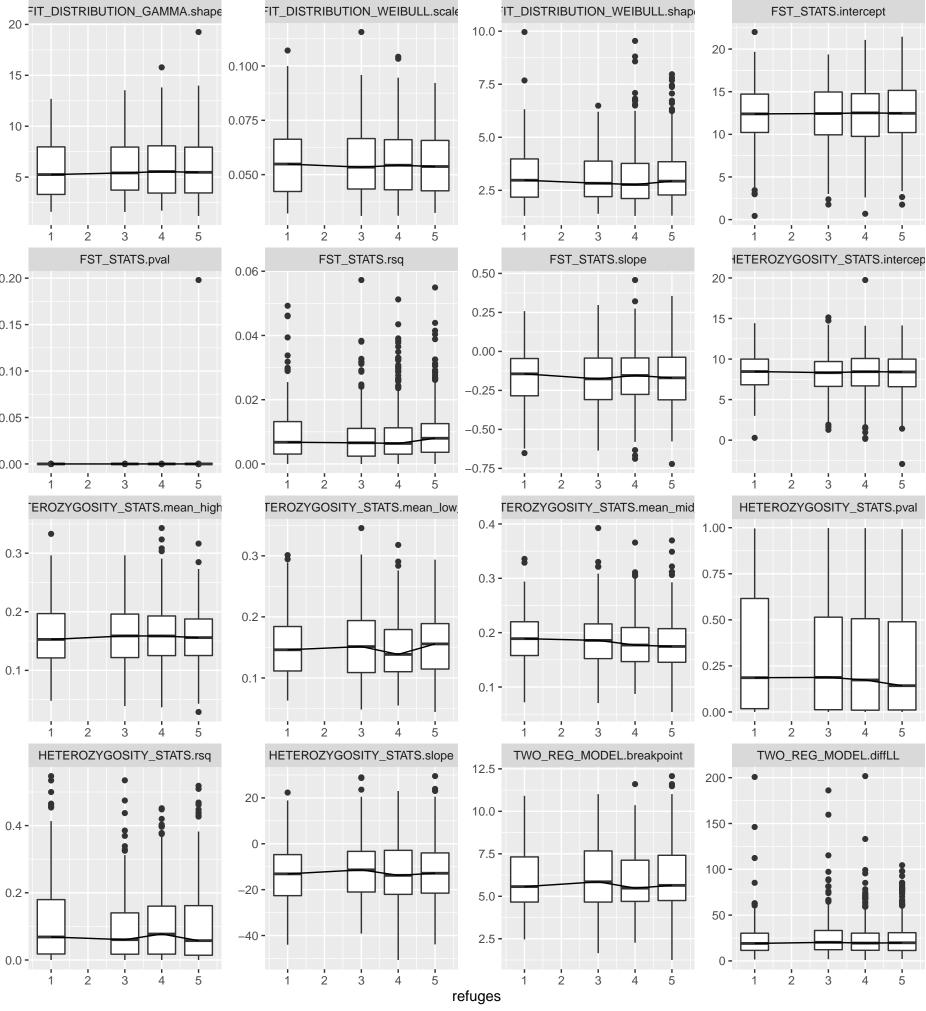
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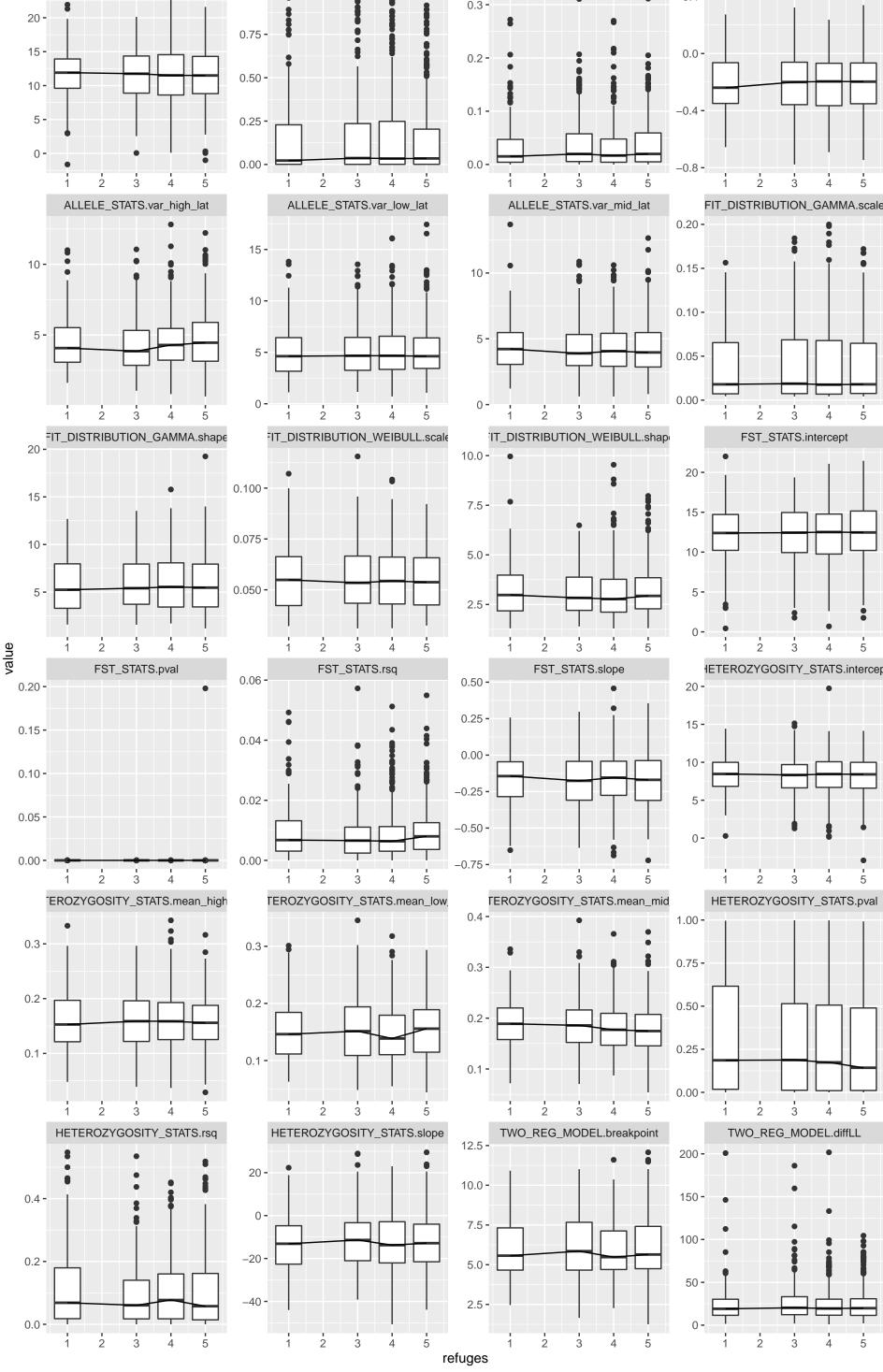
Mix: 0.5, longmean: 2, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 3 FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**





Mix: 0.5, longmean: 3, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.5, longmean: 3, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 3 FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint 200 -20 -10.0 -150 **-**7.5 -100 -



Mix: 0.5, longmean: 3, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**

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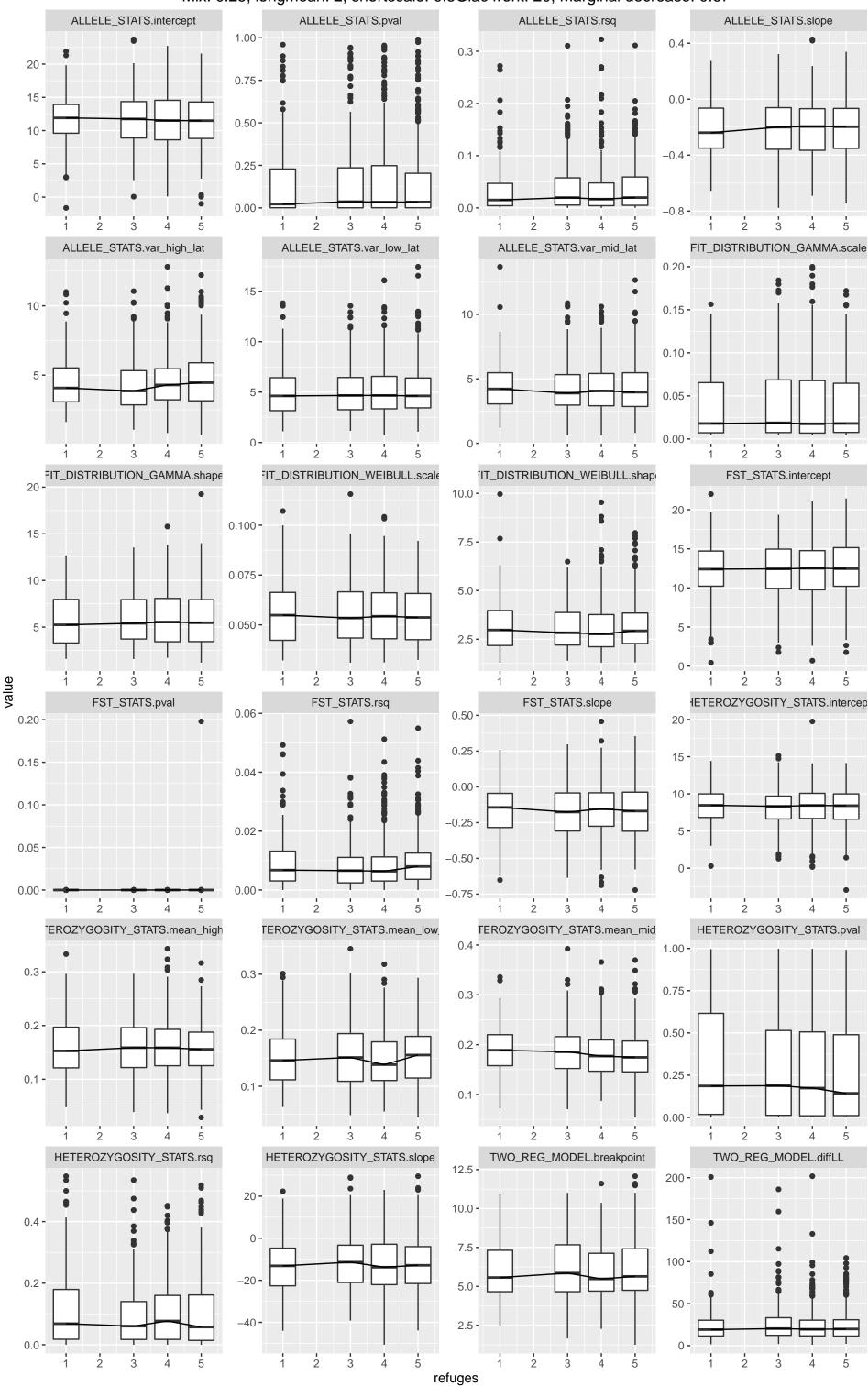
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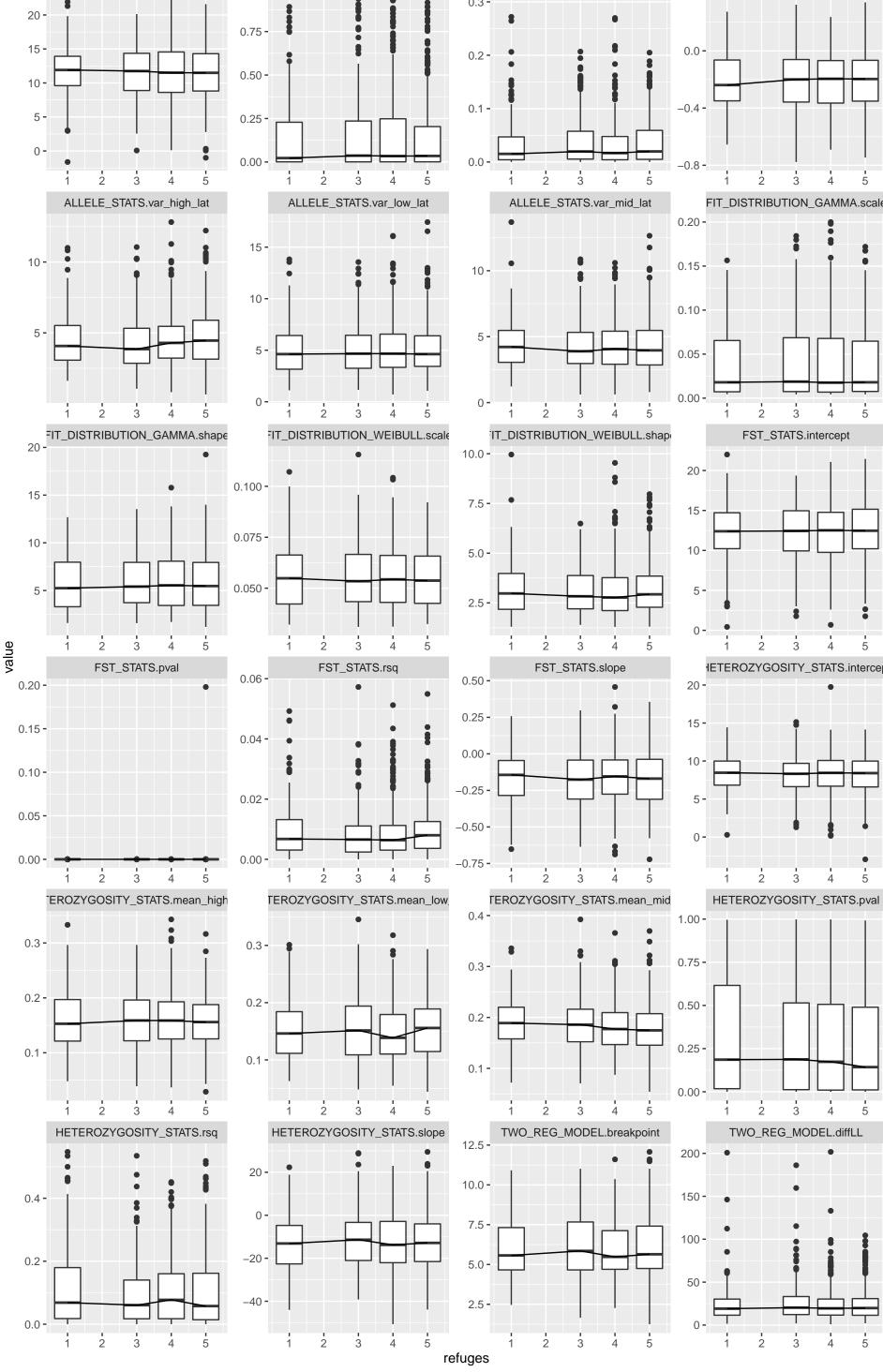
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Mix: 0.25, longmean: 2, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67



Mix: 0.25, longmean: 2, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint 200 -20 -10.0 -150 **-**7.5 -100 -



Mix: 0.25, longmean: 3, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**7.5 -100 -

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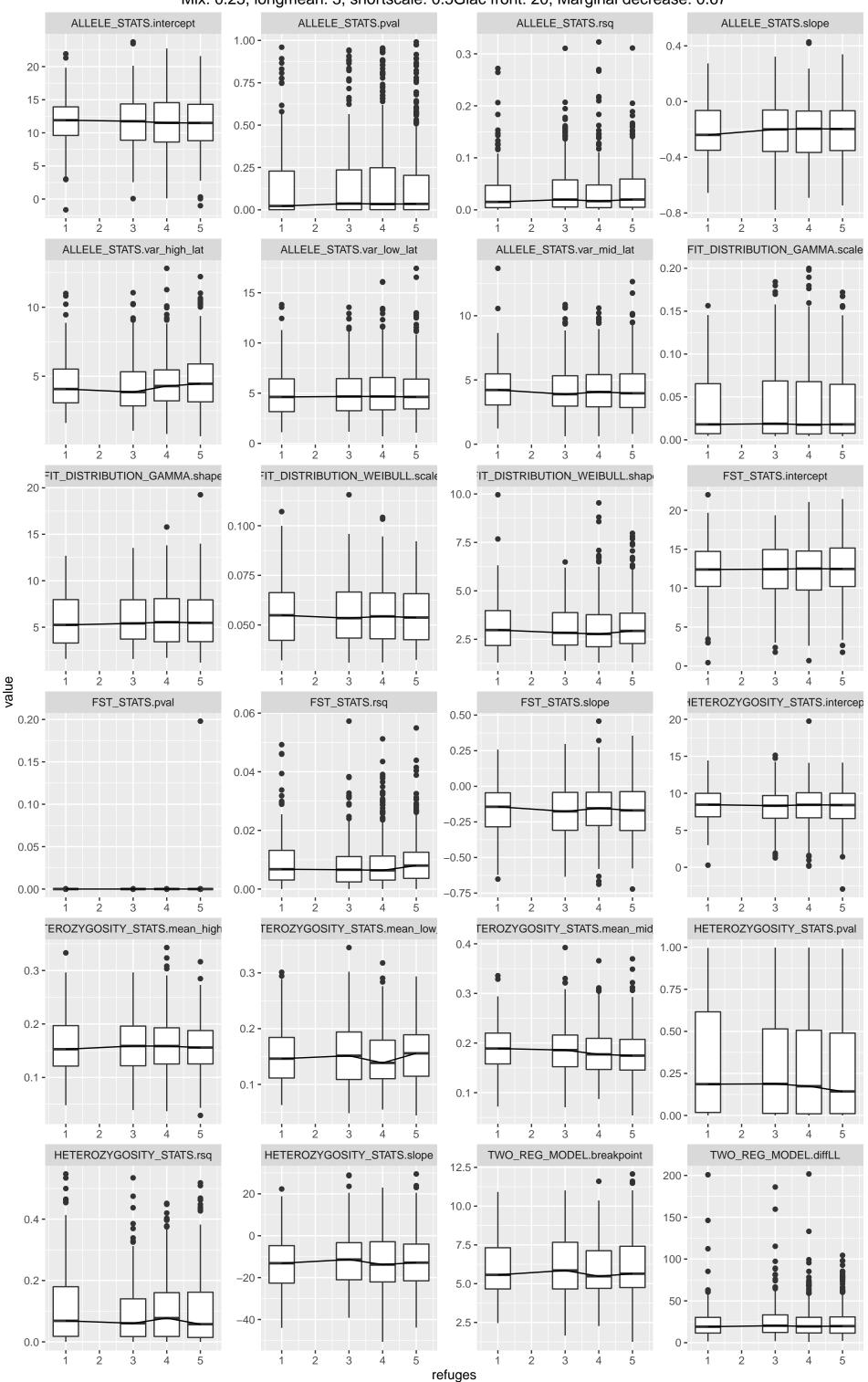
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Mix: 0.25, longmean: 3, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.pval



Mix: 0.25, longmean: 3, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**7.5 -100 -

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Mix: 0.1, longmean: 2, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

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Mix: 0.1, longmean: 2, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**7.5 -100 -5.0 -50 -

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Mix: 0.1, longmean: 3, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.1, longmean: 3, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 5 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**7.5 -100 -

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Mix: 0.1, longmean: 3, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**7.5 -100 -5.0 -50 -

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Mix: 0.05, longmean: 2, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**7.5 -100 -5.0 -50 -

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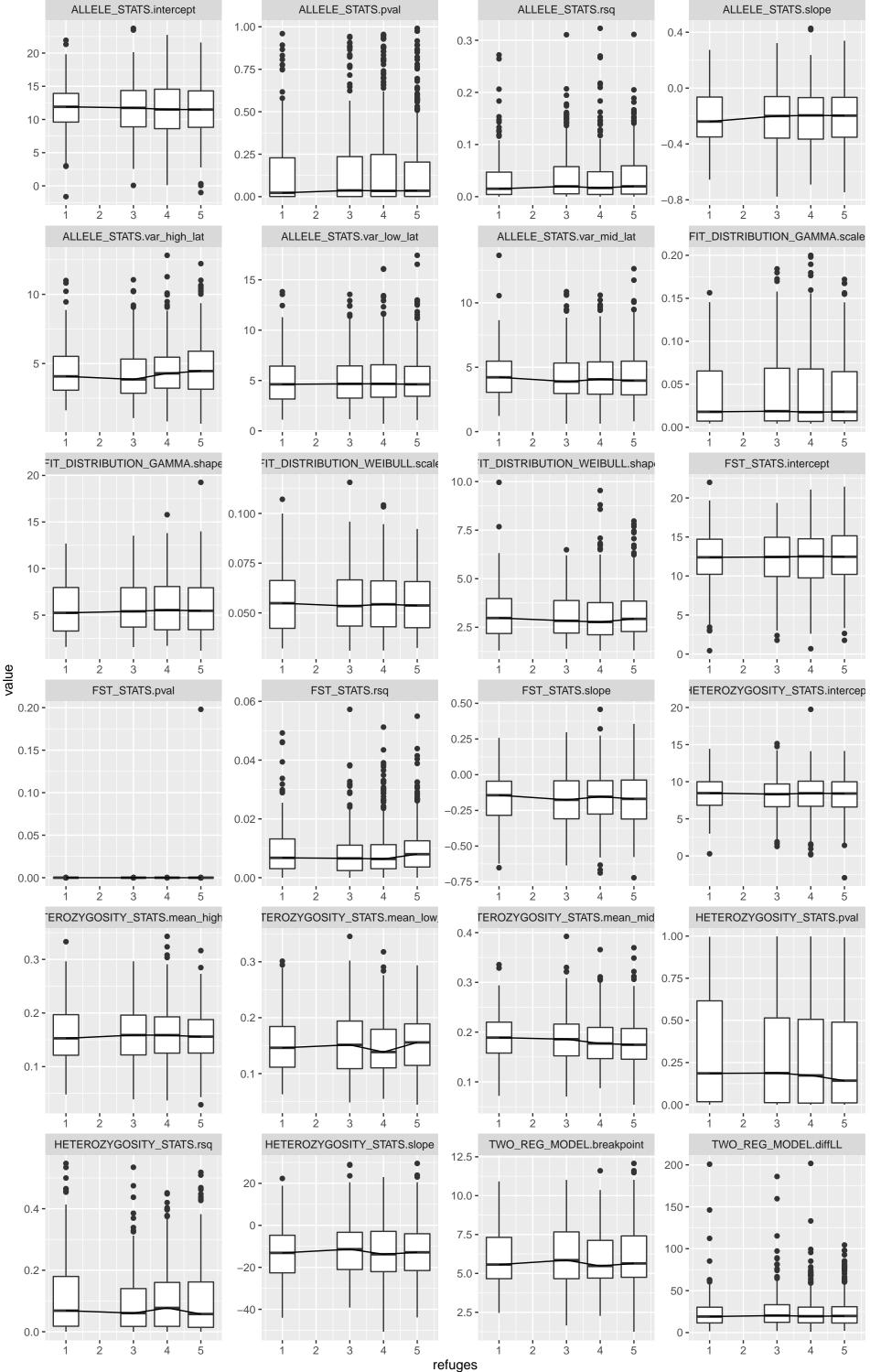
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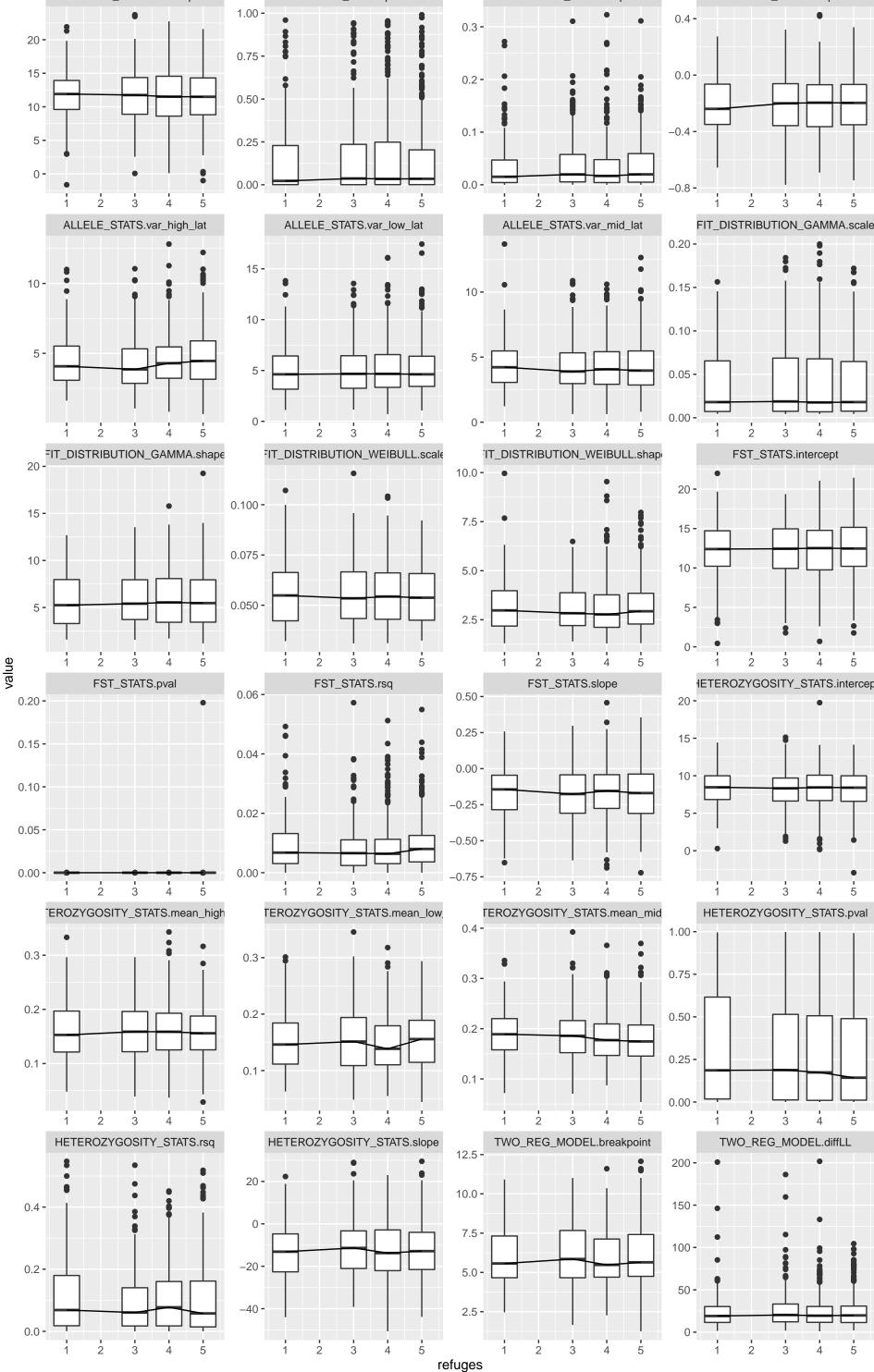
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Mix: 0.05, longmean: 2, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.pval 1.00 -0.4 -0.3 -0.75 -



Mix: 0.05, longmean: 2, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint 200 -20 -10.0 -150 **-**7.5 -100 -5.0 -



Mix: 0.05, longmean: 3, shortscale: 1Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**7.5 -100 -5.0 -50 -

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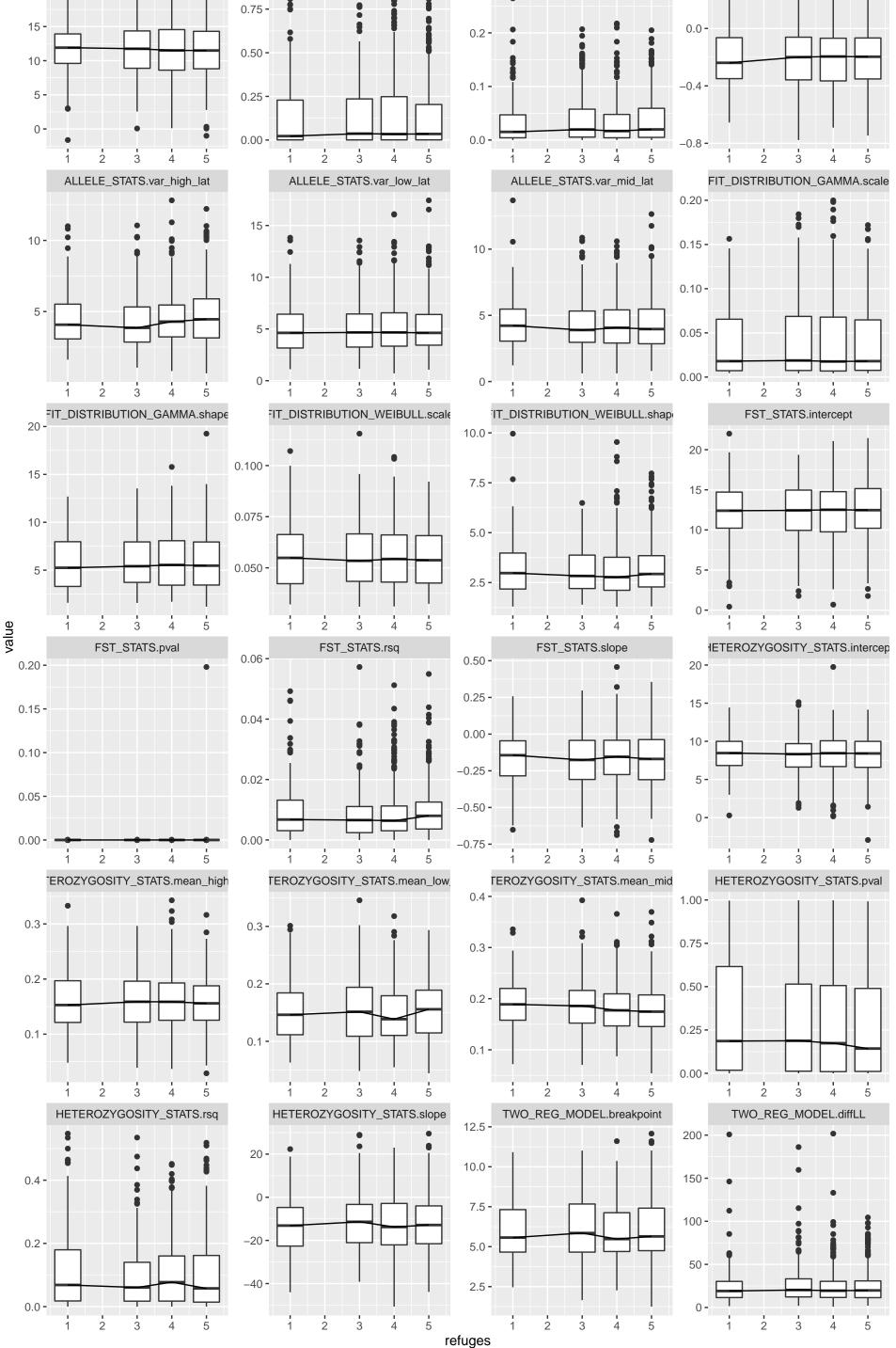
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Mix: 0.05, longmean: 3, shortscale: 0.5Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 3 FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint



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Mix: 0.05, longmean: 3, shortscale: 0.25Glac front: 20, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high FEROZYGOSITY\_STATS.mean\_mid TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**7.5 -100 -5.0 -

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Mix: 0.5, longmean: 2, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.5, longmean: 2, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.5, longmean: 2, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.5, longmean: 3, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.5, longmean: 3, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 refuges

Mix: 0.5, longmean: 3, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.25, longmean: 2, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.25, longmean: 2, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 5 2 3 5 2 3 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_mid 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.25, longmean: 2, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**7.5 -100 -5.0 -50 -

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Mix: 0.25, longmean: 3, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.25, longmean: 3, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 5 3 5 2 3 2 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 refuges

Mix: 0.25, longmean: 3, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -

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Mix: 0.1, longmean: 2, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.1, longmean: 2, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 refuges

Mix: 0.1, longmean: 2, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.1, longmean: 3, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.1, longmean: 3, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 5 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high FEROZYGOSITY\_STATS.mean\_mid TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 refuges

Mix: 0.1, longmean: 3, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.05, longmean: 2, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.05, longmean: 2, shortscale: 0.5Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 5 2 3 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 refuges

Mix: 0.05, longmean: 2, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

refuges

Mix: 0.05, longmean: 3, shortscale: 1Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

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Mix: 0.05, longmean: 3, shortscale: 0.25Glac front: 20, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 5 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

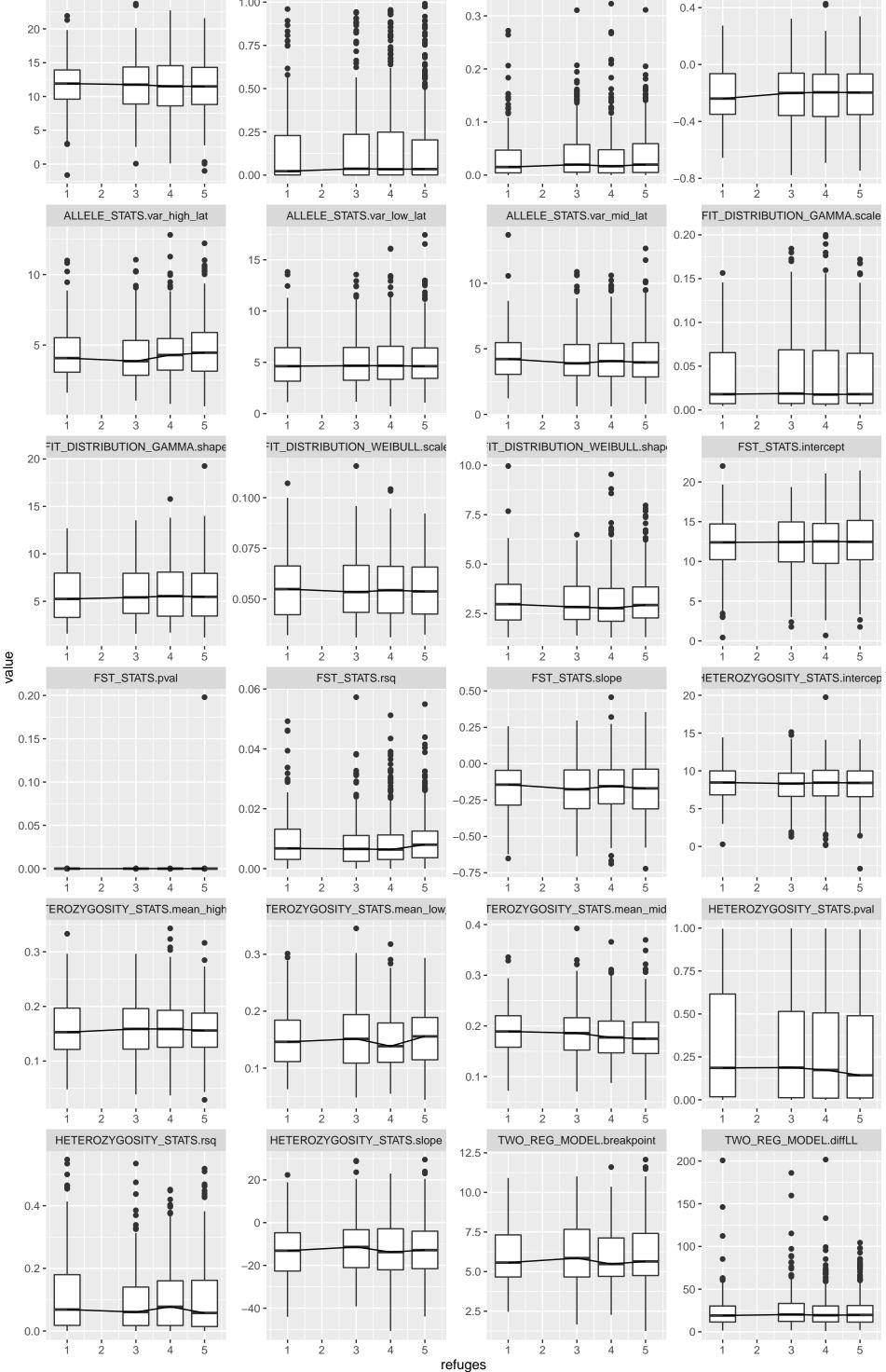
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Mix: 0.5, longmean: 2, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.5, longmean: 2, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

refuges

Mix: 0.5, longmean: 2, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint 200 -20 -

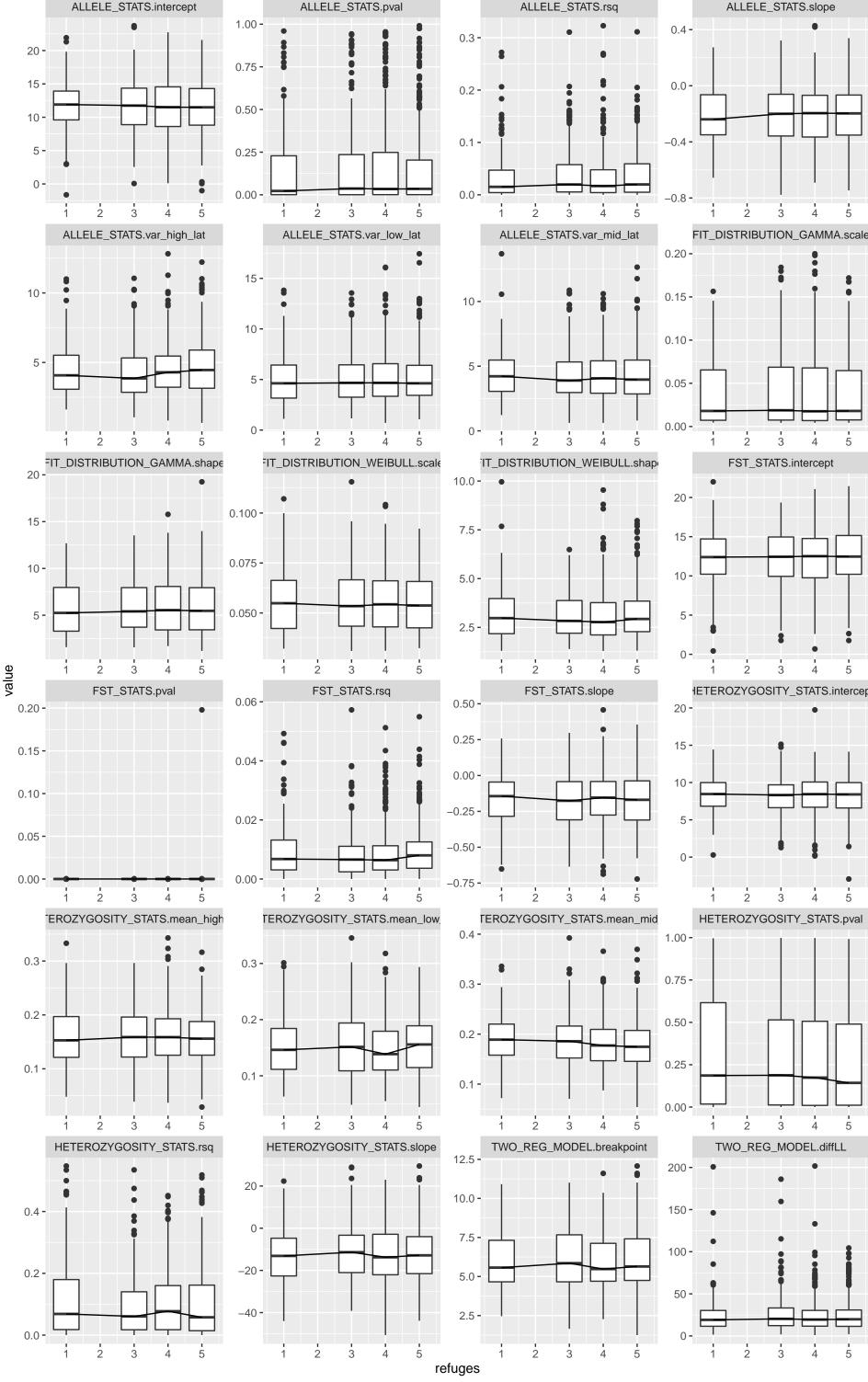


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Mix: 0.5, longmean: 3, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

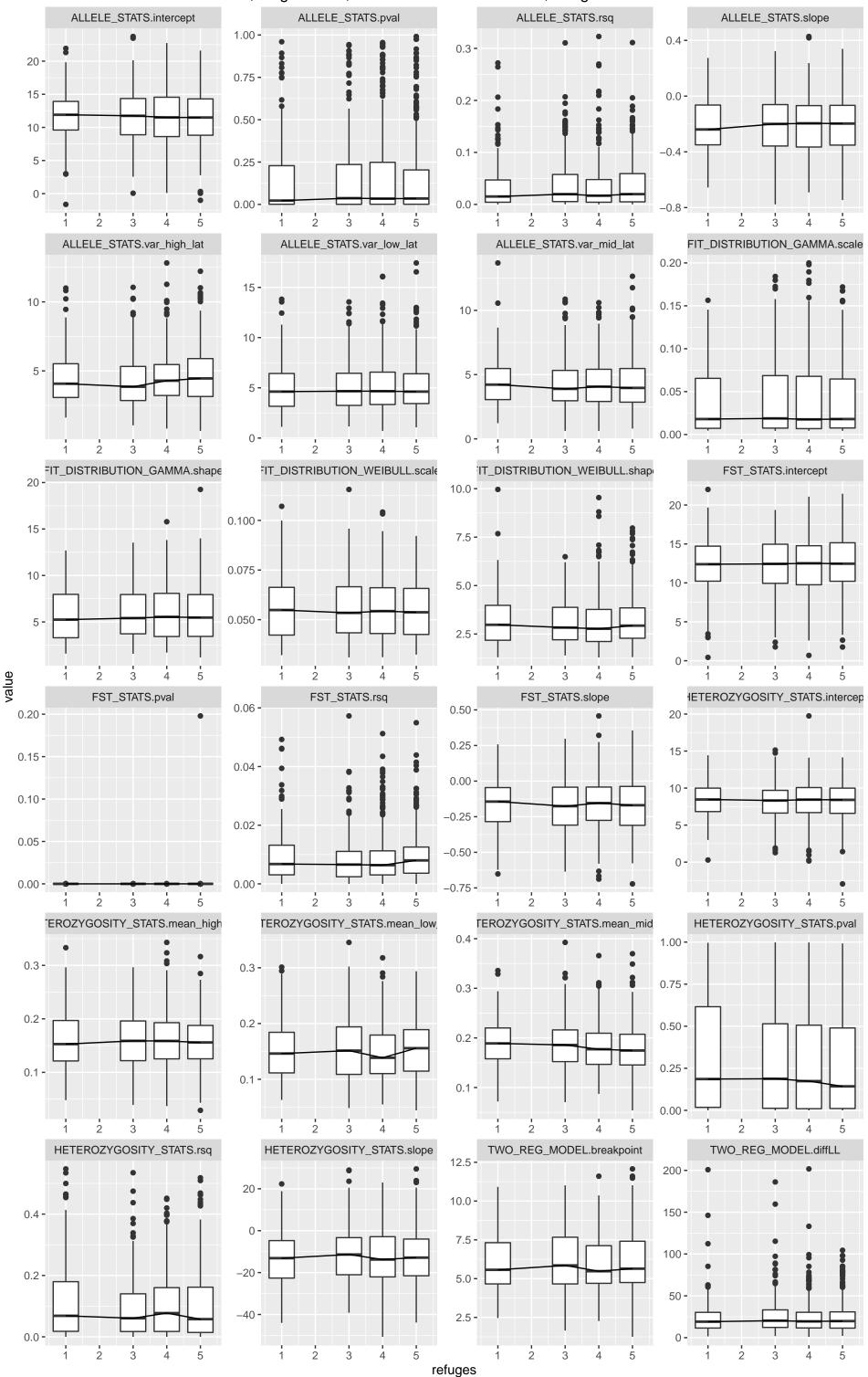
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Mix: 0.5, longmean: 3, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint 200 -20 -10.0 -150 **-**

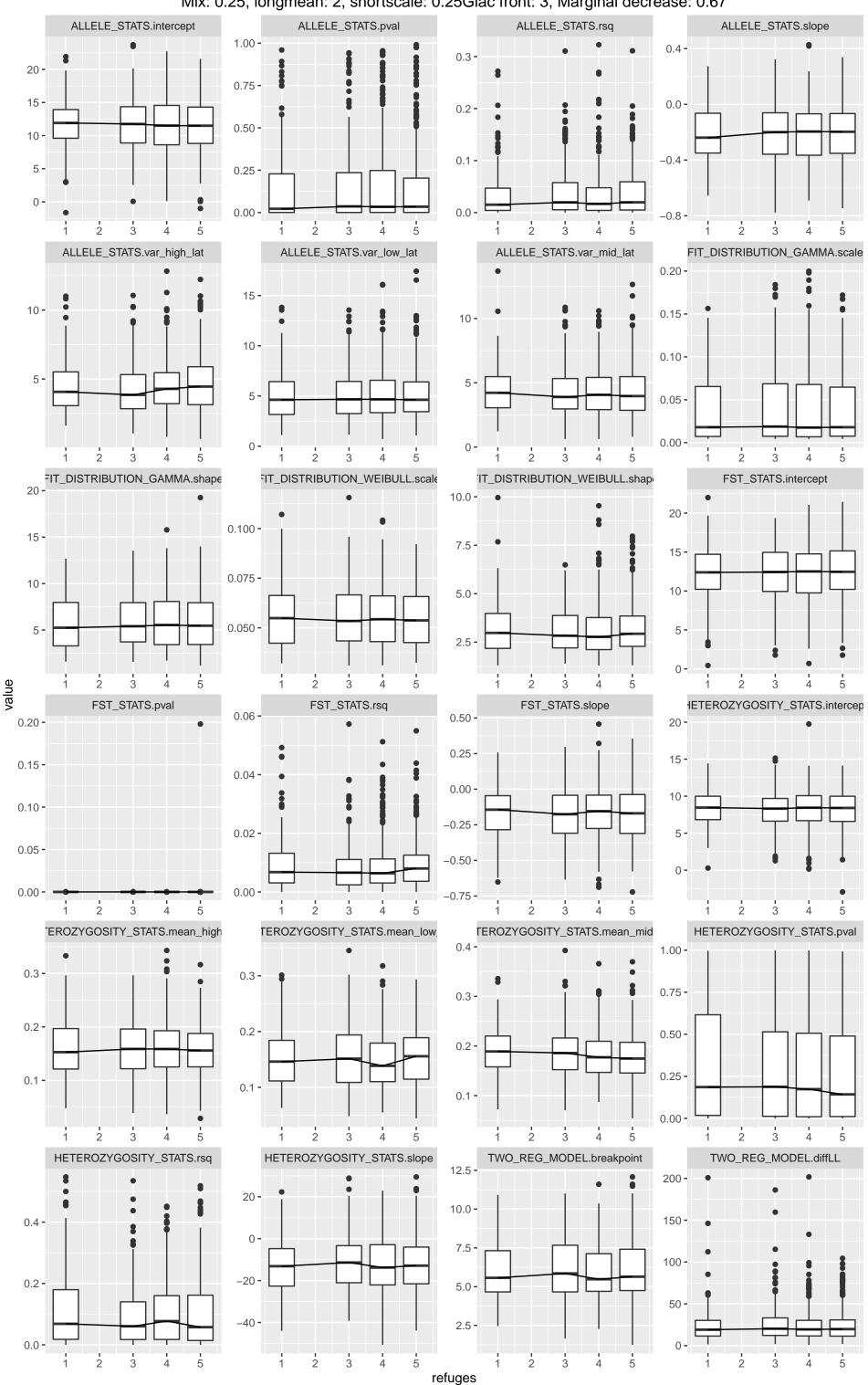


Mix: 0.25, longmean: 2, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 5 3 5 2 3 2 ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_high\_lat FIT\_DISTRIBUTION\_GAMMA.scale 0.20 -15 -10-0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_mid 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.25, longmean: 2, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67

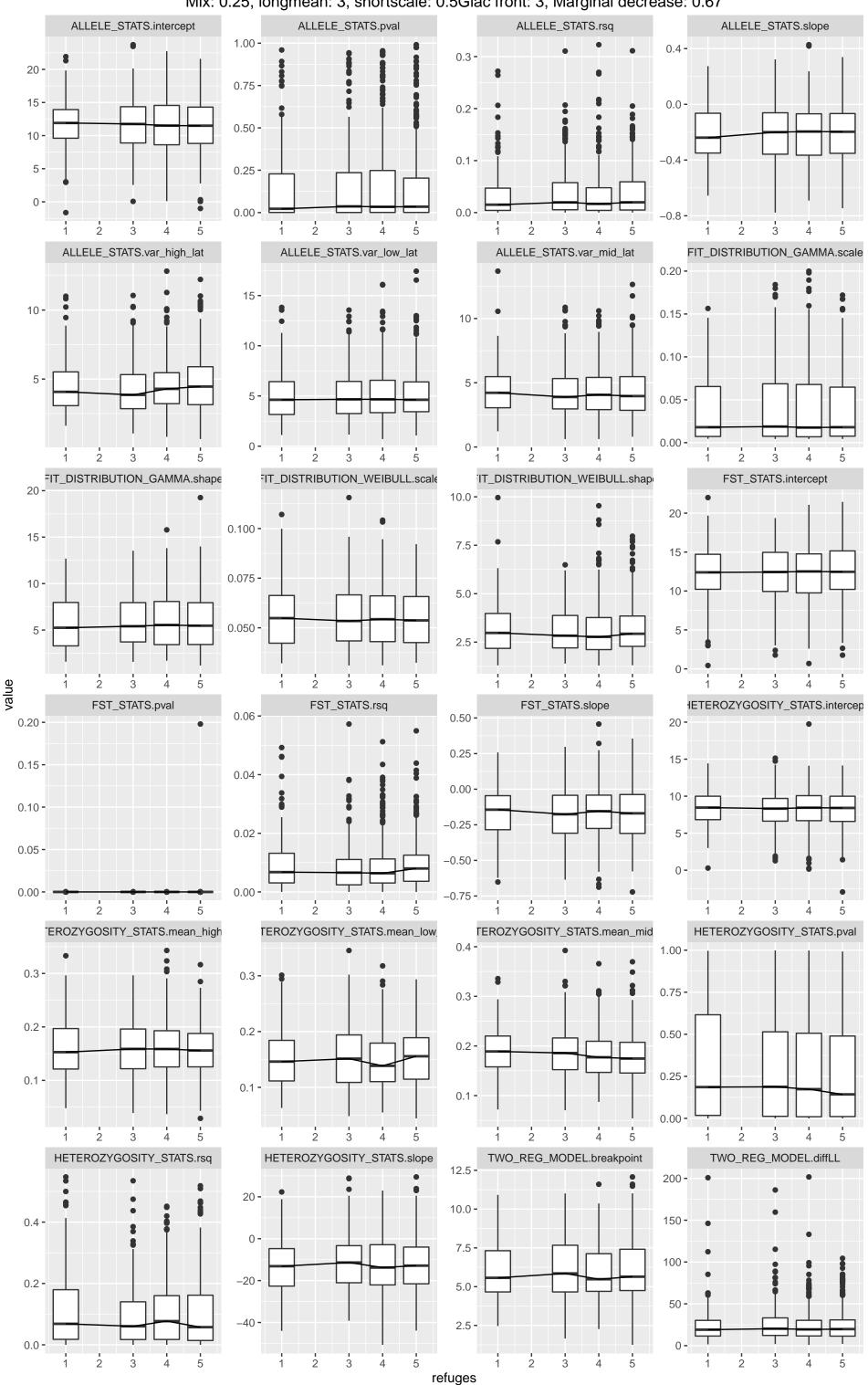


Mix: 0.25, longmean: 2, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67

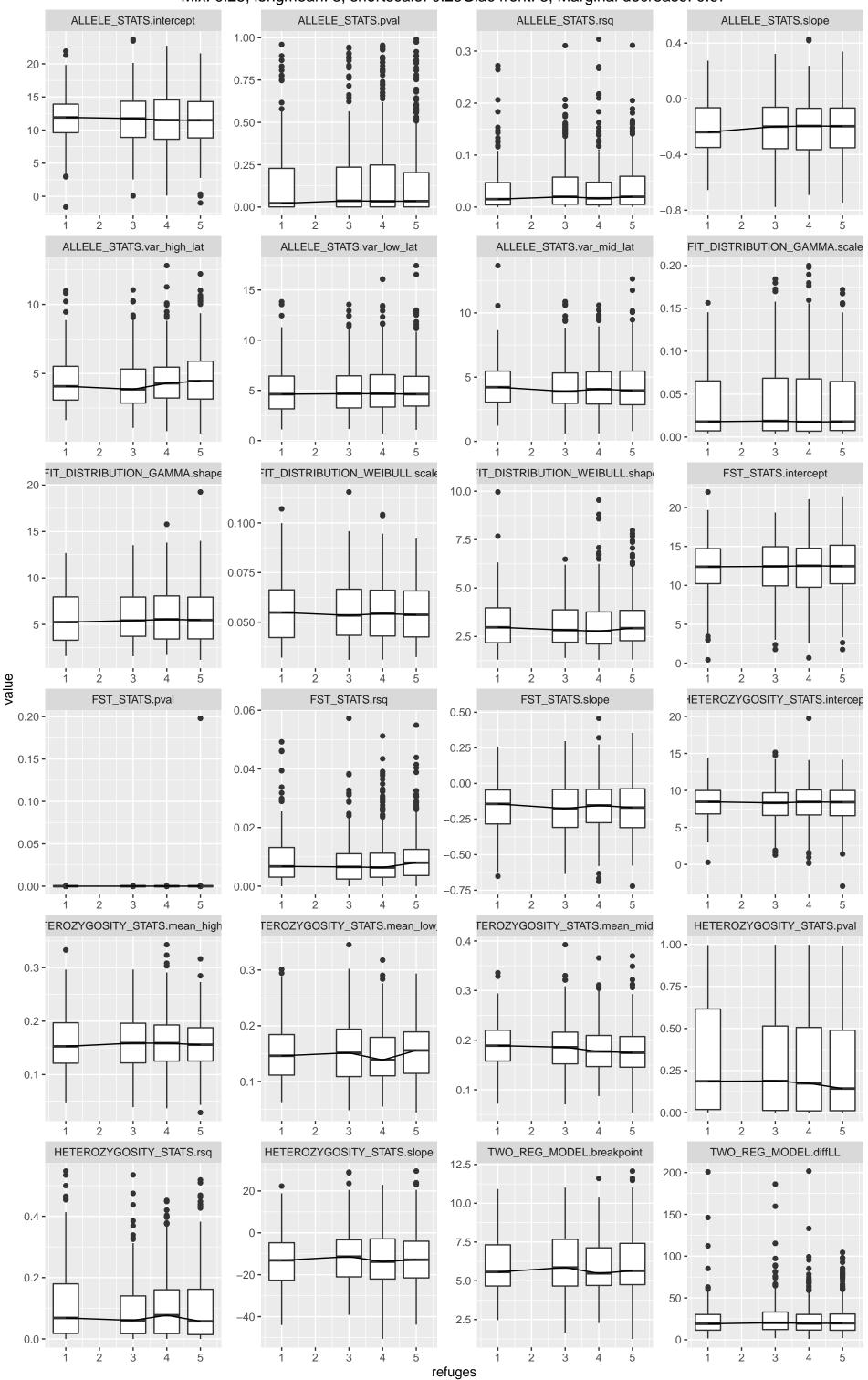


Mix: 0.25, longmean: 3, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 5 3 5 2 3 2 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high HETEROZYGOSITY\_STATS.pval TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.25, longmean: 3, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.rsq 1.00 -



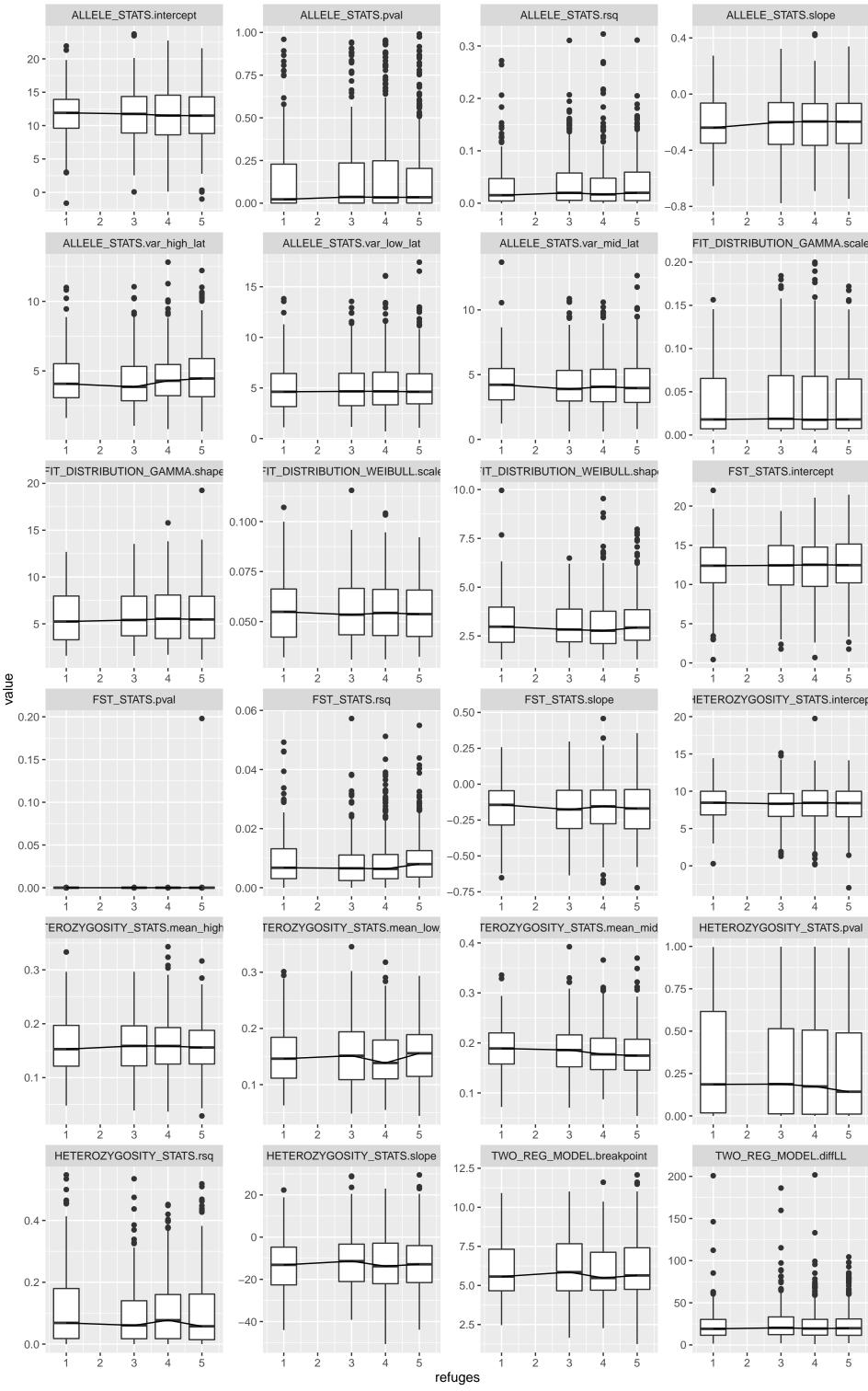
Mix: 0.25, longmean: 3, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67



Mix: 0.1, longmean: 2, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.1, longmean: 2, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

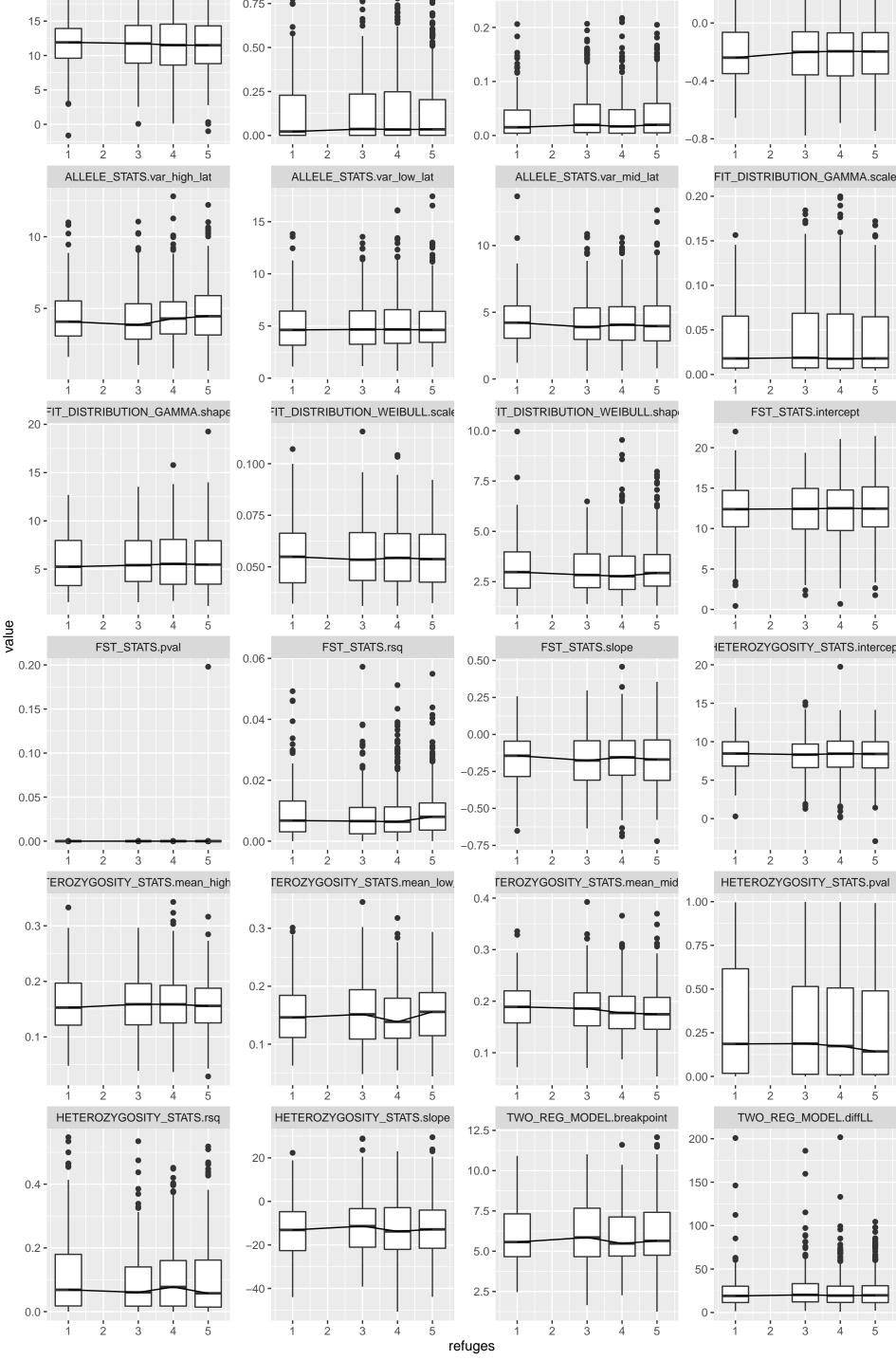
Mix: 0.1, longmean: 2, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 5 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint 200 -20 -10.0 -150 **-**



Mix: 0.1, longmean: 3, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.1, longmean: 3, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat ALLELE\_STATS.var\_low\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high FEROZYGOSITY\_STATS.mean\_mid TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

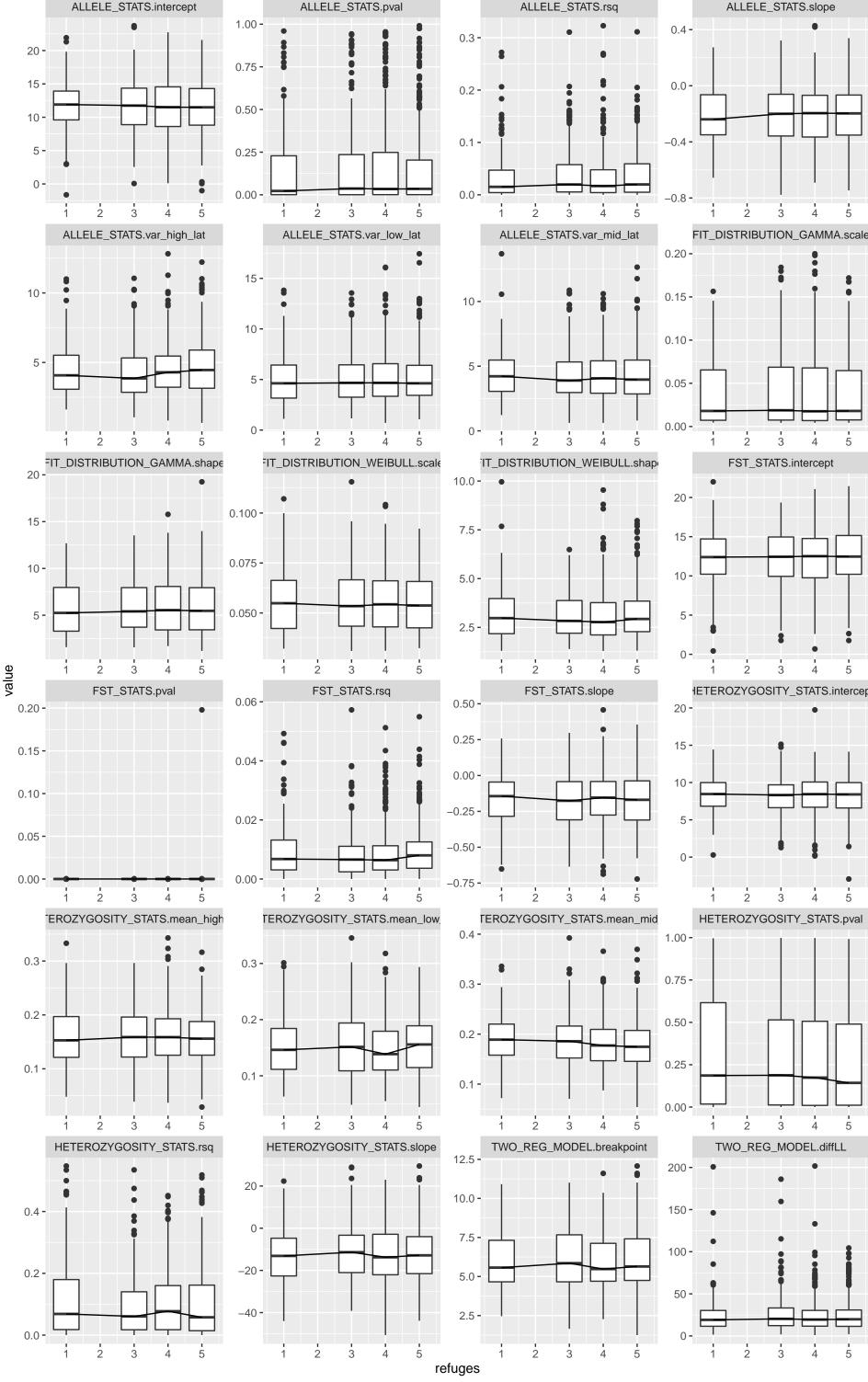
Mix: 0.1, longmean: 3, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 5 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 3 FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint 200 -20 -10.0 -150 **-**7.5 -



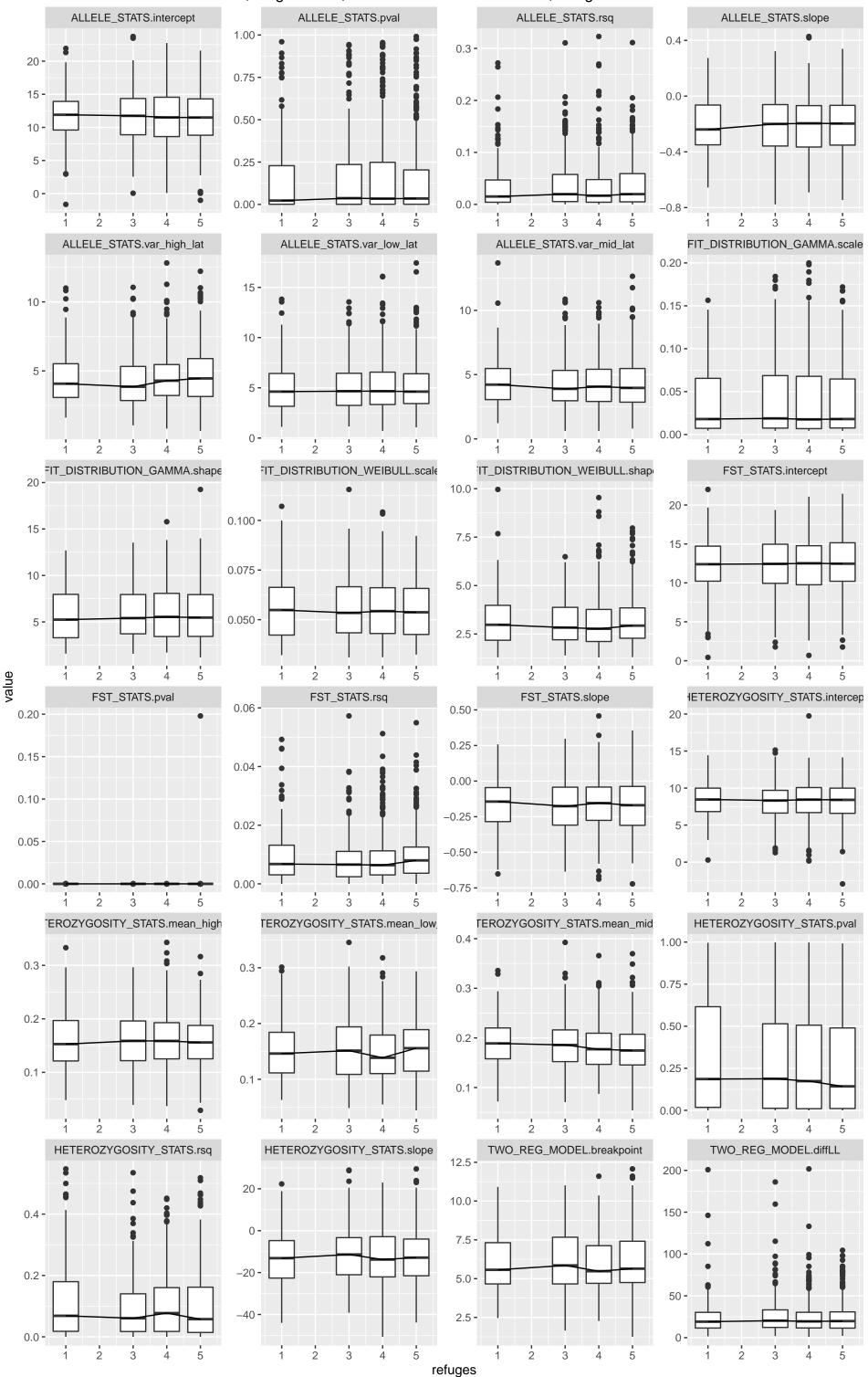
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Mix: 0.05, longmean: 2, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 5 3 5 2 3 2 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.05, longmean: 2, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 5 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint 200 -20 -10.0 -150 **-**

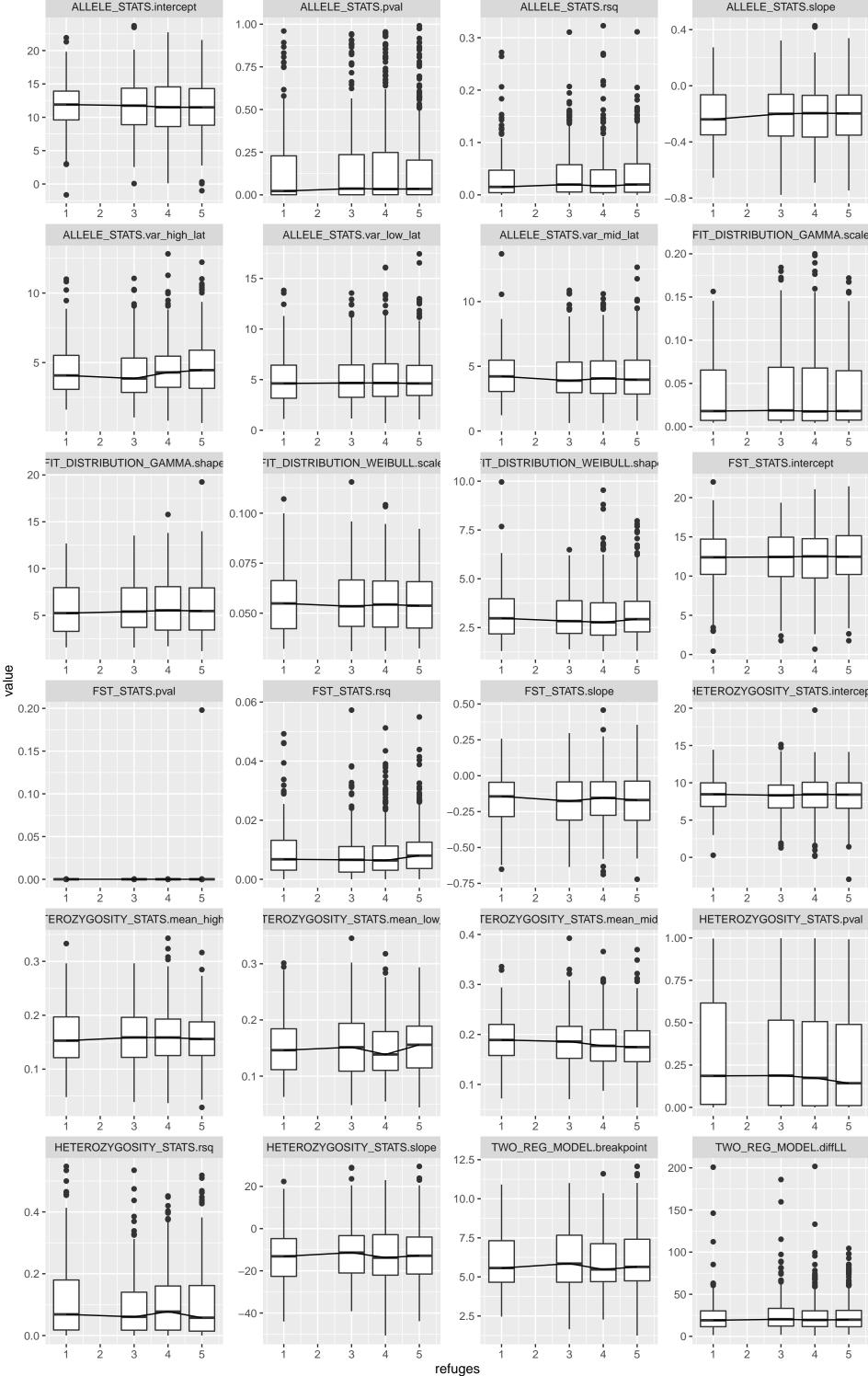


Mix: 0.05, longmean: 2, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.pval 1.00 -0.4 -

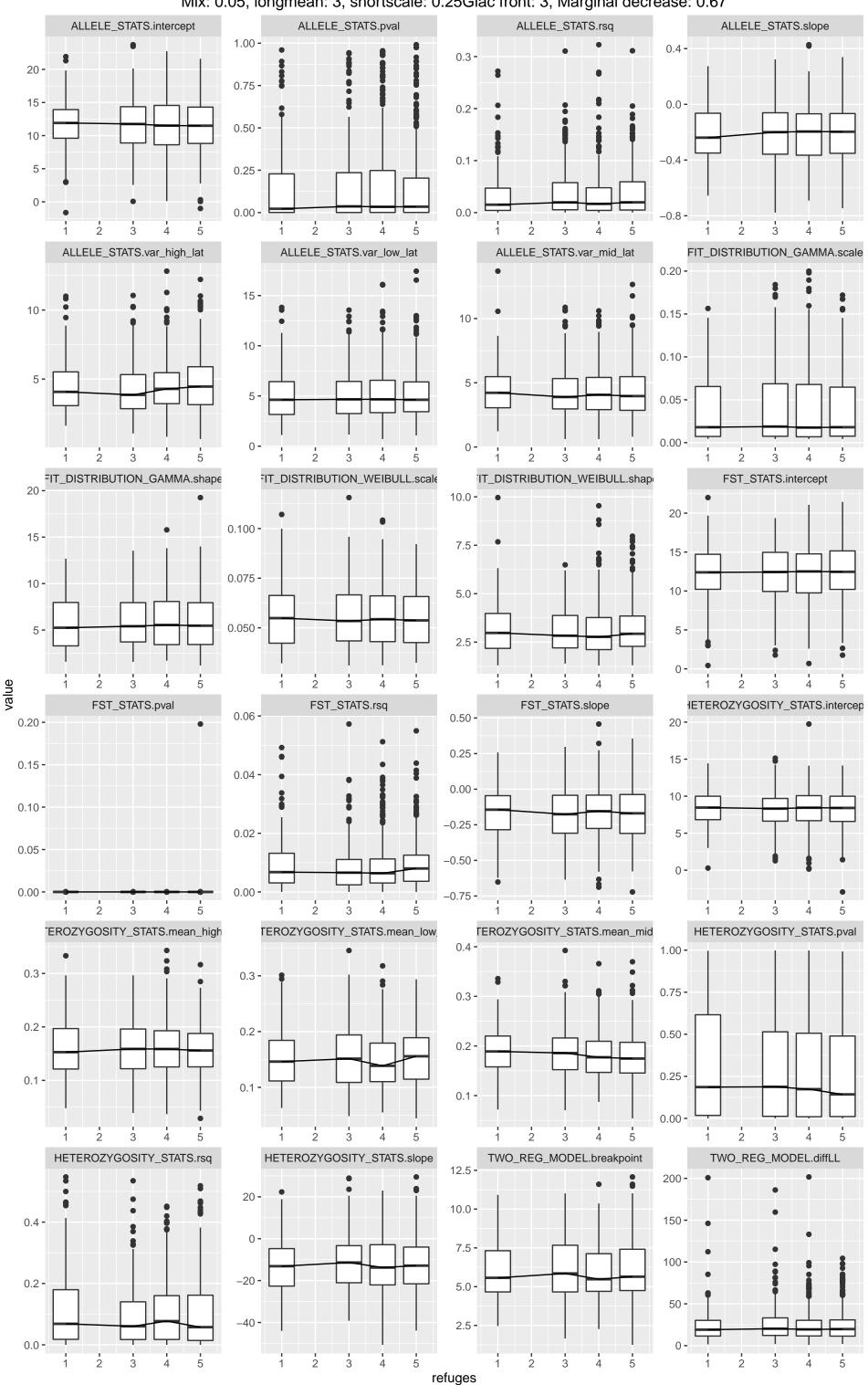


Mix: 0.05, longmean: 3, shortscale: 1Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 5 3 5 2 3 2 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

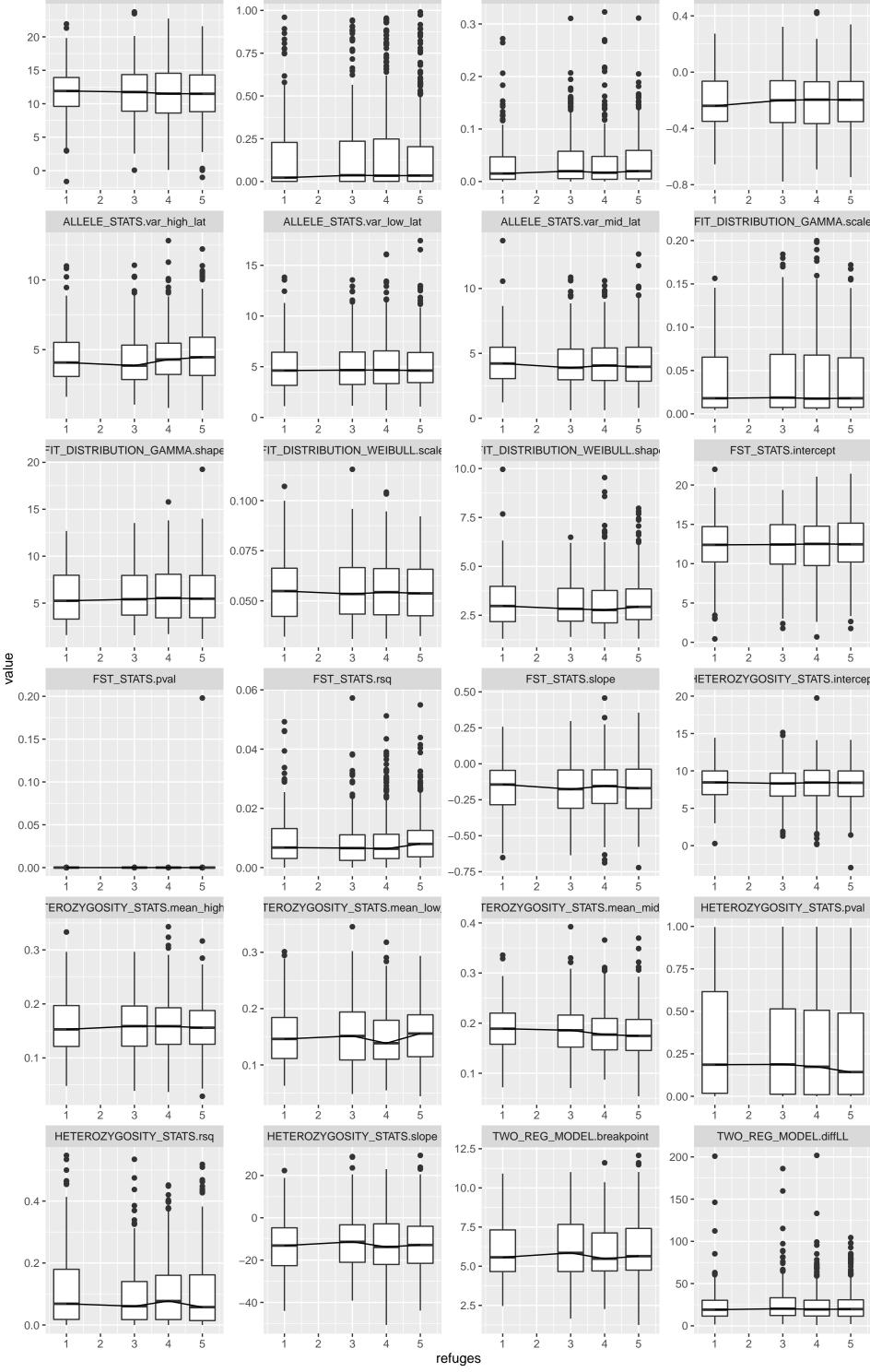
Mix: 0.05, longmean: 3, shortscale: 0.5Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 5 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shape FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint 200 -20 -10.0 -150 **-**7.5 -



Mix: 0.05, longmean: 3, shortscale: 0.25Glac front: 3, Marginal decrease: 0.67 ALLELE\_STATS.rsq ALLELE\_STATS.pval



Mix: 0.5, longmean: 2, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint 200 -20 -10.0 -150 **-**7.5 -



Mix: 0.5, longmean: 2, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.5, longmean: 2, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 refuges

Mix: 0.5, longmean: 3, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**7.5 -100 -

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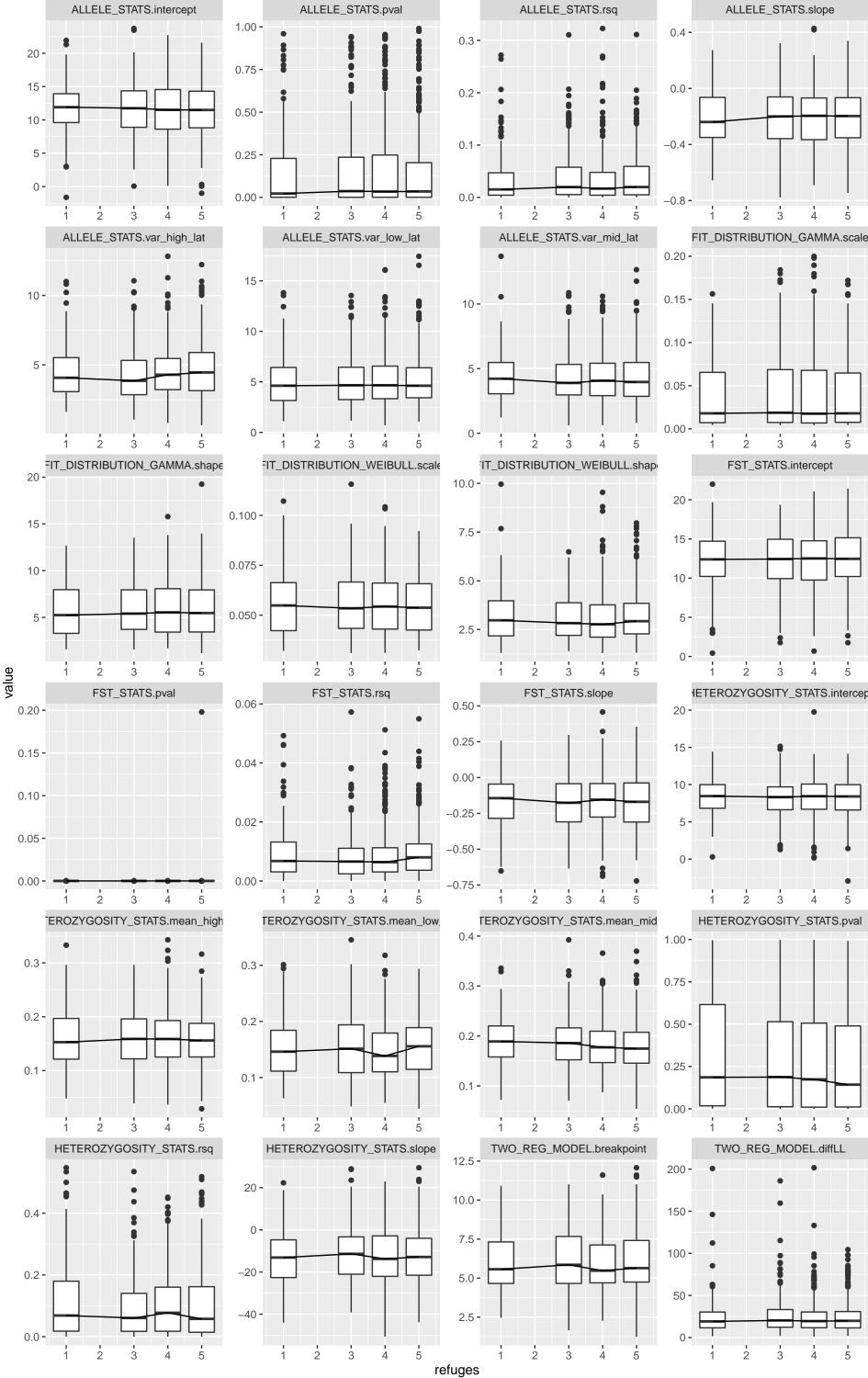
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Mix: 0.5, longmean: 3, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.5, longmean: 3, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.intercept ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 refuges

Mix: 0.25, longmean: 2, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_mid 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint 200 -20 -10.0 -150 **-**7.5 -100 -



Mix: 0.25, longmean: 2, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 5 3 5 2 3 2 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval FEROZYGOSITY\_STATS.mean\_mid 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.25, longmean: 2, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 5 3 5 2 3 2 ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.25, longmean: 3, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 5 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**TEROZYGOSITY\_STATS.mean\_low. EROZYGOSITY\_STATS.mean\_high FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**7.5 -100 -5.0 -

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0.1 -

0.4 -

Mix: 0.25, longmean: 3, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 5 3 5 2 3 2 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.25, longmean: 3, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 5 3 5 2 3 2 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.1, longmean: 2, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**7.5 -100 -

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Mix: 0.1, longmean: 2, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.1, longmean: 2, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 refuges

Mix: 0.1, longmean: 3, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -0.75 -0.0 -0.2 0.50 -0.1 -0.25 -0.00 -0.0 --0.8 3 5 2 5 2 3 5 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -0.15 -10 -10-0.10 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -7.5 -15 -0.075 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -20 -0.25 -15 **-**0.04 -0.00 -10 --0.250.02 --0.50 **-**0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.75 -0.3 -0.2 -0.50 -0.2 -0.25 0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**7.5 -100 -

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Mix: 0.1, longmean: 3, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high FEROZYGOSITY\_STATS.mean\_mid TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.1, longmean: 3, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**FEROZYGOSITY\_STATS.mean\_mid EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 refuges

Mix: 0.05, longmean: 2, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -

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value

Mix: 0.05, longmean: 2, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 refuges

Mix: 0.05, longmean: 2, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 5 2 3 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

Mix: 0.05, longmean: 3, shortscale: 1Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.intercept ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 ALLELE\_STATS.var\_mid\_lat FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 -FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**TEROZYGOSITY\_STATS.mean\_low. EROZYGOSITY\_STATS.mean\_high FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 -

refuges

value

Mix: 0.05, longmean: 3, shortscale: 0.5Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 3 5 2 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 refuges

Mix: 0.05, longmean: 3, shortscale: 0.25Glac front: 3, Marginal decrease: 1 ALLELE\_STATS.intercept ALLELE\_STATS.pval ALLELE\_STATS.rsq ALLELE\_STATS.slope 1.00 -0.4 -0.3 -20 -0.75 -15 -0.0 -0.2 0.50 -10 -0.1 -5 -0.25 -0 -0.00 -0.0 --0.8 5 2 3 5 2 3 FIT\_DISTRIBUTION\_GAMMA.scale ALLELE\_STATS.var\_mid\_lat ALLELE\_STATS.var\_low\_lat ALLELE\_STATS.var\_high\_lat 0.20 -15 -10-0.15 -10 -10-0.10 -5 -5 -0.05 -0.00 -3 FIT\_DISTRIBUTION\_GAMMA.shape FIT\_DISTRIBUTION\_WEIBULL.scale IT\_DISTRIBUTION\_WEIBULL.shap FST\_STATS.intercept 10.0 -20 -0.100 -15 -7.5 -15 -0.075 -10 -10 -5.0 -0.050 -2.5 value FST\_STATS.pval FST\_STATS.rsq FST\_STATS.slope HETEROZYGOSITY\_STATS.intercep 0.06 -0.50 -0.20 -20 -0.25 -15 **-**0.15 -0.04 -0.00 -10 -0.10 --0.250.02 -0.05 --0.50 **-**0.00 -0.00 --0.75 **-**EROZYGOSITY\_STATS.mean\_high TEROZYGOSITY\_STATS.mean\_low. FEROZYGOSITY\_STATS.mean\_mid HETEROZYGOSITY\_STATS.pval 0.4 -1.00 -0.3 -0.3 -0.75 -0.3 -0.2 -0.2 -0.50 -0.2 -0.25 0.1 -0.00 TWO\_REG\_MODEL.diffLL HETEROZYGOSITY\_STATS.slope TWO\_REG\_MODEL.breakpoint HETEROZYGOSITY\_STATS.rsq 200 -20 -10.0 -150 **-**0.4 -7.5 -100 -0.2 -5.0 -50 -2.5 refuges