	MutSpec vs Temperature (FishBase)	MutSpec vs Maturation (FishBase)		MutSpec vs MaximalLifespan (AnAge)	MutSpec vs Temperature + Maturation (Fish Base)	
		Lm	Tm		Lm	Tm
Correlation	Spearman's rank correlation rho: data: TemperMut$A_G and TemperMut$Temperature S = 474663, p-value = 3.321e-05 alternative hypothesis: true rho is not equal to 0 sample estimates: rho -0.3581037 data: TemperMut$T_C and TemperMut$Temperature S = 256954, p-value = 0.002522 alternative hypothesis: true rho is not equal to 0 sample estimates: rho 0.2648037 **AFTER NORMALIZATION** Spearman's rank correlation rho data: TemperMut$T_C.NormalOnlyByT and TemperMut$Temperature S = 325684, p-value = 0.4446 alternative hypothesis: true rho is not equal to 0 sample estimates: rho 0.06815333 Spearman's rank correlation rho data: TemperMut$A_G.NormalOnlyByA and TemperMut$Temperature S = 385666, p-value = 0.146 alternative hypothesis: true rho is not equal to 0 sample estimates:	Spearman's rank correlation rho: data: MATULmmut$G_C and MATULmmut$Lm S = 192684, p-value = 0.008235 alternative hypothesis: true rho is not equal to 0 sample estimates: rho -0.266859	Spearman's rank correlation rho: data: MATUTmmut$G_C and MATUTmmut$Tm S = 242544, p-value = 0.0222 alternative hypothesis: true rho is not equal to 0 sample estimates: rho -0.2219755	Spearman's rank correlation rho data: AnAgeMut$T_C and AnAgeMut$Maximum.longevity..yrs. S = 223911, p-value = 0.9219 alternative hypothesis: true rho is not equal to 0 sample estimates: rho -0.009449996	Call: lm(formula = T_C ~ scale(Temperature) * scale(Lm), data = allparameters) Residuals: Min 1Q Median 3Q Max -0.150980 -0.040899 -0.009959 0.043756 0.150034 Coefficients: Estimate Std. Error t value Pr(>|t|) (Intercept) 0.133998 0.008373 16.003 <2e-16 *** scale(Temperature) 0.019695 0.008442 2.333 0.023 * scale(Lm) -0.001413 0.009040 -0.156 0.876 scale(Temperature):scale(Lm) -0.003960 0.010934 -0.362 0.719 --- Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1 Residual standard error: 0.06685 on 60 degrees of freedom Multiple R-squared: 0.08655, Adjusted R-squared: 0.04088 F-statistic: 1.895 on 3 and 60 DF, p-value: 0.1401 Call: lm(formula = T_C ~ scale(Temperature) + scale(Lm), data = allparameters) Residuals: Min 1Q Median 3Q Max -0.148531 -0.043140 -0.008988 0.044211 0.146448 Coefficients: Estimate Std. Error t value Pr(>|t|) (Intercept) 0.134190 0.008297 16.174 <2e-16 ***	Call: lm(formula = T_C ~ scale(Temperature) * scale(Tm), data = allparameters) Residuals: Min 1Q Median 3Q Max -0.115771 -0.040550 -0.007716 0.039935 0.136724 Coefficients: Estimate Std. Error t value Pr(>|t|) (Intercept) 0.131507 0.008055 16.325 < 2e-16 *** scale(Temperature) 0.024866 0.008083 3.076 0.00313 ** scale(Tm) -0.008903 0.008722 -1.021 0.31142 scale(Temperature):scale(Tm) -0.000811 0.009005 -0.090 0.92854 --- Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1 Residual standard error: 0.062 on 61 degrees of freedom Multiple R-squared: 0.1815, Adjusted R-squared: 0.1412 F-statistic: 4.508 on 3 and 61 DF, p-value: 0.006387 Call: lm(formula = T_C ~ scale(Temperature) + scale(Tm), data = allparameters) Residuals: Min 1Q Median 3Q Max -0.11592 -0.04111 -0.00788 0.03984 0.13706 Coefficients: Estimate Std. Error t value Pr(>|t|) (Intercept) 0.131723 0.007628 17.269 < 2e-16 *** scale(Temperature) 0.024931 0.007985 3.122 0.00273 **

rho
-0.1297411

WHAT WITH A_G?

Call:
lm(formula = A_G ~ scale(Temperature) * scale(Tm), data = allparameters)

Residuals:
Min 1Q Median 3Q Max
-0.081267 -0.026615 -0.007707 0.014225 0.135117

Coefficients:
Estimate Std. Error t value Pr(>|t|)
(Intercept) 0.067337 0.006327 10.643 1.56e-15 ***
scale(Temperature) -0.014702 0.006348 -2.316 0.0239 *
scale(Tm) -0.009556 0.006851 -1.395 0.1681
scale(Temperature):scale(Tm) -0.005560 0.007073 -0.786 0.4349

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.04869 on 61 degrees of freedom
Multiple R-squared: 0.0903, Adjusted R-squared: 0.04556
F-statistic: 2.018 on 3 and 61 DF, p-value: 0.1207

MOREOVER:
Call:
lm(formula = Temperature ~ scale(T_C) * scale(A_G), data = allparameters)

Residuals:
Min 1Q Median 3Q Max

scale(Temperature) 0.019552 0.008373 2.335 0.0228 *
scale(Lm) -0.002592 0.008373 -0.310 0.7579

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.06637 on 61 degrees of freedom
Multiple R-squared: 0.08455, Adjusted R-squared: 0.05454
F-statistic: 2.817 on 2 and 61 DF, p-value: 0.06758

Call:
lm(formula = scale(T_C) ~ scale(Temperature) + scale(Lm), data = allparameters)

Residuals:
Min 1Q Median 3Q Max
-2.1759 -0.6320 -0.1317 0.6477 2.1454

Coefficients:
Estimate Std. Error t value Pr(>|t|)
(Intercept) 2.199e-16 1.215e-01 0.000 1.0000
scale(Temperature) 2.864e-01 1.227e-01 2.335 0.0228 *
scale(Lm) -3.798e-02 1.227e-01 -0.310 0.7579

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.9723 on 61 degrees of freedom
Multiple R-squared: 0.08455, Adjusted R-squared: 0.05454
F-statistic: 2.817 on 2 and 61 DF, p-value: 0.06758

Call:
lm(formula = scale(T_C) ~ 0 + scale(Temperature) + scale(Lm), data = allparameters)

Residuals:
Min 1Q Median 3Q Max
-2.1759 -0.6320 -0.1317 0.6477 2.1454

scale(Tm) -0.008600 0.007985 -1.077 0.28564

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.0615 on 62 degrees of freedom
Multiple R-squared: 0.1814, Adjusted R-squared: 0.1549
F-statistic: 6.867 on 2 and 62 DF, p-value: 0.002023

Call:
lm(formula = scale(T_C) ~ scale(Temperature) + scale(Tm), data = allparameters)

Residuals:
Min 1Q Median 3Q Max
-1.7327 -0.6145 -0.1178 0.5956 2.0488

Coefficients:
Estimate Std. Error t value Pr(>|t|)
(Intercept) -4.629e-16 1.140e-01 0.000 1.00000
scale(Temperature) 3.727e-01 1.194e-01 3.122 0.00273 **
scale(Tm) -1.286e-01 1.194e-01 -1.077 0.28564

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.9193 on 62 degrees of freedom
Multiple R-squared: 0.1814, Adjusted R-squared: 0.1549
F-statistic: 6.867 on 2 and 62 DF, p-value: 0.002023

Call:
lm(formula = scale(T_C) ~ 0 + scale(Temperature) + scale(Tm), data = allparameters)

Residuals:
Min 1Q Median 3Q Max
-1.7327 -0.6145 -0.1178 0.5956 2.0488

Coefficients:

	-19.1572 -4.7552 0.7703 4.6829 11.5930 Coefficients: Estimate Std. Error t value Pr(>|t|) (Intercept) 16.0049 0.8609 18.590 < 2e-16 *** scale(T_C) 3.0589 0.8804 3.475 0.000948 *** scale(A_G) -1.1890 0.9333 -1.274 0.207495 scale(T_C):scale(A_G) 0.8792 0.9322 0.943 0.349346 --- Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Residual standard error: 6.885 on 61 degrees of freedom Multiple R-squared: 0.2167, Adjusted R-squared: 0.1782 F-statistic: 5.625 on 3 and 61 DF, p-value: 0.001802 **Call**: lm(formula = Temperature ~ scale(T_C) + scale(A_G), data = allparameters) Residuals: Min 1Q Median 3Q Max -19.3869 -4.7812 0.4572 4.5021 11.5473 Coefficients: Estimate Std. Error t value Pr(>|t|) (Intercept) 15.9015 0.8532 18.638 < 2e-16 *** scale(T_C) 2.9136 0.8660 3.364 0.00132 ** scale(A_G) -1.5153 0.8660 -1.750 0.08511 . --- Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Residual standard error: 6.879 on 62 degrees of freedom				Coefficients: Estimate Std. Error t value Pr(>|t|) scale(Temperature) 0.28642 0.12166 2.354 0.0217 * scale(Lm) -0.03798 0.12166 -0.312 0.7560 --- Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Residual standard error: 0.9645 on 62 degrees of freedom Multiple R-squared: 0.08455, Adjusted R-squared: 0.05502 F-statistic: 2.863 on 2 and 62 DF, p-value: 0.06466 Call: lm(formula = scale(T_C) ~ 0 + scale(Temperature), data = allparameters) Residuals: Min 1Q Median 3Q Max -2.1557 -0.6148 -0.1217 0.6598 2.1147 Coefficients: Estimate Std. Error t value Pr(>|t|) scale(Temperature) 0.2883 0.1206 2.39 0.0199 * --- Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Residual standard error: 0.9575 on 63 degrees of freedom Multiple R-squared: 0.08311, Adjusted R-squared: 0.06856 F-statistic: 5.711 on 1 and 63 DF, p-value: 0.01986	Estimate Std. Error t value Pr(>|t|) scale(Temperature) 0.3727 0.1184 3.147 0.00252 ** scale(Tm) -0.1286 0.1184 -1.086 0.28176 --- Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Residual standard error: 0.9119 on 63 degrees of freedom Multiple R-squared: 0.1814, Adjusted R-squared: 0.1554 F-statistic: 6.978 on 2 and 63 DF, p-value: 0.00183 Call: lm(formula = scale(T_C) ~ 0 + scale(Temperature), data = allparameters) Residuals: Min 1Q Median 3Q Max -1.67386 -0.63249 -0.04528 0.58369 2.15754 Coefficients: Estimate Std. Error t value Pr(>|t|) scale(Temperature) 0.4075 0.1142 3.57 0.000684 *** --- Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Residual standard error: 0.9132 on 64 degrees of freedom Multiple R-squared: 0.166, Adjusted R-squared: 0.153 F-statistic: 12.74 on 1 and 64 DF, p-value: 0.0006844

	Multiple R-squared: 0.2053, Adjusted R-squared: 0.1796 F-statistic: 8.007 on 2 and 62 DF, p-value: 0.0008065					
N of species	128	97	106	110	64	65
Script	https://github.com/polarsong/mtDNA_mutspectrum/blob/Actinopterigii/Head/2Scripts/VertebratePolymorphisms.MutSpecComparisons.Analyses.Ecology.Actinopterygii.FishBaseData.ALL_RANK_CORR.R	https://github.com/polarsong/mtDNA_mutspectrum/blob/Actinopterigii/Head/2Scripts/VertebratePolymorphisms.MutSpecComparisons.Analyses.Ecology.Actinopterygii.FishBaseData.ALL_RANK_CORR.R	https://github.com/polarsong/mtDNA_mutspectrum/blob/Actinopterigii/Head/2Scripts/VertebratePolymorphisms.MutSpecComparisons.Analyses.Ecology.Actinopterygii.FishBaseData.ALL_RANK_CORR.R	https://github.com/polarsong/mtDNA_mutspectrum/blob/Actinopterigii/Head/2Scripts/VertebratePolymorphisms.MutSpecComparisons.Analyses.Ecology.Actinopterygii.FishBaseData.ALL_RANK_CORR.R	https://github.com/polarsong/mtDNA_mutspectrum/blob/Actinopterigii/Head/2Scripts/VertebratePolymorphisms.MutSpecComparisons.Analyses.Ecology.Actinopterygii.FishBaseData.MultipleReg_Maturity~Temp.R	https://github.com/polarsong/mtDNA_mutspectrum/blob/Actinopterigii/Head/2Scripts/VertebratePolymorphisms.MutSpecComparisons.Analyses.Ecology.Actinopterygii.FishBaseData.MultipleReg_Maturity~Temp.R
Figures						

	WholeGenome vs Temperature (FishBase)	**WholeGenome vs Maturation (FishBase)**	**WholeGenome vs MaximalLifespan (AnAge)**	**WholeGenome vs Maturiation (AnAge)**	**WholeGenome vs Body Mass (AnAge)**	**WholeGenome vs Temperature(FishBase) + Maturation(FishBase)**

		Lm	**Tm**				**Lm**	**Tm**
Correlation	Pearson's product-moment correlation data: log2(AGG$FemaleMaturityDays) and AGG$FrT t = -2.7871, df = 300, p-value = 0.005657 alternative hypothesis: true correlation is not equal to 0 95 percent confidence interval: -0.26694950 -0.04684676 sample estimates: cor -0.1588715 data: log2(AGG$FemaleMaturityDays) and AGG$FrG t = -3.6769, df = 300, p-value = 0.0002796 alternative hypothesis: true correlation is not equal to 0 95 percent confidence interval: -0.31318440 -0.09707033 sample estimates: cor -0.2076599	Pearson's product-moment correlation data: log2(AGG$FemaleMaturityDays) and AGG$FrA t = 2.5363, df = 190, p-value = 0.01201 alternative hypothesis: true correlation is not equal to 0 95 percent confidence interval: 0.04038784 0.31450996 sample estimates: cor 0.1809612 data: log2(AGG$FemaleMaturityDays) and AGG$FrT t = -4.7702, df = 190, p-value = 3.657e-06 alternative hypothesis: true correlation is not equal to 0 95 percent confidence interval: -0.4479050 -0.1944362 sample estimates: cor -0.3270399	Pearson's product-moment correlation data: log2(AGG$FemaleMaturityDays) and AGG$FrT t = -4.0306, df = 186, p-value = 8.105e-05 alternative hypothesis: true correlation is not equal to 0 95 percent confidence interval: -0.4099044 -0.1462413 sample estimates: cor -0.28342	Pearson's product-moment correlation data: log2(AGG$FemaleMaturityDays) and AGG$FrA t = 2.9679, df = 204, p-value = 0.003357 alternative hypothesis: true correlation is not equal to 0 95 percent confidence interval: 0.06865682 0.33094580 sample estimates: cor 0.2034487 data: log2(AGG$FemaleMaturityDays) and AGG$FrT t = -7.3526, df = 204, p-value = 4.624e-12 alternative hypothesis: true correlation is not equal to 0 95 percent confidence interval: -0.5593992 -0.3424218 sample estimates: cor -0.4576984 data: log2(AGG$FemaleMaturityDays) and AGG$FrC t = 3.0345, df = 204, p-value = 0.002723 alternative hypothesis: true correlation is not equal to 0 95 percent confidence interval: 0.07319492 0.33500116 sample estimates: cor 0.2078168	Pearson's product-moment correlation data: log2(AGG$FemaleMaturityDays) and AGG$FrT t = -5.0863, df = 89, p-value = 2.01e-06 alternative hypothesis: true correlation is not equal to 0 95 percent confidence interval: -0.6199221 -0.2977171 sample estimates: cor -0.4745648 data: log2(AGG$FemaleMaturityDays) and AGG$FrC t = 2.4411, df = 89, p-value = 0.01662 alternative hypothesis: true correlation is not equal to 0 95 percent confidence interval: 0.04698102 0.43405429 sample estimates: cor 0.2505021	Pearson's product-moment correlation data: log2(AGG$FemaleMaturityDays) and AGG$FrT t = -3.7031, df = 124, p-value = 0.0003191 alternative hypothesis: true correlation is not equal to 0 95 percent confidence interval: -0.4648112 -0.1488685 sample estimates: cor -0.3155589 data: log2(AGG$FemaleMaturityDays) and AGG$FrC t = 2.7439, df = 124, p-value = 0.006972 alternative hypothesis: true correlation is not equal to 0 95 percent confidence interval: 0.0671575 0.3975257 sample estimates: cor 0.2392541	**Call:** lm(formula = FrT ~ scale(Temperature) * scale(Maturity), data = AGGTEMPE) Residuals: Min 1Q Median 3Q Max -0.125078 -0.022805 0.002719 0.019496 0.115140 Coefficients: Estimate Std. Error t value Pr(>|t|) (Intercept) 0.215970 0.003838 56.273 < 2e-16 *** scale(Temperature) -0.015026 0.003812 -3.942 0.000138 *** scale(Maturity) -0.016741 0.003966 -4.221 4.85e-05 *** scale(Temperature):scale(Maturity) -0.001854 0.004659 -0.398 0.691467 --- Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1 Residual standard error: 0.03978 on 116 degrees of freedom Multiple R-squared: 0.1882, Adjusted R-squared: 0.1672 F-statistic: 8.962 on 3 and 116 DF, p-value: 2.179e-05 **Call**: lm(formula = FrT ~ scale(Temperature) +	**Call**: lm(formula = FrT ~ scale(Temperature) * scale(Maturity), data = AGGTEMPE) Residuals: Min 1Q Median 3Q Max -0.088755 -0.024531 -0.000606 0.020775 0.139422 Coefficients: Estimate Std. Error t value Pr(>|t|) (Intercept) 0.219415 0.004024 54.520 < 2e-16 *** scale(Temperature) -0.021204 0.003880 -5.464 3.10e-07 *** scale(Maturity) -0.023345 0.005685 -4.106 7.93e-05 *** scale(Temperature):scale(Maturity) -0.008171 0.005267 -1.551 0.124 --- Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1 Residual standard error: 0.03812 on 106 degrees of freedom Multiple R-squared: 0.2674, Adjusted R-squared: 0.2467 F-statistic: 12.9 on 3 and 106 DF, p-value: 3.014e-07 **Call**: lm(formula = FrT ~ scale(Temperature) +

							scale(Maturity), data = AGGTEMPE) Residuals: Min 1Q Median 3Q Max -0.124858 -0.023289 0.002424 0.019246 0.114993 Coefficients: Estimate Std. Error t value Pr(>|t|) (Intercept) 0.216464 0.003619 59.819 < 2e-16 *** scale(Temperature) -0.014851 0.003772 -3.937 0.000141 *** scale(Maturity) -0.016271 0.003772 -4.313 3.38e-05 *** --- Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Residual standard error: 0.03964 on 117 degrees of freedom Multiple R-squared: 0.1871, Adjusted R-squared: 0.1732 F-statistic: 13.46 on 2 and 117 DF, p-value: 5.475e-06 **Call**: lm(formula = scale(FrT) ~ scale(Temperature) + scale(Maturity), data = AGGTEMPE) Residuals: Min 1Q Median 3Q Max	scale(Maturity), data = AGGTEMPE) Residuals: Min 1Q Median 3Q Max -0.087127 -0.023234 0.000743 0.018729 0.141510 Coefficients: Estimate Std. Error t value Pr(>|t|) (Intercept) 0.222096 0.003659 60.706 < 2e-16 *** scale(Temperature) -0.020756 0.003895 -5.329 5.53e-07 *** scale(Maturity) -0.016883 0.003895 -4.335 3.31e-05 *** --- Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Residual standard error: 0.03837 on 107 degrees of freedom Multiple R-squared: 0.2508, Adjusted R-squared: 0.2368 F-statistic: 17.91 on 2 and 107 DF, p-value: 1.956e-07 **Call**: lm(formula = scale(FrT) ~ scale(Temperature) + scale(Maturity), data = AGGTEMPE) Residuals: Min 1Q Median 3Q Max -1.9837 -0.5290 0.0169 0.4264 3.2219

							-2.86412 -0.53423 0.05561 0.44147 2.63781 Coefficients: Estimate Std. Error t value Pr(>|t|) (Intercept) 4.712e-17 8.301e-02 0.000 1.000000 scale(Temperature) -3.407e-01 8.654e-02 -3.937 0.000141 *** scale(Maturity) -3.732e-01 8.654e-02 -4.313 3.38e-05 *** --- Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1 Residual standard error: 0.9093 on 117 degrees of freedom Multiple R-squared: 0.1871, Adjusted R-squared: 0.1732 F-statistic: 13.46 on 2 and 117 DF, p-value: 5.475e-06 **Call**: lm(formula = scale(FrT) ~ 0 + scale(Temperature) + scale(Maturity), data = AGGTEMPE) Residuals: Min 1Q Median 3Q Max -2.86412 -0.53423 0.05561 0.44147 2.63781 Coefficients: Estimate Std. Error t value Pr(>|t|)	Coefficients: Estimate Std. Error t value Pr(>|t|) (Intercept) 9.747e-17 8.330e-02 0.000 1 scale(Temperature) -4.726e-01 8.868e-02 -5.329 5.53e-07 *** scale(Maturity) -3.844e-01 8.868e-02 -4.335 3.31e-05 *** --- Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1 Residual standard error: 0.8736 on 107 degrees of freedom Multiple R-squared: 0.2508, Adjusted R-squared: 0.2368 F-statistic: 17.91 on 2 and 107 DF, p-value: 1.956e-07 **Call**: lm(formula = scale(FrT) ~ 0 + scale(Temperature) + scale(Maturity), data = AGGTEMPE) Residuals: Min 1Q Median 3Q Max -1.9837 -0.5290 0.0169 0.4264 3.2219 Coefficients: Estimate Std. Error t value Pr(>|t|) scale(Temperature) -0.47256 0.08827 -5.354 4.89e-07 ***

							scale(Temperature) -0.34067 0.08617 -3.954 0.000132 *** scale(Maturity) -0.37325 0.08617 -4.332 3.13e-05 *** --- Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1 Residual standard error: 0.9054 on 118 degrees of freedom Multiple R-squared: 0.1871, Adjusted R-squared: 0.1733 F-statistic: 13.58 on 2 and 118 DF, p-value: 4.936e-06 **Call**: lm(formula = scale(FrT) ~ 0 + scale(Temperature), data = AGGTEMPE) Residuals: Min 1Q Median 3Q Max -2.5877 -0.4248 0.0315 0.5867 2.7099 Coefficients: Estimate Std. Error t value Pr(>|t|) scale(Temperature) -0.24042 0.08898 -2.702 0.0079 ** --- Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1 Residual standard error: 0.9707 on 119 degrees of freedom Multiple R-squared: 0.0578, Adjusted R-squared: 0.04988	scale(Maturity) -0.38439 0.08827 -4.355 3.04e-05 *** --- Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1 Residual standard error: 0.8696 on 108 degrees of freedom Multiple R-squared: 0.2508, Adjusted R-squared: 0.2369 F-statistic: 18.08 on 2 and 108 DF, p-value: 1.693e-07 **Call**: lm(formula = scale(FrT) ~ 0 + scale(Temperature), data = AGGTEMPE) Residuals: Min 1Q Median 3Q Max -2.4959 -0.4454 -0.0535 0.4359 3.4630 Coefficients: Estimate Std. Error t value Pr(>|t|) scale(Temperature) -0.34529 0.08989 -3.841 0.000206 *** --- Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1 Residual standard error: 0.9385 on 109 degrees of freedom Multiple R-squared: 0.1192, Adjusted R-squared: 0.1111 F-statistic: 14.75 on 1 and 109 DF, p-value: 0.000206

							F-statistic: 7.3 on 1 and 119 DF, p-value: 0.007903	
N of species	302	192	188	206	91	126	120	110
Script	https://github.com/polarsong/mtDNA_mutspectrum/blob/WholeGenomesBranch/Head/2Scripts/WholeGenomeAnalyses.EcologyAndMutSpecChordata.NoOverlap.ActinopterygiiOnlyFishBase.R	https://github.com/polarsong/mtDNA_mutspectrum/blob/WholeGenomesBranch/Head/2Scripts/WholeGenomeAnalyses.EcologyAndMutSpecChordata.NoOverlap.ActinopterygiiOnlyFishBase.R	https://github.com/polarsong/mtDNA_mutspectrum/blob/WholeGenomesBranch/Head/2Scripts/WholeGenomeAnalyses.EcologyAndMutSpecChordata.NoOverlap.ActinopterygiiOnlyFishBase.R	https://github.com/polarsong/mtDNA_mutspectrum/blob/WholeGenomesBranch/Head/2Scripts/WholeGenomeAnalyses.EcologyAndMutSpecChordata.NoOverlap.ActinopterygiiOnly.R	https://github.com/polarsong/mtDNA_mutspectrum/blob/WholeGenomesBranch/Head/2Scripts/WholeGenomeAnalyses.EcologyAndMutSpecChordata.NoOverlap.ActinopterygiiOnly.R	https://github.com/polarsong/mtDNA_mutspectrum/blob/WholeGenomesBranch/Head/2Scripts/WholeGenomeAnalyses.EcologyAndMutSpecChordata.NoOverlap.ActinopterygiiOnly.R	https://github.com/polarsong/mtDNA_mutspectrum/blob/WholeGenomesBranch/Head/2Scripts/WholeGenomeAnalyses.EcologyAndMutSpecChordata.NoOverlap.ActinopterygiiOnlyFishBase.R	https://github.com/polarsong/mtDNA_mutspectrum/blob/WholeGenomesBranch/Head/2Scripts/WholeGenomeAnalyses.EcologyAndMutSpecChordata.NoOverlap.ActinopterygiiOnlyFishBase.R
Figures								

	Maturation Lm vs ™ (FishBase)	**Temperature vs Maturation Lm (FishBase)**	**Temperature vs Maturation Tm (FishBase)**	**Temperature (FishBase) vs MaximalLifespan (AnAge)**	**Maturation (FishBase) vs MaximalLifespan (AnAge)**

Correlation	Spearman's rank correlation rho data: MATULMTM$Lm and MATULMTM$Tm S = 3838500, p-value < 2.2e-16 alternative hypothesis: true rho is not equal to 0 sample estimates: rho 0.6823805	Spearman's rank correlation rho data: TEMPMATULM$Lm and TEMPMATULM$Temperature S = 29562841, p-value = 1.282e-12 alternative hypothesis: true rho is not equal to 0 sample estimates: rho -0.3062001	Spearman's rank correlation rho data: TEMPMATUTM$Tm and TEMPMATUTM$Temperature S = 21243590, p-value = 1.141e-11 alternative hypothesis: true rho is not equal to 0 sample estimates: rho -0.3095067	Spearman's rank correlation rho data: ANAGETEMP$Temperature and ANAGETEMP$Maximum.longevity..yrs. S = 10501627, p-value = 3.03e-05 alternative hypothesis: true rho is not equal to 0 sample estimates: rho -0.2141839	**Lm** Spearman's rank correlation rho data: ANAGEMATLM$Lm and ANAGEMATLM$Maximum.longevity..yrs. S = 1020722, p-value < 2.2e-16 alternative hypothesis: true rho is not equal to 0 sample estimates: rho 0.5399325 **Tm** Spearman's rank correlation rho data: ANAGEMATTM$Tm and ANAGEMATTM$Maximum.longevity..yrs. S = 969449, p-value < 2.2e-16 alternative hypothesis: true rho is not equal to 0 sample estimates: rho 0.7321639
N of species	417	514	460	376	**Lm** 238 **Tm** 281
Script	https://github.com/polarsong/mtDNA_mutspectrum/blob/Actinopterigii/Head/2Scripts/VertebratePolymorphisms.MutSpecComparisons.Analyses.Ecology.Actinopterygii.FishBaseData.ALL_RANK_CORR.R	https://github.com/polarsong/mtDNA_mutspectrum/blob/Actinopterigii/Head/2Scripts/VertebratePolymorphisms.MutSpecComparisons.Analyses.Ecology.Actinopterygii.FishBaseData.ALL_RANK_CORR.R	https://github.com/polarsong/mtDNA_mutspectrum/blob/Actinopterigii/Head/2Scripts/VertebratePolymorphisms.MutSpecComparisons.Analyses.Ecology.Actinopterygii.FishBaseData.ALL_RANK_CORR.R	https://github.com/polarsong/mtDNA_mutspectrum/blob/Actinopterigii/Head/2Scripts/VertebratePolymorphisms.MutSpecComparisons.Analyses.Ecology.Actinopterygii.FishBaseData.ALL_RANK_CORR.R	https://github.com/polarsong/mtDNA_mutspectrum/blob/Actinopterigii/Head/2Scripts/VertebratePolymorphisms.MutSpecComparisons.Analyses.Ecology.Actinopterygii.FishBaseData.ALL_RANK_CORR.R
Figures					