

WUE_d13_bayes_tables

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1/7/2020

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**Okay lets make a d13C and iWUE table for the structureXcohort
model estimates**

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Table 1: Stable Isotope samples

Site Number	Site	Cohort	Structure	Number of Trees	Number of Years	$\delta^{13}C$	Average iWUE
1	GLA	Modern	Savanna	3	18	-24.27	138.09
	GLA	Past	Savanna	2	11	-25.15	128.88
2	GLL2	Modern	Savanna	5	47	-24.73	144.57
	GLL2	Past	Savanna	1	21	-23.97	119.37
3	MOU	Modern	Forest	3	11	-23.98	138.59
	MOU	Past	Forest	2	14	-23.27	114.64
4	UNC	Modern	Savanna	2	27	-24.19	139.48
	UNC	Past	Savanna	1	17	-25.01	128.15
5	BON	Modern	Savanna	3	32	-24.64	150.68
	BON	Past	Savanna	2	48	-25.27	129.95

Table 2: Parameter Estimates and Model Fit

Parameter	Cohort	δ 13C model		WUE model	
		Estimate	95% CI	Estimate	95% CI
Baseline intercept	Past	-24.612 *	(-24.84 - -24.38)	125.325 *	(113.6 - 136.86)
	Modern	-24.527 *	(-24.67 - -24.38)	143.017 *	(131.51 - 153.95)
Precip	Past	0.201	(-0.01 - 0.42)	2.244	(-0.18 - 4.43)
	Modern	-0.157 *	(-0.3 - -0.02)	2.742 *	(0.95 - 4.66)
June Tmax	Past	0.184 *	(0.03 - 0.33)	-0.277	(-2.26 - 1.75)
	Modern	0.23 *	(0.08 - 0.39)	-2.432 *	(-4.55 - -0.34)
DBH	Past	0.063	(-0.25 - 0.36)	3.47	(-0.42 - 6.43)
	Modern	0.154	(-0.01 - 0.34)	4.697 *	(2.35 - 7.24)

* 95% CI does not contain zero

Table 3: Parameter Estimates and Model Fit

Parameter	Cohort	δ 13C model		WUE model	
		Estimate	95% CI	Estimate	95% CI
Baseline Intercept	Past-Savanna	-25.052 *	(-25.32 - -24.8)	127.987 *	(106.74 - 139.76)
	Past-Forest	-23.426 *	(-23.94 - -22.91)	113.326 *	(89.16 - 133.76)
	Modern-Savanna	-24.587 *	(-24.73 - -24.44)	144.619 *	(123.04 - 155.64)
	Modern-Forest	-24.214 *	(-24.73 - -23.71)	136.096 *	(110.8 - 157.93)
Precip	Past-Savanna	-0.037	(-0.25 - 0.18)	2.958 *	(0.61 - 5.27)
	Past-Forest	0.009	(-0.4 - 0.52)	2.293	(-2.95 - 4.99)
	Modern-Savanna	-0.144 *	(-0.28 - -0.01)	2.933 *	(1 - 4.71)
	Modern-Forest	-0.336	(-0.98 - 0.1)	3.51 *	(0.6 - 8.59)
June Tmax	Past-Savanna	0.045	(-0.12 - 0.2)	-0.091	(-2.05 - 2.08)
	Past-Forest	0.111	(-0.19 - 0.41)	-0.619	(-3.27 - 2.76)
	Modern-Savanna	0.212 *	(0.08 - 0.36)	-2.203 *	(-4.41 - -0.15)
	Modern-Forest	0.232	(-0.12 - 0.7)	-1.54	(-5.83 - 1.66)
DBH	Past-Savanna	-0.038	(-0.37 - 0.28)	3.876	(-0.17 - 7.99)
	Past-Forest	0.149	(-0.55 - 0.92)	0.927	(-8.74 - 8.42)
	Modern-Savanna	0.08	(-0.12 - 0.27)	6.132 *	(3.16 - 9.06)
	Modern-Forest	0.437	(-0.03 - 1.06)	-1.365	(-8.63 - 5.28)

* 95% CI does not contain zero