

**Appendix 4:**

**Model estimates of the influence of mist net cover type within IOC farms on body condition. Posterior mean (standard deviation) and 95% level credible intervals are presented.**

<b>Species</b>	<b>Sample Size</b>	<b>Model Specification</b>	<b>Model Parameters</b>	<b>Mean (SD)</b>	<b>Lower CrI;Upper CrI</b>
Wilson's Warbler	69	BCI ~ IOC-Shade + IOC-Sun + IOC-Forest + Season	Intercept	7.30(0.26)	6.79;7.81
			IOC-Shade	-0.04 (0.18)	-0.40;0.31
			IOC-Sun	0.15 (0.20)	-0.25;0.55
			Season	-0.33 (0.16)	-0.64;0.02
		BCI ~IOC-Coffee + IOC-Forest + Season	Intercept	7.32 (0.26)	6.81;7.82
			IOC-Forest	-0.03 (0.16)	-0.35;0.28
Season	-0.31 (0.16)		-0.62;-0.01		
Wood Thrush	47	BCI ~ IOC-Shade + IOC-Sun + IOC-Forest + Season	Intercept	51.88 (2.05)	47.84;55.93
			IOC-Shade	-2.07 (1.54)	-5.10;0.96
			IOC-Sun	-2.79 (3.19)	-9.09;3.49
			Season	-1.29 (1.28)	-3.80;1.23
		BCI ~IOC-Coffee + IOC-Forest + Season	Intercept	49.74 (2.34)	45.07;54.27
			IOC-Forest	2.19 (1.43)	-0.62;5.04
Season	-1.32 (1.26)		-3.78;1.19		

**Model estimates of influence of site based and landscape context variables on age and sex proportion, and body condition. Posterior mean (standard deviation) and 95% level credible intervals reported.**

Species	Metric	Sample Size	Model Phase	Model Specification	Model Parameters	Mean (SD)	Lower CrI;Upper CrI
Wilson's Warbler	Age proportion	80	Site context	Age proportion ~ Farm system + Season + Elevation	Intercept	1.15 (0.39)	0.40;1.94
					Shade coffee farm	0.18 (0.56)	-0.92;1.29
					Sun coffee farm	0.73 (0.80)	-0.80;2.37
					Season 2	-0.70 (0.46)	-1.60;0.20
					Elevation	0.06 (0.29)	-0.52;0.62
		88	Landscape context	Age proportion ~ PC1 increasing pen habitats + PC2 increasing forest and edge + Season + Elevation	Intercept	1.14 (0.32)	0.51;1.78
					Increasing open habitats	-0.23 (0.38)	-0.97;0.51
					Increasing forest/edge density	-0.10 (0.33)	-0.76;0.54
					Season 2	-0.71 (0.47)	-1.64;0.23

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	Sex proportion	93	Site context	Sex proportion ~ Farm system + Season + Elevation	Elevation Intercept	0.07 (0.31) 1.56 (0.42)	-0.56;0.66 0.77;2.40
					Shade coffee farm	-0.20(0.54)	-1.26;0.88
					Sun coffee farm	0.51 (0.84)	-1.09;2.18
					Season 2	-0.07 (0.49)	-1.03;0.89
		99	Landscape context	Sex proportion ~ PC1 increasing open habitats + PC2 increasing forest/edge density + Elevation	Elevation Intercept	0.32 (0.30) 1.53 (0.35)	-0.26;0.93 0.88;2.24
					Increasing open habitats	0.07 (0.42)	-0.74;0.88
					Increasing forest/edge density	0.06 (0.34)	-0.59;0.74
					Season 2	-0.03 (0.51)	-1.03;0.97
Wood Thrush	Age proportion	56	Site context	Age proportion ~ Farm system + Season + Elevation	Elevation Intercept	0.37 (0.32) 0.17 (0.44)	-0.27;0.97 -0.70;1.04
					Shade coffee	0.55 (0.63)	-0.67;1.82
					Season 2	1.16 (0.57)	0.05;2.30
		57	Landscape context	Age proportion ~ PC1 increasing open habitats + PC2 increasing	Elevation Intercept	-0.68 (0.38) 0.41 (0.46)	-1.47;0.03 -0.47;1.32

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			forest/edge density + Elevation + Season			
				Increasing open habitats	0.67 (0.55)	-0.39;1.77
				Increasing forest/edge density	-0.33 (0.44)	-1.20;0.51
				Elevation	-0.75 (0.39)	-1.56;-0.02
				Season 2	1.33 (0.57)	0.23;2.47
Sex proportion	70	Site context	Sex proportion ~ Farm system + Elevation + Season	Intercept	2.21 (0.60)	1.10;3.47
				Shade coffee farm	0.27 (0.61)	-0.93;1.49
				Elevation	-0.61 (0.38)	-1.38;0.12
				Season two	-1.82 (0.64)	-3.12;-0.61
	71	Landscape context	Sex proportion ~ PC1 increasing open habitats + PC2 increasing forest/edge density + Elevation + Season	Intercept	2.26 (0.62)	1.13;3.52
				Increasing open habitats	-0.14 (0.52)	-1.18;0.88
				Increasing forest/edge density	-0.20 (0.44)	-1.07;0.66
				Elevation	-0.64 (0.37)	-1.40;0.07
				Season two	-1.84 (0.63)	-3.12;-0.65
Body condition index	76	Site context	BCI ~ Farm system + Elevation + Season + Ordinal date + Ordinal date <sup>2</sup>	Intercept	1.63 (1.63)	-1.61;4.83

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			Shade coffee	-0.002 (0.99)	-1.94;1.95
			Elevation	-0.03 (0.98)	-1.94;1.88
			Season two	-0.01 (0.99)	-1.96;1.94
			Ordinal date	0.02 (0.98)	-1.92;1.93
			Ordinal date <sup>2</sup>	0.02 (0.98)	-1.91;1.94
77	Landscape context	BCI ~ PC1 increasing open habitats + PC2 increasing forest/edge density + Elevation + Season + Ordinal date + Ordinal date <sup>2</sup>	Intercept	1.64 (1.60)	-1.48;4.75
			Increasing open habitats	0.002 (1.00)	-1.94;1.98
			Increasing forest/edge density	0.02 (0.99)	-1.94;1.97
			Elevation	-0.02 (0.98)	-1.94;1.88
			Season two	-0.003 (0.99)	-1.97;1.93
			Ordinal date	0.02 (0.97)	-1.90;1.90
			Ordinal date <sup>2</sup>	0.03 (0.97)	-1.88;1.94

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Site context model estimates of overwintering apparent survival and resighting probability for Wilson's Warbler (N = 48).  $\phi$  = apparent survival;  $p$  = resighting probability. Posterior mean (standard deviation) and 95% level credible intervals reported.

Parameters	Mean (SD)	Lower CrI;Upper CrI
Mean $\phi$ IOC	0.973 (0.013)	0.944;0.993
Mean $\phi$ Shade coffee	0.944 (0.04)	0.834;0.993
Mean $p$ IOC	0.563 (0.13)	0.310;0.791
Mean $p$ Shade coffee	0.698 (0.13)	0.617;0.903
Elevation	0.474 (0.69)	-0.81;1.86
Week number	0.04 (0.04)	-0.05;0.13