

Appendix A: Results of Principal Components Analysis

Table A1 shows the maximum remaining correlation between the four variables used in the statistical models (runoff component 1, exposure component 1, local context component 1, and historical percent woody cover) for each site, and the amount of variation represented by those first components for each site. We interpret these results to mean that the components have reduced the correlations and that they account for at least half of the variability in their respective groups.

	Grid cell size	Maximum correlation	Runoff variance explained	Local context variance explained	Exposure variance explained
BH	100	0.53	66%	72%	92%
	90	0.55	65%	74%	92%
	80	0.53	64%	73%	92%
	70	0.54	63%	73%	92%
	60	0.52	59%	74%	91%
	50	0.51	57%	73%	91%
	40	0.49	56%	73%	91%
	30	0.46	54%	73%	90%
	20	0.43	53%	73%	90%
WC	100	0.68	70%	70%	85%
	90	0.72	70%	67%	84%
	80	0.73	71%	68%	85%
	70	0.68	69%	69%	85%
	60	0.68	69%	68%	85%
	50	0.64	68%	69%	85%
	40	0.61	65%	70%	85%
	30	0.56	62%	70%	85%
	20	0.53	58%	69%	85%
IB	100	0.70	67%	50%	60%
	90	0.64	63%	53%	59%
	80	0.72	64%	50%	59%
	70	0.61	65%	52%	57%
	60	0.61	64%	53%	56%
	50	0.61	64%	52%	55%
	40	0.59	65%	54%	55%
	30	0.56	62%	55%	55%
	20	0.58	60%	55%	55%
BM	100	0.41	64%	44%	58%
	90	0.43	63%	45%	56%
	80	0.43	64%	44%	54%
	70	0.41	63%	45%	57%
	60	0.39	62%	43%	51%
	50	0.40	62%	42%	50%
	40	0.38	60%	43%	49%
	30	0.39	58%	42%	50%
	20	0.37	56%	41%	53%

Table A1: Diagnostics from Principal Components Analysis for each site.