

Figure 3 - Summary of significant range shifts of high and low elevation species combined across all regions and for each region separately. Pie charts display proportion of range limits that exhibited significant expansions (yellow), contractions (red), or no significant change (grey). An asterisk next to a pie chart indicates that significantly more contractions were observed than expansions. The width of each arrow indicates the shift resulted in an expansion (yellow) or contraction (red) of the elevation limit. The width of each arrow is proportional to the number of shifts that were up or down slope in direction and that occurred at the upper and lower limits. The colors of arrows indicate whether the shift resulted in an expansion (yellow) or contraction (red) of the elevation limit. An asterisk beside the arrows indicates a significant deviation from a random distribution of shifts among the four possible states.

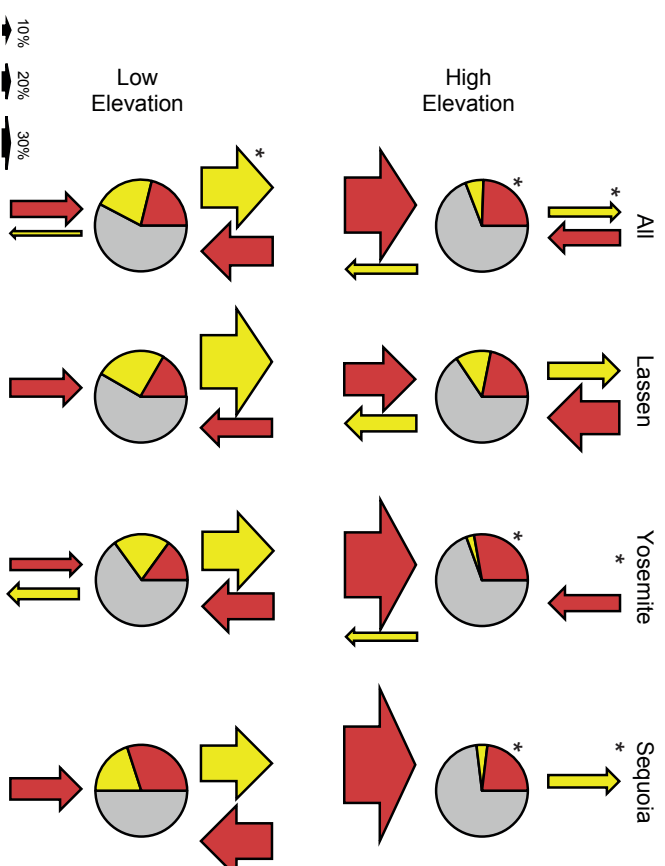
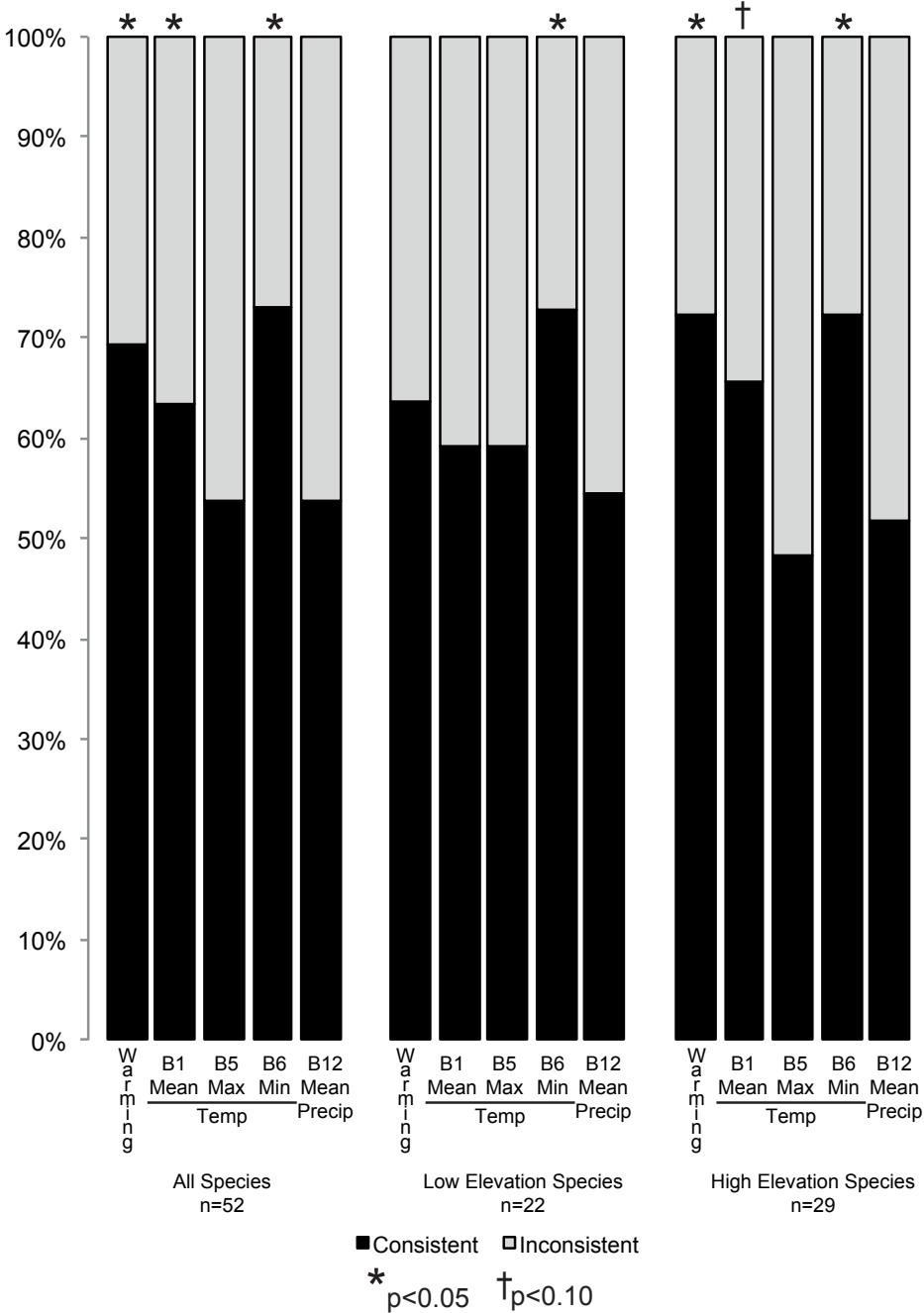


Figure 4: Proportion of observed significant shifts of elevation limits for all species, low and high elevation species that are consistent with the predictions from an overall warming model (i.e. all up) and with nearest neighbor analyses for each of the four Bioclim variables. Symbols above bars indicate that predictions were significantly better than random.



Elevation Range Metric	Model	Parameters	AIC	delta AIC	AIC Wt
All Species	Basic	Zone:limit	170.80	0.00	1.00
Any Shift	-	Null	189.90	19.10	0.00
	-	Zone	190.50	19.70	0.00
	-	limit	191.90	21.10	0.00
	-	limit+zone	192.50	21.70	0.00
	-	Region	193.60	22.80	0.00
	-	Region+Zone	194.10	23.30	0.00
	-	limit+region	195.60	24.80	0.00
	-	limit+zone+region	196.10	25.30	0.00
	-	Region:Zone	196.60	25.80	0.00
	-	Region:limit	197.60	26.80	0.00
High Elevation Species	Basic	Limit	109.50	0.00	0.63
Any Shift	-	Region:Limit	111.90	2.40	0.19
	-	Region+Limit	112.20	2.70	0.16
	-	Null	117.70	8.20	0.01
	-	Region	120.80	11.30	0.00
Low Elevation Species	Basic	Limit	63.19	0.00	0.73
Any Shift	-	Region+Limit	65.66	2.47	0.21
	-	Region:Limit	68.53	5.34	0.05
	-	Null	74.46	11.27	0.00
	-	Region	77.44	14.25	0.00
High Elevation Species	Basic	Region+Limit	35.80	0.00	0.82
Shift up vs down	-	Limit	39.98	4.18	0.10
	-	Region:limit	42.56	6.76	0.03
	-	Region	42.58	6.78	0.03
	-	Null	43.34	7.54	0.02
Low Elevation Species	Basic	Null	32.84	0.00	0.52
Shift up vs down	-	Limit	34.04	1.20	0.29
	-	Region	36.02	3.18	0.11
	-	Region+Limit	37.11	4.27	0.06
	-	Region:limit	39.09	6.25	0.02

Elevation Range Metric	Model	Parameters	AIC	delta AIC	AIC Wt
High Elevation Species Any Shift	Traits	limit+Daily Rhythm+Litter Size+longevity	106.90	0.00	0.14
	-	limit+Daily Rhythm+Litter Size	107.90	1.00	0.08
	-	limit+Daily Rhythm	108.30	1.40	0.07
	-	limit+Daily Rhythm+Litter Size+longevity+Young per Year	108.40	1.50	0.06
	-	limit+Daily Rhythm+longevity	108.60	1.70	0.06
	-	limit+Daily Rhythm+Litter Size+Annual Rhythm	108.70	1.80	0.06
	-	limit+Daily Rhythm+Litter Size+longevity+Litters per Year	108.80	1.90	0.05
	-	limit+Daily Rhythm+Litter Size+longevity+mass	109.10	2.20	0.05
	-	limit	109.50	2.60	0.04
	-	limit+Daily Rhythm+Litter Size+longevity+Region	109.50	2.60	0.04
	-	limit+Daily Rhythm+Litter Size+Young per Year	109.70	2.80	0.03
	-	limit+Daily Rhythm+Litter Size+Litters per Year	109.80	2.90	0.03
	-	limit+Daily Rhythm+Litter Size+mass	109.90	3.00	0.03
	-	limit+Daily Rhythm+Young per Year	110.10	3.20	0.03
	-	limit+Daily Rhythm+Litter Size+longevity+Annual Rhythm	110.20	3.30	0.03
	-	limit+Daily Rhythm+mass	110.30	3.40	0.02
	-	limit+Daily Rhythm+Litters per Year	110.30	3.40	0.02
	-	limit+Daily Rhythm+Annual Rhythm	110.50	3.60	0.02
	-	limit+Daily Rhythm+Litter Size+Region	110.60	3.70	0.02
	-	limit+Litter Size	111.20	4.30	0.02
	-	limit+Daily Rhythm+Region	111.30	4.40	0.02
	-	limit+longevity	111.40	4.50	0.01
	-	limit+Litters per Year	111.50	4.60	0.01
	-	limit+Young per Year	111.50	4.60	0.01
	-	limit+mass	112.00	5.10	0.01
	-	limit+Region	112.20	5.30	0.01
	-	limit+Daily Rhythm+Litter Size+longevity+Diet	112.70	5.80	0.01
	-	limit+Annual Rhythm	112.80	5.90	0.01
	-	limit+Daily Rhythm+Litter Size+Diet	112.80	5.90	0.01
	-	limit+Daily Rhythm+Diet	113.80	6.90	0.00
	-	limit+Diet	115.00	8.10	0.00
	-	Daily Rhythm	116.30	9.40	0.00
	-	Null	117.70	10.80	0.00
	-	Litter Size	119.40	12.50	0.00
	-	longevity	119.50	12.60	0.00
	-	mass	119.70	12.80	0.00
	-	Litters per Year	119.70	12.80	0.00
	-	Young per Year	119.70	12.80	0.00
	-	Region	120.80	13.90	0.00
	-	Annual Rhythm	121.10	14.20	0.00
	-	Diet	123.30	16.40	0.00
Low Elevation Species Any Shift	Traits	limit	63.19	0.00	0.24
	-	limit+Young per Year	64.58	1.39	0.12
	-	limit+Diet	64.63	1.44	0.12
	-	limit+mass	64.72	1.53	0.11
	-	limit+Litters per Year	64.88	1.69	0.10
	-	limit+longevity	64.99	1.80	0.10
	-	limit+Litter Size	65.11	1.92	0.09
	-	limit+Region	65.66	2.47	0.07
	-	limit+Daily Rhythm	66.42	3.23	0.05
	-	Null	74.46	11.27	0.00
	-	Young per Year	75.80	12.61	0.00
	-	mass	75.96	12.77	0.00
	-	Litters per Year	76.07	12.88	0.00
	-	Diet	76.07	12.88	0.00
	-	longevity	76.25	13.06	0.00
	-	Litter Size	76.39	13.20	0.00
	-	Region	77.44	14.25	0.00
	-	Daily Rhythm	77.70	14.51	0.00

Elevation Range Metric	Model	Parameters	AIC	delta AIC	AIC Wt
Shift up vs down	NN	B6+Limit	60.52	0.0	0.20
	-	B6	61.02	0.5	0.16
	-	B6+B12+Limit	62.50	2.0	0.08
	-	Limit	62.62	2.1	0.07
	-	B6+B12	63.09	2.6	0.06
	-	B12+Limit	63.22	2.7	0.05
	-	B1+Limit	63.26	2.7	0.05
	-	B5+Limit	63.35	2.8	0.05
	-	B6+Limit+Region	63.48	3.0	0.05
	-	B1+B12+Limit	64.72	4.2	0.02
	-	B5+B12+Limit	64.81	4.3	0.02
	-	B12	64.91	4.4	0.02
	-	B6+B12+Limit+Region	65.37	4.9	0.02
	-	B6+B12+Region	65.74	5.2	0.01
	-	Null	65.79	5.3	0.01
	-	Limit+Region	65.93	5.4	0.01
	-	B12+Limit+Region	65.98	5.5	0.01
	-	B1	66.04	5.5	0.01
	-	B1+Limit+Region	66.21	5.7	0.01
	-	B1+B12	66.50	6.0	0.01
	-	B5+Limit+Region	66.73	6.2	0.01
	-	B5+B12	66.91	6.4	0.01
	-	B1+B12+Limit+Region	67.30	6.8	0.01
	-	B5	67.36	6.8	0.01
	-	B5+B12+Limit+Region	67.77	7.2	0.01
	-	B12+Region	67.78	7.3	0.01
	-	B1+Reg	69.03	8.5	0.00
	-	B1+B12+Reg	69.11	8.6	0.00
	-	Reg	69.22	8.7	0.00
	-	B6+Region	69.22	8.7	0.00
	-	B5+B12+Region	69.76	9.2	0.00
	-	B5+Region	70.78	10.3	0.00