

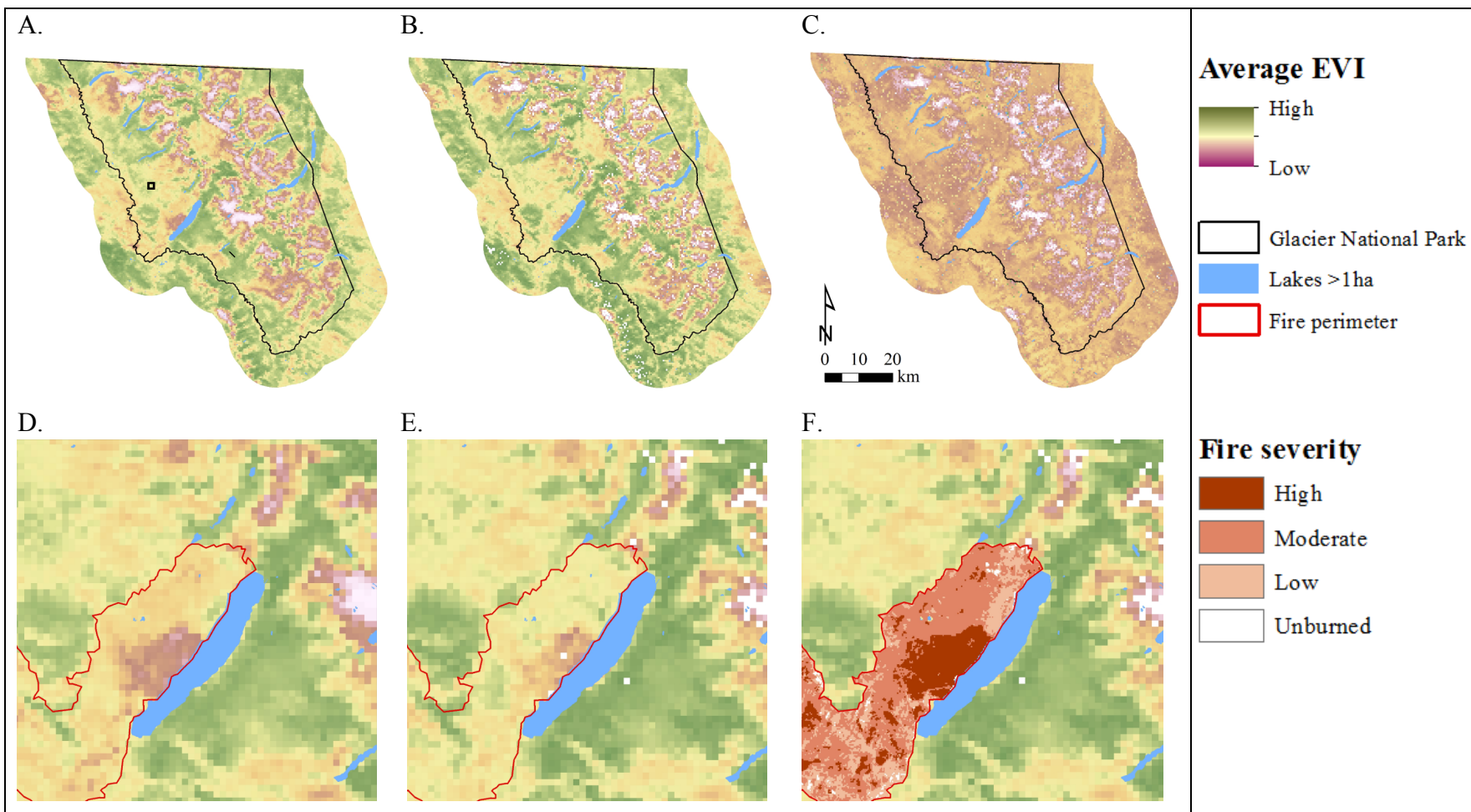
Ecography

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Using spatially-explicit capture–recapture models
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Supplementary material

Appendix 1. (A-C) Maps showing changes in average 500m EVI values for each one-month period, beginning 15 June 2004, with Glacier National Park (GNP) outlined in black for reference. (D-E) Average EVI for spring and early summer 2004, relative to the 2003 Robert fire, with fire severity shown in (F).



Appendix 2. Details on per-season detection data of grizzly bears (*Ursus arctos*) at hair traps and bear rubs in Montana, 2004.

		Season ^a					
		Spring		Early summer		Late summer	
Hair trap effort ^b		1918	1946	1904	1932	-	-
Bear rub effort ^c		5433	12026	13459	16657	26055	19563
Grizzly bears	Hair trap						
	No. unique males	35	33	19	46	-	-
	No. male detections	40	37	19	49	-	-
	No. unique females	39	30	60	64	-	-
	No. female detections	42	34	62	71	-	-
	Bear rub						
	No. unique males	20	35	33	24	35	14
	No. male detections	58	93	54	46	51	23
	No. unique females	0	10	11	16	28	18
	No. female detections	0	10	13	18	35	24
	Total						
	No. unique males	50	57	49	68	35	13
	No. male detections	98	130	73	95	50	22
	No. recaptures ^d	140		72		29	
	No. unique females	39	39	69	74	28	18
No. female detections	42	44	75	89	34	23	
No. recaptures	13		44		14		

Black bear	Hair trap						
	No. unique males	92	74	41	40	-	-
	No. male detections	98	78	41	40	-	-
	No. unique females	95	82	54	47	-	-
	No. female detections	95	85	57	48	-	-
	Bear rub						
	No. unique males	10	42	36	39	30	27
	No. male detections	20	65	47	44	34	27
	No. unique females	3	15	24	14	26	31
	No. female detections	4	17	30	17	33	44
	Total						
	No. unique males	96	111	73	77	30	27
	No. male detections	118	143	88	84	34	27
	No. recaptures ^d	80		36		5	
No. unique females	97	96	75	60	26	31	
No. female detections	99	102	87	65	33	44	
No. recaptures	27		27		23		

^a Each season consists of two 14-day sampling occasions. Hair traps were active for spring and early summer only.

^b The total number of days that hair traps were available to detect bears per two-week sampling occasion.

^c The number of days since the previous survey of a given bear rub summed across all bear rubs surveyed in a given occasion.

^d The total number of recaptures within a given session regardless of detector type.

Appendix 3. Distribution of the combined number of detections of individual grizzly bears (*Ursus arctos*) and American black bears (*U. americanus*) by sex and season at hair traps and bear rubs in Montana, USA, 2004. Also shown is the observed and expected number of individual bears detected for the most supported model. The expected number was calculated as $E(\mathbf{n}) = \int \mathbf{p} \cdot (\mathbf{X})\mathbf{D}(\mathbf{X})d\mathbf{X}$, with $p \cdot (X)$ is the probability a given individual was detected at least once and $D(X)$ is the expected density at X for the most supported model.

Species	Sex	Season	Distribution of number of detections					Total	No. individuals	
			1	2	3	4	≥ 5		Observed	Expected
Grizzly	F	Spring	61	11	1	0	0	86	73	73.12
		Early Summer	85	28	5	2	0	164	120	118.55
		Late Summer	30	12	1	0	0	57	43	42.96
	M	Spring	47	15	9	6	11	228	88	87.92
		Early Summer	66	17	6	0	7	168	96	96
		Late Summer	31	5	4	0	3	72	43	42.95
Black	F	Spring	150	22	1	1	0	201	174	174.13
		Early Summer	107	12	4	1	1	152	125	124.94
		Late Summer	41	6	4	3	0	77	54	53.99
	M	Spring	135	35	6	3	2	261	181	181.74
		Early Summer	109	19	5	1	1	172	135	135.04
		Late Summer	52	3	1	0	0	61	56	56

Appendix 4. Details on spatially-explicit capture-recapture modeling of detection of grizzly and black bears in Montana, 2004.

The basic SECR model combines a state model that describes the distribution of activity centers across the sampled area with an observation model that relates the probability of detecting an animal at a given site to the distance of that site to the center of an animal's home range (Efford 2004, Borchers & Efford 2008). Advances in SECR allow the use of spatial covariates to relate the variation in density to environmental conditions (Efford & Fewster 2013, Royle et al. 2013), including landscape factors that change over the course of a study, without requiring a predetermined spatial resolution of analyses (e.g., average home range). Although relatively new, SECR has been used to estimate density and provide valuable insights into how animals respond to their environment for many taxa, including skinks (*Oligosoma infrapunctatum*; Efford and Fewster 2013), common genets (*Genetta genetta*; Sarmiento et al. 2014), and American black bears (Royle et al. 2013), and may provide a novel approach to test hypotheses about complex processes including intra and interspecific competition.

In addition to modeling density, the observation sub-model of SECR models the process of detecting animals by explicitly considering animal movements in relation to the characteristics and distribution of detectors. Two parameters comprise the observation submodel: g_0 is the probability of detecting a given animal at its activity center, and sigma (σ) is the spatial scale parameter describing how detection probability declines with increasing distance between the activity center and each detector. For all SECR models, we used a binomial observation model with a halfnormal detection function to relate the probability of detection to distance from the predicted home range center, which is unobserved and assumed stationary during a given sampled period. We modeled hair traps and bear rubs as different types of proximity detectors

(Efford et al. 2004), and used non-binary usage coding to directly account for variation in sampling effort (Efford and Fewster 2013; Stetz et al. 2014). As with density, we modeled the observation process separately for each species, sex, and season, and considered time (t) effects on detection. We defined the state space (i.e., “habitat mask” in *secr*) to extend 15 km beyond all sampling stations, with a 2 km spacing between integration points.

The detection process can also be modeled using spatial covariates, including those that change over time, to relate variation in detection to landscape features. To improve overall model performance, we therefore included biotic and abiotic covariates that we hypothesized could explain detection of grizzly and black bears. Beyond potentially improving model fit, the use of covariates relaxes the assumption of circular home ranges (Royle et al. 2013), although simulations suggest that SECR models are robust to such violations even without the use of covariates (Stenhouse et al. 2015).

Detection submodel results:

The detection components of supported SECR models varied considerably both within and across species and seasons, with the exception that detection probabilities were always higher with hair trap data than bear rubs (Supplemental materials Appendix 5 and 6). Generally, detection probabilities were highest for grizzly bears in areas of higher EVI and elevation, and tended to increase over time. A relationship between density of conspecifics or sympatric species and detection was partially supported, with most seasons showing a positive relationship for both sexes. Female grizzly bears in early summer had a small negative relationship with total bear density, although the effect was not significant. The spatial scale parameter, sigma, for grizzly bears was generally smaller in areas of higher EVI and higher density of bears, although few covariates had any support based on AICc. Estimated home range sizes calculated from

sigma values (Noss et al. 2012) were 331 km² (95% CI: 278-396 km²) for female and 535 km² (95% CI: 476-600 km²) for male grizzly bears. Estimates were similar to those made from radiocollared bears in a nearby study, with female home ranges averaging 216 km² (95% CI: 62-668 km²) and males averaging 720 km² (95% CI: 449-1179 km²; Mace and Waller 1996).

We found less consistency with explaining detection of black bears. Detection probabilities were generally higher in areas we defined as providing greater security, although this relationship was reversed in late summer for male black bears (Supplemental materials Appendix 5 and 6). Forests, shrublands, and areas with lower total predicted density of bears also had a negative relationship with detection rates. The spatial scale parameter for black bears had a negative relationship to home ranges with a larger proportion of forest and grasslands, and a positive relationship to areas of higher total predicted bear density, EVI, and greater security. Elevation had a positive relationship with sigma, although it was not significant. Estimated home range size for female black bears was 74 km² (95% CI: 72-76 km²), which is consistent with Mattson et al. (2005) who reported a range of 24-137 km² for populations sympatric with grizzly bears. Estimated home range size for male black bears was 415 km² (95% CI: 401-429 km²), which was intermediate between more forested areas west of the Continental Divide (62 km²; Chilton-Radandt 2006) and the more open Rocky Mountain Front (1405 km²; Stevens and Gibeau 2005).

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Appendix 5. Parameter estimates and 95% confidence intervals from the most supported full likelihood spatially-explicit capture-recapture detection sub-models for grizzly (*Ursus arctos*) and American black bears (*U. americanus*) in northwestern Montana, 2004, by sex and season. g_0 is the estimated detection probability at the home range center; sigma (σ) is the spatial scale parameter relating detection probability to distance from the home range center in meters. Each season represents two 14-day sampling occasions.

Sex	Season	Detection parameter (g_0)	β	LCL	UCL	Detection parameter (σ)	β	LCL	UCL
Female grizzly bear	Spring	Baseline	0.015	0.001	0.038	Baseline	1674.475	1269.683	2208.318
		Spring EVI	1.159	0.321	1.998	Spring EVI	-0.552	-0.945	-0.158
	Early summer	Baseline	0.012	0.007	0.018	Baseline	4374.224	3775.689	5067.640
		Total black bear density in early summer	-0.009	-0.029	0.012				
	Late summer	Baseline	0.000	0.000	0.001	Baseline	1970.784	1439.701	2697.774
		Total black bear density in late summer	0.045	-0.008	0.098	Total black bear density in late summer	0.022	0.001	0.042
Male grizzly bear	Spring	Baseline	0.019	0.010	0.027	Baseline	3321.965	2779.124	3970.837
		Male grizzly density in spring	0.689	0.227	1.152	Male grizzly density in spring	-0.346	-0.512	-0.180
	Early summer	Baseline	0.003	0.002	0.005	Baseline	4409.197	3882.796	5006.963
						Forest	-0.379	-0.657	-0.101
						Grassland	-0.131	-0.419	0.158
						Shrub	-4.475	-4.475	-4.475

Late summer	Baseline	0.001	0.001	0.002	Baseline	5027.973	4158.661	6079.002
	Total EVI	0.273	0.109	0.436				
	Female grizzly density in late summer	0.372	-0.339	1.082				

Sex	Season	Detection parameter (g0)	β	LCL	UCL	Detection parameter (σ)	β	LCL	UCL	
Female black bear	Spring	Baseline	0.027	0.009	0.045	Baseline	1845.934	1396.988	2439.156	
		Forest	-1.336	-2.248	-0.425	Forest	-1.336	-2.248	-0.425	
		Grassland	-1.479	-2.513	-0.445	Grassland	-1.479	-2.513	-0.445	
		Shrub	0.083	-1.071	1.237	Shrub	0.083	-1.071	1.237	
	Early summer	Baseline	0.097	0.027	0.167	Baseline	1017.287	835.850	1238.109	
		Total bear density in early summer	-0.080	-0.124	-0.036	Total bear density in early summer	0.029	0.014	0.044	
	Late summer	Baseline	0.003	0.001	0.005	Baseline	1266.230	1012.507	1583.532	
		Total bear density in late summer	0.013	-0.029	0.055					
		Terrain roughness	-0.196	-0.568	0.175					
	Male black bear	Spring	Baseline	0.013	0.009	0.017	Baseline	3959.068	3531.434	4438.486
			Spring EVI	-0.288	-0.784	0.206	Spring EVI	0.307	0.095	0.518
			Total bear density in spring	0.014	-0.009	0.037				
Security (low)			-1.410	-2.804	-0.016					
Security (medium)			-0.599	-0.944	-0.254					

Early summer	Baseline	0.001	0.000	0.001	Baseline	4413.681	3239.445	6013.555
	Security (low)	-0.538	-3.761	2.298	Security (low)	-0.163	-1.477	1.152
	Security (medium)	-1.953	-2.949	-0.957	Security (medium)	1.043	0.644	1.442
					Elevation	0.757	-0.004	1.517
Late summer	Baseline	0.001	0.000	0.001	Baseline	1999.196	1310.663	3049.437
	Total bear density in early summer	0.019	-0.021	0.058				
	Security (low)	2.389	0.939	3.840				
	Security (medium)	0.340	-0.400	1.080				

Appendix 6. Model selection results from spatially-explicit capture-recapture models grizzly bears (*Ursus arctos*) and American black bears (*U. americanus*) in northwestern Montana, USA, 2004.

Definitions: npar: number of estimated parameters; logLik: log-likelihood; AICc: Akaike Information Criterion value adjusted for small sample size; dAICc: difference of AICc value between given model and the top model; AICcwt: AICc model weight; time: model run time in seconds. D: density; g0: probability of detection at the home range center; sigma: spatial scale parameter. Session: species, sex, season (1=spring, 2=early summer, 3=late summer); example: BB M3 = black bear, male, late summer. Model notation: rtp: relative terrain position (terrain complexity); elev: standardized elevation; elevcat: categorical elevation; TYPE: type of detector; categorical hair trap or bear rub; t: time; security: categorical index of habitat security; landcover: categorical landcover type; evi: enhanced vegetation index, Julian date of first scene, Julian date of last scene (example: evi177257 = sum of EVI values during Julian days 177-257); predicted density surfaces (prdD): species+sex+season (example: bb3prdD = black bear female, 3rd season [late summer]).

Season	Model	npar	logLik	AICc	dAICc	AICcwt
GB F1	D~bbt1prdD g0~TYPE + evi177193trap sigma~evi177193trap	7	-263.835	542.43	0.00	0.13
GB F1	D~bbt1prdD g0~TYPE:t sigma~1	8	-262.611	543.47	0.08	0.13
GB F1	D~bbt1prdD g0~TYPE + ttl1prdDtrap sigma~ttl1prdDtrap	7	-264.529	544.78	1.39	0.07
GB F1	D~bbt1prdD g0~TYPE sigma~1	5	-267.229	545.35	1.96	0.05
GB F1	D~bbt1prdD g0~TYPE:t sigma~ttl1prdDtrap	9	-262.259	545.38	1.98	0.05
GB F1	D~bbt1prdD g0~TYPE + bbT1prdDtrap sigma~bbT1prdDtrap	7	-264.845	545.41	2.02	0.05
GB F1	D~bbt1prdD + gbm1prdD g0~TYPE:t sigma~1	9	-262.577	546.01	2.62	0.04
GB F1	D~bbt1prdD g0~TYPE:t + evi177193trap sigma~1	9	-262.591	546.04	2.65	0.04
GB F1	D~bbt1prdD g0~TYPE + gbM1prdDtrap sigma~gbM1prdDtrap	7	-265.432	546.59	3.20	0.03
GB F1	D~bbt1prdD g0~TYPE + rtp sigma~1	6	-266.706	546.69	3.29	0.03
GB F1	D~bbt1prdD g0~TYPE sigma~ttl1prdDtrap	6	-266.864	547.00	3.61	0.02
GB F1	D~bbt1prdD g0~TYPE + bbT1prdDtrap sigma~1	6	-266.876	547.02	3.63	0.02
GB F1	D~bbt1prdD g0~TYPE + gbM1prdDtrap sigma~1	6	-266.999	547.27	3.88	0.02
GB F1	D~bbt1prdD g0~TYPE:t + evi177193trap sigma~evi177193trap	10	-261.925	547.40	4.01	0.02
GB F1	D~bbt1prdD g0~TYPE + evi177193trap sigma~1	6	-267.094	547.46	4.07	0.02
GB F1	D~bbt1prdD g0~TYPE + t sigma~1	6	-267.118	547.51	4.12	0.02
GB F1	D~bbt1prdD + evi177193 g0~TYPE sigma~1	6	-267.173	547.62	4.23	0.02
GB F1	D~bbt1prdD + gbm1prdD g0~TYPE sigma~1	6	-267.186	547.64	4.25	0.02
GB F1	D~bbt1prdD g0~TYPE + ttl1prdDtrap sigma~1	6	-267.200	547.67	4.28	0.02
GB F1	D~bbt1prdD + elev g0~TYPE + bbT1prdDtrap sigma~bbT1prdDtrap	8	-264.756	547.76	6.09	0.02
GB F1	D~bbt1prdD g0~TYPE + elevcat sigma~1	8	-264.756	547.76	4.37	0.02
GB F1	D~bbt1prdD g0~TYPE:t + security sigma~1	13	-257.893	547.96	4.56	0.01
GB F1	D~bbt1prdD g0~TYPE:ttl1prdDtrap sigma~1	10	-262.270	548.09	4.70	0.01
GB F1	D~ttl1prdD g0~TYPE:t sigma~1	6	267.429	548.13	6.46	0.01
GB F1	D~bbt1prdD g0~TYPE + evi177193trap sigma~bbT1prdDtrap	8	-265.037	548.32	4.93	0.01
GB F1	D~bbt1prdD g0~TYPE + gbM1prdDtrap sigma~bbT1prdDtrap	7	-266.316	548.35	4.96	0.01
GB F1	D~bbt1prdD G0~TYPE+ttl1prdDtrap sigma~1	7	-266.377	548.48	5.08	0.01
GB F1	D~bbt1prdD+gbm1prdD+evi177193 g0~TYPE:t sigma~1	10	-262.471	548.49	6.82	0.01
GB F1	D~bbt1prdD + evi177193 + rtp g0~TYPE sigma~1	10	-262.575	548.70	7.03	0.01
GB F1	D~bbt1prdD g0~TYPE + ttl1prdDtrap sigma~evi177193trap	7	-266.512	548.75	5.35	0.01

Season	Model	npar	logLik	AICc	dAICc	AICcwt
GB F1	D~bbt1prdD + gbm1prdD g0~TYPE:t sigma~bbT1prdDtrap + gbM1prdDtrap	7	-266.550	548.82	5.43	0.01
GB F1	D~bbt1prdD + gbm1prdD g0~TYPE + gbM1prdDtrap sigma~gbM1prdDtrap	11	-261.340	549.01	5.62	0.01
GB F1	D~bbt1prdD g0~TYPE + evi177193trap sigma~ttl1prdDtrap	8	-265.405	549.06	5.67	0.01
GB F1	D~ttl1prdD g0~TYPE + evi177193trap sigma~evi177193trap	7	-266.745	549.21	5.82	0.01
GB F1	D~bbt1prdD g0~TYPE + security sigma~1	7	-266.793	549.31	5.92	0.01
GB F1	D~bbt1prdD + elev + evi177193 g0~TYPE sigma~1	7	-266.800	549.32	5.93	0.01
GB F1	D~bbt1prdD g0~TYPE + security + bbT1prdDtrap sigma~bbT1prdDtrap	7	-266.903	549.53	6.14	0.01
GB F1	D~ttl1prdD + evi177193 g0~TYPE sigma~1	9	-264.393	549.64	6.25	0.01
GB F1	D~bbt1prdD g0~TYPE + gbM1prdDtrap + bbT1prdDtrap sigma~gbM1prdDtrap + bbT1prdDtrap	6	-268.264	549.80	6.41	0.01
GB F1	D~ttl1prdD g0~TYPE sigma~1	9	-264.506	549.87	6.48	0.01
GB F2	D~evi177193+gbm2prdD g0~TYPE+elevcat sigma~1	10	-543.542	1109.10	0.00	0.54
GB F2	D~evi177193+gbm2prdD g0~TYPE+elevcat sigma~gbM2prdDtrap	11	-543.159	1110.76	1.66	0.23
GB F2	D~evi177193+gbm2prdD g0~TYPE+ttl2prdDtrap+elevcat sigma~1	11	-543.395	1111.23	2.13	0.18
GB F2	D~ttl1prdD g0~TYPE+ttl2prdDtrap sigma~1	9	-548.161	1115.96	6.86	0.02
GB F2	D~ttl1prdD g0~TYPE+elevcat sigma~1	9	-548.161	1115.96	6.86	0.02
GB F2	D~ttl1prdD g0~TYPE+ttl2prdDtrap+elevcat sigma~1	10	-547.978	1117.97	8.87	0.01
GB F3	D~bbt3prdD g0~elevcat sigma~bbT3prdDtrap	9	-269.543	562.54	0.00	0.11
GB F3	D~ttl3prdD g0~elevcat sigma~bbT3prdDtrap	9	-269.561	562.58	0.04	0.11
GB F3	D~gbm3prdD g0~elevcat sigma~bbT3prdDtrap	9	-269.588	562.63	0.09	0.10
GB F3	D~rtp g0~elevcat sigma~bbT3prdDtrap	9	-269.596	562.65	0.11	0.10
GB F3	D~bbt3prdD g0~elevcat sigma~ttl3prdDtrap	9	-269.745	562.95	0.40	0.09
GB F3	D~ttl3prdD g0~elevcat sigma~ttl3prdDtrap	9	-269.757	562.97	0.43	0.09
GB F3	D~bbt3prdD g0~elevcat sigma~1	8	-271.676	563.59	1.05	0.06
GB F3	D~bbt3prdD g0~elevcat+bbT3prdDtrap sigma~1	9	-270.246	563.95	1.41	0.05
GB F3	D~ttl3prdD g0~elevcat sigma~1	8	-272.002	564.24	1.70	0.05
GB F3	D~bbt3prdD+elev g0~elevcat sigma~1	9	-270.692	564.84	2.30	0.03

Season	Model	npar	logLik	AICc	dAICc	AICcwt
GB F3	D~bbt3prdD g0~elevcat sigma~1	12	-265.660	565.72	3.18	0.02
GB F3	D~bbt3prdD g0~elevcat+bbT3prdDtrap sigma~bbT3prdDtrap	10	-269.457	565.79	3.25	0.02
GB F3	D~bbt3prdD+evi177193 g0~elevcat sigma~bbT3prdDtrap	10	-269.507	565.89	3.35	0.02
GB F3	D~bbt3prdD+gbm3prdD g0~elevcat sigma~bbT3prdDtrap	10	-269.518	565.91	3.37	0.02
GB F3	D~bbt3prdD+gbm3prdD g0~elevcat sigma~bbT3prdDtrap	10	-269.550	565.97	3.43	0.02
GB F3	D~bbt3prdD g0~elevcat sigma~gbF3prdDtrap	9	-271.397	566.25	3.71	0.02
GB F3	D~bbt3prdD g0~t+elevcat sigma~bbT3prdDtrap	10	-269.729	566.33	3.79	0.02
GB F3	D~bbt3prdD g0~elevcat+gbF3prdDtrap sigma~1	9	-271.603	566.66	4.12	0.01
GB F3	D~bbt3prdD g0~elevcat+gbM3prdDtrap sigma~1	9	-271.675	566.81	4.26	0.01
GB F3	D~bbt3prdD+rtp g0~elevcat sigma~1	9	-271.676	566.81	4.27	0.01
GB F3	D~bbt3prdD g0~elevcat sigma~1	8	-273.629	567.49	4.95	0.01
GB F3	D~bbt3prdD+rtp+elev g0~elevcat sigma~1	10	-270.691	568.26	5.72	0.01
GB F3	D~elev g0~elevcat sigma~bbT3prdDtrap	9	-273.025	568.50	5.96	0.01
GB M1	D~gbf1prdD g0~TYPE+gbM1prdDtrap+security sigma~gbM1prdDtrap	9	-926.614	1873.54	0.00	0.26
GB M1	D~gbf1prdD+bbt1prdD+elev g0~TYPE+bbT1prdDtrap+security sigma~bbT1prdDtrap	11	-925.157	1875.79	2.25	0.09
GB M1	D~gbf1prdD+bbt1prdD+elev g0~TYPE+gbM1prdDtrap sigma~gbM1prdDtrap	9	-927.861	1876.03	2.49	0.08
GB M1	D~gbf1prdD g0~TYPE+gbF1prdDtrap+security sigma~gbM1prdDtrap	9	-928.016	1876.34	2.80	0.06
GB M1	D~gbf1prdD+bbt1prdD+elev g0~TYPE+bbT1prdDtrap sigma~bbT1prdDtrap+security	11	-925.483	1876.44	2.90	0.06
GB M1	D~gbf1prdD+bbt1prdD+elev g0~TYPE+gbM1prdDtrap+security sigma~bbT1prdDtrap	11	-925.643	1876.76	3.22	0.05
GB M1	D~gbf1prdD+bbt1prdD+elev g0~TYPE+bbT1prdDtrap sigma~bbT1prdDtrap	9	-928.330	1876.97	3.43	0.05
GB M1	D~gbf1prdD g0~TYPE+gbM1prdDtrap+security sigma~ttl1prdDtrap	9	-928.679	1877.67	4.13	0.03
GB M1	D~gbf1prdD+bbm1prdD+elev g0~TYPE+bbT1prdDtrap+security sigma~bbT1prdDtrap	11	-926.112	1877.70	4.16	0.03

Season	Model	npar	logLik	AICc	dAICc	AICcwt
GB M1	D~gbf1prdD+bbt1prdD+elev+rtp g0~TYPE+bbT1prdDtrap+security sigma~bbT1prdDtrap	12	-924.781	1877.72	4.19	0.03
GB M1	D~gbf1prdD+bbt1prdD+elev g0~TYPE+bbT1prdDtrap+gbF1prdDtrap sigma~bbT1prdDtrap	10	-927.538	1877.93	4.40	0.03
GB M1	D~gbf1prdD+bbt1prdD+elev g0~TYPE+gbM1prdDtrap sigma~bbT1prdDtrap	9	-928.860	1878.03	4.49	0.03
GB M1	D~ttl1prdD g0~TYPE+bbT1prdDtrap+security sigma~bbT1prdDtrap	9	-928.924	1878.16	4.62	0.03
GB M1	D~gbf1prdD g0~TYPE+gbM1prdDtrap sigma~gbM1prdDtrap	7	-931.596	1878.59	5.06	0.02
GB M1	D~gbf1prdD g0~TYPE+gbM1prdDtrap sigma~gbM1prdDtrap	7	-931.596	1878.59	5.06	0.02
GB M1	D~bbm1prdD+elev g0~TYPE+bbT1prdDtrap+security sigma~bbT1prdDtrap	10	-927.927	1878.71	5.18	0.02
GB M1	D~elev g0~TYPE+bbT1prdDtrap+security sigma~bbT1prdDtrap	9	-929.370	1879.05	5.51	0.02
GB M1	D~ttl1prdD+elev g0~TYPE+bbT1prdDtrap+security sigma~bbT1prdDtrap	10	-928.511	1879.88	6.34	0.01
GB M1	D~ttl1prdD+elev g0~TYPE+ttl1prdDtrap+security sigma~ttl1prdDtrap	10	-928.765	1880.39	6.85	0.01
GB M1	D~gbf1prdD+bbt1prdD+elev g0~TYPE+bbT1prdDtrap+security sigma~bbT1prdDtrap+security	13	-924.792	1880.50	6.97	0.01
GB M1	D~gbf1prdD g0~TYPE+gbF1prdDtrap sigma~gbM1prdDtrap	7	-932.582	1880.56	7.03	0.01
GB M1	D~gbf1prdD+bbt1prdD+elev g0~TYPE+gbF1prdDtrap sigma~gbF1prdDtrap	9	-930.281	1880.87	7.33	0.01
GB M1	D~gbf1prdD+bbt1prdD+rtp g0~TYPE sigma~bbT1prdDtrap	8	-931.624	1881.07	7.54	0.01
GB M2	D~ttl2prdD+rtp g0~TYPE:t sigma~landcover	12	-742.816	1513.39	0.00	0.48
GB M2	D~ttl2prdD g0~TYPE:t sigma~landcover	11	-744.432	1514.01	0.62	0.35
GB M2	D~ttl2prdD+rtp g0~TYPE:t sigma~landcover	14	-742.642	1518.47	5.08	0.04
GB M2	D~ttl2prdD g0~TYPE:t sigma~landcover	13	-744.253	1518.94	5.55	0.03
GB M2	D~ttl2prdD g0~TYPE:t+gbM2prdDtrap sigma~landcover	14	-743.303	1519.79	6.40	0.02
GB M2	D~ttl2prdD+rtp g0~TYPE:t+gbM2prdDtrap sigma~landcover	15	-741.986	1519.97	6.58	0.02
GB M2	D~ttl2prdD g0~TYPE+t sigma~landcover	9	-750.496	1521.09	7.70	0.01
GB M2	D~bbt2prdD g0~TYPE:t sigma~landcover	13	-745.357	1521.15	7.76	0.01

Season	Model	npar	logLik	AICc	dAICc	AICcwt
GB M2	D~ttl2prdD g0~TYPE:t sigma~landcover+rtp	14	-744.220	1521.63	8.23	0.01
GB M2	D~ttl2prdD+elev g0~TYPE:t sigma~landcover	14	-744.237	1521.66	8.27	0.01
GB M2	D~ttl2prdD g0~TYPE:t sigma~landcover+ttl2prdDtrap	14	-744.253	1521.69	8.30	0.01
GB M2	D~ttl2prdD+rtp g0~TYPE:t sigma~1	9	-750.974	1522.04	8.65	0.01
GB M3	D~ttl2prdD g0~t+evi177257trap sigma~1	6	-389.168	792.67	0.00	0.07
GB M3	D~ttl2prdD g0~t+evi177257trap sigma~evi177257trap+rtp	8	-386.492	793.22	0.55	0.05
GB M3	D~ttl2prdD g0~evi177257trap sigma~evi177257trap+rtp	7	-388.023	793.25	0.58	0.05
GB M3	D~ttl2prdD g0~evi177257trap sigma~evi177257trap	6	-389.459	793.25	0.58	0.05
GB M3	D~ttl2prdD+rtp g0~evi177257trap sigma~1	6	-389.499	793.33	0.66	0.05
GB M3	D~ttl2prdD g0~evi177257trap+rtp sigma~1	6	-389.565	793.46	0.79	0.05
GB M3	D~bbm3prdD g0~evi177257trap sigma~1	5	-390.928	793.48	0.81	0.04
GB M3	D~ttl3prdD g0~evi177257trap sigma~1	5	-391.022	793.67	1.00	0.04
GB M3	D~bbt3prdD g0~evi177257trap sigma~1	5	-391.156	793.93	1.26	0.04
GB M3	D~ttl2prdD g0~evi177257trap+gbF3prdDtrap sigma~1	6	-389.920	794.17	1.50	0.03
GB M3	D~ttl2prdD g0~evi177257trap sigma~rtp	6	-390.003	794.34	1.67	0.03
GB M3	D~bbt3prdD+rtp g0~evi177257trap sigma~1	6	-390.046	794.43	1.76	0.03
GB M3	D~ttl2prdD g0~evi177257trap sigma~gbM3prdDtrap	6	-390.100	794.53	1.87	0.03
GB M3	D~bbt3prdD+elev+rtp g0~evi177257trap sigma~1	7	-388.672	794.54	1.88	0.03
GB M3	D~elev+ttl2prdD g0~evi177257trap sigma~1	6	-390.258	794.85	2.18	0.02
GB M3	D~ttl2prdD g0~evi177257trap+ttl3prdDtrap sigma~1	6	-390.299	794.93	2.26	0.02
GB M3	D~ttl2prdD+rtp+elev g0~evi177257trap sigma~1	7	-388.870	794.94	2.27	0.02
GB M3	D~ttl2prdD g0~evi177257trap sigma~ttl3prdDtrap	6	-390.367	795.07	2.40	0.02
GB M3	D~ttl2prdD g0~evi177257trap sigma~security	7	-388.957	795.11	2.45	0.02
GB M3	D~evi177225+ttl2prdD g0~evi177257trap sigma~1	6	-390.438	795.21	2.54	0.02
GB M3	D~ttl2prdD g0~evi177257trap sigma~bbT3prdDtrap	6	-390.444	795.22	2.55	0.02
GB M3	D~evi209225+ttl2prdD g0~evi177257trap sigma~1	6	-390.452	795.24	2.57	0.02
GB M3	D~ttl2prdD g0~security+evi177257trap sigma~1	7	-389.058	795.32	2.65	0.02
GB M3	D~evi209225+bbt3prdD g0~evi177257trap sigma~1	6	-390.502	795.34	2.67	0.02
GB M3	D~ttl2prdD g0~evi177257trap+gbM3prdDtrap sigma~1	6	-390.545	795.42	2.76	0.02
GB M3	D~ttl2prdD g0~t+evi177257trap sigma~evi177257trap+gbF3prdDtrap	8	-387.631	795.50	2.83	0.02
GB M3	D~evi209225+ttl2prdD g0~evi177257trap sigma~1	6	-390.663	795.66	2.99	0.02

Season	Model	npar	logLik	AICc	dAICc	AICcwt
GB M3	D~bbf3prdD+elev g0~evi177257trap sigma~1	6	-390.693	795.72	3.05	0.01
GB M3	D~evi177257 g0~evi177257trap sigma~1	5	-392.154	795.93	3.26	0.01
GB M3	D~bbf3prdD g0~evi177257trap sigma~1	5	-392.167	795.96	3.29	0.01
GB M3	D~ttl2prdD g0~t+evi177257trap+rtp sigma~evi177257trap+rtp	9	-386.251	795.96	3.29	0.01
GB M3	D~gbf2prdD g0~evi177257trap sigma~1	5	-392.407	796.44	3.77	0.01
GB M3	D~gbf3prdD+evi177225 g0~evi177257trap sigma~1	6	-391.117	796.57	3.90	0.01
GB M3	D~gbm2prdD g0~evi177257trap sigma~1	5	-392.517	796.66	3.99	0.01
GB M3	D~evi209225+gbf3prdD g0~evi177257trap sigma~1	6	-391.236	796.81	4.14	0.01
GB M3	D~gbf3prdD+evi177257 g0~evi177257trap sigma~1	6	-391.410	797.15	4.49	0.01
GB M3	D~gbf3prdD g0~evi177257trap sigma~1	5	-392.795	797.21	4.54	0.01
GB M3	D~ttl2prdD+security g0~evi177257trap sigma~1	7	-390.099	797.40	4.73	0.01
GB M3	D~elev g0~evi177257trap sigma~1	5	-392.929	797.48	4.81	0.01
GB M3	D~evi209225+ttl2prdD g0~evi177257trap+ttl3prdDtrap sigma~1	7	-390.248	797.70	5.03	0.01
BB F1	D~gbt1prdD g0~TYPE+landcover+ttl1prdDtrap sigma~landcover	12	-466.192	958.32	0.00	0.37
BB F1	D~gbt1prdD g0~TYPE+landcover sigma~landcover	11	-467.716	959.06	0.74	0.25
BB F1	D~gbt1prdD g0~TYPE+landcover+ttl1prdDtrap sigma~landcover+ttl1prdDtrap	13	-466.081	960.44	2.12	0.13
BB F1	D~gbt1prdD g0~TYPE+landcover sigma~landcover	15	-464.666	962.37	4.05	0.05
BB F1	D~gbt1prdD g0~TYPE+landcover+ttl1prdDtrap sigma~landcover	16	-463.721	962.91	4.59	0.04
BB F1	D~gbt1prdD g0~TYPE+landcover+ttl1prdDtrap sigma~landcover+ttl1prdDtrap	17	-462.747	963.42	5.10	0.03
BB F1	D~elev g0~TYPE+landcover sigma~landcover	15	-465.624	964.29	5.96	0.02
BB F1	D~gbt1prdD+elev g0~TYPE+landcover sigma~landcover	16	-464.414	964.29	5.97	0.02
BB F1	D~gbt1prdD+bbm1prdD g0~TYPE+landcover sigma~landcover	16	-464.618	964.70	6.38	0.02
BB F1	D~evi177193+elev g0~TYPE+landcover sigma~landcover	16	-464.746	964.96	6.64	0.01
BB F1	D~bbm1prdD+elev g0~TYPE+landcover sigma~landcover	16	-465.067	965.60	7.28	0.01
BB F1	D~evi177193+bbm1prdD g0~TYPE+landcover sigma~landcover	16	-465.109	965.68	7.36	0.01
BB F1	D~gbt1prdD+landcover g0~TYPE+landcover sigma~landcover	20	-460.242	965.98	7.65	0.01
BB F1	D~bbm1prdD g0~TYPE+landcover sigma~landcover	15	-466.612	966.26	7.94	0.01
BB F1	D~gbt1prdD+landcover g0~TYPE+landcover sigma~landcover	16	-465.414	966.29	7.97	0.01
BB F1	D~evi177193+bbm1prdD+elev g0~TYPE+landcover sigma~landcover	17	-464.332	966.59	8.26	0.01

Season	Model	npar	logLik	AICc	dAICc	AICcwt
BB F1	D~gbt1prdD+bbm1prdD+elev g0~TYPE+landcover sigma~landcover	17	-464.338	966.60	8.28	0.01
BB F1	D~elev+landcover g0~TYPE+landcover sigma~landcover	20	-460.574	966.64	8.32	0.01
BB F2	D~evi177193+rtp g0~TYPE+ttl2prdDtrap sigma~ttl2prdDtrap	8	-463.216	943.67	0.00	0.44
BB F2	D~evi177193+rtp g0~TYPE+ttl2prdDtrap sigma~bbF2prdDtrap	8	-463.548	944.34	0.66	0.31
BB F2	D~evi177193+rtp g0~TYPE+bbF2prdDtrap sigma~bbF2prdDtrap	8	-464.398	946.04	2.36	0.13
BB F2	D~evi177193+gbm2prdD g0~TYPE+ttl2prdDtrap sigma~ttl2prdDtrap	8	-466.120	949.48	5.81	0.02
BB F2	D~evi177193 g0~TYPE+bbF2prdDtrap sigma~bbF2prdDtrap	7	-467.328	949.61	5.94	0.02
BB F2	D~evi177193+rtp g0~TYPE sigma~1	6	-469.224	951.16	7.49	0.01
BB F2	D~evi177193+gbm2prdD+bbm2prdD g0~TYPE+ttl2prdDtrap sigma~ttl2prdDtrap	9	-465.973	951.51	7.84	0.01
BB F2	D~evi177193 g0~TYPE+bbF2prdDtrap+evi209225trap sigma~bbF2prdDtrap	8	-467.318	951.88	8.20	0.01
BB F3	D~evi177225+rtp g0~t sigma~1	6	-360.590	734.97	0.00	0.08
BB F3	D~rtp g0~t sigma~1	5	-361.156	733.56	1.41	0.04
BB F3	D~rtp g0~t+rtp sigma~1	6	-360.609	735.00	1.44	0.04
BB F3	D~rtp+evi177257 g0~t sigma~1	6	-360.654	735.09	1.53	0.04
BB F3	D~rtp g0~t sigma~gbM3prdDtrap	6	-360.868	735.52	1.96	0.03
BB F3	D~rtp+ttl3prdD g0~t sigma~1	6	-360.873	735.53	1.97	0.03
BB F3	D~bbt2prdD+rtp g0~t sigma~1	6	-360.971	735.73	2.17	0.03
BB F3	D~rtp g0~t+bbM3prdDtrap sigma~1	6	-360.979	735.75	2.18	0.03
BB F3	D~rtp g0~t+ttl3prdDtrap sigma~1	6	-360.980	735.75	2.19	0.03
BB F3	D~rtp g0~t+evi177257trap sigma~1	6	-360.983	735.75	2.19	0.03
BB F3	D~rtp g0~t sigma~bbT3prdDtrap	6	-361.101	735.99	2.43	0.02
BB F3	D~rtp g0~t sigma~bbM3prdDtrap	6	-361.103	735.99	2.43	0.02
BB F3	D~rtp g0~t sigma~ttl3prdDtrap	6	-361.114	736.02	2.45	0.02
BB F3	D~ttl1prdD g0~t sigma~1	5	-362.403	736.06	2.50	0.02
BB F3	D~rtp g0~t sigma~rtp	6	-361.144	736.08	2.51	0.02
BB F3	D~rtp g0~t sigma~evi177257trap	6	-361.156	736.10	2.54	0.02
BB F3	D~rtp g0~rtp sigma~rtp	6	-361.327	736.44	2.88	0.02
BB F3	D~rtp g0~rtp sigma~rtp	6	-361.327	736.44	2.88	0.02

Season	Model	npar	logLik	AICc	dAICc	AICcwt
BB F3	D~evil77225+rtp g0~1 sigma~t	6	-361.332	736.45	2.89	0.02
BB F3	D~rtp g0~t:rtp sigma~1	6	-361.398	736.58	3.02	0.02
BB F3	D~rtp g0~t:gbT3prdDtrap sigma~1	6	-361.511	736.81	3.25	0.02
BB F3	D~rtp g0~rtp sigma~1	5	-362.873	737.00	3.43	0.01
BB F3	D~evil77225+rtp g0~1 sigma~1	5	-362.875	737.00	3.44	0.01
BB F3	D~gbt2prdD+rtp g0~1 sigma~1	5	-362.893	737.04	3.47	0.01
BB F3	D~evil77225+rtp g0~t sigma~t	7	-360.329	737.09	3.53	0.01
BB F3	D~evil77225 g0~t sigma~1	5	-363.000	737.25	3.69	0.01
BB F3	D~rtp g0~t+rtp+t13prdDtrap sigma~1	7	-360.408	737.25	3.69	0.01
BB F3	D~rtp g0~t+rtp+bbM3prdDtrap sigma~1	7	-360.407	737.25	3.69	0.01
BB F3	D~rtp g0~t+rtp+evil77257trap sigma~1	7	-360.442	737.32	3.76	0.01
BB F3	D~rtp g0~t+security sigma~1	7	-360.442	737.32	3.76	0.01
BB F3	D~evil77225+rtp+t12prdD g0~t sigma~1	7	-360.457	737.35	3.79	0.01
BB F3	D~rtp g0~t+elevcat sigma~1	9	-357.660	737.41	3.85	0.01
BB F3	D~evil77257 g0~t sigma~1	5	-363.087	737.42	3.86	0.01
BB F3	D~rtp g0~t sigma~security	7	-360.496	737.43	3.87	0.01
BB F3	D~gbt2prdD g0~t sigma~1	5	-363.102	737.46	3.89	0.01
BB F3	D~gbt2prdD g0~t sigma~1	5	-363.102	737.46	3.89	0.01
BB F3	D~rtp g0~t+bbM3prdDtrap sigma~gbM3prdDtrap	7	-360.555	737.55	3.98	0.01
BB F3	D~bbf2prdD g0~t sigma~1	5	-363.181	737.61	4.05	0.01
BB F3	D~t13prdD g0~t sigma~1	5	-363.230	737.71	4.15	0.01
BB F3	D~bbt2prdD g0~t sigma~1	5	-363.268	737.79	4.23	0.01
BB F3	D~rtp g0~gbT3prdDtrap sigma~1	5	-363.309	737.87	4.31	0.01
BB F3	D~rtp g0~bbM3prdDtrap sigma~1	5	-363.324	737.90	4.34	0.01
BB F3	D~t12prdD g0~t sigma~1	5	-363.327	737.91	4.34	0.01
BB F3	D~rtp+elev g0~1 sigma~1	5	-363.463	738.18	4.61	0.01
BB F3	D~rtp g0~evil77257trap sigma~1	5	-363.485	738.22	4.66	0.01
BB F3	D~elev g0~t sigma~1	5	-363.511	738.27	4.71	0.01
BB F3	D~rtp g0~t+t13prdDtrap+evil77257trap sigma~1	7	-360.925	738.29	4.72	0.01
BB F3	D~rtp g0~t+t13prdDtrap sigma~t13prdDtrap	7	-360.927	738.29	4.73	0.01
BB F3	D~rtp g0~t:bbF3prdDtrap sigma~1	6	-362.267	738.32	4.76	0.01
BB F3	D~gbt3prdD g0~t sigma~1	5	-363.554	738.36	4.80	0.01

Season	Model	npar	logLik	AICc	dAICc	AICcwt
BB F3	D~security+rtp g0~t sigma~1	7	-361.034	738.50	4.94	0.01
BB F3	D~rtp g0~t sigma~ttl2prdDtrap	9	-358.215	738.52	4.96	0.01
BB F3	D~rtp g0~t:ttl3prdDtrap sigma~1	6	-362.447	738.68	5.12	0.01
BB F3	D~rtp g0~t+rtp+security sigma~1	8	-359.898	739.00	5.43	0.01
BB M1	D~gbt1prdD g0~TYPE+security+evi177193trap sigma~evi177193trap	9	-846.026	1711.11	0.00	0.60
BB M1	D~elev g0~TYPE+security+evi177193trap sigma~evi177193trap	9	-847.487	1714.03	2.92	0.14
BB M1	D~elev g0~TYPE+security+evi177193trap+ttl1prdDtrap sigma~evi177193trap	10	-846.611	1714.52	3.41	0.11
BB M1	D~elev g0~TYPE+security+evi177193trap sigma~evi177193trap+ttl1prdDtrap	10	-847.057	1715.41	4.30	0.07
BB M1	D~evi177193+gbt1prdD g0~TYPE+security+evi177193trap+ttl1prdDtrap sigma~evi177193trap	11	-846.648	1716.86	5.75	0.03
BB M1	D~gbt1prdD g0~TYPE+security+evi177193trap sigma~1	8	-850.384	1717.61	6.50	0.02
BB M1	D~evi177193+gbt1prdD g0~TYPE+security+evi177193trap+ttl1prdDtrap sigma~1	10	-849.481	1720.26	9.15	0.01
BB M1	D~elev g0~TYPE+security+evi177193trap sigma~1	8	-851.795	1720.43	9.32	0.01
BB M2	D~evi177193+security g0~TYPE+security+elevcat sigma~security+elevcat	19	-628.833	1302.28	0.00	0.33
BB M2	D~evi177193 g0~TYPE+security+elevcat sigma~security+elevcat	17	-632.025	1303.28	1.01	0.20
BB M2	D~evi177193+elev g0~TYPE+security+elevcat sigma~security+elevcat	18	-630.722	1303.34	1.06	0.19
BB M2	D~evi177193+ttl2prdD g0~TYPE+security+elevcat sigma~security+elevcat	18	-631.980	1305.86	3.58	0.05
BB M2	D~evi177193+bbf2prdD g0~TYPE+security+elevcat sigma~security+elevcat	18	-632.001	1305.90	3.62	0.05
BB M2	D~evi177193+elev+bbf2prdD g0~TYPE+security+elevcat sigma~security+elevcat	19	-630.669	1305.95	3.67	0.05
BB M2	D~bbf2prdD g0~TYPE+security+elevcat sigma~security+elevcat	17	-633.435	1306.10	3.82	0.05

Season	Model	npar	logLik	AICc	dAICc	AICcwt
BB M2	D~evi177193 g0~TYPE+security sigma~security	9	-644.183	1307.81	5.53	0.02
BB M2	D~evi177193+elev g0~TYPE+ttl2prdDtrap+security sigma~security	10	-643.200	1308.17	5.90	0.02
BB M2	D~evi177193+ttl2prdD g0~TYPE+security sigma~security	11	-642.963	1310.07	7.80	0.01
BB M2	D~evi177193+elev g0~TYPE+security+elevcat sigma~security	10	-644.360	1310.49	8.22	0.01
BB M3	D~evi177193 g0~1 sigma~1	6	-287.717	589.15	0.00	0.08
BB M3	D~bbf3prdD+security g0~1 sigma~1	4	-290.381	589.55	0.40	0.07
BB M3	D~bbf3prdD g0~ttl2prdDtrap sigma~1	5	-289.520	590.24	1.09	0.05
BB M3	D~bbf3prdD+rtp g0~1 sigma~1	5	-289.533	590.27	1.12	0.05
BB M3	D~bbf3prdD+evi177257 g0~1 sigma~1	5	-289.567	590.34	1.19	0.04
BB M3	D~bbf3prdD+elev g0~1 sigma~1	5	-289.667	590.54	1.39	0.04
BB M3	D~evi177257+security g0~1 sigma~1	6	-288.582	590.88	1.73	0.03
BB M3	D~bbf3prdD+evi177193 g0~1 sigma~1	5	-289.861	590.92	1.77	0.03
BB M3	D~bbf3prdD g0~t sigma~1	5	-289.887	590.97	1.82	0.03
BB M3	D~bbf3prdD g0~rtp sigma~1	5	-289.951	591.10	1.95	0.03
BB M3	D~bbf3prdD g0~1 sigma~bbF3prdDtrap	5	-289.955	591.11	1.96	0.03
BB M3	D~bbf3prdD g0~1 sigma~security	6	-288.776	591.27	2.12	0.03
BB M3	D~bbf3prdD+evi177193+security g0~1 sigma~1	7	-287.549	591.43	2.28	0.03
BB M3	D~gbt3prdD+bbf3prdD+security g0~1 sigma~1	7	-287.580	591.49	2.34	0.03
BB M3	D~bbf3prdD g0~evi241257trap sigma~ttl2prdDtrap	6	-288.969	591.65	2.50	0.02
BB M3	D~bbf3prdD g0~security sigma~1	6	-289.089	591.89	2.74	0.02
BB M3	D~bbf2prdD g0~1 sigma~1	4	-291.580	591.95	2.80	0.02
BB M3	D~bbf3prdD+security g0~bbM3prdDtrap sigma~ttl2prdDtrap	8	-286.462	591.99	2.84	0.02
BB M3	D~evi177257+security+rtp g0~1 sigma~1	7	-287.930	592.19	3.04	0.02
BB M3	D~ttl2prdD+evi177257+security g0~1 sigma~1	7	-287.942	592.22	3.07	0.02
BB M3	D~evi177257 g0~1 sigma~1	4	-291.914	592.61	3.46	0.01
BB M3	D~ttl3prdD+security g0~1 sigma~1	6	-289.504	592.72	3.57	0.01
BB M3	D~evi177257+rtp g0~1 sigma~1	5	-290.789	592.78	3.63	0.01
BB M3	D~ttl2prdD g0~1 sigma~1	4	-292.039	592.86	3.71	0.01
BB M3	D~bbt2prdD g0~1 sigma~1	4	-292.063	592.91	3.76	0.01
BB M3	D~gbt3prdD+bbf3prdD g0~evi241257trap sigma~1	6	-289.600	592.91	3.76	0.01
BB M3	D~gbt3prdD+bbf3prdD g0~1 sigma~evi177257trap	6	-289.620	592.96	3.81	0.01

Season	Model	npar	logLik	AICc	dAICc	AICcwt
BB M3	D~gbt3prdD+bbf3prdD g0~gbT3prdDtrap sigma~1	6	-289.631	592.98	3.83	0.01
BB M3	D~gbt3prdD+bbf3prdD g0~1 sigma~evi241257trap	6	-289.663	593.04	3.89	0.01
BB M3	D~gbt3prdD+bbf3prdD g0~1 sigma~t	6	-289.697	593.11	3.96	0.01
BB M3	D~gbt3prdD+bbf3prdD g0~t sigma~1	6	-289.700	593.11	3.96	0.01
BB M3	D~bbf3prdD g0~bbT3prdDtrap+gbT3prdDtrap sigma~1	6	-289.729	593.17	4.02	0.01
BB M3	D~gbt3prdD+bbf3prdD g0~bbM3prdDtrap sigma~1	6	-289.759	593.23	4.08	0.01
BB M3	D~bbf3prdD g0~t:evi241257trap sigma~1	6	-289.762	593.24	4.09	0.01
BB M3	D~gbt3prdD+bbf3prdD g0~evi177257trap sigma~1	6	-289.766	593.25	4.10	0.01
BB M3	D~gbt3prdD+bbf3prdD g0~evi177225trap sigma~1	6	-289.766	593.25	4.10	0.01
BB M3	D~ttl3prdD+rtp+security g0~1 sigma~1	7	-288.632	593.60	4.45	0.01
BB M3	D~bbf3prdD g0~bbF3prdDtrap sigma~bbF3prdDtrap	6	-289.954	593.62	4.47	0.01
BB M3	D~bbm2prdD g0~1 sigma~1	4	-292.520	593.82	4.67	0.01
BB M3	D~bbf3prdD g0~bbM3prdDtrap+security sigma~ttl2prdDtrap	8	-287.380	593.82	4.67	0.01
BB M3	D~gbt3prdD+bbf3prdD g0~security sigma~1	7	-288.833	594.00	4.85	0.01
BB M3	D~bbf3prdD g0~evi241257trap+security sigma~1	7	-288.982	594.30	5.15	0.01
BB M3	D~bbf3prdD g0~rtp+security sigma~1	7	-289.030	594.39	5.25	0.01
BB M3	D~elev+ttl2prdD g0~1 sigma~1	5	-291.613	594.43	5.28	0.01
BB M3	D~security g0~1 sigma~1	5	-291.657	594.51	5.37	0.01