

Supplementary Material

Carcass use by mesoscavengers drives seasonal shifts in Australian alpine scavenging dynamics

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Supplementary Material

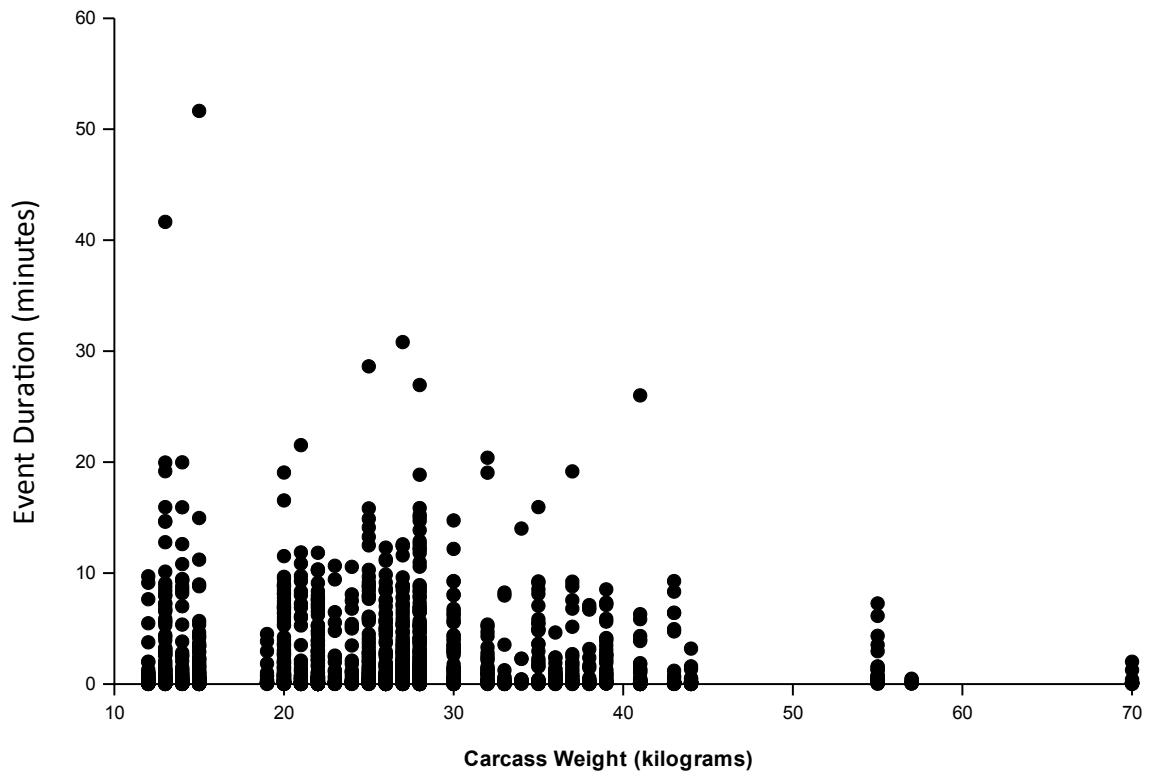


Figure S1. All investigation event durations (y-axis) at each carcass site signified by carcass weight (x-axis).

Table S1. Carcass weight (kilograms) for each of the carcass sites monitored during each of the seasons. The carcasses ranged in weight from 12kg-70kg and on average were 28.3kg (\pm 1.498 – standard deviation).

Summer		Autumn		Winter		Spring	
Site	Weight	Site	Weight	Site	Weight	Site	Weight
1	27	15	26	30	44	44	19
2	30	16	20	31	55	45	35
3	22	17	57	32	28	46	22
4	15	18	27	33	39	47	30
5	23	19	12	34	20	48	27
6	34	20	32	35	37	49	41
7	27	21	33	36	27	50	23
8	28	22	12	37	22	51	55
9	13	23	21	38	26	52	15
10	14	24	36	39	26	53	12
11	28	25	27	40	43	54	15
12	24	26	25	41	22	55	15
13	28	27	38	42	70	56	20
14	25	28	36	43	24	57	36
		29	22			58	28
Avg.	24	Avg.	28	Avg.	35	Avg.	26

Table S2. The permutational multivariate analysis of variance (PERMANOVA) for investigation events species composition (top) and scavenging events species composition (bottom). Significant p-values ($p < 0.05$) are indicated in **bold** text.

	df	SS	MS	Pseudo-F	<i>p</i>
Investigation Events					
Seasons	3	0.931	0.310	2.898	0.002
Residuals	54	5.779	0.107		
Total	57	6.710			
Scavenging Events					
Seasons	3	1.488	0.496	2.991	0.004
Residuals	50	8.289	0.166		
Total	53	9.776			

Table S3. Bonferroni-adjusted pairwise tests between each of the seasons for the permutational multivariate analysis of variance (PERMANOVA) for investigation events species composition (top) and scavenging events species composition (bottom). Significant p-values ($p < 0.05$) are indicated in **bold** text.

Contrast	Pseudo-F	<i>p</i>	<i>p</i> adjusted
Investigation Events			
Autumn - Spring	4.554	0.005	0.030
Autumn - Summer	1.984	0.119	0.714
Autumn - Winter	1.658	0.169	1.000
Spring - Summer	1.147	0.358	1.000
Spring - Winter	4.995	0.003	0.018
Summer - Winter	3.436	0.015	0.090
Scavenging Events			
Autumn - Spring	3.252	0.009	0.054
Autumn - Summer	1.464	0.212	1.000
Autumn - Winter	3.857	0.006	0.036
Spring - Summer	2.974	0.030	0.180
Spring - Winter	5.500	0.002	0.012
Summer - Winter	1.797	0.152	0.912

Table S4. The similarity percentages (SIMPER) analysis demonstrating the contribution of each species to explaining differences between the seasons in investigation event species composition. Here, ‘Average’ is the average contribution to overall dissimilarity between the seasons; ‘Ratio’ is the ‘Average’ to ‘SD’ ratio; ‘AVA’ is average abundance for the first season; ‘AVB’ is average abundance for the second season; and ‘CUMSUM’ is the cumulative sum of overall contribution to dissimilarity between the seasons.

Species	Average	SD	Ratio	AVA	AVB	CUMSUM
Summer vs Autumn						
Brushtail possum	0.433	0.244	1.772	47.214	27.067	0.705
Raven spp.	0.039	0.046	0.849	1.500	2.333	0.769
Feral cat	0.031	0.074	0.420	0.357	1.933	0.819
Dingo	0.030	0.046	0.644	1.571	0.667	0.868
Feral pig	0.022	0.043	0.511	0.214	1.200	0.904
Pied currawong	0.022	0.035	0.606	0.786	1.000	0.939
Wedge-tailed eagle	0.018	0.034	0.538	0.429	0.800	0.969
Red fox	0.017	0.033	0.504	0.000	1.400	0.996
Spotted-tail quoll	0.002	0.007	0.336	0.000	0.133	1.000
Summer vs Winter						
Brushtail possum	0.436	0.247	1.765	47.214	44.929	0.781
Raven spp.	0.039	0.054	0.721	1.500	2.857	0.850
Pied currawong	0.026	0.042	0.626	0.786	1.786	0.897
Dingo	0.021	0.033	0.651	1.571	0.071	0.936
Red fox	0.012	0.020	0.593	0.000	0.857	0.957
Wedge-tailed eagle	0.008	0.023	0.338	0.429	0.214	0.971
Feral cat	0.007	0.011	0.651	0.357	0.429	0.984

Feral pig	0.006	0.011	0.541	0.214	0.357	0.995
Spotted-tail quoll	0.003	0.010	0.305	0.000	0.286	1.000
Summer vs Spring						
Brushtail possum	0.375	0.223	1.683	47.214	23.600	0.586
Raven spp.	0.126	0.169	0.743	1.500	13.200	0.783
Pied currawong	0.089	0.146	0.607	0.786	6.200	0.921
Dingo	0.034	0.045	0.764	1.571	1.800	0.974
Wedge-tailed eagle	0.006	0.022	0.269	0.429	0.000	0.984
Feral cat	0.005	0.008	0.685	0.357	0.267	0.992
Feral pig	0.005	0.011	0.417	0.214	0.067	0.999
Red fox	0.001	0.003	0.248	0.000	0.067	1.000
Spotted-tail quoll	0.000	0.000	0.000	0.000	0.000	1.000
Autumn vs Winter						
Brushtail possum	0.347	0.223	1.559	27.067	44.929	0.682
Raven spp.	0.047	0.055	0.865	2.333	2.857	0.775
Pied currawong	0.027	0.041	0.646	1.000	1.786	0.827
Feral cat	0.026	0.058	0.454	1.933	0.429	0.879
Red fox	0.021	0.027	0.794	1.400	0.857	0.921
Feral pig	0.017	0.031	0.549	1.200	0.357	0.954
Wedge-tailed eagle	0.011	0.019	0.607	0.800	0.214	0.976
Dingo	0.007	0.014	0.528	0.667	0.071	0.991
Spotted-tail quoll	0.005	0.010	0.457	0.133	0.286	1.000
Autumn vs Spring						
Brushtail possum	0.250	0.174	1.442	27.067	23.600	0.430

Raven spp.	0.138	0.167	0.826	2.333	13.200	0.667
Pied currawong	0.094	0.146	0.641	1.000	6.200	0.827
Dingo	0.030	0.047	0.647	0.667	1.800	0.879
Feral cat	0.026	0.060	0.436	1.933	0.267	0.924
Feral pig	0.017	0.031	0.548	1.200	0.067	0.953
Red fox	0.015	0.028	0.552	1.400	0.067	0.979
Wedge-tailed eagle	0.010	0.018	0.568	0.800	0.000	0.997
Spotted-tail quoll	0.002	0.005	0.377	0.133	0.000	1.000
Winter vs Spring						
Brushtail possum	0.272	0.192	1.419	44.929	23.600	0.524
Raven spp.	0.119	0.142	0.840	2.857	13.200	0.754
Pied currawong	0.080	0.115	0.689	1.786	6.200	0.908
Dingo	0.023	0.039	0.583	0.071	1.800	0.952
Red fox	0.011	0.016	0.668	0.857	0.067	0.973
Feral cat	0.006	0.009	0.689	0.429	0.267	0.984
Feral pig	0.004	0.005	0.659	0.357	0.067	0.991
Spotted-tail quoll	0.003	0.008	0.326	0.286	0.000	0.996
Wedge-tailed eagle	0.002	0.008	0.273	0.214	0.000	1.000

Table S5. The similarity percentages (SIMPER) analysis demonstrating the contribution of each species to explaining differences between the seasons in scavenging event species composition. Here, ‘Average’ is the average contribution to overall dissimilarity between the seasons; ‘Ratio’ is the ‘Average’ to ‘SD’ ratio; ‘AVA’ is average abundance for the first season; ‘AVB’ is average abundance for the second season; and ‘CUMSUM’ is the cumulative sum of overall contribution to dissimilarity between the seasons.

Species	Average	SD	Ratio	AVA	AVB	CUMSUM
Summer vs Autumn						
Brushtail possum	0.355	0.293	1.214	30.615	25.500	0.474
Raven spp.	0.238	0.211	1.129	5.154	20.083	0.793
Feral pig	0.084	0.137	0.610	1.846	4.000	0.904
Wedge-tailed eagle	0.039	0.086	0.454	0.769	1.750	0.956
Red fox	0.017	0.025	0.702	0.000	1.167	0.980
Dingo	0.010	0.025	0.388	0.385	0.333	0.992
Pied currawong	0.006	0.022	0.261	0.231	0.000	1.000
Feral cat	0.000	0.000	0.000	0.000	0.000	1.000
Spotted-tail quoll	0.000	0.000	0.000	0.000	0.000	1.000
Summer vs Winter						
Brushtail possum	0.496	0.290	1.711	30.615	86.357	0.694
Raven spp.	0.135	0.154	0.874	5.154	14.214	0.883
Feral pig	0.030	0.072	0.408	1.846	0.714	0.924
Wedge-tailed eagle	0.026	0.071	0.362	0.769	4.429	0.960
Pied currawong	0.017	0.050	0.345	0.231	4.000	0.985
Dingo	0.004	0.014	0.311	0.385	0.000	0.991
Red fox	0.003	0.009	0.293	0.000	0.214	0.995

Spotted-tail quoll	0.002	0.009	0.292	0.000	0.286	0.998
Feral cat	0.001	0.006	0.253	0.000	0.071	1.000
Summer vs Spring						
Raven spp.	0.410	0.310	1.322	5.154	71.000	0.500
Brushtail possum	0.252	0.254	0.993	30.615	14.600	0.807
Pied currawong	0.091	0.162	0.564	0.231	8.133	0.919
Feral pig	0.026	0.047	0.541	1.846	0.733	0.950
Dingo	0.025	0.041	0.608	0.385	2.267	0.980
Wedge-tailed eagle	0.010	0.037	0.283	0.769	0.133	0.993
Spotted-tail quoll	0.005	0.011	0.394	0.000	0.667	0.998
Red fox	0.002	0.006	0.254	0.000	0.133	1.000
Feral cat	0.000	0.000	0.000	0.000	0.000	1.000
Autumn vs Winter						
Brushtail possum	0.440	0.281	1.564	25.500	86.357	0.628
Raven spp.	0.164	0.158	1.041	20.083	14.214	0.862
Feral pig	0.038	0.071	0.530	4.000	0.714	0.916
Wedge-tailed eagle	0.029	0.060	0.483	1.750	4.429	0.957
Pied currawong	0.014	0.048	0.291	0.000	4.000	0.977
Red fox	0.011	0.017	0.652	1.167	0.214	0.992
Spotted-tail quoll	0.002	0.008	0.289	0.000	0.286	0.996
Dingo	0.002	0.005	0.367	0.333	0.000	0.998
Feral cat	0.001	0.005	0.240	0.000	0.071	1.000
Autumn vs Spring						
Raven sp.	0.365	0.276	1.325	20.083	71.000	0.497

Brushtail possum	0.205	0.219	0.939	25.500	14.600	0.776
Pied currawong	0.080	0.149	0.537	0.000	8.133	0.885
Feral pig	0.036	0.055	0.649	4.000	0.733	0.933
Dingo	0.021	0.037	0.565	0.333	2.267	0.962
Wedge-tailed eagle	0.014	0.023	0.598	1.750	0.133	0.980
Red Fox	0.010	0.015	0.691	1.167	0.133	0.994
Spotted-tail quoll	0.004	0.011	0.392	0.000	0.667	1.000
Feral cat	0.000	0.000	0.000	0.000	0.000	1.000
Winter vs Spring						
Brushtail possum	0.353	0.245	1.442	86.357	14.600	0.469
Raven spp.	0.290	0.248	1.166	14.214	71.000	0.853
Pied currawong	0.068	0.120	0.567	4.000	8.133	0.943
Dingo	0.015	0.030	0.510	0.000	2.267	0.963
Wedge-tailed eagle	0.014	0.049	0.290	4.429	0.133	0.982
Feral pig	0.006	0.009	0.614	0.714	0.733	0.990
Spotted-tail quoll	0.005	0.010	0.474	0.286	0.667	0.996
Red Fox	0.002	0.007	0.373	0.214	0.133	0.999
Feral cat	0.001	0.003	0.247	0.071	0.000	1.000

Table S6. The corrected Akaike information criterion (AIC_c) ranking of each of the models for scavenger species richness during investigation events (top) and scavenger species richness during scavenging events (bottom). Parsimoniously competitive models ($\Delta\text{AIC}_c < 2.00$) are indicated in *italics*.

No.	Model	df	logLik	AIC _c	ΔAIC_c	weight
Investigation Events Species Richness						
1	<i>Seasons + Weight</i>	6	-89.885	191.770	0.00	0.194
2	<i>Seasons</i>	5	-91.041	192.082	0.31	0.166
3	<i>Null (intercept only)</i>	2	-94.065	192.131	0.36	0.162
4	<i>Weight</i>	3	-93.128	192.257	0.49	0.152
5	<i>Seasons + Altitude + Weight</i>	7	-89.663	193.326	1.56	0.089
6	<i>Seasons + Altitude</i>	6	-90.680	193.360	1.59	0.088
7	<i>Altitude</i>	3	-93.768	193.537	1.77	0.080
8	<i>Altitude + Weight</i>	4	-92.916	193.831	2.06	0.069
Scavenging Events Species Richness						
1	<i>Null (intercept only)</i>	2	-95.144	194.288	0	0.294
2	<i>Seasons</i>	5	-92.647	195.294	1.01	0.178
3	<i>Altitude</i>	3	-94.773	195.546	1.26	0.157
4	<i>Weight</i>	3	-95.144	196.288	2.00	0.108
5	<i>Seasons + Altitude</i>	6	-92.220	196.441	2.15	0.100
6	<i>Seasons + Weight</i>	6	-92.617	197.234	2.95	0.067
7	<i>Altitude + Weight</i>	4	-94.767	197.534	3.25	0.058
8	<i>Seasons + Altitude + Weight</i>	7	-92.212	198.423	4.13	0.037

Table S7. The base generalised linear model (GLM) for investigation event species richness (top) and scavenging event species richness (bottom). Significant p-values ($p < 0.05$) are indicated in **bold** text.

Variables	Estimate	Std. error	t value	<i>p</i>
Investigation Events				
Intercept	1.920	0.525	3.655	0.001
Spring	-0.250	0.121	-2.071	0.038
Summer	-0.281	0.124	-2.266	0.023
Winter	-0.227	0.126	-1.804	0.071
Altitude	< -0.001	< 0.001	-0.668	0.504
Weight	-0.006	0.004	-1.409	0.159
Scavenging Events				
Intercept	1.507	0.783	1.925	0.054
Spring	0.291	0.179	1.627	0.104
Summer	-0.098	0.203	-0.483	0.629
Winter	0.179	0.190	0.943	0.346
Altitude	-0.001	0.001	-0.898	0.369
Weight	-0.001	0.005	-0.133	0.895

Table S8. The corrected Akaike information criterion (AIC_c) ranking of each of the models for time to first detection (top) and time to first scavenging (bottom). Spatial autocorrelation was detected in the model residuals for time to first detection, therefore, a spatial autocorrelation covariate (SACC) was created and included in the model. Parsimoniously competitive models ($\Delta AIC_c < 2.00$) are indicated in *italics*.

No.	Model	df	logLik	AIC_c	ΔAIC_c	weight
Time to First Detection						
1	<i>Seasons</i>	5	-282.223	575.6	0.00	0.309
2	<i>Seasons + SACC</i>	6	-281.290	576.2	0.63	0.226
3	<i>Season + Weight</i>	6	-281.687	577.0	1.42	0.152
4	Season + Altitude	6	-282.193	578.0	2.43	0.092
5	Season + Weight + SACC	7	-280.913	578.1	2.47	0.090
6	Season + Altitude + SACC	7	-281.283	578.8	3.20	0.062
7	Season + Altitude + Weight	7	-281.620	579.5	3.88	0.044
8	Season + Altitude + Weight + SACC	8	-280.881	580.7	5.10	0.024
9	Null (intercept only)	2	-292.747	589.7	14.11	0.00
10	SACC	3	-291.992	590.4	14.83	0.00
11	Weight	3	-292.501	591.4	15.85	0.00
12	Altitude	3	-292.706	591.9	16.26	0.00
13	Weight + SACC	4	-291.949	592.7	17.05	0.00
14	Altitude + SACC	4	-291.992	592.7	17.14	0.00
15	Altitude + Weight	4	-292.450	593.7	18.05	0.00
16	Altitude + Weight + SACC	5	-291.949	595.1	19.45	0.00
Time to First Scavenging						

1	<i>Null (intercept only)</i>	2	-331.212	666.7	0.00	0.368
2	<i>Season</i>	5	-328.474	668.2	1.52	0.172
3	<i>Weight</i>	3	-331.007	668.5	1.83	0.147
4	<i>Altitude</i>	3	-331.173	668.8	2.16	0.125
5	Seasons + Altitude	6	-328.196	670.1	3.49	0.064
6	Altitude + Weight	4	-330.802	670.4	3.75	0.056
7	Seasons + Weight	6	-328.455	670.7	4.01	0.050
8	Seasons + Altitude + Weight	7	-328.192	672.8	6.11	0.017

Table S9. The base generalised linear model (GLM) for time to first detection (top) and time to first scavenging (bottom). Spatial autocorrelation was detected in the model residuals of time to first detection, therefore, a spatial autocorrelation covariate (SACC) was created and included in the model. Significant p-values ($p < 0.05$) are indicated in **bold** text.

Variables	Estimate	Std. error	t value	<i>p</i>
Time to First Detection				
Intercept	3.255	1.638	1.988	0.047
Spring	-0.393	1.350	-1.070	0.284
Summer	1.283	1.401	3.370	0.001
Winter	-0.981	1.413	-2.553	0.011
Altitude	< -0.001	0.058	-0.338	0.735
Weight	0.013	0.164	1.051	0.293
SACC	< 0.001	0.008	1.553	0.120
Time to First Scavenging				
Intercept	3.688	1.596	2.310	0.021
Spring	-0.578	0.383	-1.509	0.131
Summer	0.345	0.398	0.868	0.386
Winter	-0.697	0.390	-1.790	0.074
Altitude	0.001	0.001	1.042	0.298
Weight	-0.001	0.012	-0.125	0.901

Table S10. The Tukey’s honest significance test of the base generalised linear model (GLM) for time to first detection (top) and time to first scavenging (bottom). Significant p-values ($p < 0.05$) are indicated in **bold** text.

Contrast	Estimate	SE	df	t ratio	<i>p</i>
Time to First Detection					
Autumn - Spring	0.393	0.503	51	0.781	0.863
Autumn - Summer	-1.283	0.522	51	-2.459	0.079
Autumn - Winter	0.981	0.526	51	1.863	0.257
Spring - Summer	-1.676	0.524	51	-3.198	0.012
Spring - Winter	0.588	0.533	51	1.104	0.689
Summer - Winter	2.264	0.572	51	3.957	0.001
Time to First Scavenging					
Autumn - Spring	0.578	0.550	49	1.051	0.721
Autumn - Summer	-0.345	0.571	49	-0.605	0.930
Autumn - Winter	0.698	0.560	49	1.247	0.601
Spring - Summer	-0.924	0.546	49	-1.693	0.339
Spring - Winter	0.119	0.557	49	0.214	0.997
Summer - Winter	1.043	0.583	49	1.791	0.290

Table S11. The corrected Akaike information criterion (AIC_c) ranking of each of the models for scavenger activity. Parsimoniously competitive models ($\Delta\text{AIC}_c < 2.00$) are indicated in *italics*.

No.	Model	df	logLik	AIC_c	ΔAIC_c	weight
<i>1</i>	<i>Seasons</i>	<i>5</i>	<i>-4279.252</i>	<i>8568.5</i>	<i>0.00</i>	<i>0.493</i>
<i>2</i>	<i>Seasons + Altitude</i>	<i>6</i>	<i>-4279.054</i>	<i>8570.1</i>	<i>1.61</i>	<i>0.221</i>
<i>3</i>	<i>Seasons + Weight</i>	<i>6</i>	<i>-4279.176</i>	<i>8570.4</i>	<i>1.85</i>	<i>0.195</i>
4	Seasons + Altitude + Weight	7	-4278.942	8571.9	3.39	0.091
5	Null (intercept only)	2	-4289.519	8583.0	14.53	0.000
6	Weight	3	-4289.011	8584.0	15.51	0.000
7	Altitude	3	-4289.414	8584.8	16.32	0.000
8	Altitude + Weight	4	-4288.850	8585.7	17.19	0.000

Table S12. The base generalised linear mixed model (GLMM) for scavenging activity.

Significant p-values ($p < 0.05$) are indicated in **bold** text.

Variables	Estimate	Std. error	z value	p
Intercept	-0.161	0.191	-0.839	0.401
Spring	0.782	0.261	3.002	0.003
Summer	-0.345	0.275	-1.252	0.211
Winter	0.643	0.268	2.397	0.017
Altitude	-0.066	0.096	-0.681	0.496
Weight	0.048	0.102	0.472	0.637

Table S13. The Tukey's honest significance tests of the base generalised linear mixed model (GLMM) for scavenging activity. Significant p-values ($p < 0.05$) are indicated in **bold** text.

Contrast	Estimate	SE	df	z ratio	<i>p</i>
Autumn - Spring	-0.782	0.261	6850	-3.002	0.014
Autumn - Summer	0.345	0.275	6850	1.252	0.594
Autumn - Winter	-0.643	0.268	6850	-2.397	0.078
Spring - Summer	1.127	0.265	6850	4.250	< 0.001
Spring - Winter	0.140	0.262	6850	0.532	0.951
Summer - Winter	-0.987	0.280	6850	-3.527	0.002

Table S14. The corrected Akaike information criterion (AIC_c) ranking of each of the models for investigation event duration (top) and scavenging event duration (bottom). Parsimoniously competitive models ($\Delta\text{AIC}_c < 2.00$) are indicated in *italics*.

No.	Model	df	logLik	AIC _c	ΔAIC_c	weight
Investigation Event Duration						
1	<i>Weight</i>	4	-2478.859	4965.7	0.00	0.356
2	<i>Seasons + Weight</i>	7	-2476.630	4967.3	1.57	0.163
3	<i>Null (intercept only)</i>	3	-2480.718	4967.4	1.71	0.151
4	<i>Altitude + Weight</i>	5	-2478.827	4967.7	1.94	0.135
5	Seasons + Altitude + Weight	8	-2476.498	4969.0	3.32	0.068
6	Altitude	4	-2480.715	4969.4	3.71	0.056
7	Seasons	6	-2478.783	4969.6	3.86	0.052
8	Seasons + Altitude	7	-2478.747	4971.5	5.80	0.020
Scavenging Event Duration						
1	<i>Seasons</i>	6	-13584.52	27181.1	0.00	0.366
2	<i>Seasons + Altitude</i>	7	-13583.95	27181.9	0.87	0.237
3	<i>Seasons + Weight</i>	7	-13584.06	27182.2	1.10	0.211
4	<i>Seasons + Altitude + Weight</i>	8	-13583.34	27182.7	1.66	0.159
5	Null (intercept only)	3	-13590.81	27187.6	6.58	0.014
6	Weight	4	-13590.64	27189.3	8.23	0.006
7	Altitude	4	-13590.75	27189.5	8.46	0.005
8	Altitude + Weight	5	-13590.55	27191.1	10.05	0.002

Table S15. The base generalised linear mixed model (GLMM) for investigation event duration (top) and scavenging event duration (bottom). Significant p-values ($p < 0.05$) are indicated in **bold** text.

Variables	Estimate	Std. error	t value	<i>p</i>
Investigation Event Duration				
Intercept	-0.007	0.152	-0.044	0.965
Spring	-0.068	0.207	-0.328	0.743
Summer	0.304	0.216	1.408	0.159
Winter	0.269	0.214	0.260	0.208
Altitude	0.039	0.076	0.515	0.607
Weight	-0.180	0.084	-2.153	0.031
Scavenging Event Duration				
Intercept	2.695	0.127	21.237	< 0.001
Spring	-0.650	0.167	-3.902	< 0.001
Summer	-0.272	0.184	-1.476	0.140
Winter	-0.207	0.171	-1.213	0.225
Altitude	0.075	0.062	1.220	0.223
Weight	-0.075	0.067	-1.114	0.265

Table S16. The Tukey’s honest significance tests of the base generalised linear mixed model (GLMM) for investigation event duration (top) and scavenging event duration (bottom). Significant p-values ($p < 0.05$) are indicated in **bold** text.

Contrast	Estimate	SE	df	z ratio	p
Investigation Event Duration					
Autumn - Spring	0.068	0.207	2672	0.328	0.988
Autumn - Summer	-0.304	0.216	2672	-1.408	0.495
Autumn - Winter	-0.269	0.214	2672	-1.260	0.589
Spring - Summer	-0.372	0.210	2672	-1.771	0.288
Spring - Winter	-0.337	0.208	2672	-1.620	0.368
Summer - Winter	0.035	0.220	2672	0.159	0.999
Scavenging Event Duration					
Autumn - Spring	0.650	0.167	4169	3.902	0.001
Autumn - Summer	0.272	0.184	4169	1.476	0.452
Autumn - Winter	0.207	0.171	4169	1.213	0.619
Spring - Summer	-0.378	0.172	4169	-2.190	0.126
Spring - Winter	-0.442	0.158	4169	-2.793	0.027
Summer - Winter	-0.065	0.180	4169	-0.360	0.984

Table S17. The base generalised linear mixed model (GLMM) for investigation event duration with the largest carcass weight outlier removed (carcass site 42; 70kg; winter; Table 1). Significant p-values ($p < 0.05$) are indicated in **bold** text.

Variables	Estimate	Std. error	t value	<i>p</i>
Intercept	0.001	0.151	0.006	0.996
Spring	-0.066	0.206	-0.322	0.747
Summer	0.312	0.215	1.450	0.147
Winter	0.286	0.213	1.340	0.180
Altitude	0.031	0.076	0.400	0.689
Weight	-0.131	0.092	-1.427	0.153