

Appendix 1. Generalized additive mixed model: survey covariates vs peent and boom activity rate

Table A1.1. Model coefficients for time since sunset (TSSS), ordinal day (ordinal), and latitude (latitudeF; 45 – 50 degrees N (FA), 50 – 55 degrees N (FB), 55 – 60 degrees N (FC), 60 – 65 degrees N (FD)) from 100 bootstrapped generalized additive mixed models of peent-activity and boom-activity per 10-minute interval. Ordinal day and TSSS were standardized prior to modelling.

Model Coefficient	Peent Activity Rate (# Peents/10 Minutes)			Boom Activity Rate (# Booms/10 Minutes)		
	5th Percentile	Median	95th Percentile	5th Percentile	Median	95th Percentile
(Intercept)	-133.92	-22.62	-6.70	-13.16	-5.32	-2.29
latitude.FB	-8.25	14.20	118.81	-2.21	1.61	10.29
latitude.FC	-276.35	-10.95	76.63	-51.71	-1.83	6.80
latitude.FD	-115.08	1.71	118.08	-6.59	0.91	9.81
s(ordinal.s):latitude.FA.1	-17.11	-1.24	26.15	-4.15	-0.54	3.90
s(ordinal.s):latitude.FA.2	-22.37	-1.66	7.10	-7.58	-1.34	0.46
s(ordinal.s):latitude.FB.1	-1.50	0.31	2.05	-0.77	0.11	1.58
s(ordinal.s):latitude.FB.2	-4.69	-0.76	1.66	-2.95	-0.76	0.35
s(ordinal.s):latitude.FC.1	-18.49	0.00	22.38	-6.02	0.00	3.73
s(ordinal.s):latitude.FC.2	-279.36	0.00	19.25	-178.14	0.00	2.80
s(ordinal.s):latitude.FD.1	1.73	4.89	17.27	-0.79	0.03	2.02
s(ordinal.s):latitude.FD.2	-34.12	-10.05	-0.76	-9.63	-2.07	0.93
s(TSSS.s):latitude.FA.1	-4.43	5.93	55.44	-1.39	1.07	7.16
s(TSSS.s):latitude.FA.2	-180.82	-11.41	29.08	-15.65	-4.33	0.58
s(TSSS.s):latitude.FA.3	-51.30	8.67	96.47	-0.44	2.93	10.71
s(TSSS.s):latitude.FA.4	-522.46	-14.23	23.28	-44.26	-4.35	1.78
s(TSSS.s):latitude.FB.1	-2.13	0.81	7.33	-0.80	0.47	2.98
s(TSSS.s):latitude.FB.2	-6.83	-1.09	2.26	-3.96	-1.49	0.16
s(TSSS.s):latitude.FB.3	-7.30	1.03	4.36	-0.08	1.36	2.99
s(TSSS.s):latitude.FB.4	-201.83	-30.29	-2.50	-80.51	-24.92	-8.67
s(TSSS.s):latitude.FC.1	0.00	6.96	182.03	0.00	4.06	62.84
s(TSSS.s):latitude.FC.2	-1.45	9.93	301.91	0.00	2.49	44.27
s(TSSS.s):latitude.FC.3	-105.33	1.50	281.34	-4.56	3.59	48.15
s(TSSS.s):latitude.FC.4	-1172.61	0.00	56.49	-172.68	-3.09	9.69
s(TSSS.s):latitude.FD.1	0.10	4.62	78.03	0.09	2.01	4.59
s(TSSS.s):latitude.FD.2	-5.46	-0.47	14.16	-2.26	-0.78	1.36
s(TSSS.s):latitude.FD.3	-342.06	-15.16	-2.30	-16.15	-5.28	-2.35
s(TSSS.s):latitude.FD.4	-681.73	-27.00	-3.74	-32.64	-9.31	-3.23