Supplementary Material

Small-scale movement and migration cues of Australian bass (*Percalates novemaculeata*) in an urbanised river

Culum Brown[A] and *Evan E. Byrnes*[A,B,C,*]

[A]Department of Biological Sciences, Macquarie University, Sydney, NSW 2109, Australia

[B]Centre for Sustainable Aquatic Ecosystems, Harry Butler Institute, Murdoch University, Perth, WA 6150, Australia

[C]School of Environmental Science, Simon Fraser University, Burnaby, BC, V5A 1S6, Canada

*Correspondence to: Email: eebyrnes530@gmail.com

Table S1. Full model selection table for activity pattern GAMM.

Moon phase	Hour	Hour × Moon phase	Julian day	ID (random effect)	logLik	AIC_c	ΔAIC_c	Model weight
+	+		+	+	−1333.85	2694.50	0.00	0.50
+	+	+	+	+	−1333.85	2694.60	0.10	0.49
	+		+	+	−1343.86	2708.20	13.68	<0.01
	+	+	+	+	−1343.84	2708.20	13.69	<0.01
+		+	+	+	−1336.98	2709.50	14.95	0.00
		+	+	+	−1345.47	2719.90	25.33	0.00
+			+	+	−1357.56	2731.70	37.11	0.00
			+	+	−1367.05	2744.40	49.87	0.00
+	+			+	−1375.50	2769.00	74.44	0.00
	+	+		+	−1375.50	2769.00	74.44	0.00
+		+		+	−1378.33	2783.80	89.23	0.00
	+			+	−1386.914	2785.7	91.14	0.00
	+	+		+	−1386.903	2785.7	91.14	0.00
		+		+	−1388.297	2798.0	103.41	0.00
+				+	−1399.185	2806.4	111.83	0.00
				+	−1410.111	2822.2	127.67	0.00

'+' indicates inclusion of covariate in each model structure.

Table S2. Full model selection table for daily movement GLMM.

Julian day	Moon phase	Rainfall (mm)	ID (random effect)	logLik	AIC$_c$	ΔAIC$_c$	Model weight
	+	+	+	−1004.11	2022.40	0.00	0.51
		+	+	−1007.22	2022.50	0.12	0.48
	+		+	−1010.76	2033.60	11.25	<0.01
			+	−1014.00	2034.00	11.65	<0.01
+	+	+	+	−1011.23	2038.60	16.27	0.00
+		+	+	−1014.37	2038.80	16.43	0.00
+	+		+	−1017.81	2049.80	27.39	0.00
+			+	−1021.07	2050.20	27.82	0.00

'+' indicates inclusion of covariate in each model structure.

Table S3. Full model selection table for migration logistic regression.

Julian day	Moon phase	Rainfall	Julian day×Rainfall	logLik	AIC$_c$	ΔAIC$_c$	Model weight
+	+	+	+	−17.07	48.70	0.00	0.69
+	+	+		−19.25	50.90	2.20	0.23
	+	+		−21.40	53.10	4.37	0.08
+		+		−27.81	61.70	13.01	<0.01
		+		−28.91	61.90	13.15	<0.01
+		+	+	−26.94	62.10	13.34	0.00
+	+			−26.61	63.50	14.80	0.00
	+			−28.71	65.60	16.89	0.00
				−39.65	81.30	32.59	0.00
+				−38.93	81.90	33.18	0.00

'+' indicates inclusion of covariate in each model structure.