

## Investigating the behaviour and enclosure use of zoo-housed Cuvier's dwarf caiman *Paleosuchus palpebrosus*

KEVIN LEIGH GRAY & JAMES EDWARD BRERETON

**Table 1S.** Output of Poisson regression on the effect of time of day, temperature and collection on crocodile behaviour. \* indicates a statistically significant value. The corrected alpha value is 0.016. For parameter estimates, all time category estimates are pairwise comparisons against time period 1 (late night) and the stated category.

Behaviour	Predictor	R <sup>2</sup>	SE Predictor	Parameter estimate (Z)	X <sup>2</sup>	DF	P
Floating	Model	15.47%	0.136	27.84	1267.31	9	<0.001*
	Temperature		0.005	7.49	56.17	1	<0.001*
	Collection		0.042	17.42	303.58	1	<0.001*
	Time		0.039	Dawn=-7.13, Morning=-17.48, Late morning=-8.90, Afternoon=-18.95, Evening=- 0.51, Dusk=-10.13, Early night=- 13.19	784.46	7	<0.001*
Immobile land behaviour	Model	36.37%	0.103	63.26	5214.81	9	<0.001*
	Temperature		0.004	-16.07	258.10	1	<0.001*
	Collection		0.036	-45.63	2082.52	1	<0.001*
	Time		0.048	Dawn=0.26, Morning=26.08, Late morning=25.15, Afternoon=21.87, Evening=- 9.07, Dusk=20.27, Early night=2.44	2349.07	7	<0.001*
Locomotion (terrestrial)	Model	2.68%	1.98	-1.31	10.56	9	0.307
	Temperature		0.070	0.82	0.67	1	0.412
	Collection		0.575	0.19	0.04	1	0.852
	Time		0.667	Dawn=1.67, Morning=1.44, Late morning=0.50, Afternoon=1.66, Evening=1.04, Dusk=0.91, Early night=-0.40	7.68	7	0.362
Perched in water	Model	30.09%	0.074	79.51	2730.36	9	<0.001*
	Temperature		0.002	2.54	6.44	1	0.011*

	Collection		0.024	-21.47	461.02	1	<0.001*
	Time		0.024	Dawn=4.36, Morning=-11.65, Late morning=-15.76, Afternoon=-8.39, Evening=2.60, Dusk=-6.15, Early night=7.97	897.42	7	<0.001*
Surface swimming	Model	31.57%	0.674	7.12	106.63	9	<0.001*
	Temperature		0.024	1.10	2.49	1	0.115
	Collection		0.241	1.04	2.34	1	0.126
	Time		0.182	Dawn=3.36, Morning=5.12, Late morning=3.64, Afternoon=-3.12, Evening=- 2.56, Dusk=-4.15, Early night=- 2.65	103.62	7	<0.001*
Underwater	Model	25.15%	0.363	7.38	414.92	9	<0.001*
	Temperature		0.013	-1.00	1.00	1	0.318
	Collection		0.112	-4.77	22.72	1	<0.001*
	Time		0.170	Dawn=-2.24, Morning=-5.63, Late morning=8.15, Afternoon=9.08, Evening= 5.30, Dusk=2.80, Early night=-2.39	313.98	7	<0.001*

**Table 25.** Regression outputs from investigations of the effect of time period, temperature and collection on Electivity index. \* indicates a statistically significant value. The corrected alpha value is 0.016. For parameter estimates, all time category estimates are pairwise comparisons against time period 1 (late night) and the stated category.

Zone	Predictor	R <sup>2</sup>	SE Predictor	Parameter estimate (T)	F	DF	P
1	Model	31.45%	0.662	-2.05	3.57	9	0.001*
	Temperature		0.024	1.51	2.29	1	0.134
	Collection		0.209	-1.58	2.50	1	0.118
	Time		0.227	Dawn=-0.01, Morning=-0.18, Late morning=-0.07, Afternoon=-0.07, Evening=-1.06, Dusk=-0.98, Early night=0.14	0.43	7	0.882
2	Model	50.74%	0.583	7.11	8.01	9	<0.001*
	Temperature		0.021	-0.78	0.61	1	0.437
	Collection		0.184	-4.84	23.38	1	<0.001*
	Time		0.200	Dawn=-0.06, Morning=1.84, Late morning=1.55, Afternoon=1.77, Evening=-0.09, Dusk=2.12, Early night=0.18	1.84	7	0.093
3	Model	16.95%	0.603	0.30	2.79	9	0.007*
	Temperature		0.218	0.43	0.18	1	0.669
	Collection		0.190	-1.02	1.05	1	0.310
	Time		0.207	Dawn=0.14, Morning=-1.44, Late morning=-2.42, Afternoon=-0.89, Evening=0.64, Dusk=-0.41, Early night=1.14	2.61	7	0.019*
4	Model	26.94%	0.761	-2.33	2.87	9	0.006*
	Temperature		0.078	1.50	2.25	1	0.1638
	Collection		0.240	2.99	8.94	1	0.004*
	Time		0.261	Dawn=-0.51, Morning=-0.35, Late morning=0.36, Afternoon=0.07, Evening= 1.46, Dusk=0.97, Early night=-0.73	0.99	7	0.442
5	Model	33.65%	0.564	9.09	3.94	9	<0.001
	Temperature		0.021	-0.12	0.01	1	0.905
	Collection		0.178	-2.13	4.55	1	0.037*
	Time		0.194	Dawn=0.14, Morning=-1.68, Late morning=-1.83, Afternoon=-2.22,	2.74	7	0.014*

				Evening=0.99, Dusk=-1.63, Early night=-0.15			
6	Model	44.13%	0.612	-8.52	7.93	9	<0.001*
	Temperature		0.022	-1.21	1.45	1	0.232
	Collection		0.193	2.72	7.41	1	0.003*
	Time		0.210	Dawn=1.80, Morning=3.08, Late morning=2.56, Afternoon=2.44, Evening=1.38, Dusk=1.40, Early night=-0.94	3.47	7	0.008*
7	Model	45.25%	0.329	3.37	7.34	8	<0.001*
	Temperature		0.013	-6.14	37.73	1	<0.001*
	Time		0.219	Dawn=1.70, Morning=2.99, Late morning=3.11, Afternoon=3.29, Evening= 1.85, Dusk=2.12, Early night=-1.08	4.66	7	<0.001*