

Distribution and foraging by non-breeding Caspian Terns on a large temperate estuary of south-western Australia – preliminary investigations

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SUPPLEMENTARY MATERIAL

Supplementary Table 1. Mean value (± 1 SE) of total terns, number of foragers and proportion of time spent foraging by Caspian Terns, *Hydroprogne caspia*, across all estuary census sites (Fig. 1) from fortnightly counts on the Peel-Harvey Estuary between October 2018 and February 2019 (n = 10). Site numbers on Figure 1 shown in parentheses

Area and site (Site number)	Total	Foragers	Time foraging (%)
Murray			
Murray River Mouth (1)	6.5 \pm 5.7	2.1 \pm 1.4	55.0 \pm 36.7
Murray River (2)	0.1 \pm 0.4	0.1 \pm 0.3	2.1 \pm 6.5
Serpentine			
Serpentine Mouth (3)	11.8 \pm 6.7	2.5 \pm 2.5	60.9 \pm 46.2
Nairns (4)	10.3 \pm 5.4	2.2 \pm 2.2	61.1 \pm 50.1
Coodanup (5)	0.9 \pm 1.5	1.1 \pm 1.7	24.7 \pm 41
Serpentine River (7)	0	0	0
Mandurah Channel			
Channel (9)	1 \pm 1.4	0.9 \pm 1.4	18.2 \pm 29.4
Chimneys (10)	20.6 \pm 11.8	0.7 \pm 1.1	5.0 \pm 8.9
Len Howard (11)	1.5 \pm 1.6	0.8 \pm 0.9	18.9 \pm 23.5
Dawesville			
Ward Point (12)	7.3 \pm 9.6	2.0 \pm 1.4	49 \pm 41.9
Dawesville Foreshore (13)	0.1 \pm 0.4	0.5 \pm 0.8	7.8 \pm 15.8
Warrungup Springs (14)	0.6 \pm 0.7	0.5 \pm 0.7	11.8 \pm 17.4
Southern Estuary			
Island Point Reserve (17)	4.0 \pm 2.7	1.3 \pm 1.6	46.7 \pm 43.7

Herron Point (18)	6.1 ± 3.6	0.8 ± 0.9	24.9 ± 35.2
Mealup Drain			
Mills Mealup (19)	8.0 ± 11.7	0.9 ± 1.3	36.6 ± 42.2
Census sites outside these main areas			
Creery Island (6)	0.3 ± 0.7	0.5 ± 1.1	14.6 ± 31.1
Creery Wetland (8)	0.1 ± 0.4	0.2 ± 0.4	4.1 ± 12
Parkridge Foreshore (15)	1.0 ± 1.1	0.3 ± 0.7	18.6 ± 31
Point Repose (16)	0.4 ± 0.7	0.1 ± 0.3	4.9 ± 15.4
Robert Bay (20)	1.3 ± 1.8	0.2 ± 0.4	2.6 ± 5.9
Overall mean	4.1 ± 7.1	0.9 ± 1.4	23.5 ± 35.6

Supplementary Table 2. Summary table showing interactions between abiotic conditions and tern metrics: p-values and coefficients of determination (R^2) from correlation analyses using square-root transformed data for total and foraging terns, and un-transformed data for time spent foraging by Caspian Terns, *Hydroprogne caspia*. Significant p-values (< 0.05) are indicated in bold. Negatively correlated R^2 values are denoted using (-), while all other values are positive.

	Total terns			Foragers			Time foraging		
	R^2	P	n	R^2	P	n	R^2	P	n
Chlorophyll a	0.006	0.181	138	0.007 (-)	0.77	138	0.005 (-)	0.575	138
Rainfall	0.007 (-)	0.808	147	0.005 (-)	0.6	147	0.020	0.051	147
Salinity	< 0.0001 (-)	0.321	138	0.007 (-)	0.768	138	0.253	< 0.0001	138
Temperature (air)	0.036	0.013	147	0.109	< 0.0001	147	0.005 (-)	0.613	147
Temperature (water)	0.006 (-)	0.659	138	0.004 (-)	0.498	138	0.223	< 0.0001	138
Tide height	0.032	0.017	147	0.008	0.145	147	0.004	0.212	147
Wind speed	0.016	0.069	147	0.054	0.003	147	0.045	0.006	147