Supplementary Information

The impact of high temperatures on foraging behaviour and body condition in the cooperatively breeding Western Australian Magpie *Cracticus tibicen dorsalis*

Emily K Edwards, Nicola J Mitchell and Amanda R Ridley

Ostrich 2015, 86(1&2): 137–144. DOI: 10.2989/00306525.2015.1034219

Table S1: All generalised estimating equation models tested for the factors affecting heat dissipation behaviours. Additive models were only conducted when the two terms did not correlate, and if a single term was non-significant, it was removed from further additive models. The top model set is highlighted in bold

Factor	QICc	ΔQICc
Basic	352.63	210.64
Sex	352.14 ^a	210.15
Group Size	350.25 ^a	208.26
Temperature	145.41	3.42
Time of Day	294.78	152.79
SecsFO	309.28 ^a	167.29
SecsYO	350.54 ^a	208.55
Julian Date	336.12	194.13
FO*Temp	321.32	179.33
FO*Sex	306.65	164.66
FO* SecsYO	338.42	196.43
FO*Group Size	320.84 ^a	178.85
Sex*Group Size	349.32 ^a	207.33
Sex*SecsYO	346.48	204.49
Sex*Time of Day	294.30	152.31
Temp*Time of Day	141.99	0
Temp*SecsYO	352.61 ^a	210.62
Group Size*SecsYO	351.50 ^a	209.51

^a Non-significant models

Table S2: All generalised estimating equation models tested for the factors affecting foraging effort. Additive models were only conducted when the two terms did not correlate, and if a single term was non-significant, it was removed from further additive models. The top model set is highlighted in bold

Factor	QICc	Δ QICc
Basic	328.84	46.82
Sex	324.32	42.3
Time of Day	299.11	17.09
Group Size	319.76	37.74
Temperature	296.67	14.65
SecsYO	319.08	37.06
SecsHD	307.26	25.24
Julian Date	317.11	35.09
Sex + Temp	292.56	10.54
Sex + Time of Day	294.55	12.53
Sex + SecsHD	303.35	21.33
Time of Day + Group Size	289.67	7.65
Time of Day + SecsYO	289.41	7.39
Group Size + SecsHD	299.30	17.28
Group Size + Temp	290.29	8.27
HD + SecsYO	295.69	13.67
HD*Temp	306.47	24.45
HD*Sex	306.48	24.46
HD*Time of Day	307.26	25.24
HD* SecsYO	325.49	43.47
HD*Group Size	313.88	31.86
Sex*Group Size	318.26	36.24
Sex*Time of Day	294.42	12.4
Sex*Temperature	294.79	12.77
Temp*Time of Day	282.02	0
Temp*SecsYO	318.59	36.57
Time of Day*SecsYO	317.59	35.57
Group Size*SecsYO	321.98	39.96

Table S3: All generalised linear models (GLM) tested for the factors affecting foraging efficiency. Additive models were only conducted when the two terms did not correlate, and if a single term was non-significant, it was removed from further additive models. The top model set is highlighted in bold

Factor	AIC	ΔAIC
Basic	263.53	5.89
Sex	267.55 ^a	9.91
Time of Day	266.39 ^a	8.75
Group Size	270.77 ^a	13.13
Temperature	273.12 ^a	15.48
Proportion FO	260.30	2.66
Proportion HD	264.60 ^a	6.96
Proportion YO	264.70 ^a	7.06
HD*Temp	271.56 ^a	13.92
HD*Sex	263.05 ^a	5.41
HD*Time of Day	264.21 ^a	6.57
HD*PropFO	261.99 ^a	4.35
HD*Group Size	268.34 ^a	10.7
Sex*Group Size	279.01 ^a	21.37
Sex*PropFO	262.94 ^a	5.3
Sex*Time of Day	275.04 ^a	17.4
Sex*Temperature	283.49 ^a	25.85
Sex*PropYO	264.42 ^a	6.78
Temp*Time of Day	286.88 ^a	29.24
Temp*PropFO	263.16	5.52
Temp*PropYO	269.73 ^a	12.09
Time of Day*PropFO	257.64	0
Time of Day*PropYO	266.68 ^a	9.04
Group Size*PropFO	265.31	7.67
Group Size*PropYO	269.31 ^a	11.67

^a Non-significant models

Figure S1: Average monthly temperatures recorded from the Perth Airport. Data source: Bureau of Meteorology (<http://www.bom.gov.au>)

Figure S2: Average temperatures in each of the observation periods during the study. Data source: Bureau of Meteorology (<http://www.bom.gov.au>)

Figure S3: Maximum and minimum temperatures recorded during morning, afternoon and evening focals throughout the study. Data source: Bureau of Meteorology (<http://www.bom.gov.au>)