Wildlife Biology

WLB-00210

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Appendix 1

Table A1. Maximum and minimum temperatures for Renmark weather station (BOM 2014) and microsensors placed on five trees at Brookfield from 5 to 16 October 2013. The relationships is presented in tabular form and as graphs.

	Renmark	66	82A	82B	87
Maximum temperature					
5	32.4	31.1	32.1	31.1	31.6
6	25.0	25.1	22.6	23.1	24.6
7	24.8	25.6	24.6	24.6	26.1
8	26.9	30.6	32.1	28.6	28.6
9	36.2	35.6	35.1	35.1	35.6
10	22.9	21.6	19.1	19.6	20.1
11	23.6	25.6	24.1	24.6	24.1
12	30.6	30.6	30.6	30.1	30.1
13	20.7	20.6	18.1	18.1	19.1
14	20.0	21.1	18.6	19.1	20.1
15	25.9	28.1	27.1	27.1	26.6
16	32.7	31.1	32.6	31.6	32.6
17	21.0	22.6	19.6	20.1	19.6
18	27.3	30.6	29.6	33.1	28.6

19	32.6	33.6	32.6	36.6	32.6
20	39.7	39.1	39.6	40.1	40.1
21	31.5	28.6	33.6	31.1	30.1
22	26.5	23.6	28.6	24.6	25.1
23	21.8	21.6	21.1	20.1	21.1
24	20.3	24.6	22.3	20.1	25.6
25	22.3	27.6	25.1	24.6	26.1
26	24.5	29.1	27.6	27.6	26.1
27	25.8	23.1	28.1	26.6	25.1
28	25.3	23.6	23.6	23.6	24.6
29	23.6	25.6	22.6	21.6	21.6
30	24.7	29.6	26.1	25.1	25.1
31	26.1	31.1	31.6	31.6	27.1
Minimum temperature					
5	10.1	13.6	12.1	12.6	13.6
6	9.6	13.6	13.1	13.1	13.6
7	4.5	6.1	4.1	4.1	5.1
8	6.0	6.6	4.6	5.1	5.1
9	13.7	12.6	12.1	11.6	12.6
10	16.1	16.6	15.1	15.1	15.6
11	4.6	6.1	4.1	3.6	4.6
12	3.7	7.6	4.6	4.6	4.6
13	9.5	13.1	13.1	13.1	13.6
14	5.6	5.6	3.1	3.6	4.1
15	0.1	3.6	0.5	0.6	0.5

16	13.3	12.6	13.1	13.1	13.1
17	12.5	10.6	10.6	11.1	11.1
18	0.3	4.6	0.6	1.0	1.0
19	4.7	11.1	9.6	9.1	10.6
20	11	18.1	18.1	17.6	17.6
21	18.4	17.6	17.1	16.6	17.1
22	19.5	17.1	16.1	16.1	16.6
23	10.9	11.6	11.1	11.1	11.6
24	7.8	8.1	5.1	6.1	6.6
25	1.3	5.6	1.6	1.6	2.1
26	2.8	7.1	2.6	3.1	3.1
27	12.9	13.6	12.1	12.1	12.1
28	15	14.1	13.6	13.6	14.6
29	11.7	11.6	10.6	11.1	11.1
30	7.1	12.7	9.6	10.1	10.1
31	5.7	8.1	3.1	4.1	3.6

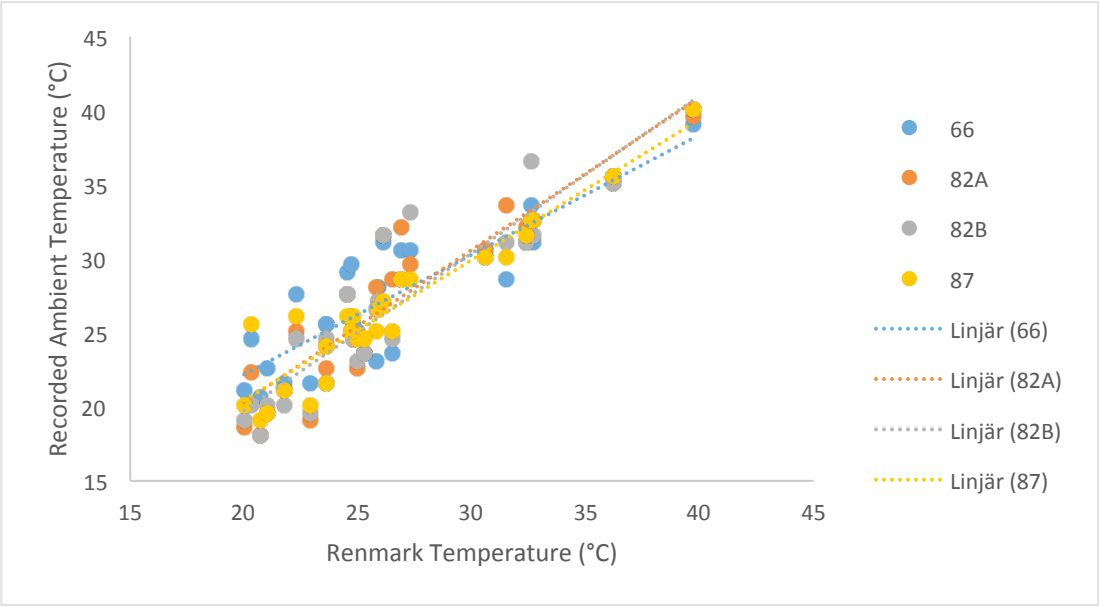

Figure A1. Maximum temperature recorded externally (ambient temperature) for the four hollows studied and at the Renmark climate station (Pearson's correlations coefficients: tree 66: $r^2 = 0.86$, p = 6.4×10^{-9}; tree 82A: $r^2 = 0.92$, p = 1.9×10^{-11}; tree 82B: $r^2 = 0.92$, p = 1.7×10^{-11}; tree 87: $r^2 = 0.94$, p = 2.4×10^{-13}).

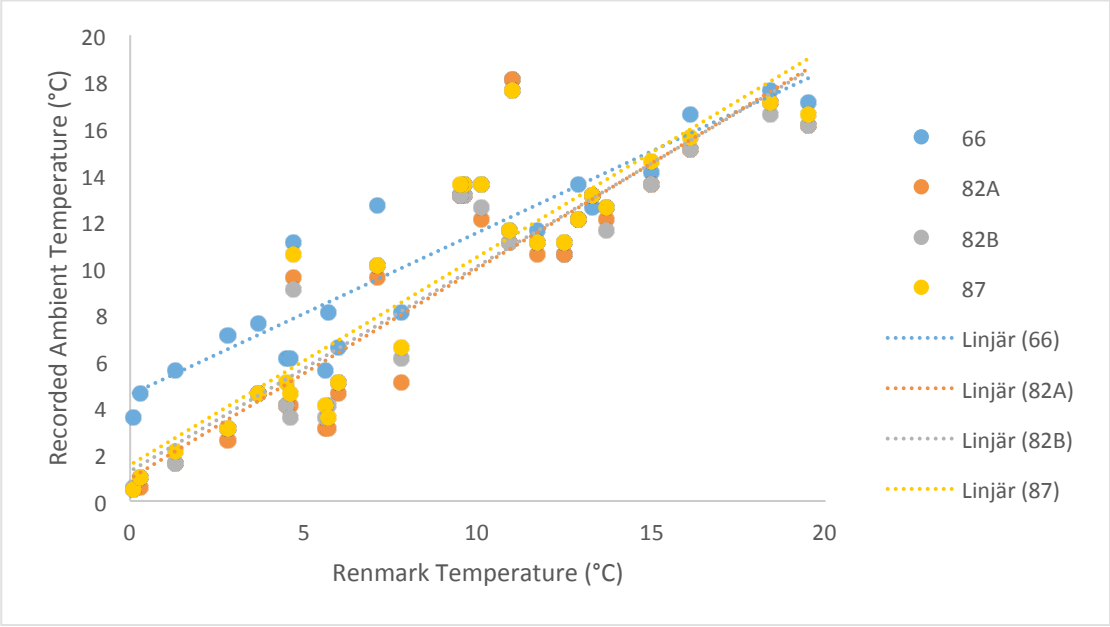

Figure A2. Minimum temperature recorded externally (ambient temperature) for the four hollows studied and at the Renmark climate station (Pearson's correlations coefficients: tree 66: $r^2 = 0.88$, p = 1.8×10^{-9}; tree 82A: $r^2 = 0.89$, p = 3.0×10^{-10}; tree 82B: $r^2 = 0.90$, p = 1.1×10^{-10}; tree 87: $r^2 = 0.90$, p = 1.8×10^{-10}).

Appendix 2

Table A2. Mean temperature external to and within four tree hollows at different depths (10 cm, 20 cm, 30 cm and 40 cm) during the day (sunrise to sunset) and night (sunrise to sunset).

	Temperature (°C)				
Tree	External	10 cm	20 cm	30 cm	40 cm
			Day		
66	20.8 (±6.4)	19.4 (±1.9)	19.6 (±1.7)	18.2 (±2.7)	18.2 (±2.9)
82A	20.9 (±6.8)	17.7 (±2.7)	17.5 (±2.7)	17.3 (±3.0)	17.0 (±3.2)
82B	21.0 (±6.7)	18.1 (±2.6)	17.7 (±3.0)	17.5 (±3.4)	17.2 (±3.8)
87	22.1 (±6.4)	20.1 (±1.7)	20.0 (±2.1)	19.4 (±2.4)	19.7 (±2.5)
			Night		
66	14.6 (±4.6)	15.3 (±1.5)	15.0 (±1.6)	15.9 (±1.7)	16.5 (±1.9)
82A	13.1 (±5.6)	16.2 (±1.4)	15.9 (±1.7)	16.0 (±1.8)	16.0 (±2.0)
82B	13.2 (±5.6)	16.0 (±1.6)	15.9 (±1.6)	16.0 (±2.0)	15.9 (±2.2)
87	13.7 (±5.2)	14.7 (±0.5)	15.6 (±0.7)	15.5 (±0.8)	15.5 (±0.8)

Appendix 3

Mean buffering within four tree hollows at different depths (10 cm, 20 cm, 30 cm and 40 cm) during the day (sunrise to sunset) and night (sunrise to sunset).

	Buffering (°C)			
Tree	10 cm	20 cm	30 cm	40 cm
Day				
66	1.7 (±1.9)	1.4 (±1.7)	2.9 (±2.7)	3.0 (±2.9)
82A	3.7 (±2.7)	3.9 (±2.7)	4.1 (±3.0)	4.4 (±3.2)
82B	3.4 (±2.6)	3.7 (±3.0)	4.0 (±3.4)	4.3 (±3.8)
87	2.4 (±1.7)	2.7 (±2.1)	3.3 (±2.4)	3.1 (±2.5)
Night				
66	–0.8 (±1.5)	–0.4 (±1.6)	–1.4 (±1.7)	–2.0 (±1.9)
82A	–3.3 (±1.4)	–2.9 (±1.7)	–3.1 (±1.8)	–3.1 (±2.0)
82B	–3.0 (±1.6)	–2.9 (±1.6)	–2.9 (±2.0)	–2.8 (±2.2)
87	–1.0 (±0.5)	–2.0 (±0.7)	–1.9 (±0.8)	–1.9 (±0.8)