

Appendix 8¹

Statistical Tables for Chapter Four.

Table 1. One-way ANOVA of insect foraging in each hour of the night in summer by G. crassicaudatus.

Source	SS	df	MS	F
Between hours	3780,5	9	420,1	3,68*
Within hours	6842,7	60	114,0	
Total	10623,2	69		

Table 2. One-way ANOVA of gum feeding in each hour of the night in winter by G. crassicaudatus.

Source	SS	df	MS	F
Between hours	1673,3	11	152,1	3,96*
Within hours	2763,4	72	38,4	
Total	4436,7	83		

¹ In this appendix significance levels are denoted by asterisks for ANOVAs.* $p < 0,05$ ** $p < 0,01$

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* $p < 0,05$

** $p < 0,01$

Table 3. Duncans Multiple Range for insect foraging in each hour in summer by G. crassicaudatus. Values underlines are significant at the p 0,01 level. Those asterisked are significant at the p<0,05 level.

[illegible]

Table 4. Duncan's Multiple Range for gum feeding in each hour in winter by *G. crassicaudatus*.
Values underlined are significantly different at the $p < 0.01$ level.

Hour	10	12	7	9	11	5	6	4	3	8	2	1
$\bar{x}$	2,71	2,86	3,86	5,00	5,29	6,00	7,29	7,86	8,14	8,57	9,00	<u>20,29</u>
2,71	x	0,15	1,15	2,29	2,58	3,29	4,58	5,15	5,43	5,86	6,29	<u>17,58</u>
2,86		x	1,00	2,14	2,43	3,14	4,43	5,00	5,28	5,17	6,14	<u>17,43</u>
3,86			x	1,14	1,43	2,14	3,43	4,00	4,28	4,71	5,14	<u>16,43</u>
5,00				x	0,29	1,00	2,29	2,86	3,14	3,57	4,00	<u>15,29</u>
5,29					x	0,71	2,00	2,57	2,85	3,28	3,71	<u>15,00</u>
6,00						x	1,29	1,86	2,14	2,56	3,00	<u>14,29</u>
7,29							x	0,57	0,85	1,28	1,71	<u>13,00</u>
7,86								x	0,28	0,71	1,14	<u>12,43</u>
8,14									x	0,43	0,86	<u>12,15</u>
8,57										x	0,43	<u>11,72</u>
9,00											x	<u>11,29</u>
20,29												x

Table 5. One-way ANOVA of distance travelled per hour by G. crassicaudatus in summer.

Source	SS	df	MS	F
Between hours	236596,54	9	26288,50	6,76**
Within hours	194452,96	50	3889,06	
Total	431049,50	59		

Table 6. One-way ANOVA of distance travelled per hour by G. senegalensis in summer.

Source	SS	df	MS	F
Between hours	89827,72	8	11228,47	3,03**
Within hours	166799,48	45	3706,66	
Total	256627,20	53		

Table 7. One-way ANOVA of distance travelled per hour by G. crassicaudatus in winter.

Source	SS	df	MS	F
Between hours	672939,51	9	74771,06	16,33**
Within hours	239066,52	49	4878,91	
Total	912006,03	58		

Table 8. One-way ANOVA of distance travelled per hour by G. senegalensis in winter.

Source	mSS	df	MS	F
Between hours	133782,07	11	121620,10	21,96**
Within hours .	337778,33	60	5537,35	
Total	1675599,40	71		

Table 9. Duncan Multiple Range for distance travelled in each hour by *G. crassicaudatus* in summer. Values underlined are significant at $p < 0.01$ and those asterisked are significant at the $p < 0.05$ level.

Hour	9	4	6	7	3	5	8	10	2	1
$\bar{x}$	60,83	91,67	91,92	96,92	105,00	119,17	123,33	132,58	150,42	157,08
60,83	x	30,84	31,09	36,09	44,17	58,34	62,50	71,75	89,59	<u>96,25</u>
91,67		x	0,25	5,25	13,33	27,50	31,66	40,91	58,75	65,41
91,92			x	5,00	13,08	27,25	31,41	40,66	58,50	65,16
96,92				x	8,08	22,25	26,41	35,66	53,50	60,16
105,00					x	14,17	18,33	27,58	45,42	52,08
119,17						x	4,16	13,41	31,25	37,91
123,33							x	9,25	27,09	33,75
132,58								x	17,84	24,50
150,42									x	6,66
157,08										x

Table 10. Duncan Multiple Range for distance travelled in each hour by *G. senegalensis* in summer. Values underlined are significant at the p 0,01 level and those asterisked at the p<0,05 level.

Hour	3	7	5	4	9	6	8	2	1
$\bar{X}$	71,33	76,00	86,00	92,83	105,67	112,33	116,00	154,33	<u>207,67</u>
71,33	X	4,67	14,67	21,50	34,34	41,00	44,67	83,00	<u>136,34</u>
76,00		X	10,00	16,83	29,67	36,33	40,00	78,33	<u>131,67</u>
86,00			X	6,83	19,67	26,33	30,00	68,33	<u>121,67</u>
92,83				X	12,84	19,50	23,17	61,50	<u>114,84</u>
105,67					X	6,66	10,33	49,66	<u>102,00</u>
112,33						X	3,67	42,00	95,34*
116,00							X	38,33	91,67*
154,33								X	53,34
207,67									X

Table 11. Duncan Multiple Range for distance travelled in each hour by G. crassicaudatus in winter. Significance notation is the same as earlier Multiple Range tests.

Hour	6	7	8	10	9	2	5	11	4	12	3	1
$\bar{X}$	52,75	64,00	82,50	89,17	100,83	105,42	106,67	123,33	156,25	205,00	209,17	252,08
52,75	X	11,25	29,75	36,42	48,08	52,67	53,92	70,58	103,50	152,25	156,42	199,33
64,00		X	18,50	25,17	36,83	41,42	42,67	59,33	94,25	141,00	145,17	188,08
82,50			X	6,67	18,33	22,92	24,17	40,83	73,75	122,50*	126,67*	169,58
89,17				X	11,66	16,25	17,50	34,16	67,08	115,83*	120,00*	162,91
100,83					X	4,59	5,84	22,50	55,42	104,17	108,34	151,25
105,42						X	1,25	17,91	50,83	99,58	103,75	146,66
106,67							X	16,66	49,58	98,33	102,50	145,41
123,33								X	32,92	81,67	85,84	128,75
156,25									X	48,75	52,92	95,83
205,00										X	4,17	47,08
209,17											X	42,91
252,08												X

Table 13. Two-way ANOVA for moving with species and season 'treatments'.

Source	SS	df	MS	F
Season	228,48	1	228,48	42,79**
Species	0,65	1	0,65	0,12
Season & Species	10,68	1	10,68	2,00
Within	106,71	20	5,34	
Total	346,52	23		

Table 14. Two-way ANOVA for gum foraging with species and season 'treatments'.

Source	SS	df	MS	F
Season	433,50	1	433,50	122,11**
Species	6,00	1	6,00	1,69
Season & Species	13,50	1	13,50	3,80
Within	71,00	20	3,55	
Total	524,00	23		

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Species	0,65	1	0,65	0,12
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Within	106,71	20	5,34	
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Season	433,50	1	433,50	122,11**
Species	6,00	1	6,00	1,69
Season & Species	13,50	1	13,50	3,80
Within	71,00	20	3,55	
Total	524,00	23		

Table 15. Two-way ANOVA for resting with species and season 'treatments'.

Source	SS	df	MS	F
Season	70,18	1	70,18	2,00
Species	35,64	1	35,64	1,00
Season & Species	273,36	1	273,36	7,68*
Within	703,22	20	35,61	
Total	1082,40	23		

Table 16. Two-way ANOVA for autogrooming with species and season 'treatments'.

Source	SS	df	MS	F
Season	45,36	1	45,36	6,89*
Species	14,98	1	14,98	2,28
Season & Species	245,70	1	245,70	37,34**
Within	131,52	20	6,58	
Total	437,56	23		

Table 17. Two-way ANOVA for allogrooming with species and season 'treatments'.

Source	SS	df	MS	F
Season	100,92	1	100,92	105,13**
Species	32,64	1	32,64	34,00**
Season & Species	92,16	1	92,16	96,00**
Within	19,18	20	0,96	
Total	244,90	23		

Table 18. Two-way ANOVA for insect foraging with species and seasons 'treatments'.

Source	SS	df	MS	F
Season	2205,00	1	2205,00	76,29**
Species	1,50	1	1,50	0,05
Season & Species	448,46	1	448,46	16,90**
Within	578,02	20	28,90	
Total	3232,98	23		

Table 19. Two-way ANOVA for gum feeding with species and seasons 'treatments'.

Source	SS	df	MS	F
Season	817,20	1	817,20	117,92**
Species	73,08	1	73,08	10,55**
Season & Species	66,72	1	66,72	9,63**
Within	138,72	20	6,93	
Total	1095,72	23		

Appendix 9. Statistical tables for Chapter 5.

Table 1. Quadrat analyses for G. senegalensis in summer

Activity	$\bar{x}$	s^2	$s^2/\bar{x}$	df	Z	P
Travel	3,59	16,32	4,54	196	65,17	< 0,001
Rest	5,63	103,77	18,42	196	22,36	< 0,001
Move	1,69	11,44	6,77	196	31,69	< 0,001
Autogroom	2,04	35,21	17,30	196	30,46	< 0,001
Allogroom	0,23	1,55	6,45	196	62,53	< 0,001
Insect-forage	3,41	47,58	13,97	196	54,18	< 0,001
Insect-feed	0,19	0,44	2,33	196	10,40	< 0,001
Gum-forage	0,24	2,06	8,45	196	37,73	< 0,001
Gum-feed	0,54	6,73	12,46	196	50,06	< 0,001
Urine-wash	0,08	0,18	2,34	196	10,46	< 0,001

Table 2. Quadrat analyses for G. senegalensis in winter

Activity	$\bar{x}$	s^2	$s^2/\bar{x}$	df	Z	P
Travel	7,47	449,87	60,22	163	127,51	< 0,001
Rest	4,32	31,97	7,4	163	32,95	< 0,001
Move	0,32	0,82	2,57	163	11,99	< 0,001
Autogroom	1,76	35,28	20,04	163	65,91	< 0,001
Allogroom	0,04	0,12	2,94	163	14,09	< 0,001
Insect-forage	3,02	381,81	126,40	163	192,85	< 0,001
Insect-feed	0,22	1,35	6,14	163	28,41	< 0,001
Gum-forage	2,57	52,27	20,36	163	66,57	< 0,001
Gum-feed	4,23	103,59	24,49	163	74,76	< 0,001
Urine-wash	0,21	0,45	2,15	163	9,43	< 0,001

Table 3. Quadrat Analyses for G. crassicaudatus in summer

Activity	$\bar{x}$	s^2	$s^2/\bar{x}$	df	Z	P
Travel	3,42	12,76	3,73	185	17,89	< 0,001
Rest	5,00	41,92	8,38	185	36,44	< 0,001
Move	1,31	4,01	3,06	185	14,37	< 0,001
Autogroom	1,48	10,21	6,90	185	31,28	< 0,001
Allogroom	0,46	2,18	4,78	185	22,80	< 0,001
Insect-forage	5,75	290,25	50,50	185	117,44	< 0,001
Insect-feed	0,17	0,39	2,28	185	9,77	< 0,001
Gum-forage	0,43	1,48	3,44	185	16,41	< 0,001
Gum-feed	0,61	4,11	6,77	185	30,77	< 0,001
Urine-wash	0,12	0,18	1,49	185	4,24	< 0,001

Table 4. Quadrat analyses for G. crassicaudatus in winter

Activity	$\bar{x}$	s^2	$s^2/\bar{x}$	df	Z	P
Travel	4,54	39,66	8,73	166	35,58	< 0,001
Rest	9,97	696,60	69,87	166	134,06	< 0,001
Move	0,53	2,31	4,34	166	19,69	< 0,001
Autogroom	4,80	121,42	25,28	166	73,37	< 0,001
Allogroom	0,96	8,25	8,61	166	35,20	< 0,001
Insect-forage	0,38	1,84	4,87	166	21,98	< 0,001
Insect-feed	0,02	0,02	0,99	166	0,14	N.S.
Gum-forage	2,15	28,74	13,37	166	48,38	< 0,001
Gum-feed	3,37	129,45	38,47	166	94,76	< 0,001
Urine-wash	0,14	0,69	4,80	166	21,68	< 0,001