The ecology of the koala (*Phascolarctos cinereus*) in over-browsed habitats on Kangaroo Island, South Australia

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APPENDIX B:

Home Range Area Plots

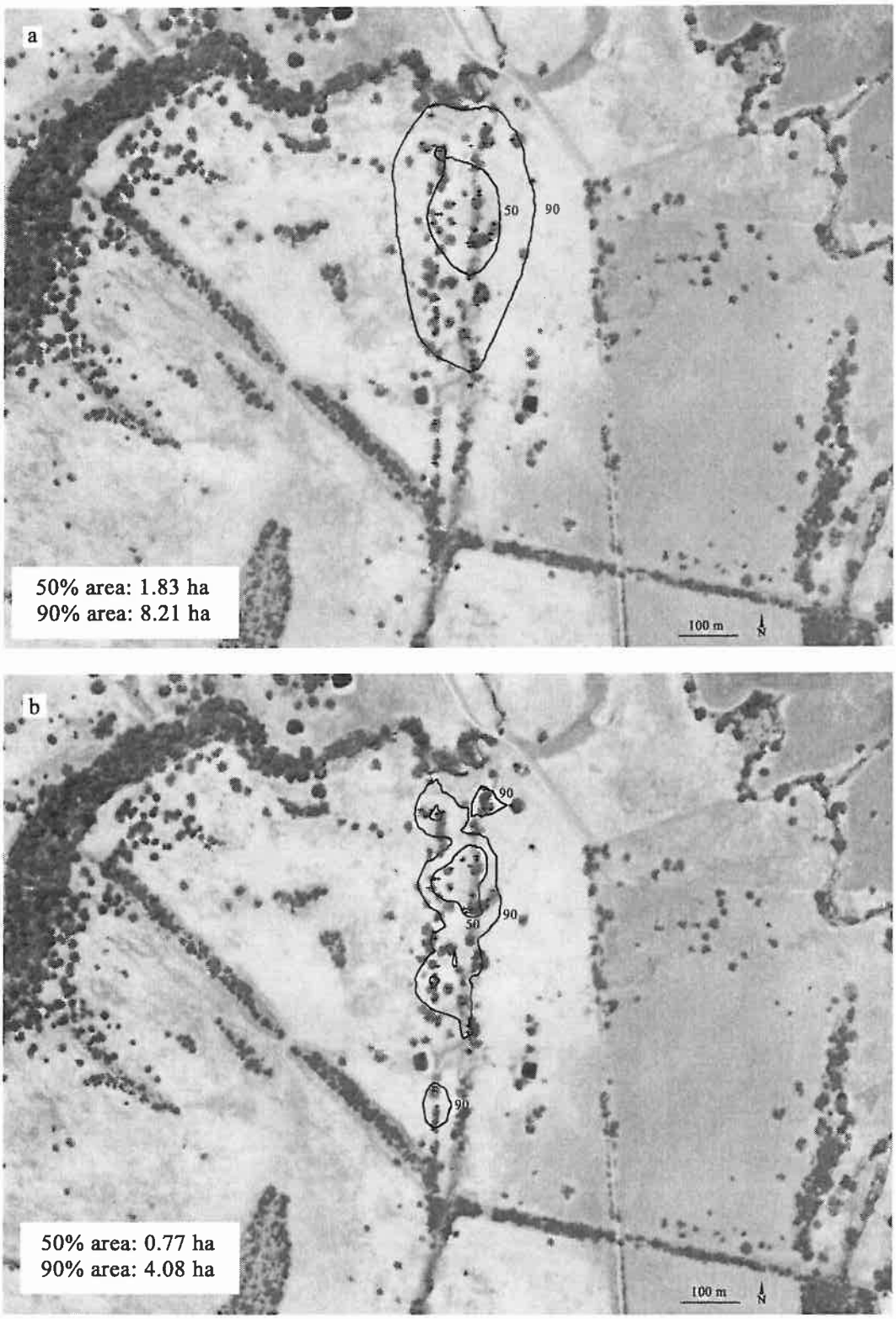

Figure A1: 50% and 90% Home Range Areas (Harmonic Mean (a) and Fixed Kernel (b)) for M003 in Preferred Habitat.

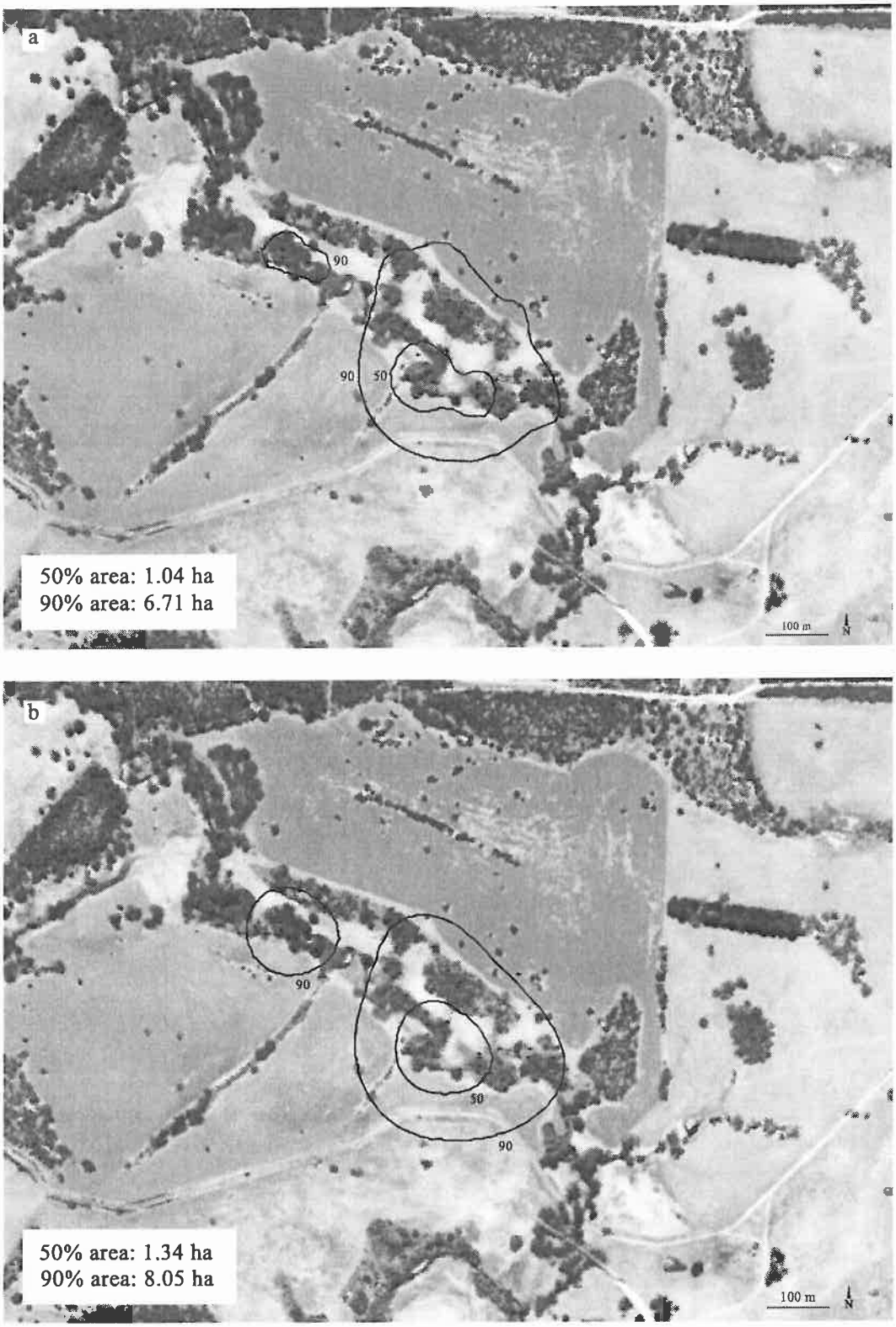

Figure A2: 50% and 90% Home Range Areas (Harmonic Mean (a) and Fixed Kernel (b)) for M004 in Preferred Habitat.

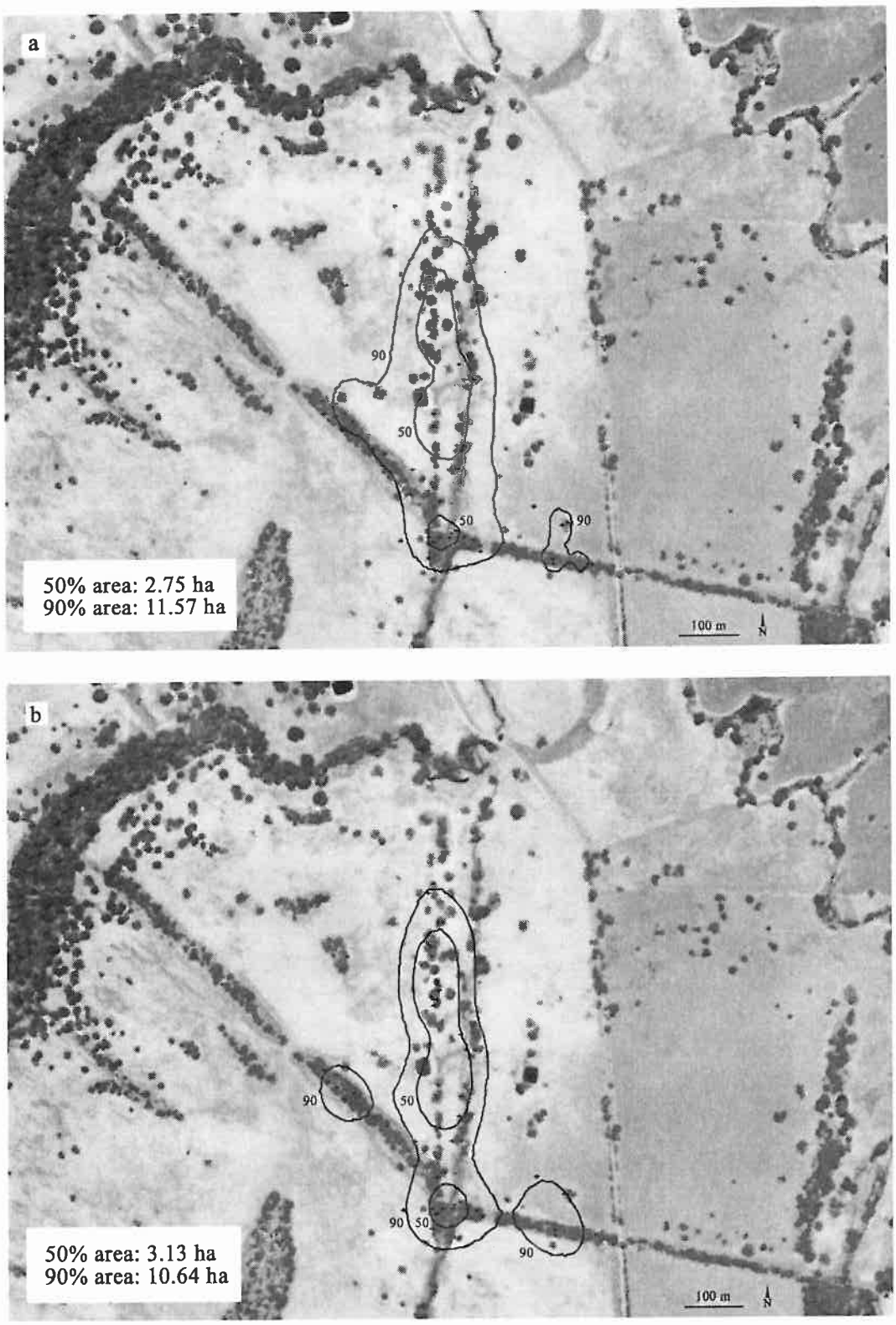

Figure A3: 50% and 90% Home Range Areas (Harmonic Mean (a) and Fixed Kernel (b)) for M005 in Preferred Habitat.

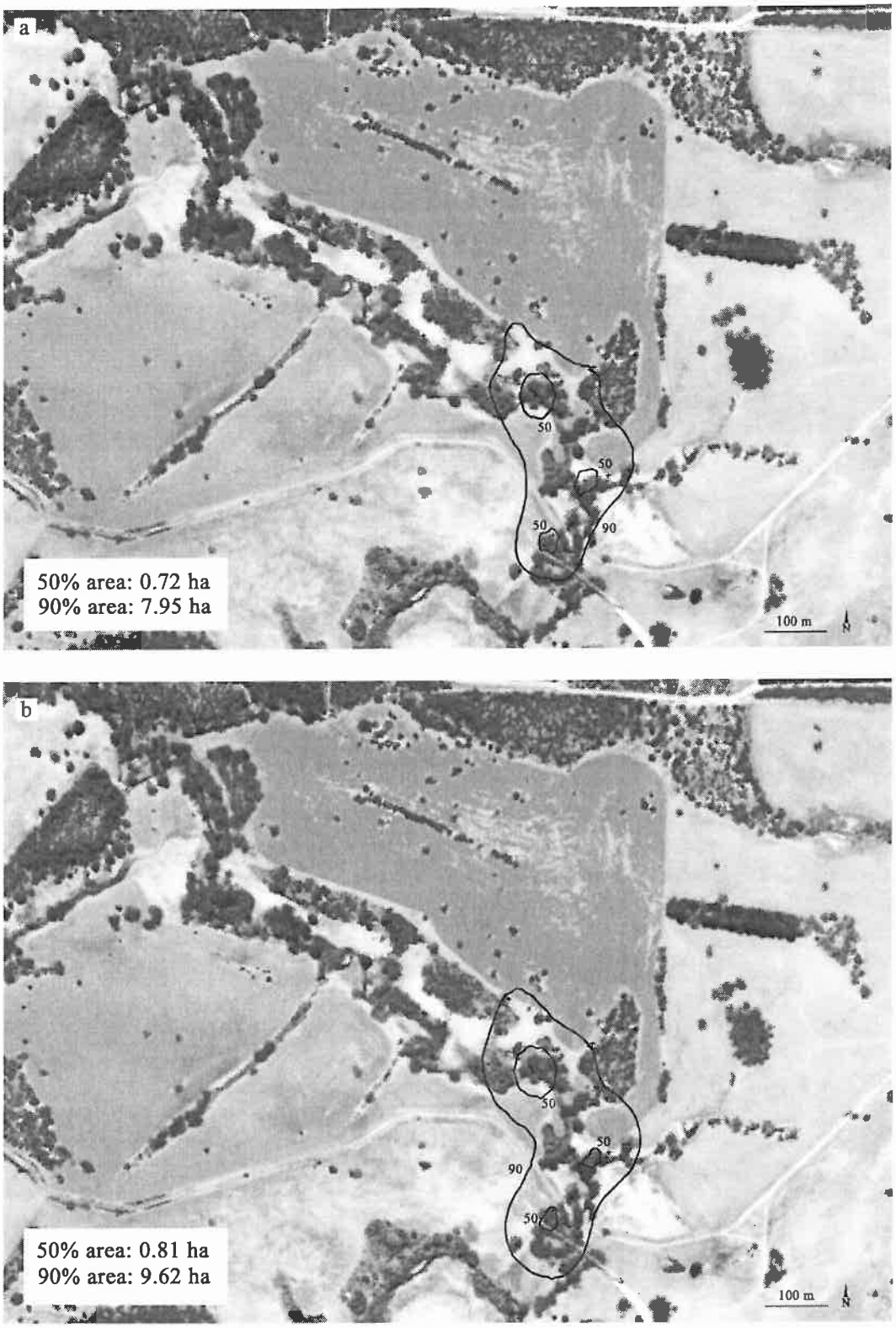

Figure A4: 50% and 90% Home Range Areas (Harmonic Mean (a) and Fixed Kernel (b)) for M006 in Preferred Habitat.

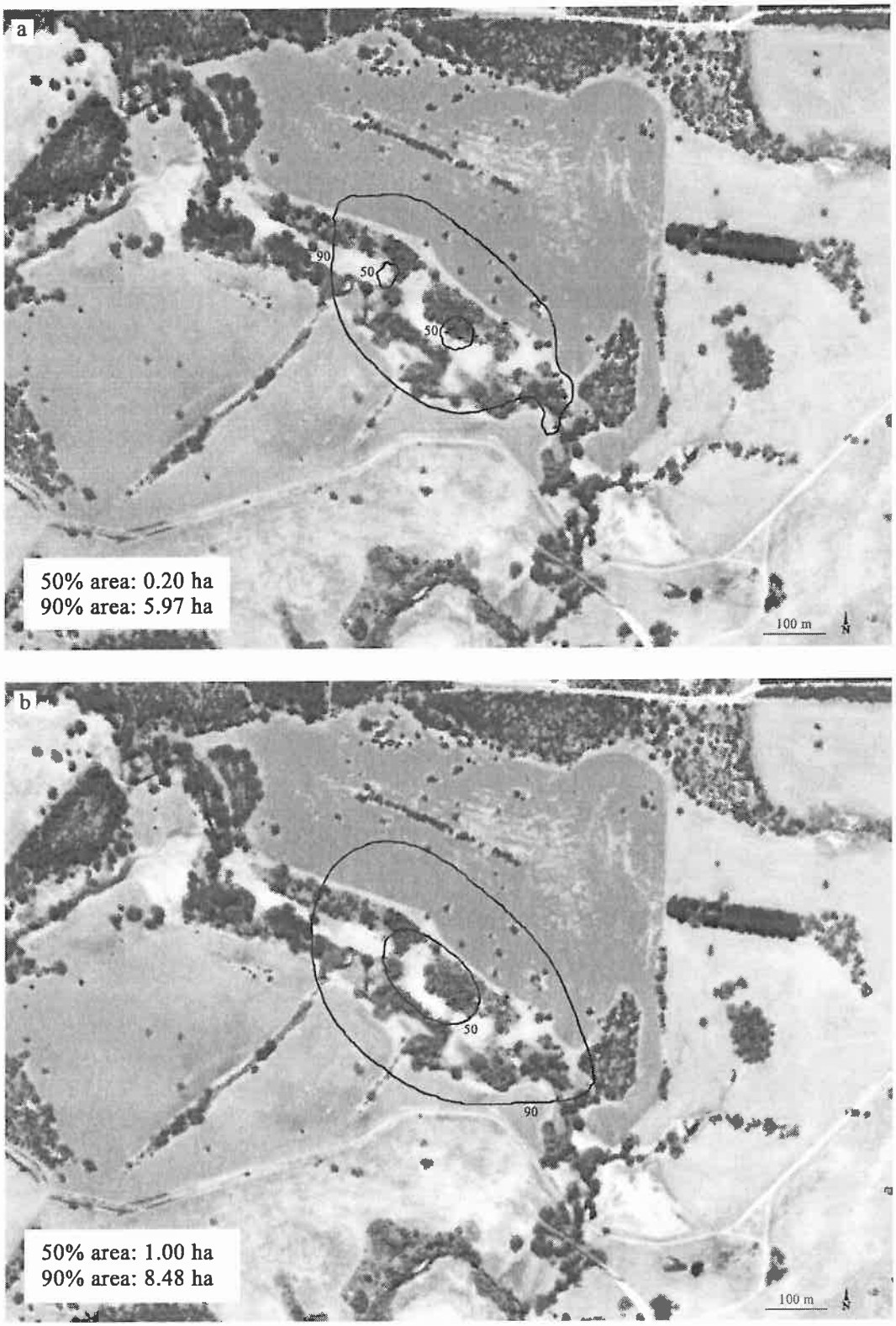

Figure A5: 50% and 90% Home Range Areas (Harmonic Mean (a) and Fixed Kernel (b)) for M007 in Preferred Habitat.

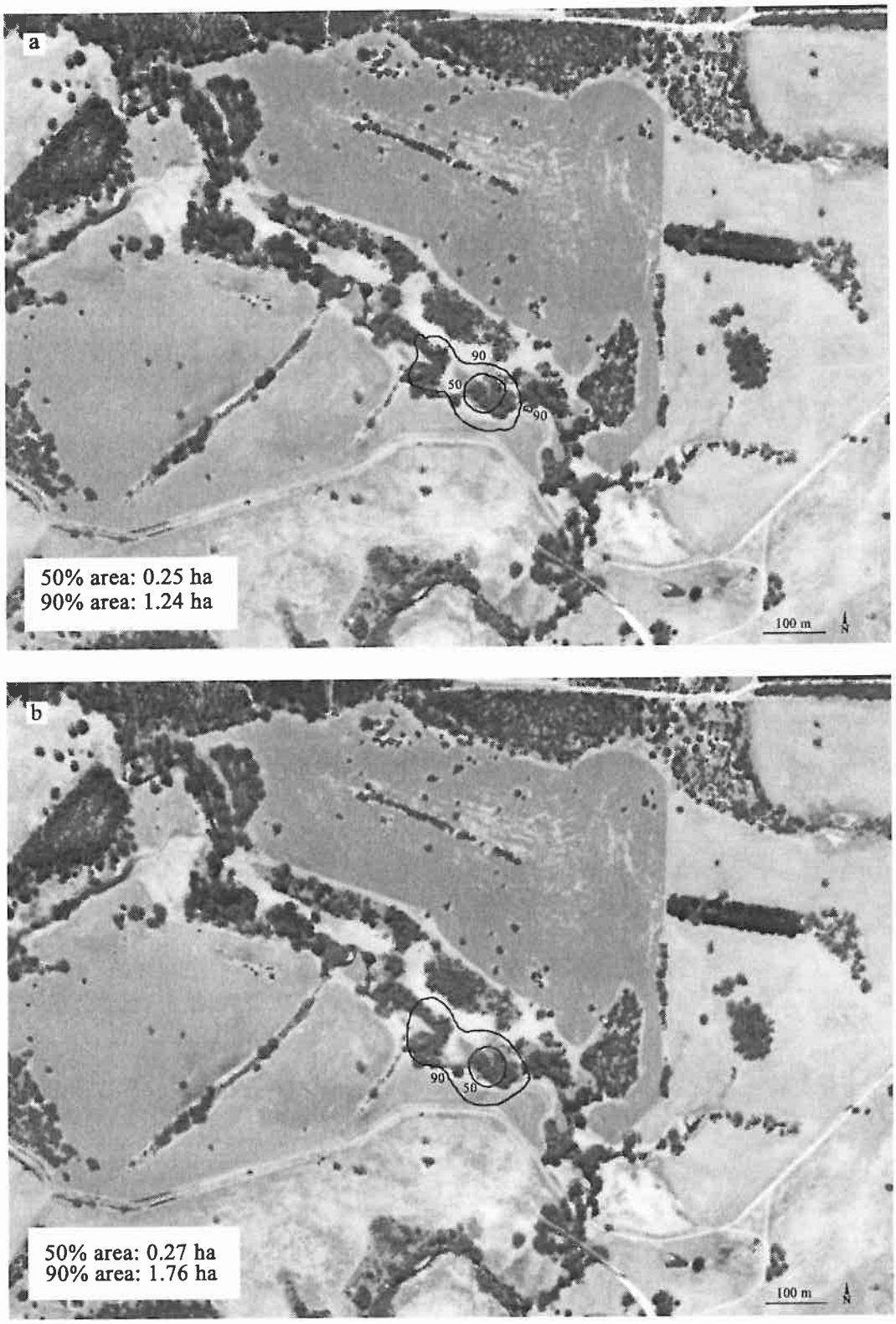

Figure A6: 50% and 90% Home Range Areas (Harmonic Mean (a) and Fixed Kernel (b)) for F003 in Preferred Habitat.

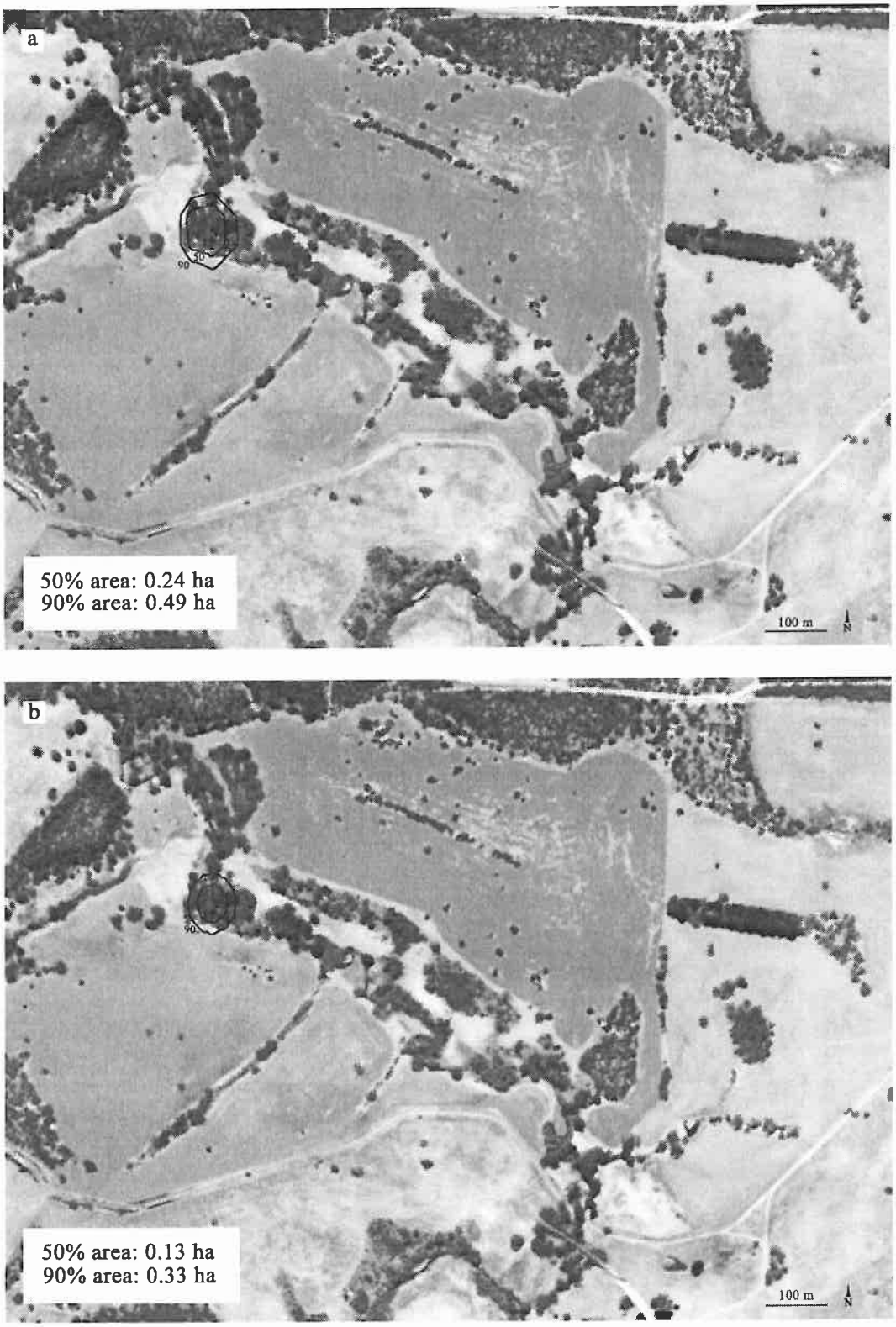

Figure A7: 50% and 90% Home Range Areas (Harmonic Mean (a) and Fixed Kernel (b)) for F005 in Preferred Habitat.

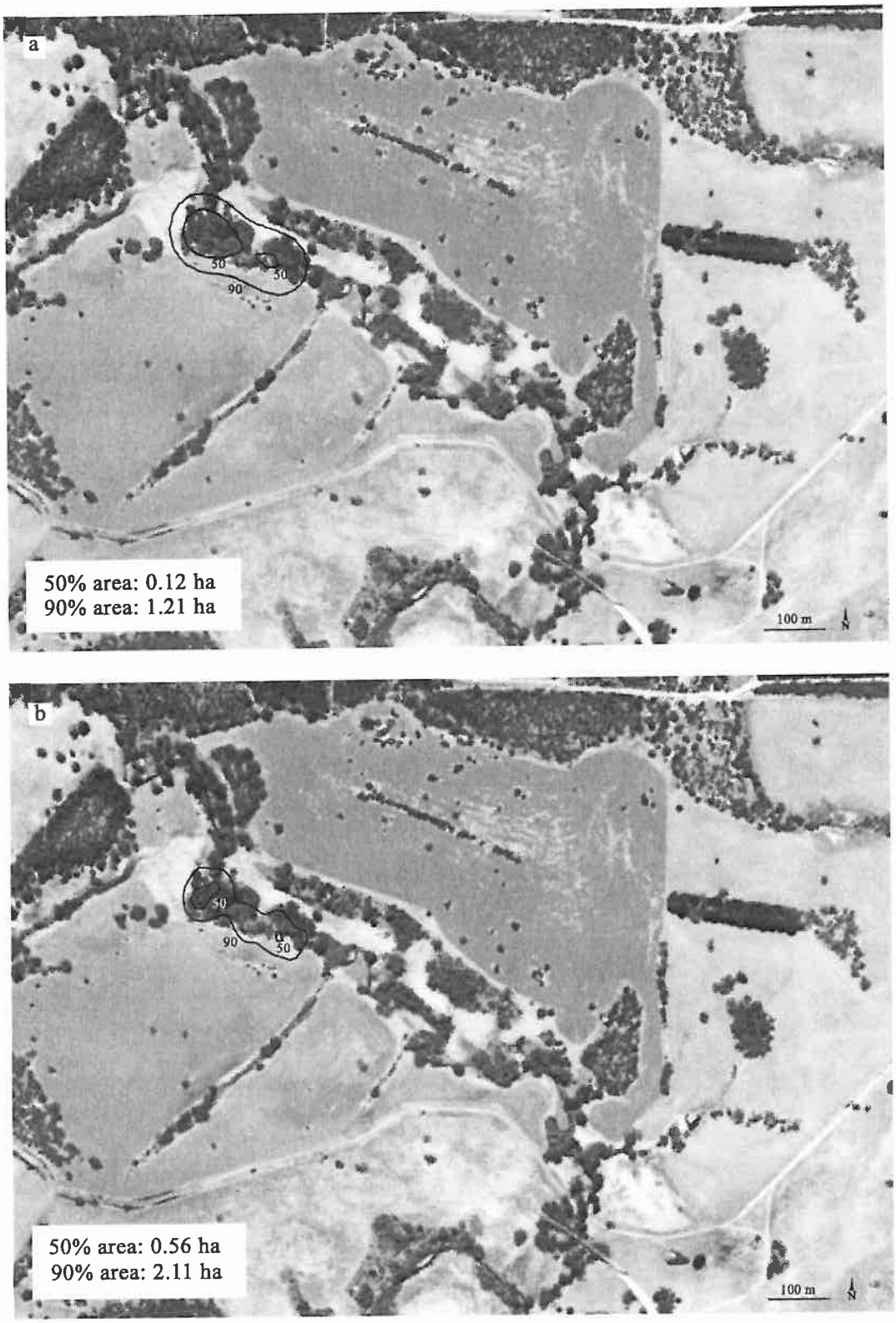

Figure A8: 50% and 90% Home Range Areas (Harmonic Mean (a) and Fixed Kernel (b)) for F007 in Preferred Habitat.

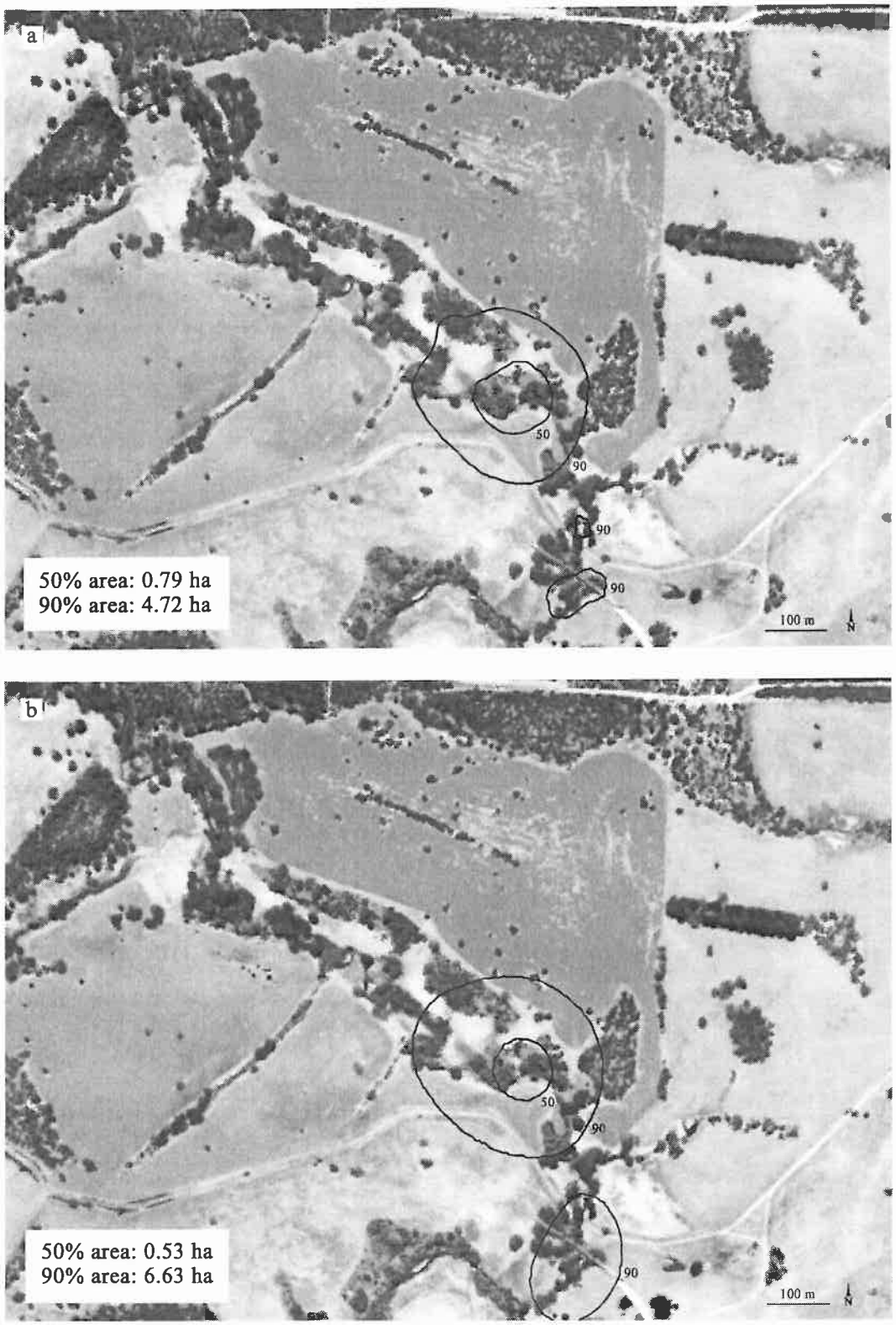

Figure A9: 50% and 90% Home Range Areas (Harmonic Mean (a) and Fixed Kernel (b)) for F008 in Preferred Habitat.

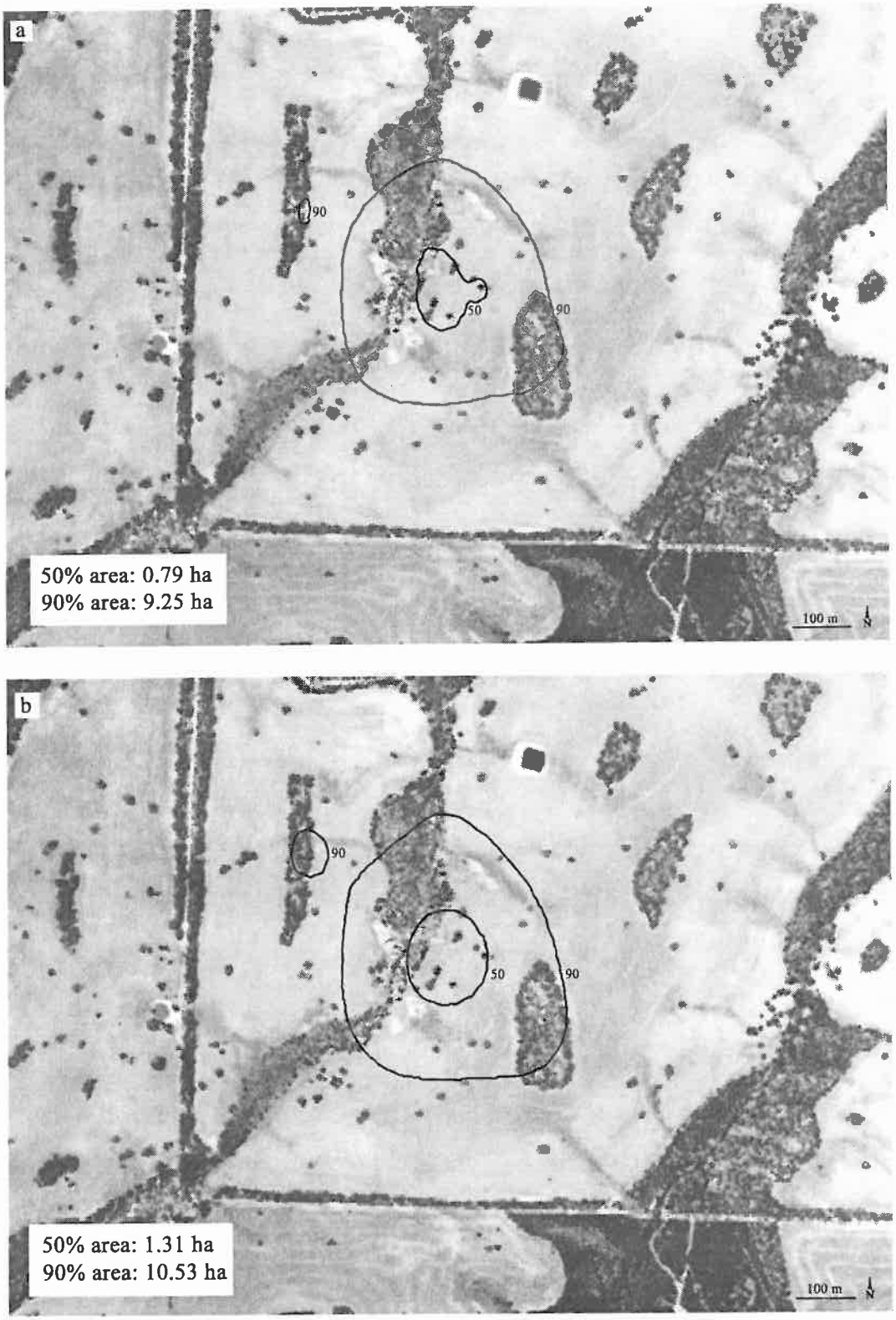

Figure A10: 50% and 90% Home Range Areas (Harmonic Mean (a) and Fixed Kernel (b)) for M008 in Non-preferred Habitat.

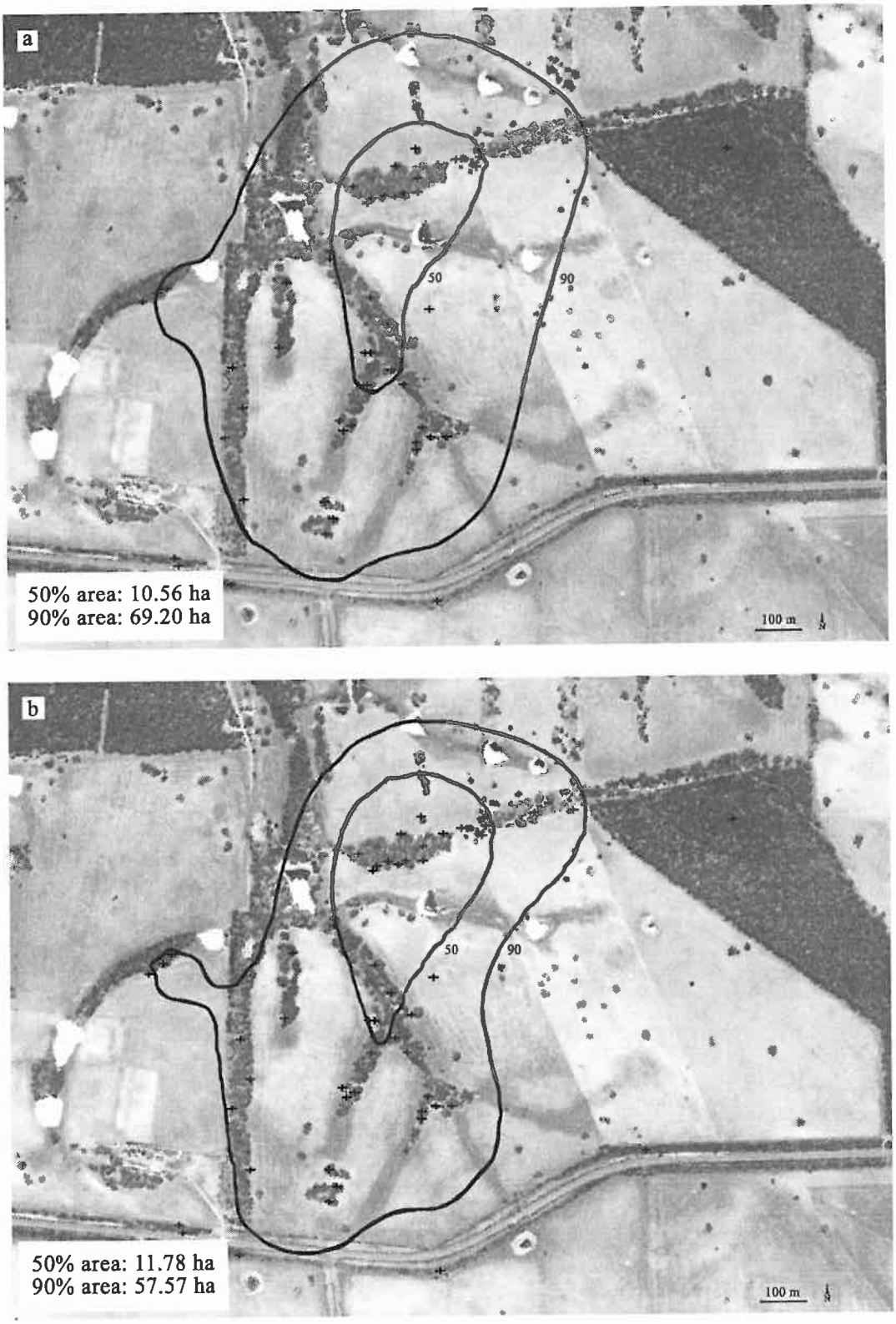

Figure A11: 50% and 90% Home Range Areas (Harmonic Mean (a) and Fixed Kernel (b)) for M009 in Non-preferred Habitat.

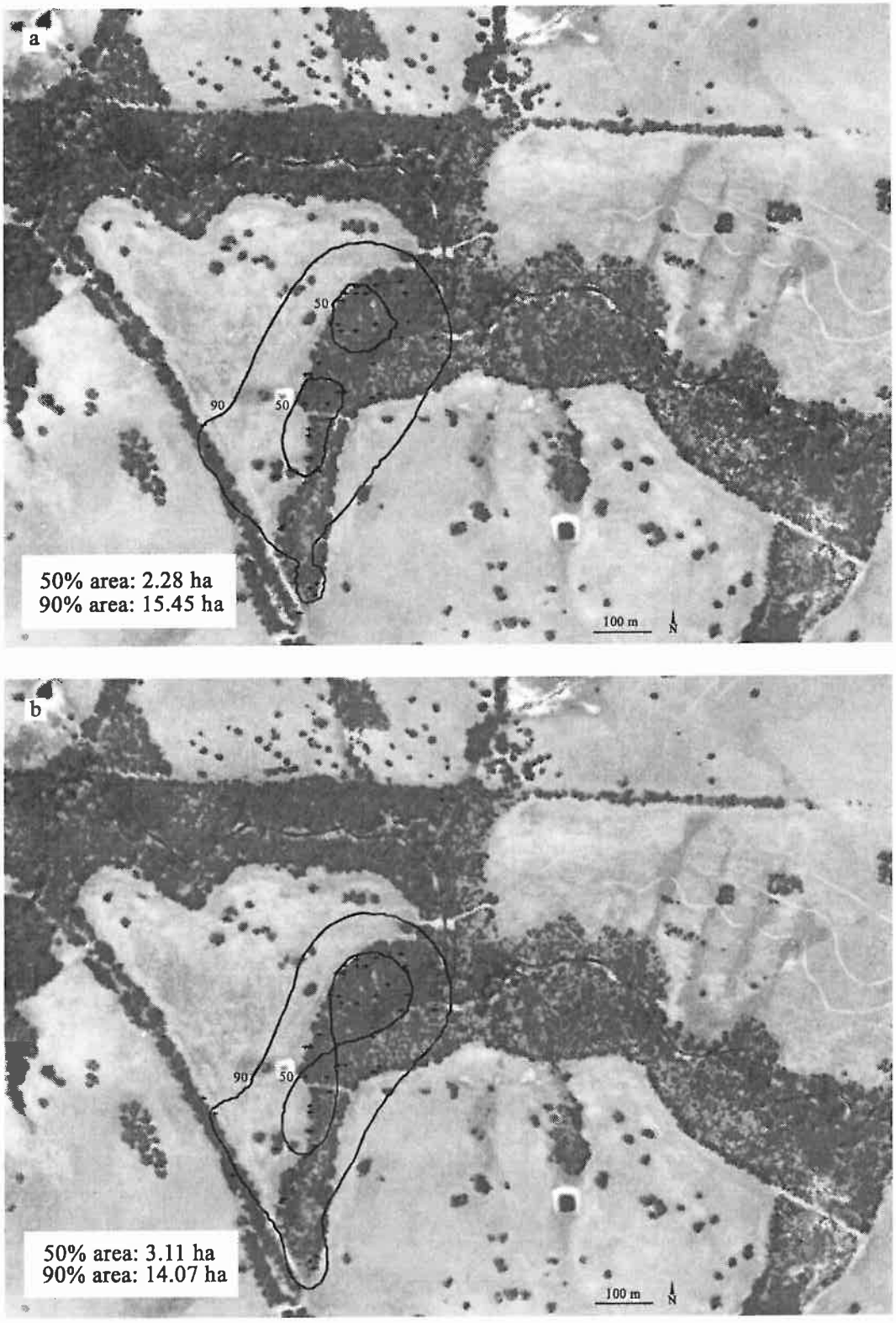

Figure A12: 50% and 90% Home Range Areas (Harmonic Mean (a) and Fixed Kernel (b)) for M010 in Non-preferred Habitat.

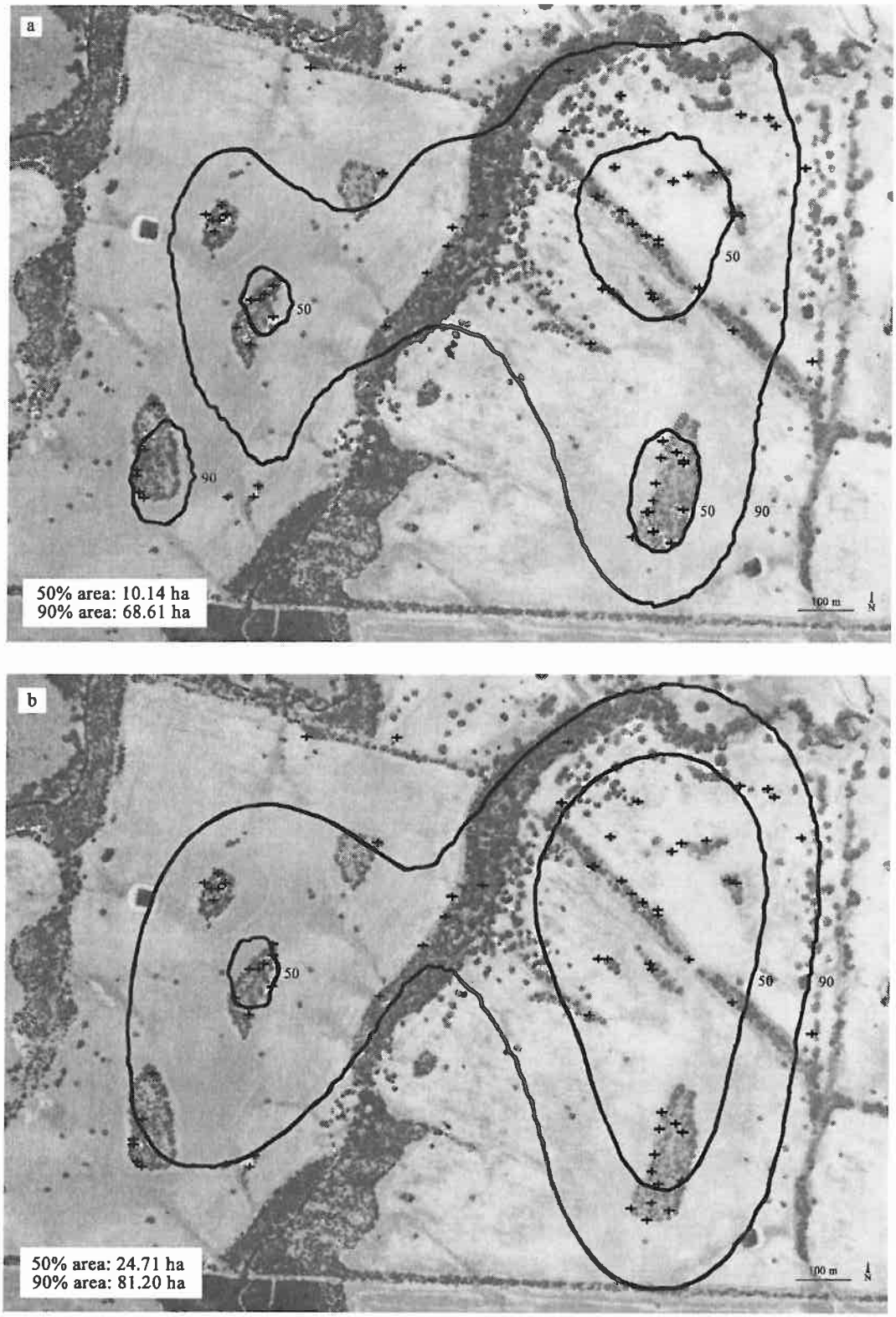

Figure A13: 50% and 90% Home Range Areas (Harmonic Mean (a) and Fixed Kernel (b)) for M014 in Non-preferred Habitat.

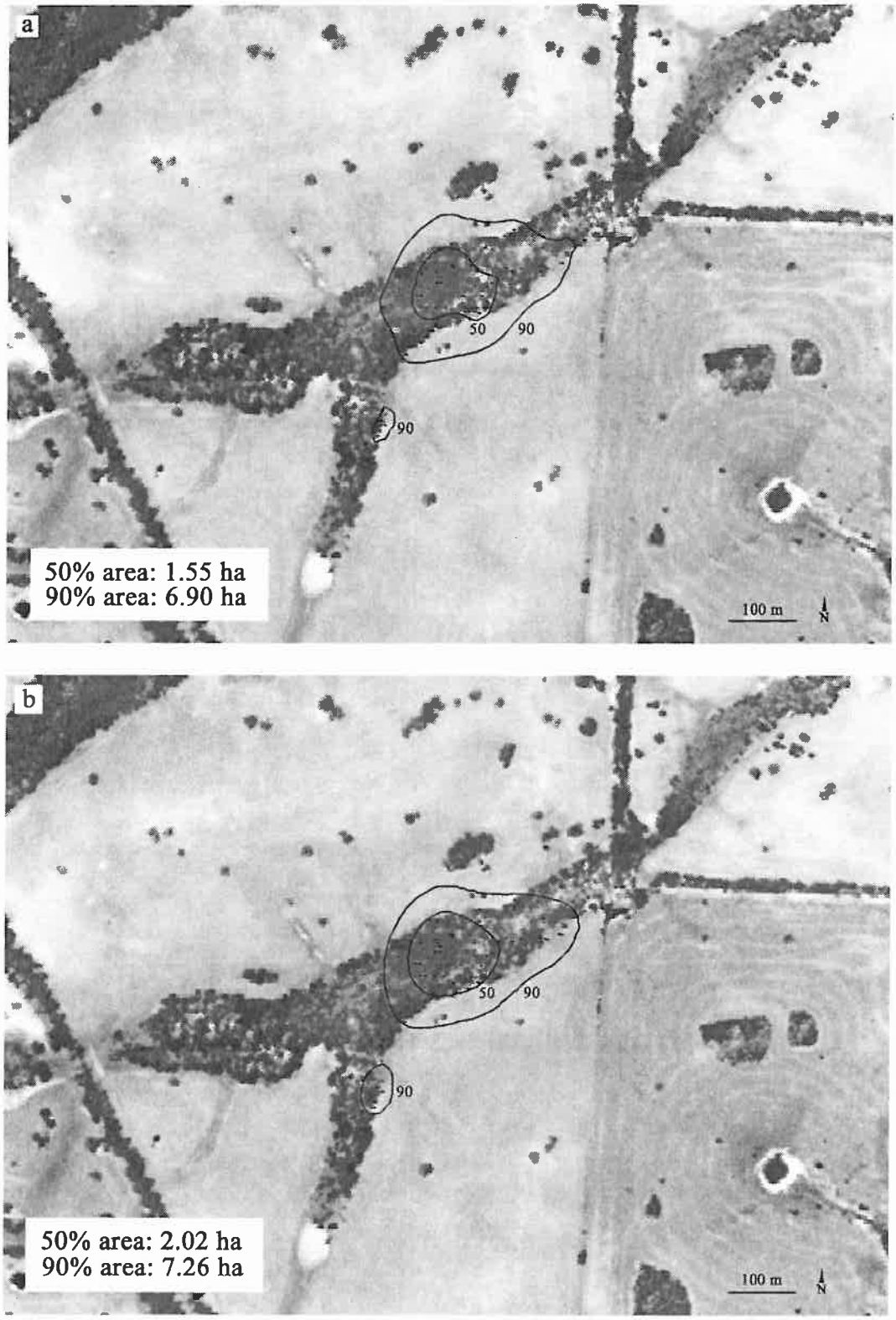

Figure A14: 50% and 90% Home Range Areas (Harmonic Mean (a) and Fixed Kernel (b)) for F009 in Non-preferred Habitat.

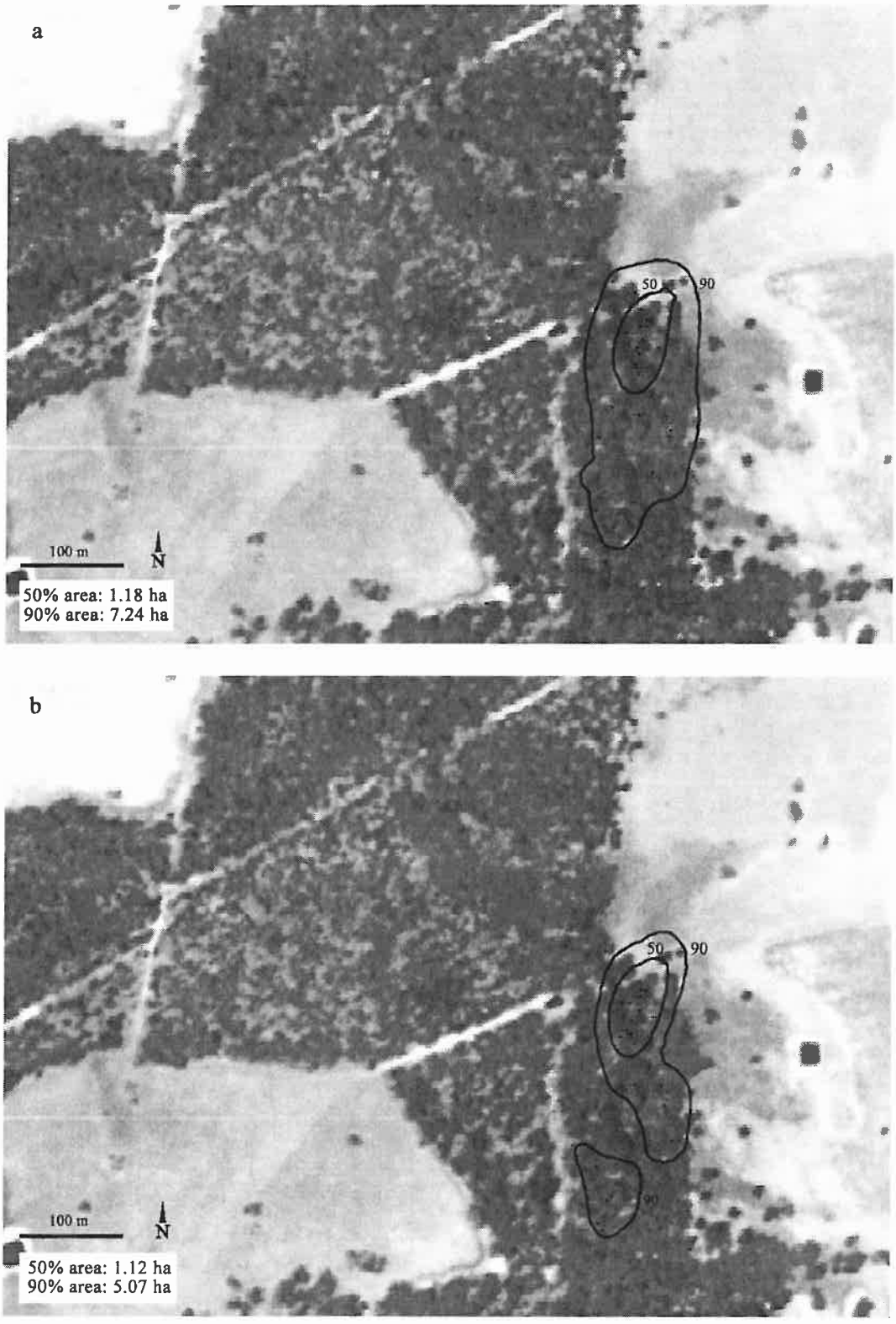

Figure A15: 50% and 90% Home Range Areas (Harmonic Mean (a) and Fixed Kernel (b)) for F010 in Non-preferred Habitat.

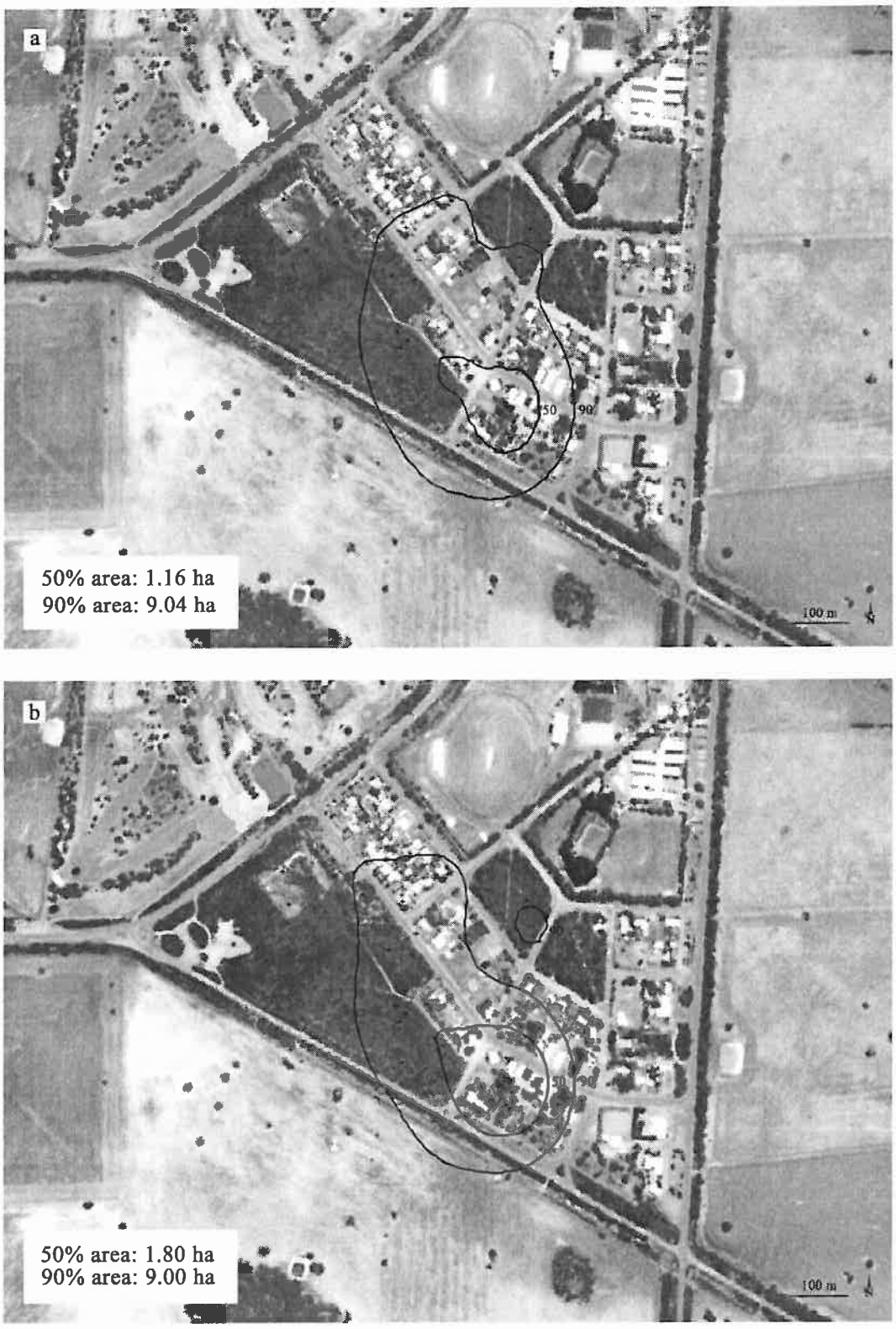

Figure A16: 50% and 90% Home Range Areas (Harmonic Mean (a) and Fixed Kernel (b)) for F011 in Non-preferred Habitat.

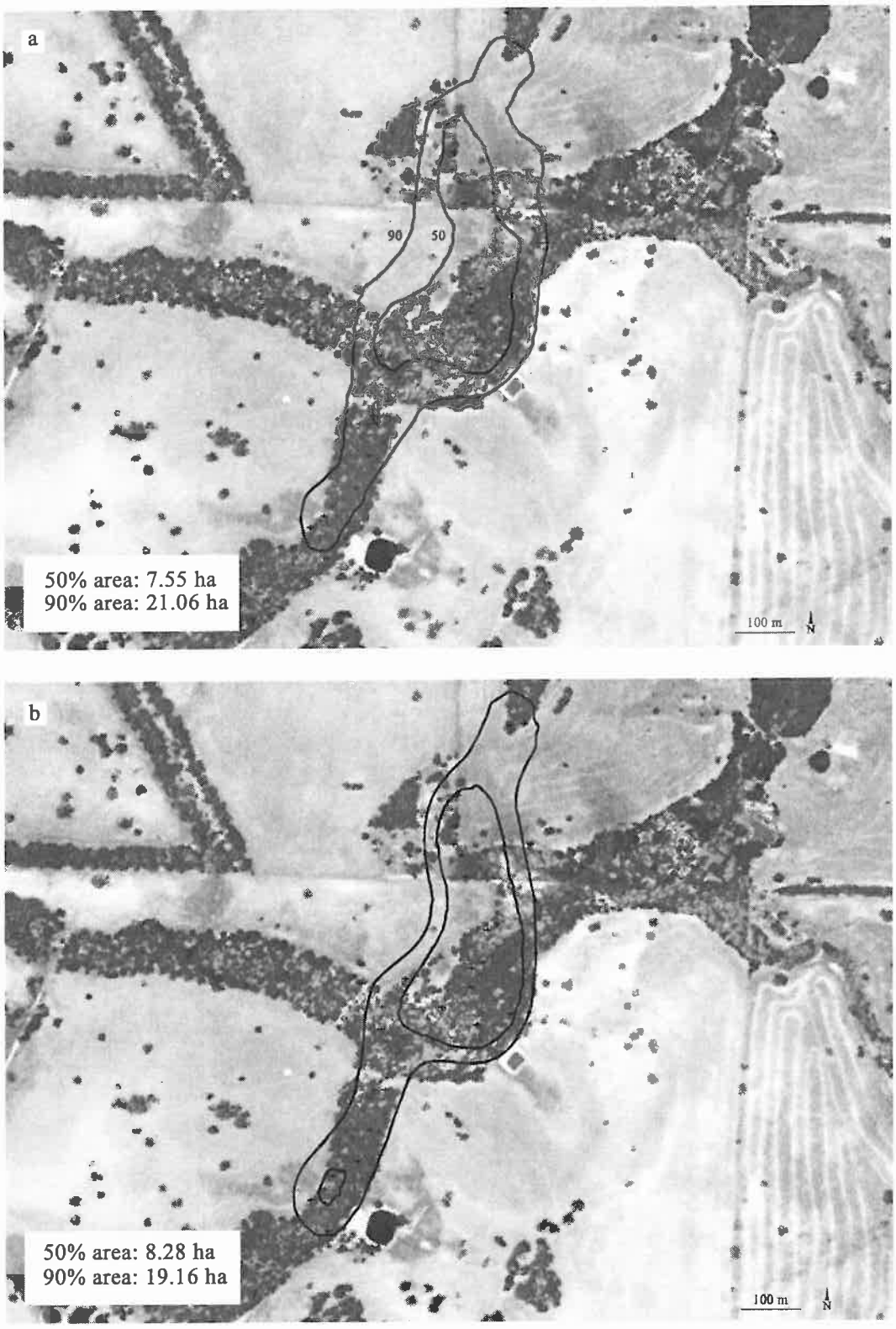

Figure A17: 50% and 90% Home Range Areas (Harmonic Mean (a) and Fixed Kernel (b)) for F012 in Non-preferred Habitat.

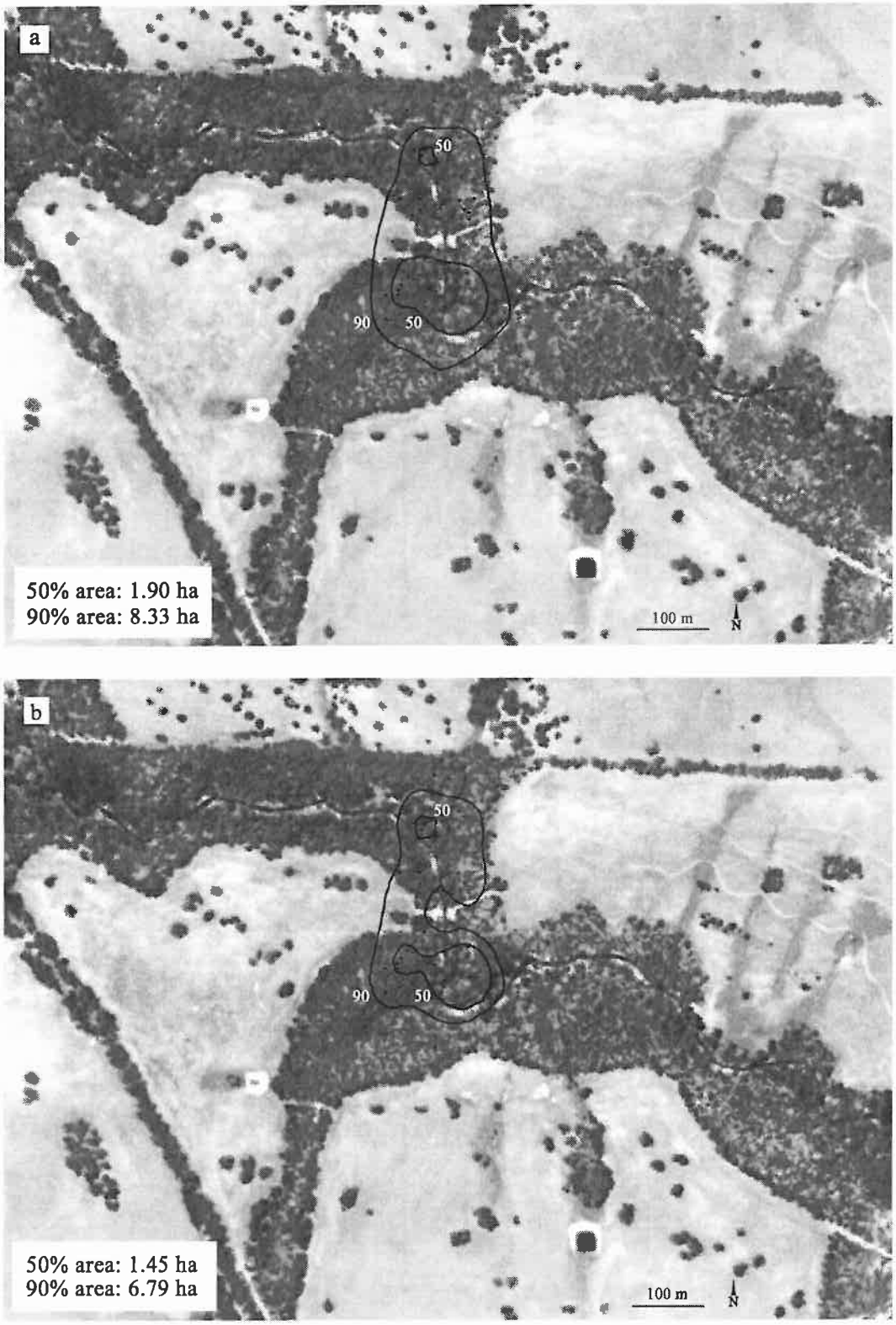

Figure A18: 50% and 90% Home Range Areas (Harmonic Mean (a) and Fixed Kernel (b)) for F014 in Non-preferred Habitat.

APPENDIX C:

Data Analyses – Tree Preferences

F010

Site 7: Sub-Opt (Mumford's)	Q1	Q2	Q3	Q4		
Quadrat Size (m)	50*50	50*50	50*50	50*50	Total	Prop
E.leuc	16	0	23	7	46	0.16
E.cosmo	19	42	1	14	76	0.27
E.fasc	11	31	30	54	126	0.45
E.baxt	7	5	0	0	12	0.04
E.obl	10	10	0	0	20	0.07
					280	1.00

Utilisation

Tree Species	Obs #	Exp #	χ 2 (df =4)	P
E.leuc	20	11	**6.98**	
E.cosmo	0	18	18.46	
E.fasc	31	31	0.01	
E.baxt	5	3	**1.49**	
E.obl	12	5	**10.50**	
Total	68	68	37.44	1E-07

F009

Site 1: Sub-Opt (Hein's)	Quad 1	Quad 2	Quad 3	Quad 4		
Quadrat Size (m)	50*50	50*50	50*50	50*50	Total	Prop
E.obl	4	0	6	2	12	0.03
E.baxt	7	13	9	8	37	0.11
E.cosmo	97	20	80	48	245	0.71
E.fasc	19	5	13	15	52	0.15
					346	1.00

Utilisation

Tree Species	Obs #	Exp #	χ 2 (df =3)	P
E.baxt	7	11	1.59	
E.cosm	84	74	**1.25**	
E.fasc	8	16	3.84	
E.obl	6	4	**1.53**	
Total	105	105	8.21	0.0419

F015

Site 2: Sub-Opt (Hein's)	Q1	Q2	Q3	Q4		
Quadrat Size (m)	50*50	50*50	50*50	50*50	Total	Prop
E.obl	26	7	10	23	66	0.34
E.baxt	8	39	1	0	48	0.24
E.cosmo	22	5	15	41	83	0.42
					197	1.00

Utilisation

Tree Species	Obs #	Exp #	χ 2 (df =3)	P
E.obl	54	26	**28.64**	
E.baxt	16	19	0.55	
E.cosm	9	33	17.72	
Total	79	79	46.91	7E-11

M005

Site 3: Optimal (DC)	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8		
Quadrat Size	50*50	50*50	50*50	50*50	50*50	100*100	100*100	100*100	Total	Prop
E.obl	19	1	3	3	0	2	0	0	28	0.09
E.leuc	8	5	0	0	16	29	24	10	92	0.30
E.baxt	0	0	19	22	0	4	0	0	45	0.14
E.vim	0	0	0	0	1	2	9	18	30	0.10
E.cosmo	13	33	31	15	1	0	2	0	95	0.31
E.fasc	1	16	2	0	1	1	0	0	21	0.07
									311	1.00

Utilisation

Tree Species	Obs #	Exp #	χ 2 (df =5)	P
E.leuc	53	34	**10.59**	
E.baxt	16	17	0.02	
E.cosm	6	35	24.15	
E.fasc	3	8	2.92	
E.obl	9	10	0.18	
E.vim	28	11	**25.77**	
Total	115	115	63.64	2E-12

M003

Site 3: Optimal (DC)	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8		
Quadrat Size	50*50	50*50	50*50	50*50	50*50	100*100	100*100	100*100	Total	Prop
E.obl	19	1	3	3	0	2	0	0	28	0.09
E.leuc	8	5	0	0	16	29	24	10	92	0.30
E.baxt	0	0	19	22	0	4	0	0	45	0.14
E.vim	0	0	0	0	1	2	9	18	30	0.10
E.cosmo	13	33	31	15	1	0	2	0	95	0.31
E.fasc	1	16	2	0	1	1	0	0	21	0.07
Total									311	1.00

Utilisation

Tree Species	Obs #	Exp #	χ 2 (df =5)	P
E.leuc	57	34	**16.07**	
E.vim	57	11	**192.45**	
E.obl	0	10	10.26	
E.baxt	0	16	16.50	
E.cosm	0	35	34.82	
E.fasc	1	8	5.83	
	114	45	208.51	1E-57

M014

Site 4: Sub-opt (480)	Q1	Q2	Q3	Q4	Q5	Q6		
Quadrat Size (m)	50*50	50*50	50*50	50*50	50*50	50*50	Total	Prop
E.obl	2	0	0	4	5	2	13	0.05
E.leuc	0	0	25	0	0	0	25	0.10
E.baxt	28	24	0	15	41	24	132	0.54
E.cosmo	11	7	2	30	13	10	73	0.30
							243	1.00

Utilisation

Tree Species	Obs #	Exp #	χ 2 (df =3)	P
E.baxt	35	45	2.26	
E.cosm	12	25	6.71	
E.leuc	10	9	**0.25**	
E.obl	26	4	**104.68**	
Total	83	83	113.90	2E-24

M009

Site 5: Sub-Opt (Tremaine)	Q1	Q2	Q3	Q4	Q5	Q6		
Quadrat Size (m)	50*50	50*50	50*50	50*50	50*50	50*50	Total	Prop
E.obl	4	17	5	2	25	9	62	0.26
E.baxt	4	0	27	21	3	6	61	0.26
E.cosmo	49	20	5	8	15	15	112	0.48
Total							235	1.00

Utilisation

Tree Species	Obs #	Exp #	χ 2 (df =2)	P
E.baxt	15	19	1.03	
E.cosm	17	36	9.83	
E.obl	43	20	**27.23**	
	75	75	38.09	5E-09

M004

Site 6: Optimal (Monitoring Site)

Area: 9ha	Total	Prop
E.leuc	218	0.61
E.vim	105	0.29
E.cosmo/E.fasc	35	0.10
	358	1.00

Utilisation

Tree Species	Obs #	Exp #	χ 2 (df =2)	P
E.leuc	34	52	6.44	
E.vim	52	25	**28.43**	
E.cosm/E.fasc	0	8	8.41	
	86	78	34.87	4E-10

F005

Site 6: Optimal (Monitoring Site)

Area: 9ha	Total	Prop
E.leuc	218	0.61
E.vim	105	0.29
E.cosmo/E.fasc	35	0.10
	358	1.00

Utilisation

Tree Species	Obs #	Exp #	χ 2 (df =2)	P
E.leuc	93	59	**19.49**	
E.cosm/E.fasc	3	10	4.70	
E.vim	1	28	26.48	
	97	97	50.68	1E-11

M006

Site 6: Optimal (Monitoring Site)

Area: 9ha	Total	Prop
E.leuc	218	0.61
E.vim	105	0.29
E.cosmo	35	0.10
	358	1.00

Utilisation

Tree Species	Obs #	Exp #	χ 2 (df =2)	P
E.cosm/fasc	0	8	8.41	
E.leuc	57	52	**0.41**	
E.vim	29	25	**0.57**	
	86	86	9.38	0.0092

M007

Site 6: Optimal (Monitoring Site)

Area: 9ha	Total	Prop
E.leuc	218	0.61
E.vim	105	0.29
E.cosmo	35	0.10
	358	1.00

Utilisation

Tree Species	Obs #	Exp #	χ 2 (df =2)	P
E.cosm/fasc	3	7	2.24	
E.leuc	44	43	0.01	
E.vim	24	21	0.48	
	71	71	2.74	0.2546

F003

Site 6: Optimal (Monitoring Site)

Area: 9ha	Total	Prop
E.leuc	218	0.61
E.vim	105	0.29
E.cosmo/fasc	35	0.10
	358	1.00

Utilisation

Tree Species	Obs #	Exp #	χ 2 (df =2)	P
E.leuc	9	44	27.69	
E.vim	63	21	**83.07**	
E.cos	0	7	7.04	
	72	65	117.80	7E-26

F014

Site 8: Sub-Opt (Heinrich's River)	Q1	Q2	Q3	Q4		
Quadrat Size (m)	50*50	50*50	50*50	50*50	Total	Prop
E.leuc	0	4	33	0	37	0.11
E.cosmo	34	56	25	47	162	0.50
E.fasc	0	13	17	12	42	0.13
E.obl	34	5	7	12	58	0.18
E.baxt	6	14	4	3	27	0.08
					326	1.00

Utilisation

Tree Species	Obs #	Exp #	χ 2 (df =4)	P
E.baxt	2	6	2.71	
E.cosm	8	36	22.04	
E.fasc	4	9	3.11	
E.leuc	39	8	**113.86**	
E.obl	20	13	**3.79**	
	73	73	145.50	2E-30

M010

Site 8: Sub-Opt (Heinrich's River)	Q1	Q2	Q3	Q4		
Quadrat Size (m)	50*50	50*50	50*50	50*50	Total	Prop
E.leuc	0	4	33	0	37	0.11
E.cosmo	34	56	25	47	162	0.50
E.fasc	0	13	17	12	42	0.13
E.obl	34	5	7	12	58	0.18
E.baxt	6	14	4	3	27	0.08
					326	1.00

Utilisation

Tree Species	Obs #	Exp #	χ 2 (df =4)	P
E.baxt	10	4	**6.83**	
E.cosm	13	27	7.13	
E.fasc	3	7	2.25	
E.leuc	10	6	**2.45**	
E.obli	18	10	**7.33**	
	54	54	25.99	3E-05

M008

Site 4: Sub-opt (480)	Q1	Q2	Q3	Q4	Q5	Q6		
Quadrat Size (m)	50*50	50*50	50*50	50*50	50*50	50*50	Total	Prop
E.obl	2	0	0	4	5	2	13	0.05
E.leuc	0	0	25	0	0	0	25	0.10
E.baxt	28	24	0	15	41	24	132	0.54
E.cosmo	11	7	2	30	13	10	73	0.30
							243	1.00

Utilisation

Tree Species	Obs #	Exp #	χ 2 (df =3)	P
E.baxt	11	14	0.69	
E.cosm	0	8	7.81	
E.leuc	10	3	**20.06**	
E.obl	5	1	**9.36**	
Total	26	26	37.93	3E-08

F012

Site 7: Sub-Opt (North Mumford's)	Q1	Q2	Q3	Q4	Q5	Q6		
Quadrat Size (m)	50*50	50*50	50*50	50*50	50*50	50*50	Total	Prop
E.obl	2	0	0	4	5	2	13	0.05
E.leuc	0	0	25	0	0	0	25	0.10
E.baxt	28	24	0	15	41	24	132	0.53
E.cosmo	11	7	2	30	13	10	73	0.29
E.fasc	0	2	2	0	1	2	7	0.03
							250	1.00

Utilisation

Tree Species	Obs #	Exp #	χ 2 (df =4)
E.baxt	12	20	3.24
E.cosm	9	11	0.40
E.leuc	3	4	0.17
E.obl	14	2	73.17
E.fasc	2	1	0.82
Total	38	37	77.80

F008

Site 6: Optimal (Monitoring Site)

Area: 9ha	Total	Prop
E.leuc	218	0.61
E.vim	105	0.29
E.cosmo/fasc	35	0.10
	358	1.00

Utilisation

Tree Species	Obs #	Exp #	χ 2 (df =2)	P
E.leuc	21	25	0.63	
E.vim	20	12	**5.29**	
E.cos/fasc	0	4	4.01	
	41	37	9.93	0.015

F007

Site 6: Optimal (Monitoring Site)

Area: 9ha	Total	Prop
E.leuc	218	0.61
E.vim	105	0.29
E.cosmo/fasc	35	0.10
	358	1.00

Utilisation

Tree Species	Obs #	Exp #	χ 2 (df =2)	P
E.leuc	44	41	0.16	
E.vim	24	20	**0.82**	
E.cos/fasc	3	7	2.00	
	68	61	2.99	0.3205

APPENDIX D:

Media Statement on KI Koala Issue Possingham – 30 October 1997

NOTE:
This appendix is included in the print copy of the thesis held in the University of Adelaide Library.