TABLES

Table 1 Areas of each habitat included within the territory mapping survey at Ixworth Thorpe, May - September 1996.

Habitat/crop	Area (hectares)
winter barley	25.7
winter wheat	152.3
beans	21.3
beet	121.1
maize	1.6
onion	11.9
parsnip	5.5
potato	37.9
spring onion	3.6
pasture	54.1
rough grass	4.4
treated set aside (unvegetated)	2.5
scrub	12.3
plantation (conifers, over 15 years old)	4.8
plantation (mixed, over 15 years old)	4.4
plantation (broadleaved, under 15 years old)	0.8
broadleaved woodland	13.2
garden	8.2
building	3.5
ponds	2.2
aviculture (wildfowl)	2.8
TOTAL AREA	558.0
	Length (m)
hedge (<2m high)	10869
hedge (>2m high)	6132
hedge (<2m high with trees)	550
hedge (>2m high with trees)	246
river	5648
road	12932

Table 2 Areas of each habitat included within the territory mapping survey at Deeping St Nicholas, May - August 1996.

Habitat/crop	Area (hectares)
winter barley	110
winter wheat	3002
spring barley	10
set aside	164
naturally regenerating winter barley	0.4
naturally regenerating winter wheat	1.7
beans	84
beet	790
kale	21
linseed	398
peas	517
potato	157
rape	430
daffodils	8
grass	261
grass for seed	66
hedge (including plantations)	54
cherry trees	3
river	46
building	65
camp site	3
railway	10
TOTAL AREA	6992

Table 3 The detection of apparently occupied territories within two-week periods through the season at Ixworth Thorpe.

	PERIOD							
	1	2	3	4	5	6	7	8
TERRITORY								
A	*	*						
B	*	*	*	*	*			
C		*	*					
D	*							
E	*	*	*					
F		*						
G	*		*					
H	*		*	*				
I	*	*						
J	*	*	*	*	*	*		
K	*			*				
L	*	*				*	*	*
M	*							
N	*	*			*			
O	*	*	*	*	*	*		
P		*	*	*	*	*		
Q	*	*						
R	*	*	*	*	*	*		
S	*							
T	*	*	*	*				
U	*		*					
V	*	*		*				
W	*	*						

Notes 1) Period 1 = 25 May - 7 June; Period 2 = 8 June - 21 June; Period 3 = 22 June - 5 July; Period 4 = 6 July - 19 July; Period 5 = 20 July - 2 August; Period 6 = 3 August - 16 August; Period 7 = 17 August - 30 August; Period 8 = 31 August - 13 September.

2) Territories are shown in Figure 4.

Table 4 Breeding activities of Turtle Doves found at Ixworth Thorpe and the length of detectability of their territories.

Number of 2-week periods in which detected	No nest found	Nest found	Eggs laid	Young fledged
1	4	0	0	0
2	7	0	1	0
3	2	1	1	0
4	1	0	0	0
5	0	0	2	1
6	0	0	0	3

Note 1) The columns referring to nests eggs and young are mutually exclusive eg. a nest from which young fledged is not included in either eggs laid or nest found columns.

2) χ^2 test for linear trend: $\chi^2_1 = 16.16$, $P < 0.001$.

Table 5 ANOVA results examining the influence of date, time and site, and their interactions, on the number of Turtle Doves singing and the total number seen (all data $\log_{10}(x+1)$-transformed) at Ixworth Thorpe and Deeping St Nicholas in 1996.

a) Singing

Source	df	Type III SS	MS	*F*-value	*P*-value
date	5	2.2314	0.4463	18.03	<0.001
time	7	1.8688	0.2669	10.78	<0.001
site	1	0.1054	0.1054	4.26	0.047
time*site	7	0.2727	0.0389	1.57	0.176
date*site	5	0.1325	0.0265	1.06	0.393
date*time	35	1.2468	0.0356	1.44	0.143
residual	35	0.8665	0.0248		
total	95	6.7241			

b) Total number seen

Source	df	Type III SS	MS	*F*-value	*P*-value
date	5	6.4422	1.2884	18.50	<0.001
time	7	0.8182	0.1169	1.68	0.147
site	1	2.5232	2.5232	36.24	<0.001
time*site	7	0.3583	0.0512	0.74	0.644
date*site	5	1.6911	0.3382	4.86	0.002
date*time	35	2.8120	0.0803	1.75	0.337
residual	35	2.4371	0.0696		
total	95	17.0819			

Note: The 1st, 2nd.....6th dates for both sites have been matched to create a date factor with 6 levels, each level corresponding to a fortnightly period.

Table 6 ANOVA results examining the influence of date, time and site, and their interactions, on the detection rate of singing Turtle Doves and the total number seen (all data $\log_{10}(x+1)$-transformed) at Ixworth Thorpe and Deeping St Nicholas in 1996.

a) Singing

Source	df	Type III SS	MS	*F*-value	*P*-value
date	5	0.0787	0.0164	4.78	0.003
time	7	0.1812	0.0262	7.82	<0.001
site	1	0.0048	0.0048	1.47	0.235
time*site	7	0.0261	0.0043	1.12	0.379
date*site	4	0.0179	0.0052	1.39	0.264
date*time	35	0.0818	0.0022	0.71	0.832
residual	28	0.0931	0.0029		
total	87	0.5368			

b) Total number seen

Source	df	Type III SS	MS	*F*-value	*P*-value
date	5	0.0823	0.0161	2.26	0.075
time	7	0.0834	0.0122	1.63	0.168
site	1	0.3958	0.3958	54.83	<0.001
time*site	7	0.1363	0.0188	2.69	0.029
date*site	4	0.3071	0.0767	10.61	<0.001
date*time	35	0.5639	0.0162	2.23	0.016
residual	28	0.2018	0.0073		
total	87	1.8441			

Notes: 1) The 1st, 2nd.....6th dates for both sites have been matched to create a date factor with 6 levels, each level corresponding to a fortnightly period.

2) The detection rates are the ratio of the number of individuals recorded to the number of apparently occupied territories, for singing birds, and twice that number for the total numbers seen.

Table 7 ANOVA results examining the influence of date and time on the number of Turtle Doves singing ($\log_{10}(x+1)$-transformed) at Ixworth Thorpe.

Source	df	Type III SS	MS	*F*-value	*P*-value
date	5	1.3548	0.2710	8.42	<0.0001
time	7	1.0599	0.1514	4.71	0.0008

Significant differences ($P<0.05$) between groups, as indicated by pairwise comparisons based on Student's Least Significant Difference, are indicated (*);

Time

	07	09	11	13	15	17	19
05	*	*	*	*	*	*	*
07		-	-	-	*	*	-
09			-	-	-	-	-
11				-	-	-	-
13					-	-	-
15						-	-
17							-

Date

	11/6	25/6	16/7	1/8	14/8
30/5	-	-	-	-	*
11/6		-	-	-	*
25/6			*	*	*
16/7				-	*
1/8					-

Table 8 ANOVA results examining the influence of date and time on the number of Turtle Doves singing ($log_{10}(x+1)$-transformed) at Deeping St Nicholas.

Source	df	Type III SS	MS	*F*-value	*P*-value
date	5	1.0009	0.2018	7.16	<0.0001
time	7	1.0816	0.1545	5.48	0.0003

Significant differences ($P<0.05$) between groups, as indicated by pairwise comparisons based on Student's Least Significant Difference, are indicated (*);

Time

	07	09	11	13	15	17	19
05		*	*	*	*	*	*
07		-	*	*	-	-	-
09			-	-	-	-	-
11				-	-	*	-
13					-	*	-
15						-	-
17							*

Date

	18/6	2/7	20/7	7/8	21/8
5/6	*	-	*	*	*
18/6		*	-	-	-
2/7			*	*	*
20/7				-	-
7/8					-

Table 9 ANOVA results examining the influence of date and time on the detection rate of singing Turtle Doves ($\log_{10}(x+1)$-transformed) at Ixworth Thorpe.

Source	df	Type III SS	MS	*F*-value	*P*-value
date	5	0.0572	0.0108	4.09	0.005
time	7	0.1288	0.0182	6.63	<0.001

Significant differences ($P<0.05$) between groups, as indicated by pairwise comparisons based on Student's Least Significant Difference, are indicated (*);

Time

	07	09	11	13	15	17	19
05		*	*	*	*	*	*
07		-	-	-	*	*	-
09			-	-	-	-	-
11				-	-	-	-
13					-	-	-
15						-	-
17							-

Date

	11/6	25/6	16/7	1/8	14/8
30/5	-	-	-	-	*
11/6		-	-	-	*
25/6			-	*	*
16/7				-	*
1/8					-

Table 10 ANOVA results examining the influence of date and time on the detection rate of singing Turtle Doves ($\log_{10}(x+1)$-transformed) at Deeping St Nicholas.

Source	df	Type III SS	MS	*F*-value	*P*-value
date	4	0.0410	0.0102	3.66	0.016
time	7	0.1358	0.0188	6.94	<0.001

Significant differences ($P<0.05$) between groups, as indicated by pairwise comparisons based on Student's Least Significant Difference, are indicated (*);

Time

	07	09	11	13	15	17	19
05	*	*	*	*	*	*	*
07		-	*	*	-	-	-
09			-	-	-	-	-
11				-	-	*	-
13					-	*	-
15						-	-
17							-

Date

	18/6	2/7	20/7	7/8
5/6	*	-	*	*
18/6		-	-	-
2/7			-	-
20/7				-

Table 11 ANOVA results examining the influence of date and time on the total numbers of Turtle Doves detected ($\log_{10}(x+1)$-transformed) at Ixworth Thorpe.

Source	df	Type III SS	MS	*F*-value	*P*-value
date	5	1.3888	0.2778	5.00	0.0015
time	7	0.8221	0.1260	2.27	0.0514

Significant differences ($P<0.05$) between groups, as indicated by pairwise comparisons based on Student's Least Significant Difference, are indicated (*);

Date

	11/6	25/6	16/7	1/8	14/8
30/5	-	-	-	-	*
11/6		-	-	-	*
25/6			-	-	*
16/7				-	*
1/8					*

Table 12 ANOVA results examining the influence of date and time on the total numbers of Turtle Doves detected ($\log_{10}(x+1)$-transformed) at Deeping St Nicholas.

Source	df	Type III SS	MS	*F*-value	*P*-value
date	5	6.7444	1.3489	14.28	<0.0001
time	7	0.2943	0.0420	0.45	0.8667

Significant differences ($P<0.05$) between groups, as indicated by pairwise comparisons based on Student's Least Significant Difference, are indicated (*);

Date

	18/6	2/7	20/7	7/8	21/8
5/6	-	-	*	*	*
18/6		-	*	*	*
2/7			*	*	*
20/7				-	-
7/8					-

Table 13 ANOVA results examining the influence of date and time on the detection rate of all Turtle Doves ($log_{10}(x+1)$-transformed) at Ixworth Thorpe.

Source	df	Type III SS	MS	*F*-value	*P*-value
date	5	0.0852	0.0167	2.15	0.083
time	7	0.0851	0.0119	1.53	0.189

Table 14 ANOVA results examining the influence of date and time on the detection rate of all Turtle Doves ($log_{10}(x+1)$-transformed) at Deeping St Nicholas.

Source	df	Type III SS	MS	*F*-value	*P*-value
date	4	0.3033	0.0759	4.35	0.007
time	7	0.1152	0.0162	0.94	0.492

Significant differences ($P < 0.05$) between groups, as indicated by pairwise comparisons based on Student's Least Significant Difference, are indicated (*);

Date

	18/6	2/7	20/7	7/8
5/6	-	-	*	*
18/6		-	*	*
2/7			*	*
20/7				-

Table 15 Descriptions of Turtle Dove nest sites at Deeping St Nicholas (DSN) and Ixworth Thorpe (IT) in 1996.

Site	Nest no.	Tree/shrub with nest (species)	Ht. above ground (m)	Ht. of tree/ shrub (m)	Width of tree/ shrub (m)	Dist. to tree/shrub edge (m)	Tree/shrub trimmed	Notes
DSN	1	Crataegus monogyna	2.0	4.5	4.5	0.1	no	scrub by railway
DSN	2	Crataegus monogyna	1.6	3.2	2.3	0.9	no	scrub by railway
DSN	3	Crataegus monogyna	2.2	4.0	4.5	0.8	no	hedge
DSN	4	Sambucus nigra	1.8	3.5	5.0	1.2	no	hedge
DSN	5	Crataegus monogyna	3.5	4.5	5.0	1.4	no	hedge
DSN	6	Crataegus monogyna	1.2	3.0	2.9	1.2	no	small plantation
DSN	7	Picea abies	2.0	4.5	1.6	1.6	no	small plantation
DSN	8	Sambucus nigra	3.0	?	?	2.0	no	small plantation
DSN	9	Crataegus monogyna	1.6	4.5	3.9	0.6	no	hedge
DSN	10	Acer pseudoplatanus	2.3	8.0	3.5	0.1	no	small plantation
DSN	11	Sambucus nigra	1.8	2.6	2.3	0.9	yes	hedge
DSN	12	Crataegus nigra	2.3	4.5	4.0	1.1	no	hedge
DSN	13	Crataegus nigra	1.3	2.4	1.1	0.3	yes	hedge
DSN	14	Crataegus nigra	2.5	3.6	3.8	1.2	no	small plantation
DSN	15	Prunus spinosa	3.4	4.5	4.0	0.7	no	small plantation
DSN	16	Malus sylvestris var.	?	?	?	?	?	private garden
DSN	17	Sambucus nigra	2.0	3.5	4.0	0.5	no	hedge
DSN	18	Crataegus monogyna	1.5	3.1	3.4	0.9	no	hedge
DSN	19	Crataegus monogyna	1.8	4.0	4.0	0.8	no	hedge
DSN	20	Crataegus monogyna	2.4	4.0	3.2	0.5	no	isolated bush
IT	1	Crataegus monogyna	3.5	5.0	2.5	0.5	yes	hedge
IT	2	Crataegus monogyna	2.3	3.0	2.8	0.7	no	scrub
IT	3	Crataegus monogyna	2.7	3.5	0.5	0.2	yes	hedge
IT	4	Crataegus monogyna	2.7	4.0	2.5	0.8	yes	small plantation
IT	5	Crataegus monogyna	3.2	5.0	4.0	2.0	no	mature scrub
IT	6	Crataegus monogyna	3.5	5.0	4.5	1.7	no	riverine scrub
IT	7	Prunus spinosa	1.3	3.5	2.5	1.0	yes	hedge over ditch
IT	8	Crataegus monogyna	2.2	5.5	4.0	0.5	no	hedge
IT	9	Ulmus glabra	1.4	6.0	3.5	2.0	no	scrub in disused pit
IT	10	Sambucus nigra	1.5	3.0	2.5	0.7	no	scrub over stream
IT	11	Crataegus nigra	3.5	4.5	1.8	0.8	no	hedge (grazed)

Table 16 Summary of nest monitoring at Deeping St Nicholas (DSN) and Ixworth Thorpe (IT) in 1996.

Site	Nest no.	Date found	Clutch size	Clutch initn.	No. eggs hatched	Hatch date	No. young fledged	Date of fledging	Notes
DSN	1	6 June	2	?	2	17 June	1	30 June	
DSN	2	7 June	2	7 June	2	22 June	2	9 July	
DSN	3	6 June	2	?	2	18 June	2	3 July	
DSN	4	10 June	2	11 June	1	26 June	0	-	Failed by 6 July
DSN	5	7 June	2	?	0	-	-	-	Failed by 23 June
DSN	6	11 June	?	?	?	?	2	20 June	Same pair as #14?
DSN	7	11 June	2	?	2	25 June	0	-	Failed by 30 June; same as #1ne as
DSN	8	19 June	2	?	2	5 July	2	21 July	
DSN	9	20 June	2	?	2	1 July	2	18 July	
DSN	10	23 June	2	?	1	7 July	0	-	Failed by 12 July, same as#ame a
DSN	11	3 July	2	29 June?	2	14 July	1	28 July	Observer disturbance on 26 Jubn 26 J
DSN	12	30 June	2	?	2	16 July	2	30 July	Same pair as #17?
DSN	13	6 July	?	?	1	?	0	-	Predated on 18 July (mammal(mamm
DSN	14	6 July	?	?	2	?	2	18 July	Same pair as #6?
DSN	15	9 July	2	?	0	-	-	-	Predated (?) by 27 July; #7uly;
DSN	16	6 August	2	?	1	?	1	19 August	Same pair as #10
DSN	17	6 August	2	?	2	14 August	2	28 August	Same pair as #12?
DSN	18	11 August	?	?	2	?	2	13 August	
DSN	19	11 August	?	?	?	?	2	?	Recent fledged young on 11 Auon 11
DSN	20	13 August	2	?	0	-	-	-	Nest deserted on 19 August Augus
IT	1	9 June	0	-	-	-	-	-	Nest being built on 9 June 9 Jur
IT	2	21 June	?	?	2	?	2	29 June	
IT	3	24 June	1	?	0	-	-	-	Predated by Jay on 25 June :5 Jur
IT	4	1 July	0	-	-	-	-	-	Nest being built on 1 July 1 Jul
IT	5	24 June	?	?	0	-	-	-	Incubating (?) on 1 July or July
IT	6	2 July	?	-	-	-	1	1 July?	Fledged young by nest on 1 Ju on 1
IT	7	6 July	0	-	-	-	-	-	Nest building on 6 July; same as #y; same
IT	8	22 July	0	-	-	-	-	-	Nest building on 22 July July
IT	9	-	?	20 June	?	-	0	-	Nest deserted?;same pair as pair
IT	10	-	2	26 June	0	-	-	-	Nest deserted by 8 August August
IT	11	4 August	1	?	0	-	-	-	Nest deserted on 10 August Augu
IT	12	4 August	?	?	?	?	2	4 August	Recent fledged young on 4 Augon 4 A
IT	13	5 Sept	?	?	?	?	1	5 Sept	Recent fledged young on 5 Sq on 5

Table 17 Descriptions of Turtle Dove feeding sites at Ixworth Thorpe in 1996.

Site	date(s)	Veg. cover (%)	Veg. height (m)	Species composition and notes **[no. of Turtle Doves]**
1	30 May	100	<0.01 - 1	Moss (30%), Rubus sp. (70%) - edge of small plantation **[2]**
2	10 June	20	0.15	Matricaria recutita (5%), Stellaria media (5%), Triticum var.(10%) edge of wheat field **[1]**
3	18 June	0	0	bare earth trampled by cattle **[3]**
3	21 June	0	0	bare earth trampled by cattle **[2]**
4	26 June	70	0.04	grass (65%), Stellaria media (5%) - cattle grazed **[2]**
4	11 July	70	0.04	grass (65%), Stellaria media (5%) - cattle grazed **[4]**
5	26 July	30	1.0	Triticum var. (30%) - dropped grain from plants on ground **[2]**
6	26 July	-	-	taking mineral grit from a cattle trough **[8]**
7	11 July-14 Aug	25	1.1	Avena var. (25%) - abundant dropped grain from plants **[up to 16 daily]**
8	28 July	30	1.0	Avena var. (30%) - abundant dropped grain from plants **[2]**
9	29 July	0	0	taking sand from rabbit diggings **[1]**
10	6 Aug	100	0.15	grass (60%), Silene vulgaris (30%), Urtica urens (5%), Potentilla reptans (5%) - flattened (driven over?) vegetation by sandy track **[3]**
11	7 Aug	30	0.1	Lolium perenne (25%), Avena fatua (5%), Triticum var. (5%) - 2m wide strip between fields of wheat and sugar beet. Seed on Lolium, grain fallen from wheat. **[6]**
12	10 Aug	1	0.15	Wheat stubble, fallen grain **[1]**
13	15 Aug	1	0.1	disced wheat stubble, some fallen grain **[4]**
14	15 Aug	1	0.1	disced barley stubble, some fallen grain **[6]**
15	31 Aug	0	0	open sandy area (5m x 5m) amongst maize (1.7m high) **[1]**
16	10 Aug-5 Sept	0	0.1	disced wheat stubble, some fallen grain **[up to 23 daily]**

Table 18 Identifiable remains in Turtle Dove faeces collected at Deeping St Nicholas in 1996.

	% COMPOSITION					
	Triticum aestivum var.	*Brassica* (*napus*?)	*Stellaria media*	*Urtica urens*	*Ranunculus repens*	*Linum usitatissimum*	other
Samples from nests							
(hatch date + 10 days)							
No. 6 (15 June)	50	50	<1	-	-	-	-
No. 1 (27 June)	70	-	30	-	<1	-	grit (<1%) (<1%)
No. 3 (28 June)	40	20	40	-	-	-	-
No. 4 (6 July)	35	-	40	15	10	-	-
No. 13 (12 July)	30	-	5	-	15	50	grit (<1%) (<1%)
No. 8 (15 July)	20	40	40	-	-	-	-
No. 14 (15 July)	50	50	-	-	-	-	-
No. 11 (24 July)	40	50	10	-	-	-	-
No. 12 (26 July)	35	60	10	-	-	-	grit (<1%) (<1%)
No. 18 (6 Aug)	25	60	15	-	-	-	*Avena fatua* (<1 *fatua* grit (<1%) (<1%)
No. 17 (24 Aug)	35	35	30	-	-	-	-
No. 19 (?)	45	10	45	-	-	-	-
Samples from chicks (date collected)							
Nest no. 9 (9 July)	40	50	10	-	-	-	-
Nest no. 9 (9 July)	30	50	10	10	-	-	grit (<1%) (<1%)
Nest no. 8 (14 July)	25	5	70	-	-	-	-
Nest no. 8 (14 July)	40	-	60	-	<1	-	-
Nest no. ? (?)	20	80	-	-	-	-	-
Sample from adult							
Nest no. 1 (?)	40	40	20	-	-	-	*Poa* ? (<1%) (<1%
4 July	40	50	10	-	-	-	-

Table 19 Identifiable remains in Turtle Dove faeces collected at Ixworth Thorpe in 1996.

	% COMPOSITION						
	Triticum aestivum var.	*Brassica* (*napus*?)	*Stellaria media*	*Urtica urens*	*Ranunculus repens*	*Linum usitatissimum*	other
Samples from nests							
(hatch date + 10 days)							
No. 6 (23 June)	70	5	25	-	-	-	grit (<1%)
No. 2 (26 June)	50	50	<1	<1	<1	-	-
Samples from adults							
11 June	95	-	5	-	-	-	Diptera (1) Curculionidae (1)

Table 20 Individual time budgets of radio-tracked Turtle Doves during the pre-laying period.

Time	Behaviour (% of fixes) [% of fixes with mate]					
	feeding	at nest	perched	sing/displaying	other	N
			#202M (10 July - 24 July)			
04-07	20.0	0	80.0 [40.0]	0	0	5
07-10	25.0	0	75.0	0	0	8
10-13	23.1	0	76.9 [7.69]	0	0	13
13-16	0	0	100	0	0	10
16-19	25.0	0	75.0	0	0	8
19-22	0	0	100	0	0	3
			#220F (10 July - 19 July)			
04-07	0	0	100	0	0	1
07-10	0	60.0 [60.0]	40.0 [40.0]	0	0	5
10-13	13.3 [6.7]	26.7 [26.7]	53.3 [33.3]	0	6.7	15
13-16	33.3 [33.3]	11.1	55.5 [11.1]	0	0	9
16-19	50.0 [50.0]	0	50.0 [50.0]	0	0	4
19-22	0	50.0 [50.0]	50.0	0	0	2
			#230M (10 July - 19 July)			
04-07	0	0	100	0	0	1
07-10	0	0	50.0 [33.3]	0	0	6
10-13	8.3 [8.3]	33.3 [33.3]	58.3 [41.7]	0	0	12
13-16	10.0 [10.0]	0	90.0 [30.0]	0	0	10
16-19	50.0 [50.0]	0	50.0 [50.0]	0	0	4
19-22	0	50.0 [50.0]	50.0	0	0	2

Table 21 Individual time budgets of radio-tracked Turtle Doves during the incubation period.

Time	Behaviour (% of fixes) [% of fixes with mate]					
	feeding	at nest	perched	sing/displaying	other	N
			#202M (25 July - 8 Aug)			
04-07	10.0	80.0	10.0	0	0	10
07-10	0	76.5	23.5	0	0	17
10-13	0	91.7	8.3	0	0	12
13-16	8.3	75.0	8.3	0	8.3	12
16-19	6.2	93.8	0	0	0	16
19-22	9.1	90.9	0	0	0	11
			#220F (20 July - 1 Aug)			
04-07	0.0	100 [66.7]	0	0	0	9
07-10	9.1	72.7 [36.7]	18.2	0	0	22
10-13	11.1	0	88.9	0	0	9
13-16	16.7	0	83.3	0	0	12
16-19	11.1	55.6 [55.6]	33.3	0	0	9
19-22	0	100 [28.6]	0	0	0	7
			#230M (20 July - 1 Aug)			
04-07	28.6	57.1 [57.1]	7.1	7.1	0	14
07-10	6.7	50.0 [23.3]	30.8	3.3	0	26
10-13	0	90.9	9.1	0	0	11
13-16	0	81.3 [6.3]	18.8	0	0	16
16-19	14.3	78.6 [42.9]	7.1	0	0	14
19-22	16.7	16.7 [16.7]	66.7	0	0	16
			#268Ma (30 June - 15 July)			
04-07	0	0	90.0	10.0	0	10
07-10	18.2	9.1	63.6	0	9.1	11
10-13	0	66.7	33.3	0	0	3
13-16	0	100	0	0	0	2
16-19	0	80.0	0	20.0	0	5
19-22	0	0	90.9	9.1	0	11
			#268Mb (30 July - 8 Aug)			
04-07	0	100	0	0	0	3
07-10	0	33.3	33.3	16.7	0	6
10-13	0	50.0	50.0	0	0	2
13-16	16.7	33.3	50.0	0	0	6
16-19	100	0	0	0	0	1
19-22	0	0	100	0	0	3

Table 22 Individual time budgets of a radio-tracked Turtle Dove during chick-rearing

Time	Behaviour (% of fixes) [% of fixes with mate]					
	feeding	at nest	perched	sing/displaying	other	N
			#268M (16 July - 29 July)			
04-07	25.0	0	37.5	37.5	0	8
07-10	0	0	83.4 [16.7]	16.7	0	6
10-13	0	50.0	0	50.0	0	2
13-16	-	-	-	-	-	0
16-19	0	100	0	0	0	1
19-22	0	0	100	0	0	1

Table 23 Individual time budgets of radio-tracked Turtle Doves after breeding failure

Time	Behaviour (% of fixes) [% of fixes with mate]					
	feeding	at nest	perched	sing/displaying	other	N
			#202M (9 Aug - 3 Sept)			
04-07	12.5	0	87.5	0	0	24
07-10	20.0	0	80.0	0	0	40
10-13	2.5	0	97.5	0	0	40
13-16	6.3	0	93.7	0	0	32
16-19	24.0	0	76.0	0	0	25
19-22	0	0	100	0	0	18
			#220F (4 Aug - 8 Aug)			
04-07	-	-	-	-	-	0
07-10	0	0	100 [100]	0	0	3
10-13	0	0	100	0	0	3
13-16	0	0	100	0	0	2
16-19	-	-	-	-	-	0
19-22	-	-	-	-	-	0
			#230M (4 Aug - 28 Aug)			
04-07	17.7	35.6	47.1	0	0	17
07-10	21.4	0	75.0 [10.7]	0	3.6	28
10-13	0	0	100	0	0	39
13-16	0	0	100	0	0	34
16-19	30.0	0	70.0	0	0	20
19-22	0	40.0	60.0	0	0	15

Table 24 Areas of MCPs which represent the home-ranges during the breeding periods of radio-tracked Turtle Doves at Ixworth Thorpe (IT) and Deeping St Nicholas (DSN) in 1996.

Site	Bird no.	Areas (hectares) pre-laying	incubation	rearing	post-failing	incubation (2)	Total
DSN	268M	-	132.3	126.3	-	30.2	368.2
IT	202M	154.4	62.8	-	291.3	-	460.2
IT	220F	22.9	9.5	-	42.3	-	94.0
IT	230M	22.4	31.9	-	312.3	-	351.8
	Mean	66.6	59.1	126.3	215.3	30.2	318.6
	(±se)	(35.9)	(23.1)		(70.8)		(68.0)

Table 25 The sums of the areas included within a 50m radius of each fix of radio-tracked Turtle Doves within each breeding period at Ixworth Thorpe (IT) and Deeping St Nicholas (DSN) in 1996.

Site	Bird no.	Areas (hectares) pre-laying	incubation	rearing	post-failing	incubation (2)	Total
DSN	268	-	18.0	15.7	-	8.6	41.5
IT	202	15.8	4.5	-	17.3	-	32.0
IT	220	7.5	7.5	-	3.8	-	11.3
IT	230	6.8	8.3	-	16.5	-	29.4
	Mean	10.0	9.6	15.7	12.5	8.6	28.6
	(±se)	(2.4)	(2.5)		(3.6)		(5.5)

Table 26 Ranking matrix for Turtle Doves based on comparing proportional habitat use within MCP home-ranges with proportions of total available habitat types (the study areas).

Habitat type	Habitat type: cereal	other arable	grass	hedges, woods etc.	other	Rank
cereal		+	-	+	-	2
other arable	-		-	-	+	1
grass	+	+		+	+	4
hedges, woods	-	-	-		-	0
other	+	+	-	+		3

Table 27 Ranking matrix for Turtle Doves based on comparing the proportions within 50-m radii of radio locations with the proportion of each habitat within the individual's MCP range.

Habitat type	Habitat type: cereal	other arable	grass	hedges, woods etc.	other	Rank
cereal		+	+	-	+	3
other arable	-		-	-	+	1
grass	-	+		-	+	2
hedges, woods	+	+	+		+	4
other	-	-	-	-		0

Table 28 Percentage habitat composition within the study areas, within MCP home-ranges and within 50-m radii of radio-locations for Turtle Doves at Ixworth Thorpe (IT) and Deeping St Nicholas (DSN).

	cereal	other arable	grass	hedges,woods etc.	other
Habitat composition (% of IT study area)	47.50	16.28	18.69	8.92	8.61
% MCP home-range					
#202M	48.54	8.57	21.88	6.58	14.43
#220F	34.31	18.74	32.44	8.64	5.87
#230M	35.66	10.52	32.93	15.52	5.37
% within 50-m radii of radio-locations					
#202M	68.62	3.22	8.64	9.11	10.41
#220F	26.45	19.41	27.20	21.83	5.11
#230M	33.86	12.32	32.93	15.52	5.37
Habitat composition (% of DSN study area)	44.51	22.55	4.67	1.66	26.61
% MCP home-range					
#268M	43.04	26.18	4.75	0.92	25.11
% within 50-m radii of radio-locations					
#268M	49.92	24.50	4.67	1.30	19.61

FIGURES

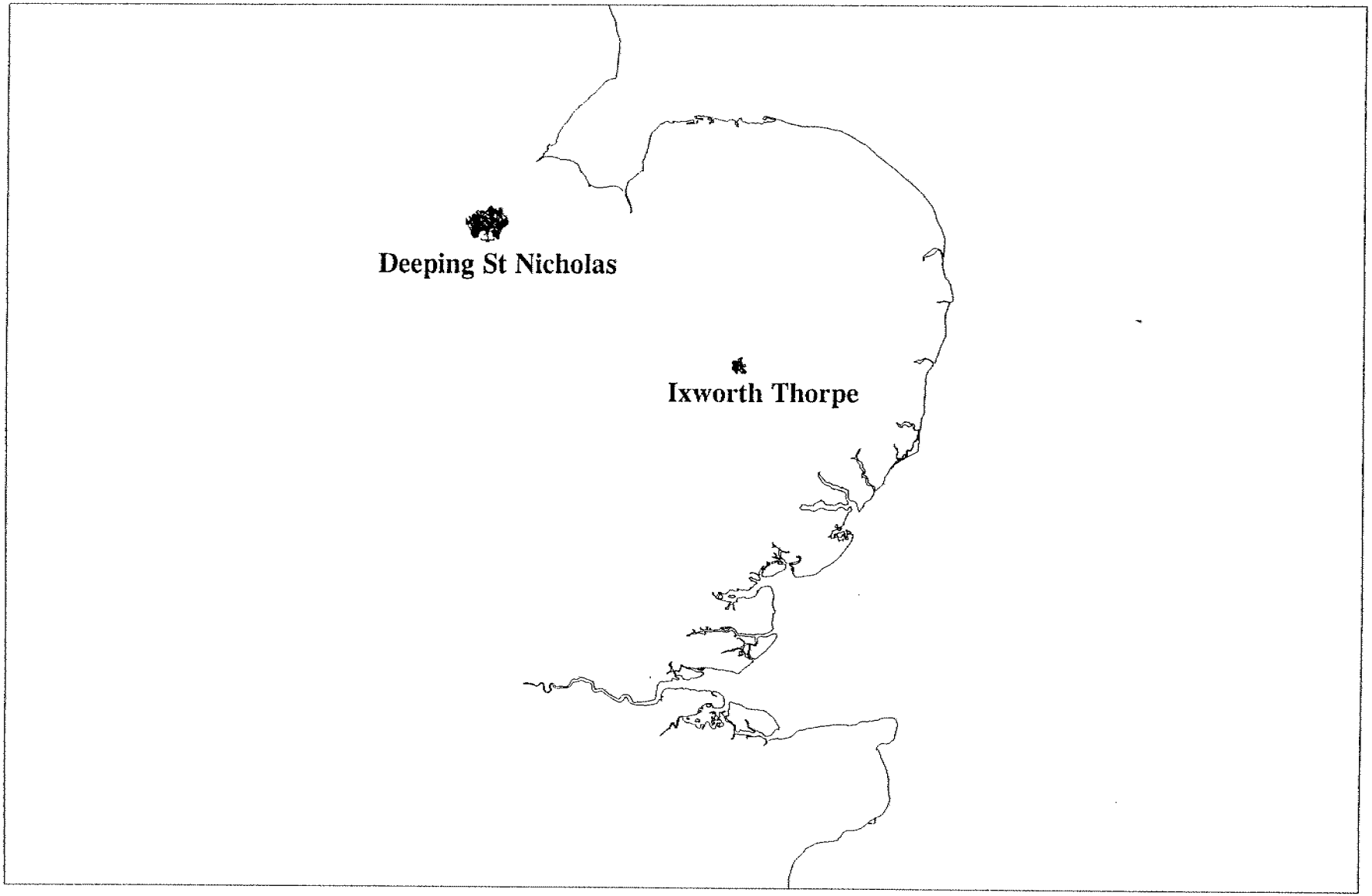

Figure 1 Locations of the two study sites in south-east England

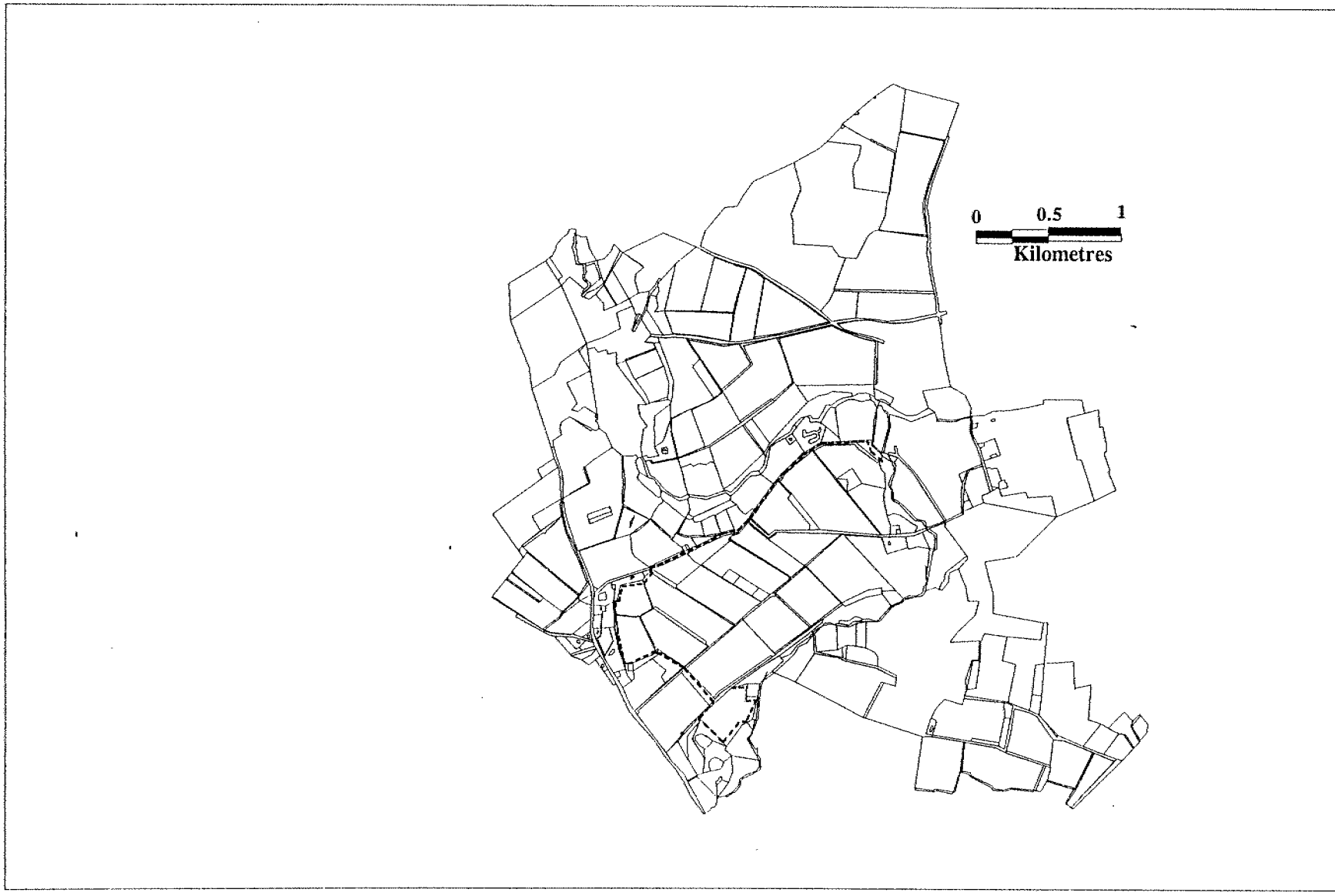

Figure 2 Transect route walked (dashed line) at Ixworth Thorpe

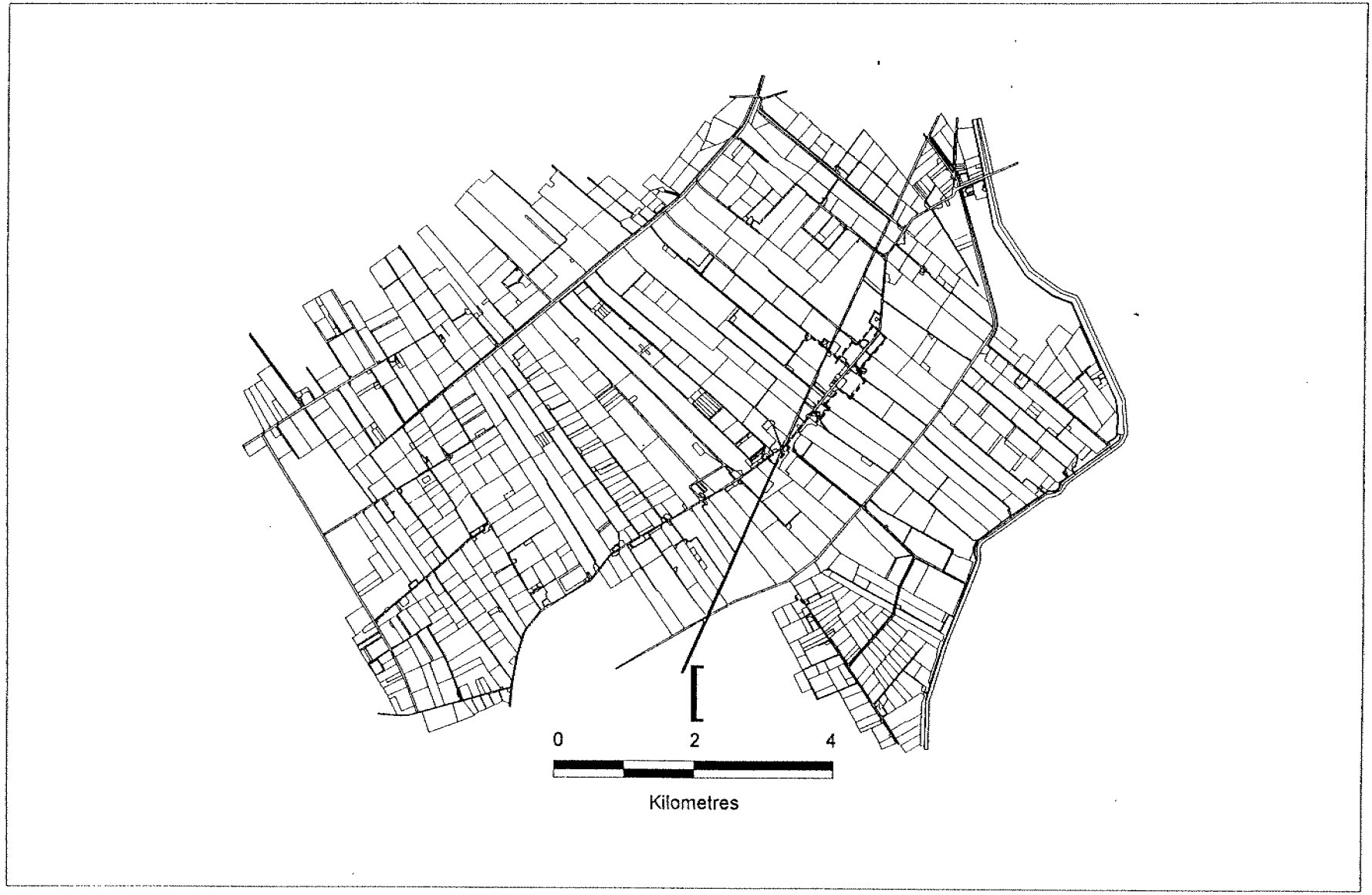

Figure 3 Transect route walked (dashed line) at Deeping St Nicholas

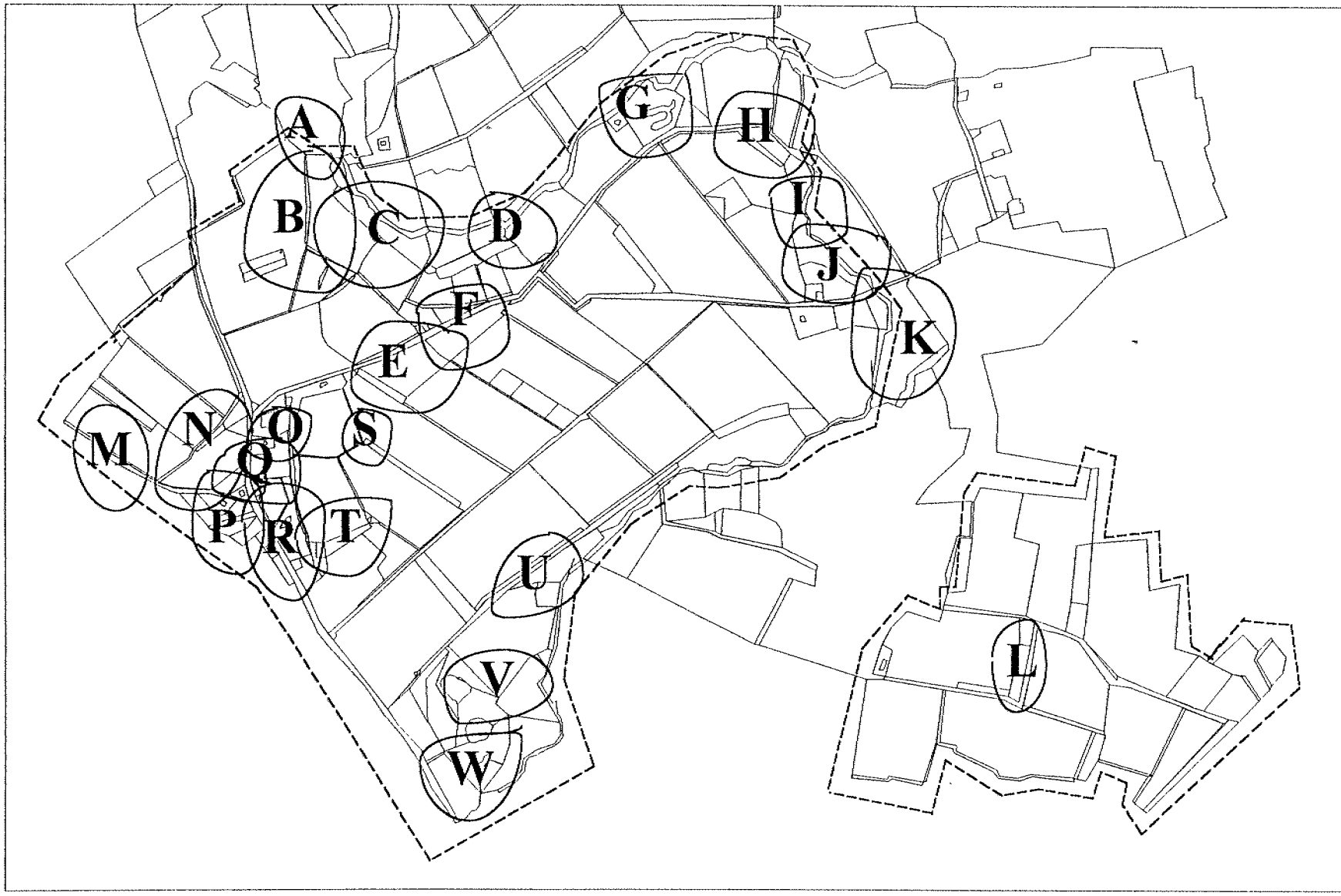

Figure 4 Turtle Dove territories at Ixworth Thorpe in 1996; the dashed line marks the boundary of the area surveyed.

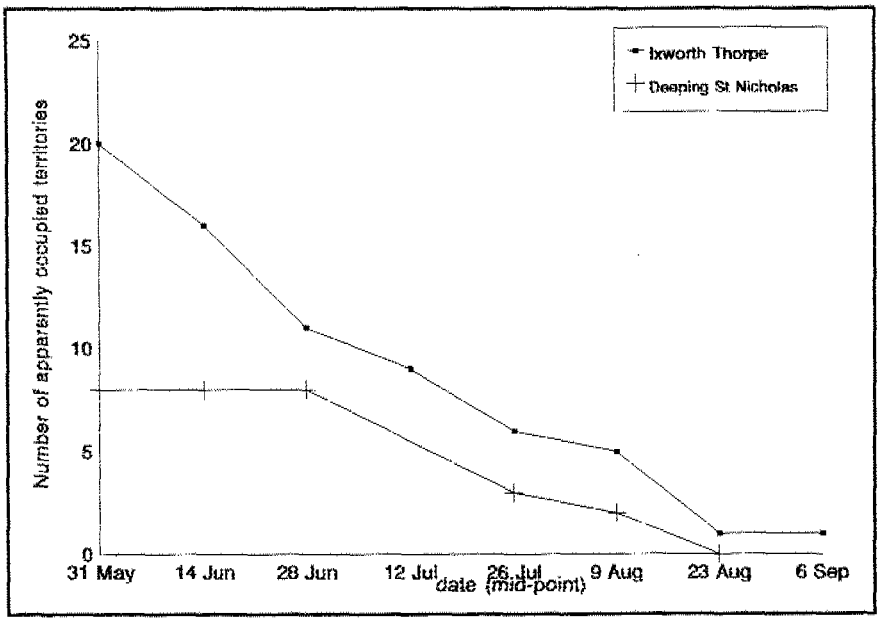

Figure 5 Number of apparently occupied Turtle Dove territories within two-week periods at Ixworth Thorpe and Deeping St Nicholas in 1996 (maximum for whole season at Ixworth Thorpe = 23 and at Deeping St Nicholas = 8).

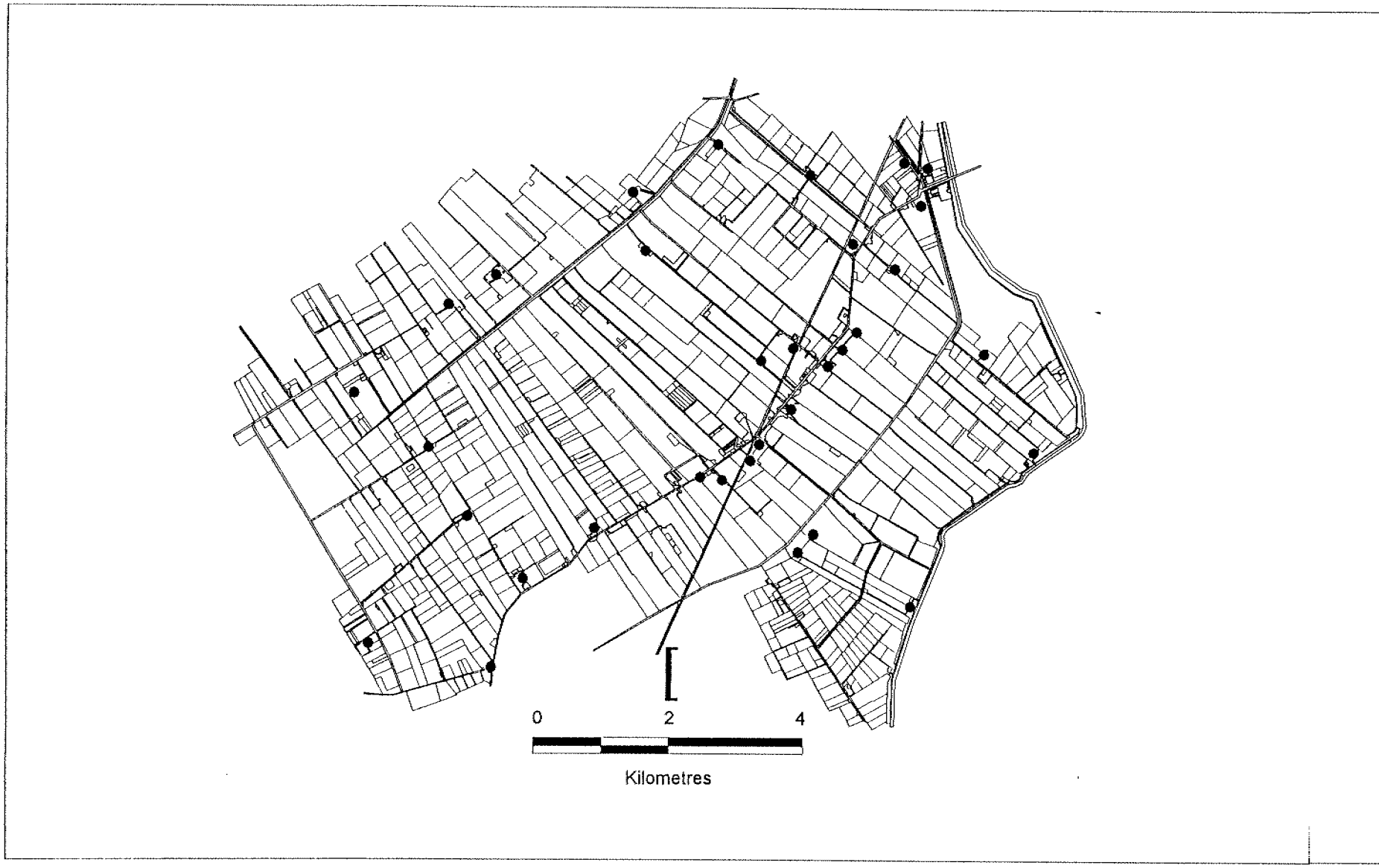

Figure 6 Locations of possible Turtle Dove territories at Deeping St Nicholas in 1996

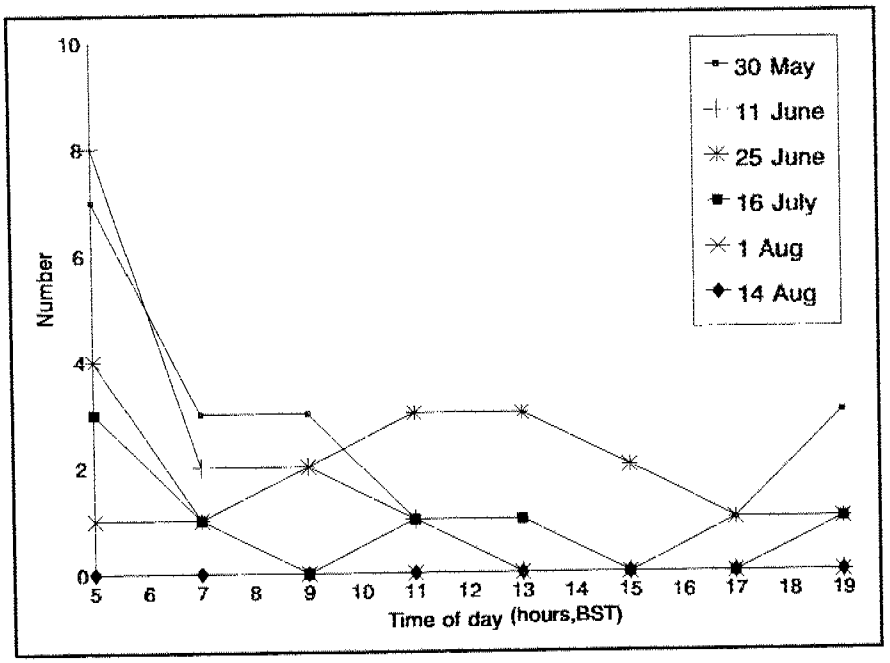

Figure 7 Numbers of singing Turtle Doves recorded from transects through the day at Ixworth Thorpe from 30 May - 14 August 1996.

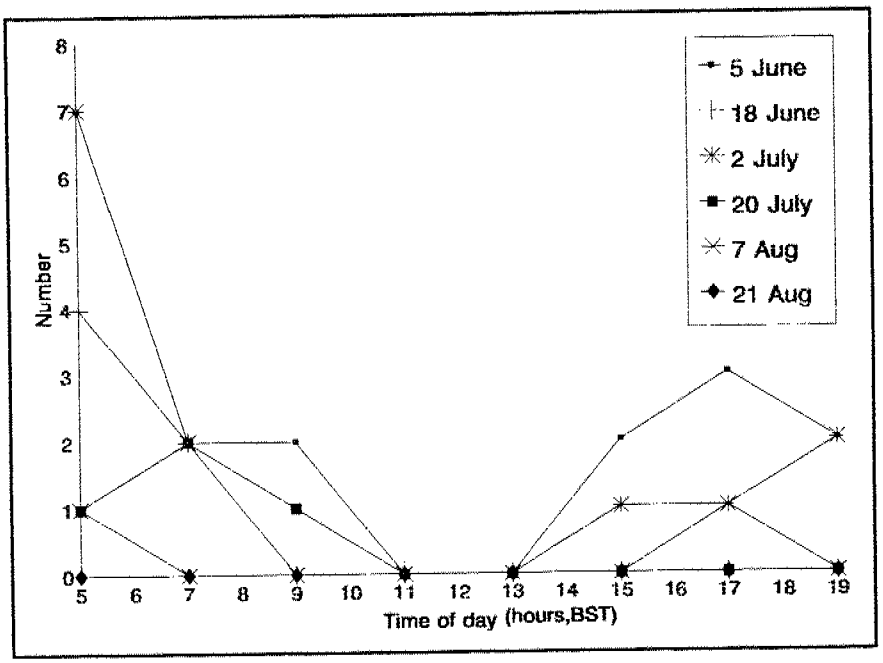

Figure 8 Numbers of singing Turtle Doves recorded from transects through the day at Deeping St Nicholas from 5 June - 21 August 1996.

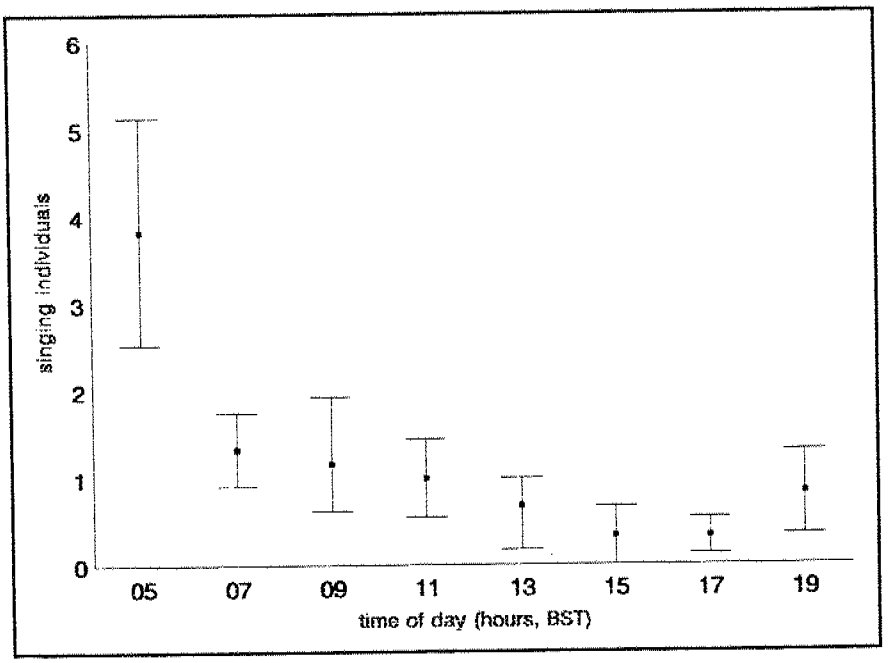

Figure 9 Mean number (± 1 s.e.) of singing Turtle Doves recorded from transects through the day at Ixworth Thorpe from 30 May - 14 August 1996 (N = 6 dates)

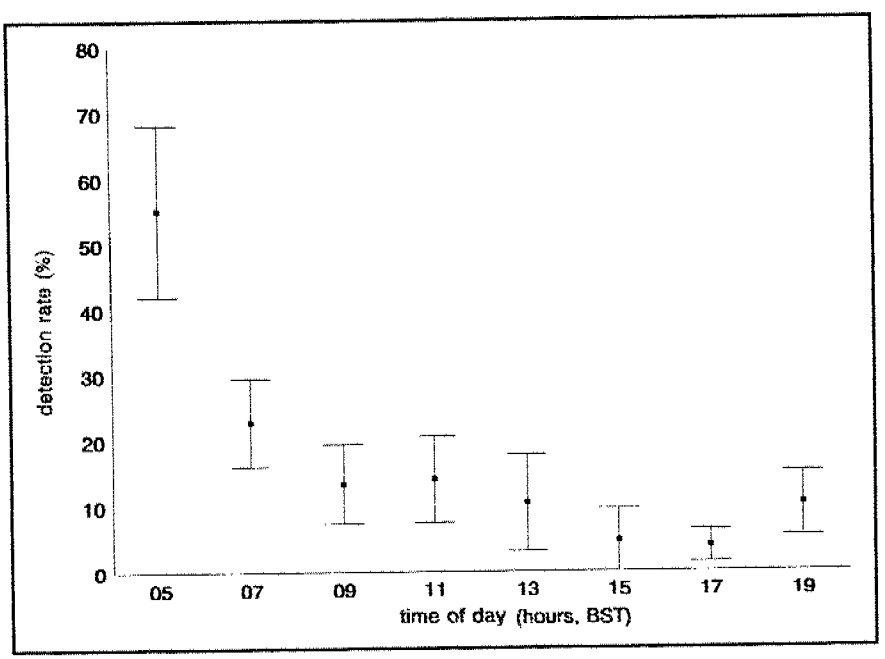

Figure 10 Mean detection rate (± 1 s.e.) of singing Turtle Doves (number seen as % of the number of territories occupied on each date) recorded from transects through the day at Ixworth Thorpe from 30 May - 14 August 1996 (N=6 dates).

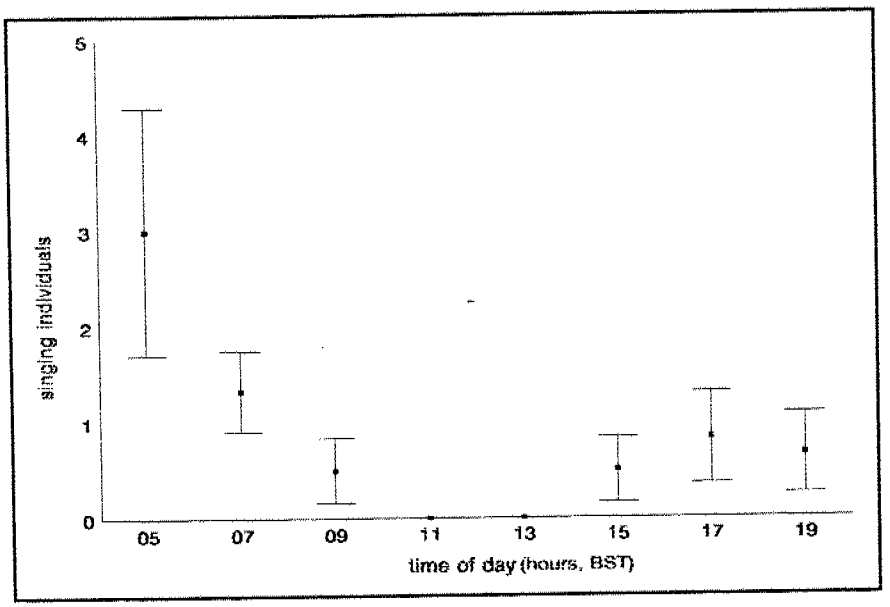

Figure 11 Mean number (± 1 s.e.) of singing Turtle Doves recorded from transects through the day at Deeping St Nicholas from 5 June - 21 August 1996 (N = 6 dates).

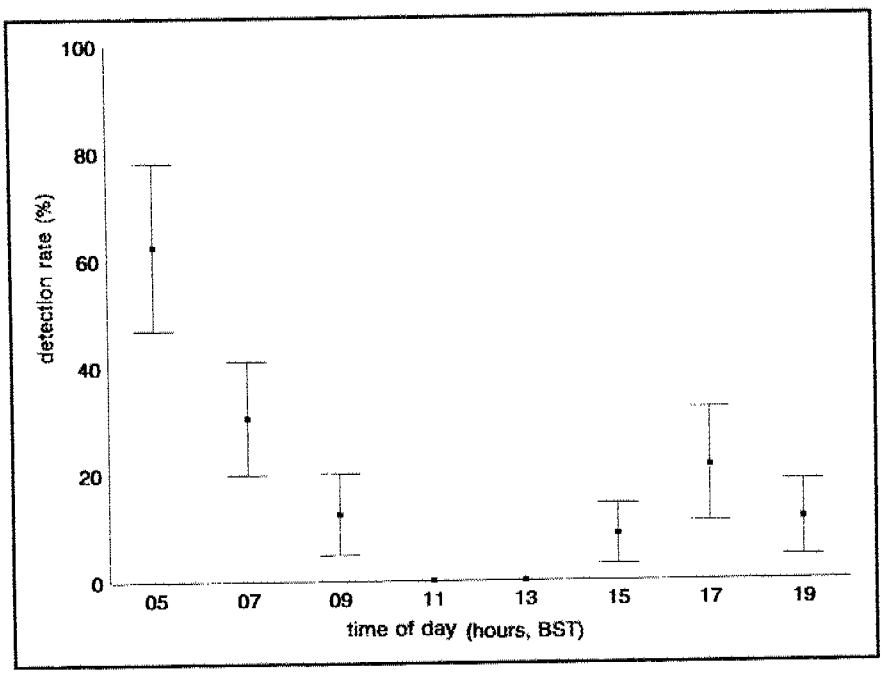

Figure 12 Mean detection rate (± 1 s.e.) of singing Turtle Doves (numbers seen as % of the number of territories occupied on each date) recorded from transects through the day at Deeping St Nicholas from 5 June - 21 August 1996 (N = 6 dates).

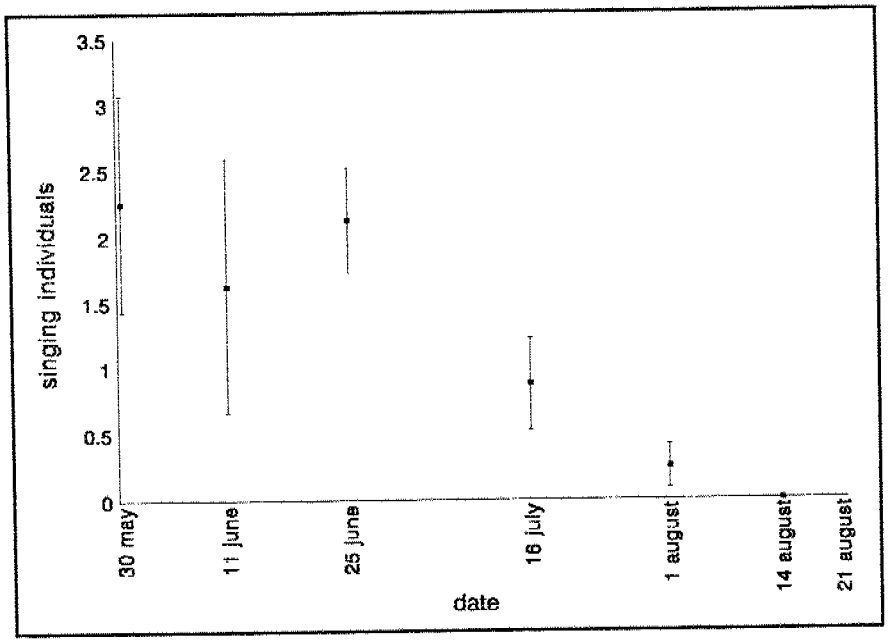

Figure 13 Mean number of singing Turtle Doves (± 1 s.e.) recorded from transects walked through the day, from 05.00 to 20.00 (N=8 times of day), on six dates in 1996 at Ixworth Thorpe.

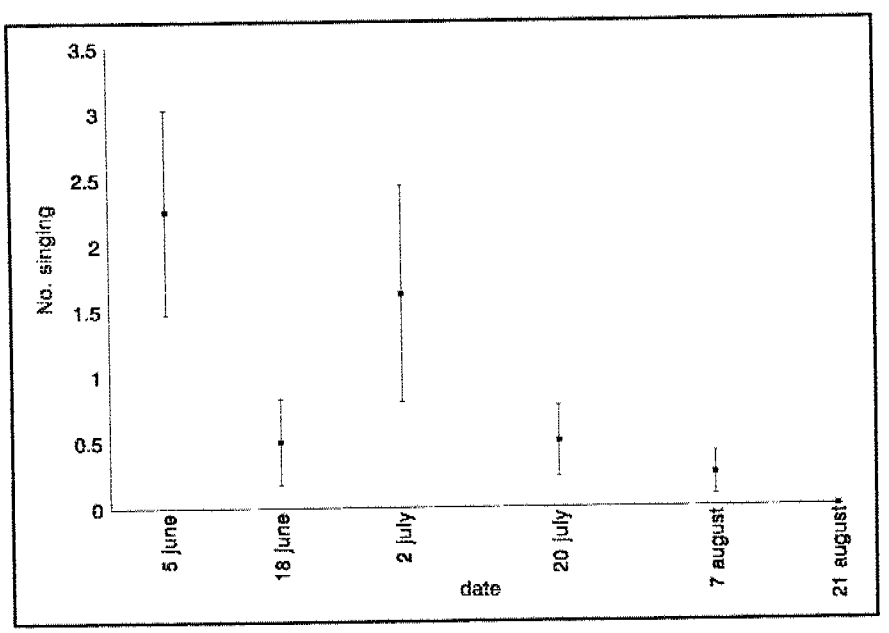

Figure 14 Mean numbers of singing Turtle Doves (± 1 s.e.) recorded from transects walked through the day, from 05.00 to 20.00 (N=8 times of day), on six days in 1996 at Deeping St Nicholas.

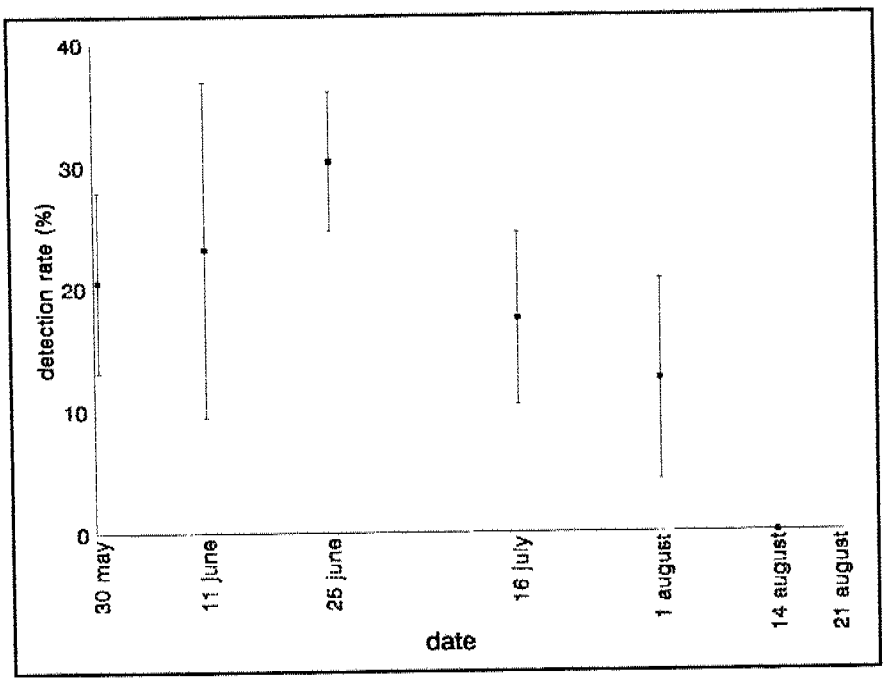

Figure 15 The mean detection rate (± 1 s.e.) of singing Turtle Doves (numbers seen as % of the number of territories occupied on each date) from transects walked through the day, from 05.00 to 20.00 (N=8 times of day), on six dates in 1996 at Ixworth Thorpe.

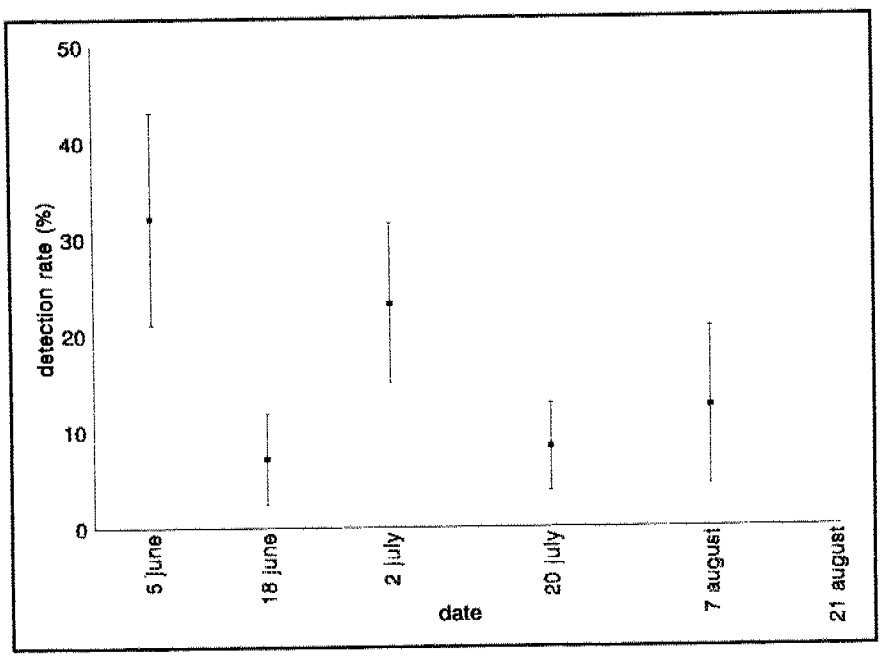

Figure 16 The mean detection rate (± 1 s.e.) of singing Turtle Doves (numbers seen as % of the number of territories occupied on each date) from transects walked through the day, from 05.00 to 20.00 (N=8 times of day), on six dates in 1996 at Deeping St Nicholas.

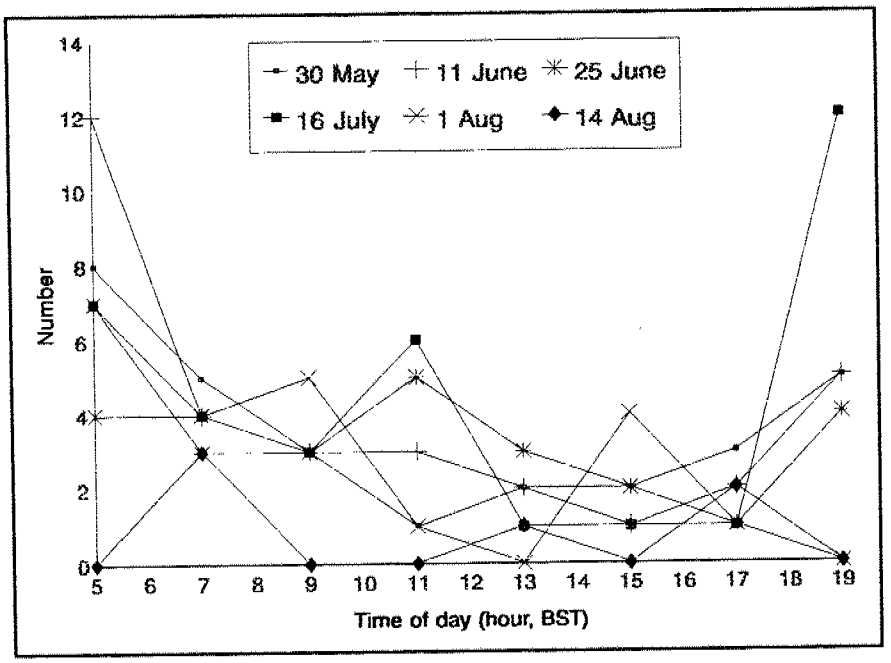

Figure 17 Numbers of all Turtle Dove registrations during transects through the day at Ixworth Thorpe from 30 May - 14 August 1996.

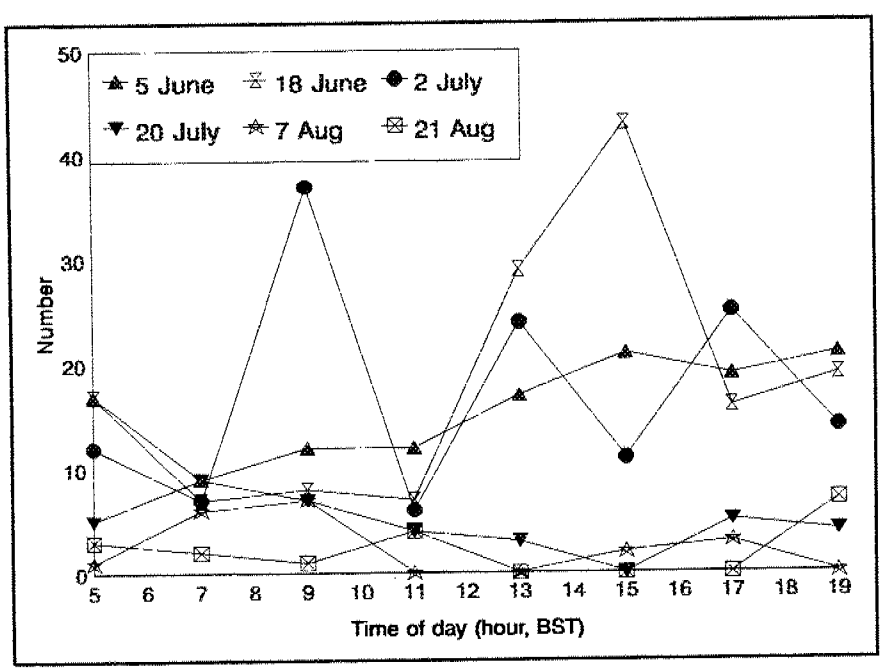

Figure 18 Numbers of all Turtle Dove registrations during transects through the day at Deeping St Nicholas from 5 June - 21 August 1996.

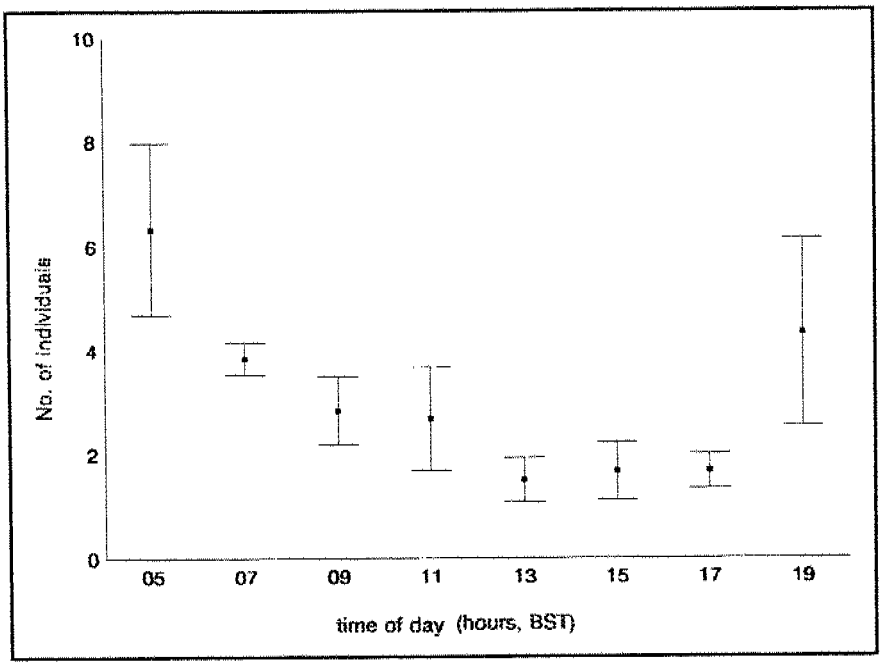

Figure 19 Mean number of all Turtle Doves (± 1 s.e.) recorded from transects through the day at Ixworth Thorpe from 30 May - 14 August 1996 (N=6 dates).

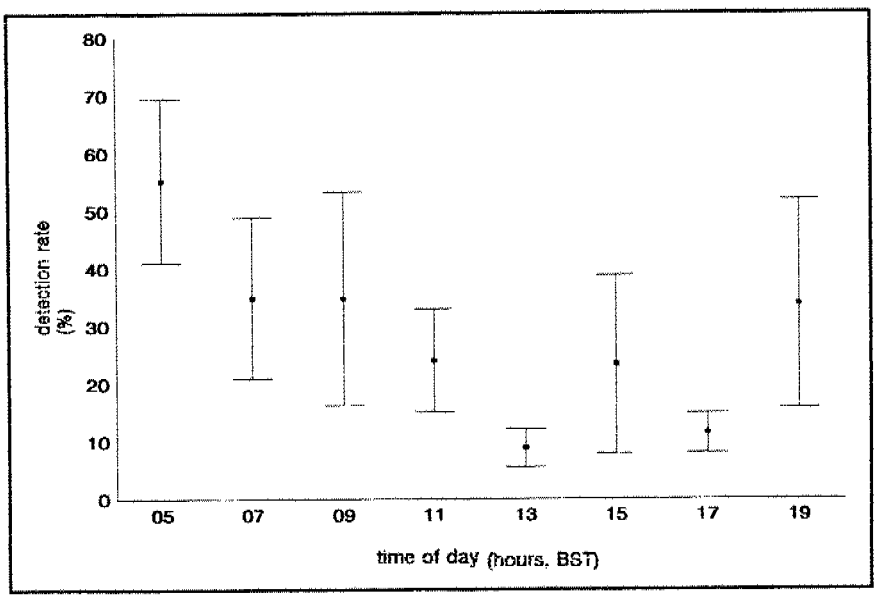

Figure 20 Mean detection rate (± 1 s.e.) of all Turtle Doves (numbers seen as % of twice the number of territories occupied on each date) recorded from transects through the day at Ixworth Thorpe from 30 May - 14 August 1996 (N=6 sampling dates).

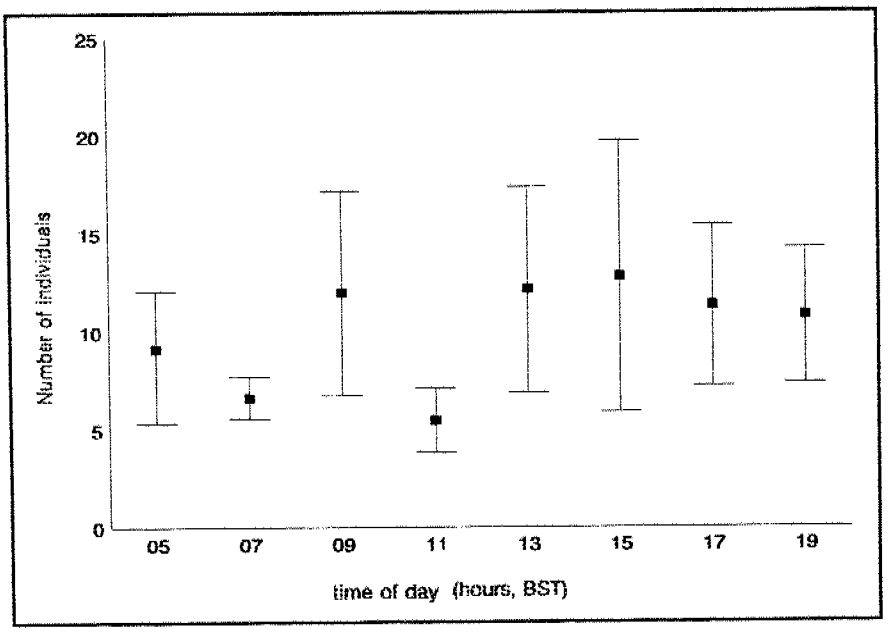

Figure 21 Mean number (± 1 s.e.) of all Turtle Doves recorded from transects through the day at Deeping St Nicholas from 5 June - 21 August 1996 (N=6 dates).

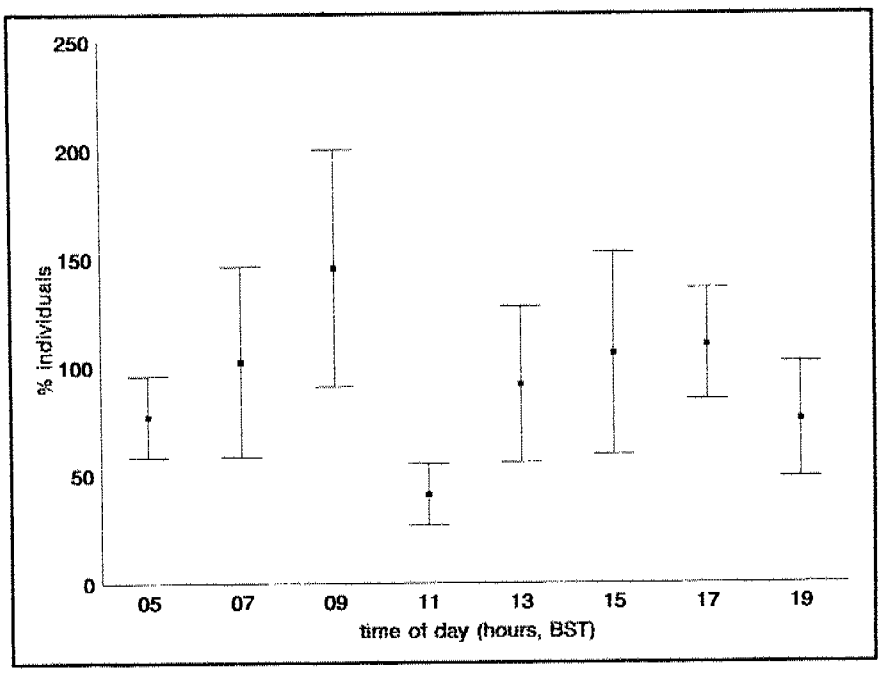

Figure 22 Mean detection rate (± 1 s.e.) of all Turtle Doves (numbers seen as % of twice the number of territories occupied on each date) recorded from transects through the day at Deeping St Nicholas from 5 June - 21 August 1996 (N=6 sampling dates).

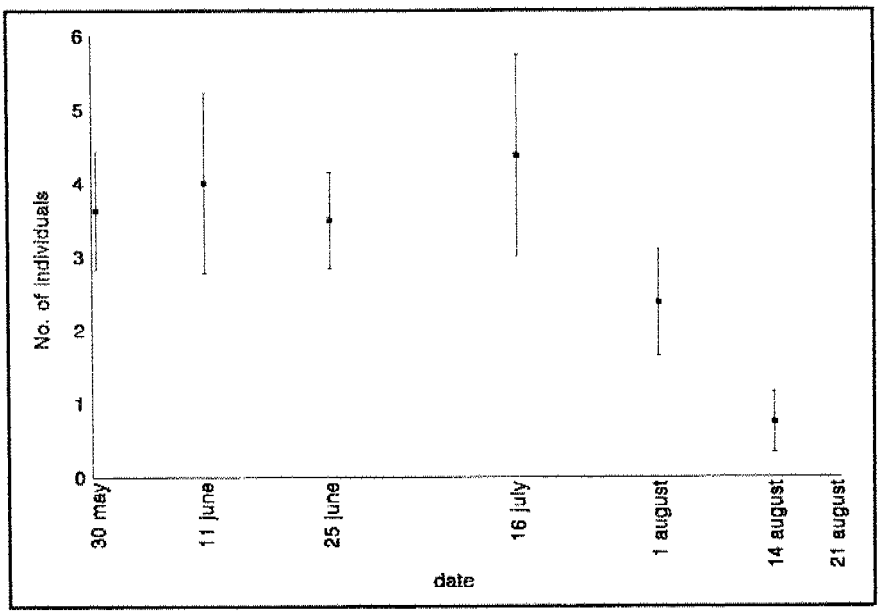

Figure 23 Mean numbers of all Turtle Doves (± 1 s.e.) recorded from transects walked through the day, from 05.00 to 20.00 (N=8 times of day), on six dates in 1996 at Ixworth Thorpe.

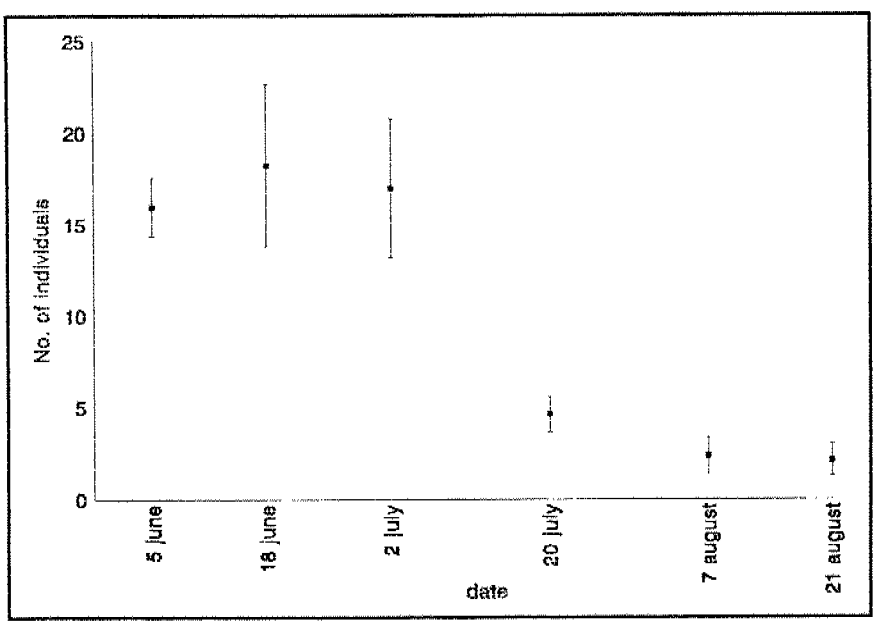

Figure 24 Mean number of all Turtle Doves (± 1 s.e.) recorded from transects walked through the day, from 05.00 to 20.00 (N=8 times of day), on six dates in 1996 at Deeping St Nicholas.

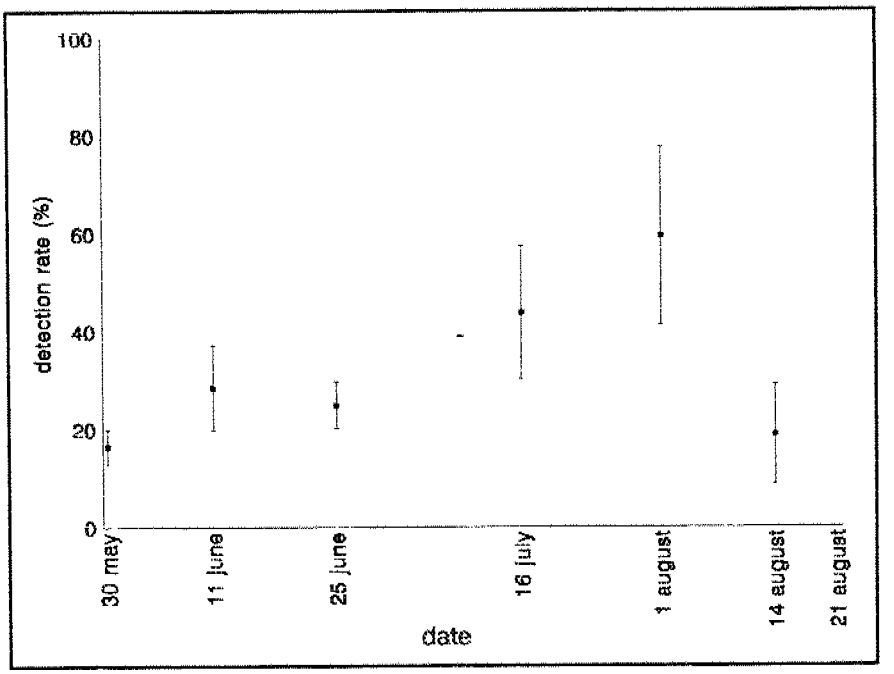

Figure 25 Mean detection rate (± 1 s.e.) of all Turtle Doves (numbers seen as % of twice the number of territories occupied on each date) recorded from transects through the day, from 05.00 to 20.00 (N=8 times of day), on six dates in 1996 at Ixworth Thorpe.

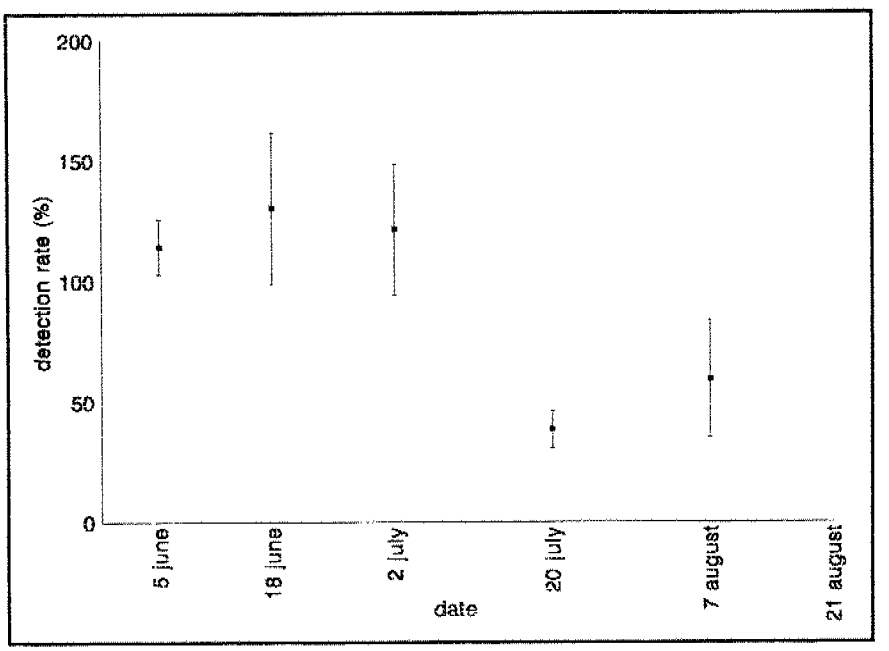

Figure 26 Mean detection rate (± 1 s.e.) of all Turtle Doves (numbers seen as % of twice the number of territories occupied on each date) recorded from transects through the day, from 05.00 to 20.00 (N=8 times of day), on six dates in 1996 at Deeping St Nicholas.

Figure 27 Location of Turtle Dove nests found at Ixworth Thorpe in 1996.

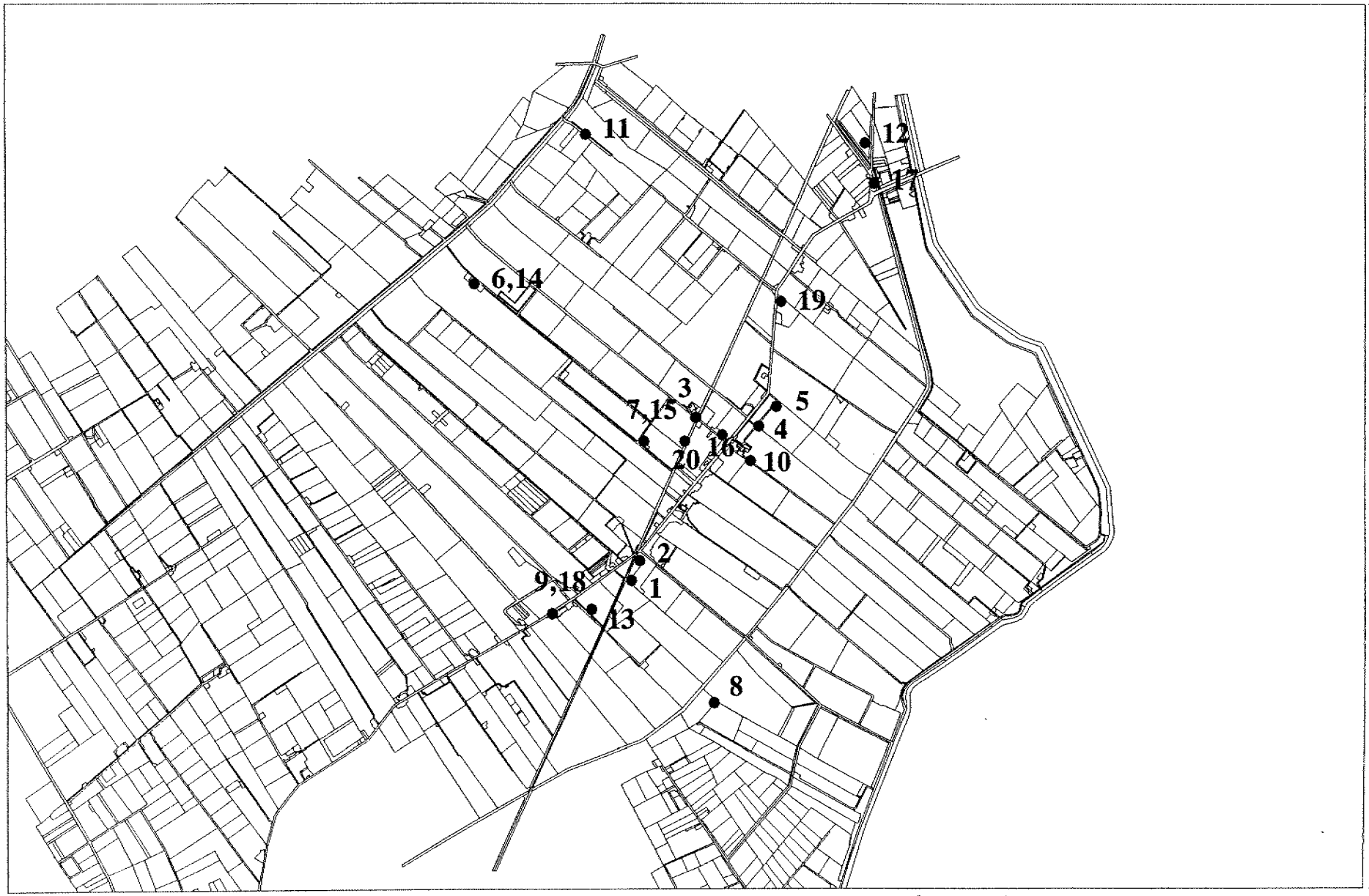

Figure 28 Location of Turtle Dove nests found at Deeping St Nicholas in 1996.

Figure 29 Location of areas where Turtle Doves were seen feeding at Ixworth Thorpe in 1996.

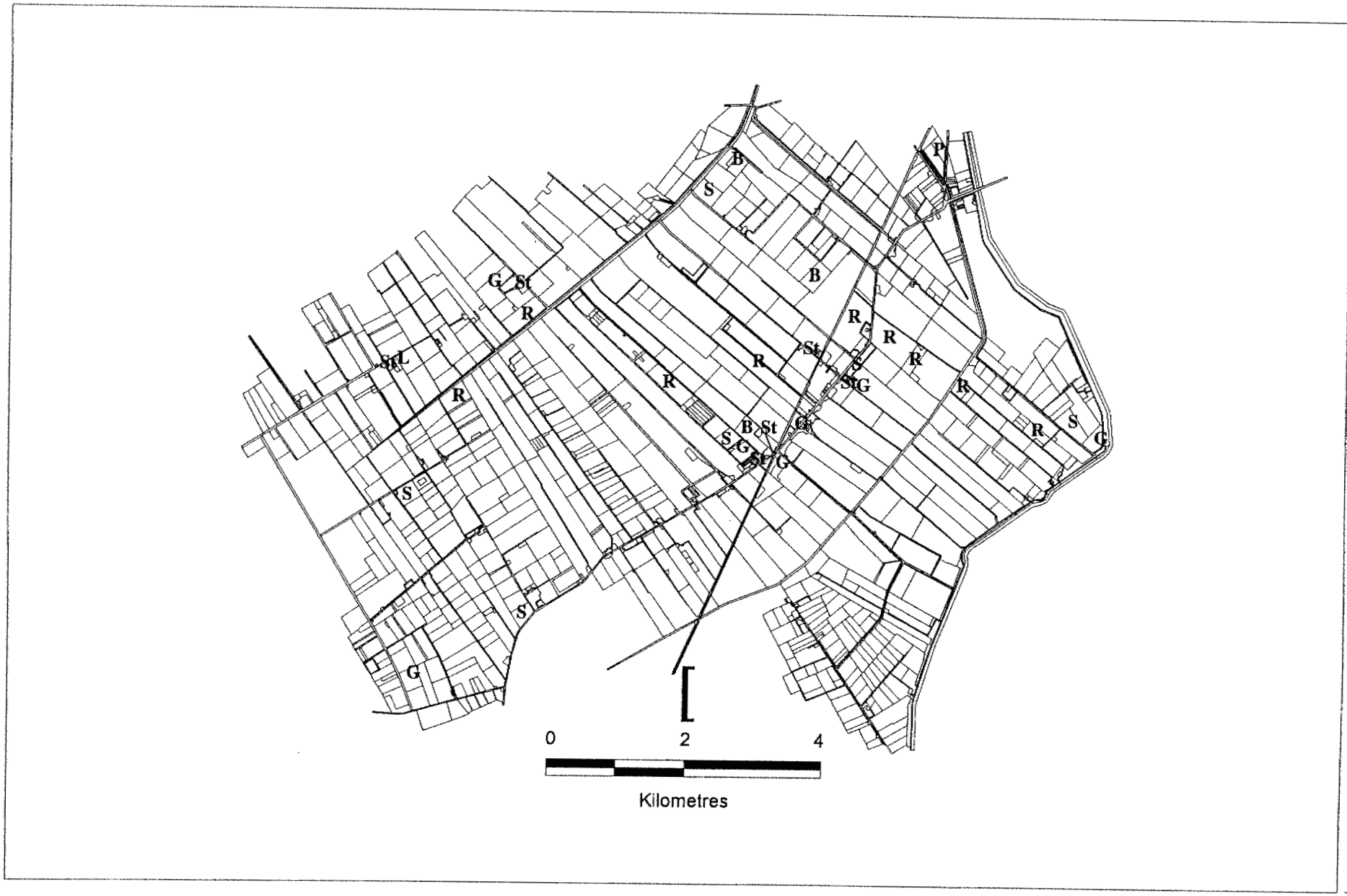

Figure 30 Location of areas where Turtle Doves were seen feeding at Deeping St Nicholas in 1996. B = Sugar Beet field; G = Grass; L = Linseed; P = Pea field; R = Rape field; S = Set-aside; St = Grain-store or purposely maintained feeding site.

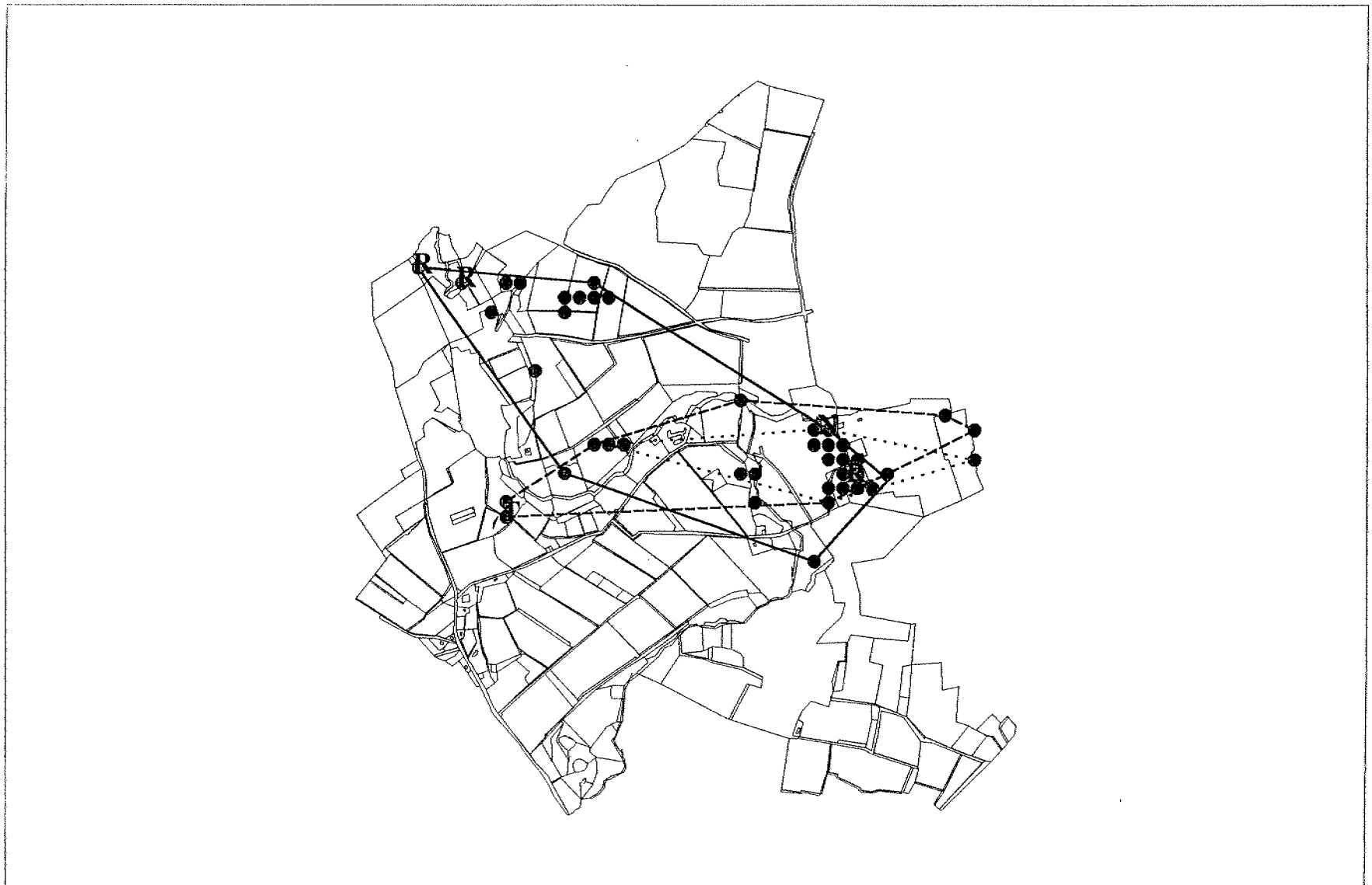

Figure 31 Home-range of a male Turtle Dove (#202M) radio-tracked at Ixworth Thorpe, July - September 1996: Dashed polygon = pre-laying MCP; dotted polygon = MCP during incubation; solid polygon = MCP after breeding failure. Dots are radio-locations: **N** = nest site; **R** = roost; **T** = tagging location.

Figure 32 Home-range of a female Turtle Dove (#220F) radio-tracked at Ixworth Thorpe, July - August 1996: Solid polygon = pre-laying MCP; dotted polygon = MCP during incubation; dashed polygon = MCP after breeding failure. Dots are radio-locations: **N** = nest site; **T** = tagging location.

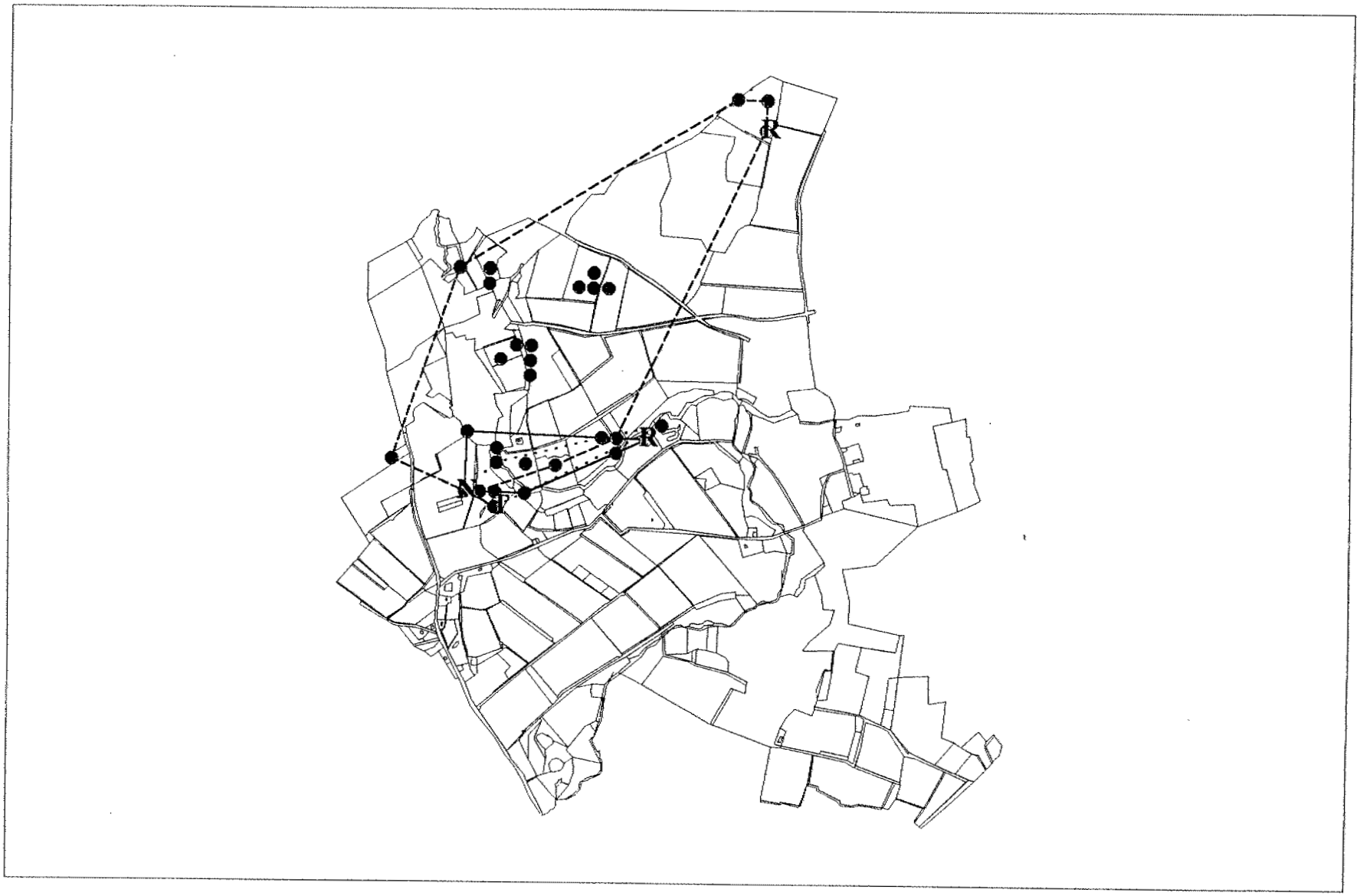

Figure 33 Home-range of a male Turtle Dove (#230M) radio-tracked at Ixworth Thorpe, July - September 1996: Solid polygon = pre-laying MCP; dotted polygon = MCP during incubation; dashed polygon = MCP after breeding failure. Dots are radio-locations: **N** = nest site; **R** = roost; **T** = tagging location.

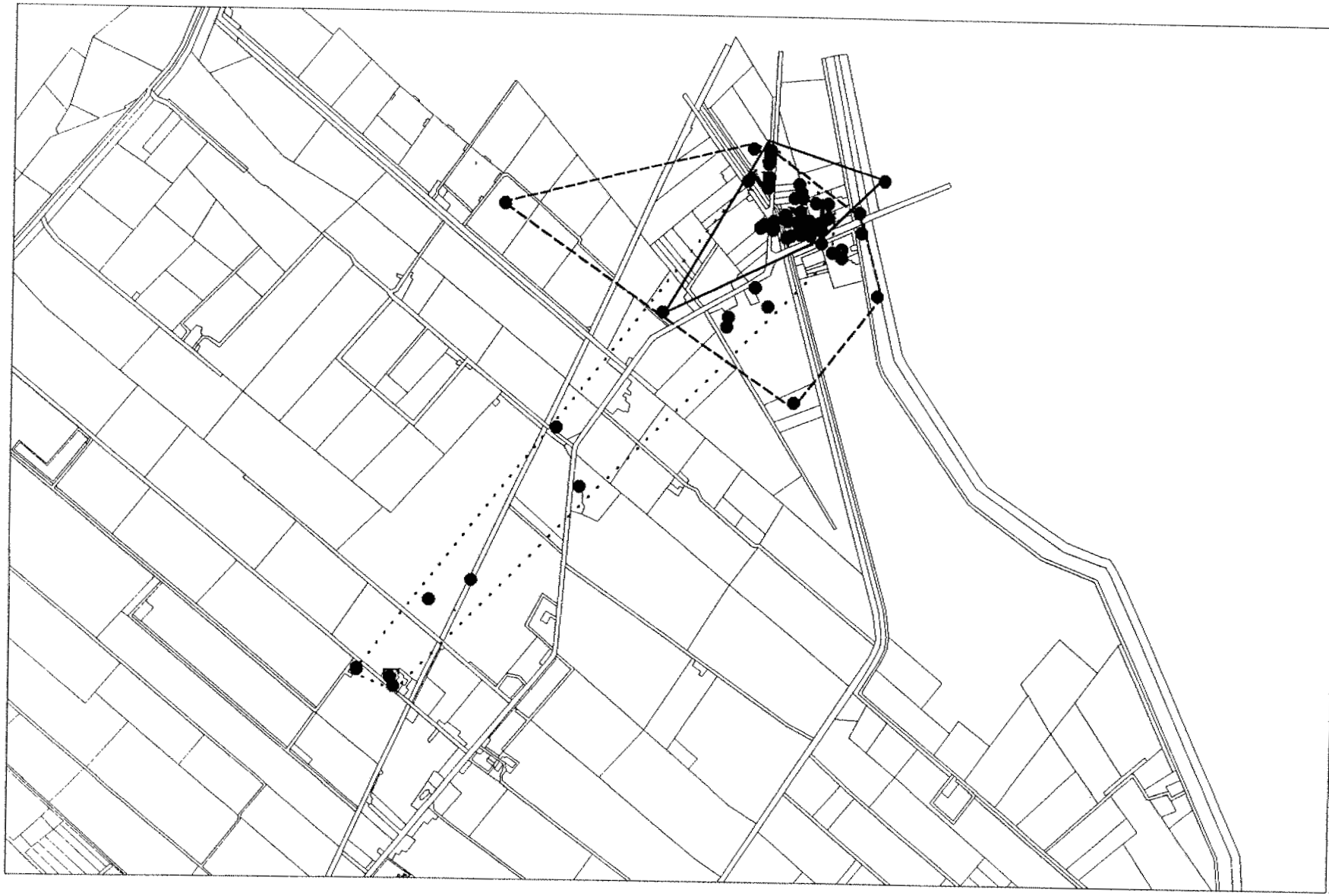

Figure 34 Home-range of a male Turtle Dove (#268M) radio-tracked at Deeping St Nicholas, July - August 1996: Dotted polygon = MCP during its first incubation period; dashed polygon = MCP during chick-rearing; solid polygon = MCP during its second incubation period. Dots are radio-locations: **N** = nest site; **R** = roost; **T** = tagging location.

Appendix 1 Ring numbers and colour combinations used on Turtle Doves at Deeping St Nicholas in 1996

Ring no.	Age[1] Sex	Nest	Date ringed	Time	Colour combination[2]	Mass (g)	Wing (mm)	Notes
DA 87001	P	1	20 June	13	M BB	81	70	
DA 87002	P	1	20 June	13	M BG	73	58	
DA 76901	P	3	26 June	13	M BG	90	70	
DA 76902	P	3	26 June	13	M BG	75	68	
DA 76903	6F	-	29 June	12	-	149	175	Radio #208F
DA 76904	6M	_	29 June	12	-	154	186	Radio #268M
DA 76905	6M	-	29 June	12	-	158	185	Radio #241M
DA 76906	5F	-	29 June	12	OO M	155	181	Worth's Farm
DA 76907	6F	-	29 June	13	-	136	173	Radio #248F
DA 76908	5F	-	29 June	13	-	155	175	Worth's Farm
DA 76909	6M	-	29 June	14	-	176	185	Worth's Farm
DA 76910	6M	-	29 June	14	-	167	174	Worth's Farm
DA 76911	5M	-	29 June	16	BM BB	165	182	Worth's Farm
DA 76912	5M	-	29 June	16	BM BG	165	182	Worth's Farm
DA 76913	6M	-	29 June	18	BM BO	165	180	Worth's Farm
DA 76914	6M	-	29 June	19	BM BW	-	186	Worth's Farm
DA 76915	5F	-	30 June	13	BM BY	163	171	Worth's Farm
DA 76916	P	2	30 June	16	BM GB	90	72	
DA 76950	P	2	30 June	16	BM GG	92	72	
DA 76917	4F	-	7 July	13	BG BM	135	168	Worth's Farm
DA 76918	3	-	7 July	14	BM BO	145	169	Goose Hill Fm
DA 76919	4M	-	7 July	14	GG BM	176	178	Goose Hill Fm
DA 76920	4F	-	7 July	18	OG BM	147	175	Goose Hill Fm
DA 76921	4M	-	7 July	18	WG BM	165	181	Goose Hill Fm
DA 76922	4F	-	7 July	18	YG BM	143	174	Worth's Farm
DA 76923	4F	-	7 July	18	BO BM	145	171	Worth's Farm
DA 76924	P	9	9 July	-	BM OB	96	85	
DA 76925	P	9	9 July	-	BM WB	104	86	
DA 76926	P	13	9 July	-	BM GO	98	69	
DA 76927	P	14	14 July	-	BM GW	100	64	
DA 76928	P	14	14 July	-	BM GY	100	76	
DA 76929	P	8	14 July	-	BM OW	81	54	
DA 76930	P	8	14 July	-	BM OY	64	43	
DA 76931	P	12	26 July	-	BM YB	95	91	
DA 76932	P	12	26 July	-	BM YO	98	91	
DA 76933	P	11	26 July	-	BM YW	100	98	
DA 76934	P	17	26 August	-	BM WW	92	92	
DA 76935	P	17	26 August	-	BM WO	99	94	

Notes 1) EURING age notations are given

2) Colour combinations read; top left, bottom left, top right, bottom right.
M = Metal; B = Black; G = Green; O = Orange; W = White; Y = Yellow

Appendix 2 Ring numbers and colour combinations used on Turtle Doves at Ixworth Thorpe in 1996

Ring no.	Age[1] Sex	Nest	Date ringed	Time	Colour combination[2]	Mass (g)	Wing (mm)	Notes
DA 87003	5F	-	5 July	12	-	160	168	Radio #220F
DA 87004	6M	-	5 July	12	-	167	182	Radio #230M
DA 87005	5M	-	5 July	12	-	165	179	Radio #202M
DA 87006	6M	-	5 July	12	-	155	181	Radio #260M
DA 87021	P	2	24 June	07	BY M	90	84	
DA 87022	P	2	24 June	07	BY M	86	77	

Notes 1) EURING age notations are given

2) Colour combinations read; top left, bottom left, top right, bottom right.
M = Metal; B = Black; G = Green; O = Orange; W = White; Y = Yellow

Appendix 3 The number of Turtle Doves seen feeding, in flight and perched during transects at Ixworth Thorpe and Deeping St Nicholas in 1996.

		time of day (hours, BST)							
		05	07	09	11	13	15	17	19
IXWORTH THORPE									
30 May, 11 June & 25 June:	feeding	0	0	0	0	1	0	0	0
	flight	2	3	1	2	1	1	3	4
	perched	6	3	1	2	2	2	1	6
16 July, 1 Aug &14 Aug:	feeding	0	0	0	0	0	0	0	0
	flight	3	6	5	5	1	4	2	6
	perched	4	3	3	1	0	1	2	5
DEEPING ST NICHOLAS									
5 June, 18 June & 2 July:	feeding	10	2	2	0	5	3	10	6
	flight	2	3	12	7	2	6	4	11
	perched	18	12	41	18	63	63	42	33
20 July, 7 Aug & 21 Aug:	feeding	2	0	5	0	1	0	0	2
	flight	1	3	1	0	0	2	0	1
	perched	4	12	8	8	2	0	7	8

Note: Data from the first three dates and the last three dates are combined for each site.

Appendix 4 Time budgets of a radio-tracked male Turtle Dove (#202M) within 5 day periods (10 July - 3 August).

Time	Behaviour (% of fixes) [% of fixes with mate]					
	feeding	at nest	perched	sing/displaying	other	N
			10 July - 14 July			
04-07	-	-	-	-	-	0
07-10	50.0	0	50.0	0	0	2
10-13	66.7	0	33.3	0	0	3
13-16	0	0	100	0	0	2
16-19	-	-	-	-	-	0
19-22	0	0	100	0	0	1
			15 July - 19 July			
04-07	-	-	-	-	-	0
07-10	50.0	0	50.0	0	0	2
10-13	0	0	100	0	0	2
13-16	0	0	100	0	0	7
16-19	0	0	100	0	0	2
19-22	0	0	100	0	0	1
			20 July - 24 July			
04-07	20.0	0	80.0 [40.0]	0	0	5
07-10	0	0	100	0	0	4
10-13	12.5	0	87.5 [12.5]	0	0	8
13-16	0	0	100	0	0	1
16-19	33.3	0	66.7	0	0	6
19-22	0	0	100	0	0	1
			25 July - 29 July			
04-07	0	85.7	14.3	0	0	7
07-10	0	50.0	50.0	0	0	6
10-13	0	0	100	0	0	1
13-16	50.0	0	0	0	50 [50]	2
16-19	0	100	0	0	0	3
19-22	0	100	0	0	0	2
			30 July - 3 Aug			
04-07	100	0	0	0	0	1
07-10	0	100	0	0	0	4
10-13	0	100	0	0	0	5
13-16	0	100	0	0	0	3
16-19	14.3	85.7	0	0	0	7
19-22	20.0	80.0	0	0	0	5

Appendix 5 Time budget of a radio-tracked male Turtle Dove (#202M) within 5 day periods (4 August - 28 August).

Time	Behaviour (% of fixes) [% of fixes with mate]					
	feeding	at nest	perched	sing/displaying	other	N
			4 Aug - 8 Aug			
04-07	0	100	0	0	0	2
07-10	0	85.7	14.3	0	0	7
10-13	0	100	0	0	0	6
13-16	0	85.7	14.3	0	0	7
16-19	0	100	0	0	0	6
19-22	0	100	0	0	0	4
			9 Aug - 13 Aug			
04-07	0	0	100	0	0	2
07-10	0	0	100	0	0	2
10-13	0	0	100	0	0	2
13-16	0	0	100	0	0	2
16-19	0	0	100	0	0	2
19-22	0	0	100	0	0	2
			14 Aug - 18 Aug			
04-07	0	0	100	0	0	2
07-10	0	0	100	0	0	2
10-13	0	0	100	0	0	2
13-16	0	0	100	0	0	2
16-19	0	0	100	0	0	2
19-22	0	0	100	0	0	2
			19 Aug - 23 Aug			
04-07	25.0	0	75.0	0	0	4
07-10	30.8	0	69.2	0	0	13
10-13	7.7	0	92.3	0	0	13
13-16	0	0	100	0	0	11
16-19	42.9	0	57.1	0	0	7
19-22	0	0	100	0	0	4
			24 Aug - 28 Aug			
04-07	25.0	0	75.0	0	0	4
07-10	28.6	0	71.4	0	0	7
10-13	0	0	100	0	0	12
13-16	0	0	100	0	0	10
16-19	33.3	0	66.7	0	0	6
19-22	0	0	100	0	0	4

Appendix 6 Time budget of a radio-tracked male Turtle Dove (#202M) within 5 day periods (29 August - 7 September).

Time	Behaviour (% of fixes) [% of fixes with mate]					
	feeding	at nest	perched	sing/displaying	other	N
			29 Aug - 2 Sept			
04-07	0	0	100	0	0	6
07-10	28.6	0	71.4	0	0	7
10-13	0	0	100	0	0	6
13-16	40.0	0	60.0	0	0	5
16-19	16.7	0	83.3	0	0	6
19-22	0	0	100	0	0	4
			3 Sept - 7 Sept			
04-07	20.0	0	80.0	0	0	5
07-10	0	0	100	0	0	6
10-13	0	0	100	0	0	3
13-16	-	-	-	-	-	0
16-19	-	-	-	-	-	0
19-22	-	-	-	-	-	0

Appendix 7 Time budget of a radio-tracked female Turtle Dove (#220F) within 5 day periods (10 July - 19 July).

Time	Behaviour (% of fixes) [% of fixes with mate]					
	feeding	at nest	perched	sing/displaying	other	N
			10 July - 14 July			
04-07	0	0	100	0	0	1
07-10	0	0	100 [100]	0	0	2
10-13	16.7	0	66.7 [16.7]	0	16.7	6
13-16	0	0	100	0	0	3
16-19	0	0	100 [100]	0	0	1
19-22	0	0	100	0	0	1
			15 July - 19 July			
04-07	-	-	-	-	-	0
07-10	0	100 [100]	0	0	0	3
10-13	11.1 [11.1]	44.4 [44.4]	44.4 [44.4]	0	0	9
13-16	50.0 [50.0]	16.7	33.3 [33.3]	0	0	6
16-19	66.7 [66.7]	0	33.3 [33.3]	0	0	3
19-22	0	100 [100]	0	0	0	1

Appendix 8 Time budget of a radio-tracked female Turtle Dove (#220F) within 5 day periods (20 July - 8 August).

Time	Behaviour (% of fixes) [% of fixes with mate]					
	feeding	at nest	perched	sing/displaying	other	N
			20 July - 24 July			
04-07	0	100 [33.3]	0	0	0	3
07-10	10.0	80.0 [30.0]	10.0	0	0	10
10-13	20.0	0	80.0	0	0	5
13-16	50.0	0	50.0	0	0	2
16-19	33.3	33.3 [33.3]	33.3	0	0	3
19-22	0	100 [100]	0	0	0	1
			25 July - 29 July			
04-07	0	100 [83.3]	0	0	0	6
07-10	8.3	66.7 [41.7]	25.0	0	0	12
10-13	0	0	100	0	0	4
13-16	0	0	100	0	0	7
16-19	0	75.0 [75.0]	25.0	0	0	4
19-22	0	100	0	0	0	2
			30 July - 3 Aug			
04-07	25.0 [25.0]	75.0 [75.0]	0	0	0	4
07-10	0	25.0	75.0 [62.5]	0	0	8
10-13	0	28.6	71.4 [71.4]	0	0	7
13-16	14.3	0	85.7 [42.9]	0	0	5
16-19	40.0 [40.0]	20.0 [20.0]	40.0 [20.0]	0	0	5
19-22	0	100 [25.0]	0	0	0	4
			4 Aug - 8 Aug			
04-07	-	-	-	-	-	0
07-10	0	0	100 [100]	0	0	3
10-13	0	0	100	0	0	3
13-16	0	0	100	0	0	2
16-19	-	-	-	-	-	0
19-22	-	-	-	-	-	0

Appendix 9 Time budget of a radio-tracked male Turtle Dove (#230M) within 5 day periods (10 July - 3 August).

Time	Behaviour (% of fixes) [% of fixes with mate]					
	feeding	at nest	perched	sing/displaying	other	N
			10 July - 14 July			
04-07	0	0	100	0	0	1
07-10	0	0	100 [66.7]	0	0	3
10-13	0	0	100 [33.3]	0	0	3
13-16	0	0	100	0	0	4
16-19	0	0	100 [100]	0	0	1
19-22	0	0	100	0	0	1
			15 July - 19 July			
04-07	-	-	-	-	-	0
07-10	0	10.0 [10.0]	0	0	0	3
10-13	11.1 [11.1]	44.4 [44.4]	44.4 [44.4]	0	0	9
13-16	16.7 [16.7]	0	83.3 [50.0]	0	0	6
16-19	66.7 [66.7]	0	33.3 [33.3]	0	0	3
19-22	0	100 [100]	0	0	0	1
			20 July - 24 July			
04-07	66.7	33.3 [33.3]	0	0	0	3
07-10	9.1	63.6 [27.3]	27.3	0	0	11
10-13	0	100	0	0	0	5
13-16	0	100 [33.3]	0	0	0	3
16-19	0	100 [25.0]	0	0	0	4
19-22	-	-	-	-	-	0
			25 July - 29 July			
04-07	14.3	57.1 [57.1]	14.3	14.3	0	7
07-10	9.1	72.7 [36.4]	18.2	0	0	11
10-13	0	100	0	0	0	5
13-16	0	100	0	0	0	7
16-19	0	100 [75.0]	0	0	0	4
19-22	0	0	100	0	0	2
			30 July - 3 Aug			
04-07	25.0 [25.0]	75.0 [75.0]	0	0	0	4
07-10	0	0	87.5 [62.5]	12.5	0	8
10-13	0	0	100 [83.3]	0	0	6
13-16	0	37.5	62.5 [35.9]	0	0	8
16-19	25.0 [25.0]	37.5 [12.5]	37.5 [12.5]	0	0	8
19-22	20.0	20.0 [20.0]	60.0	0	0	5

Appendix 10 Time budget of a radio-tracked male Turtle Dove (#230M) within 5 day periods (4 August - 28 August).

Time	Behaviour (% of fixes) [% of fixes with mate]					
	feeding	at nest	perched	sing/displaying	other	N
			4 Aug - 8 Aug			
04-07	0	0	100	0	0	3
07-10	0	0	100 [100]	0	0	3
10-13	0	0	100	0	0	5
13-16	0	0	100	0	0	5
16-19	0	0	100	0	0	1
19-22	0	100	0	0	0	1
			9 Aug - 13 Aug			
04-07	0	0	100	0	0	2
07-10	33.3	0	66.7	0	0	3
10-13	0	0	100	0	0	6
13-16	0	0	100	0	0	6
16-19	0	0	100	0	0	3
19-22	0	0	100	0	0	4
			14 Aug - 18 Aug			
04-07	25.0	75.0	0	0	0	4
07-10	50.0	0	50.0	0	0	4
10-13	0	0	100	0	0	4
13-16	0	0	100	0	0	2
16-19	25.0	0	75.0	0	0	4
19-22	0	100	0	0	0	2
			19 Aug - 23 Aug			
04-07	25.0	75.0	0	0	0	4
07-10	25.0	0	66.7	0	8.3	12
10-13	0	0	100	0	0	12
13-16	0	0	100	0	0	11
16-19	50.0	0	50.0	0	0	6
19-22	0	75.0	25.0	0	0	4
			24 Aug - 28 Aug			
04-07	25.0	0	75.0	0	0	4
07-10	0	0	100	0	0	6
10-13	0	0	100	0	0	12
13-16	0	0	100	0	0	10
16-19	33.3	0	66.7	0	0	6
19-22	0	0	100	0	0	4