

(d) BELLAMY'S PLOTS
Recorded 1991

REDGRAVE
THELNETHAM
MARKET WESTON



REPEAT OF BELLAMY & ROSE'S MONITORING PLOTS : LOCATION

Plots recorded by Bellamy and Rose (1960) were re-recorded in 1991 by M. Harding (Suffolk Wildlife Trust) and Wanda Fojt (English Nature). Plots were re-located from maps and descriptions contained in the original paper. Where these could not be located precisely due to imprecision in the paper, the area most resembling that described by their data was selected. Thus the data recorded in 1991 represent the minimum change observed. Plot locations are (see attached maps, all distances refer \pm to centre of plots):

Market Weston Fen:

- Plot I : c.40m south of river, 30m west of path, in tall herb and reed fen.
- Plot II : 25m from wier, on a bearing of 47° from the wier.
- Plot III : c.26m from the sand margin, 30m from the centre of the projecting sandy tongue, more or less directly in front of Plot IIIa.
- Plot IIIa : Over the sphagnum carpet. c.15m from the sand margin and 30m from the centre of the tongue, directly behind Plot III.

Theelnetham Old Fen:

- Plot I : On the fen meadow, c.7m south of the molinia baulk and 10m west from the line of alders marking the sandy margin.
- Plot II : In an area of mixed sedge, due north west of Plot I towards the western edge of the open fen.
- Plot IIa : Within the western carr area, within the young alder portions about 20m north of the line between Plot I and II.

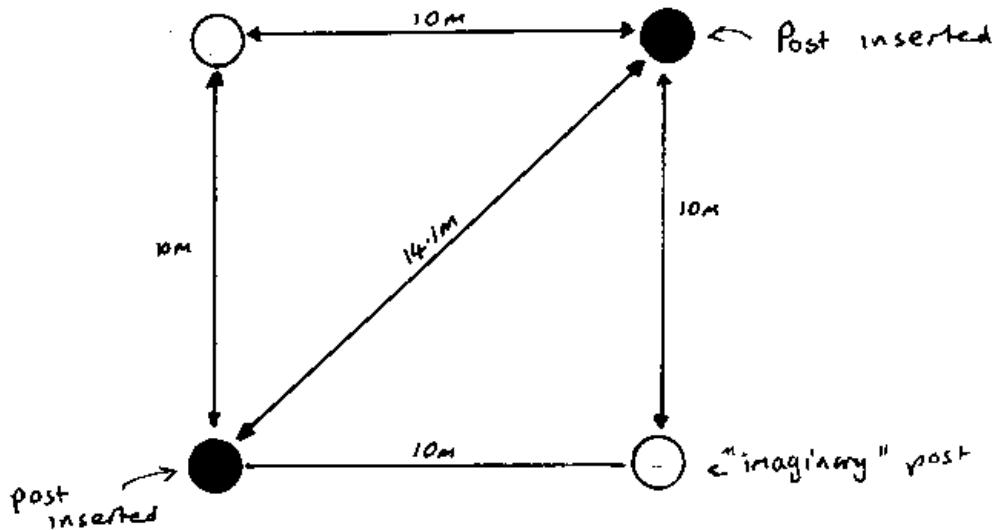
Redgrave and Lopham Fens:

- Area II : This is located \pm between Areas III and IV, the heath plots.

The other plots were not surveyed in with accuracy because there was nothing permanent to measure them to and from. Most of the scrub has now been felled. Relocation must be via the maps and posts.

Plot Marking:

The plots have been marked by placement of 5" posts on two of the diagonals:



Thus the gap between is 14.1m, marking a plot of 10 x 10m. Forming a square from these two diagonal posts would therefore be easy. The posts in the taller vegetation have been painted with red tops

Mike Harding
Reserves Manager

19th May 1992

Redgrave and Lopham Fen.

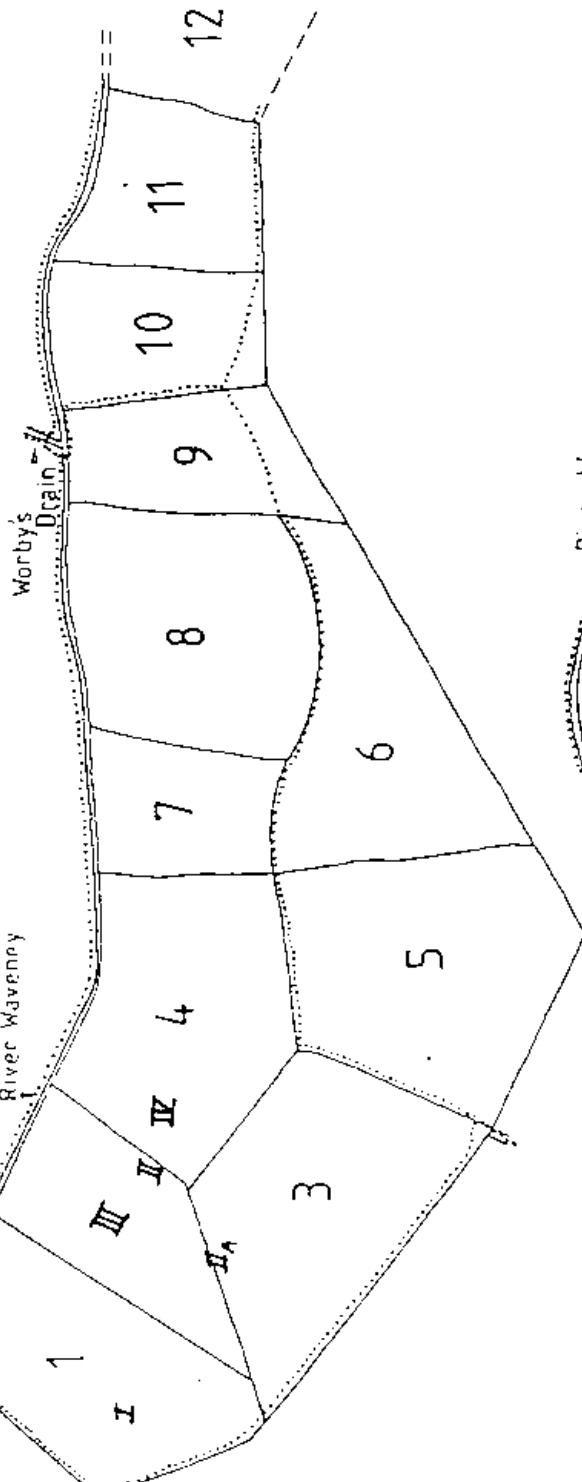
Redgrave Fen.

Scale: 1:5000

N

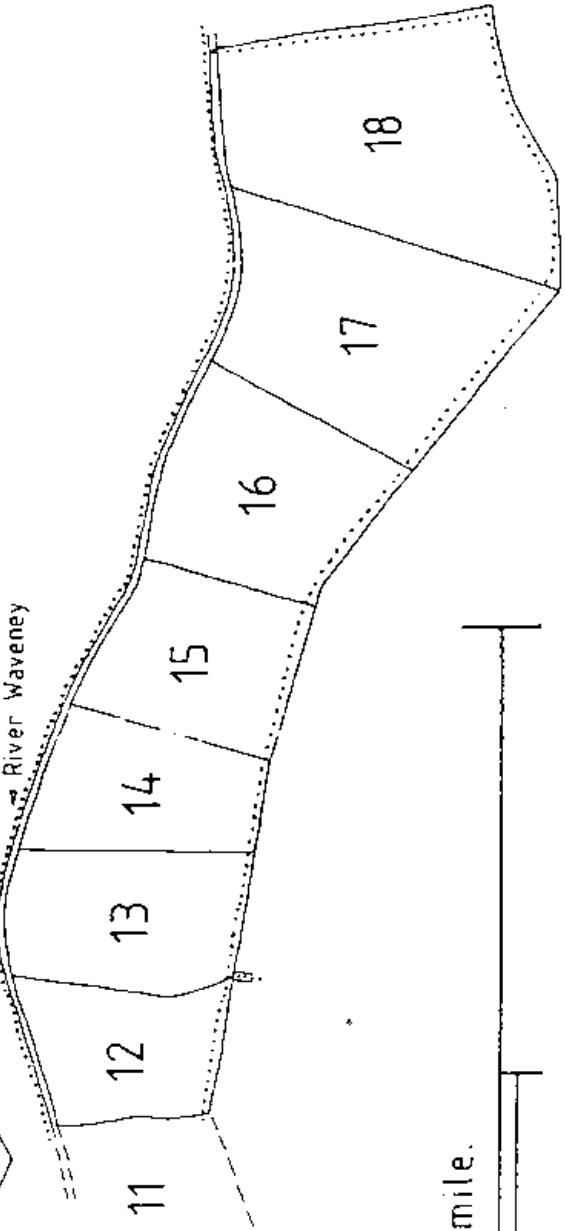
River Waveney

Worby's Drain



River Waveney

N



1/2 mile.

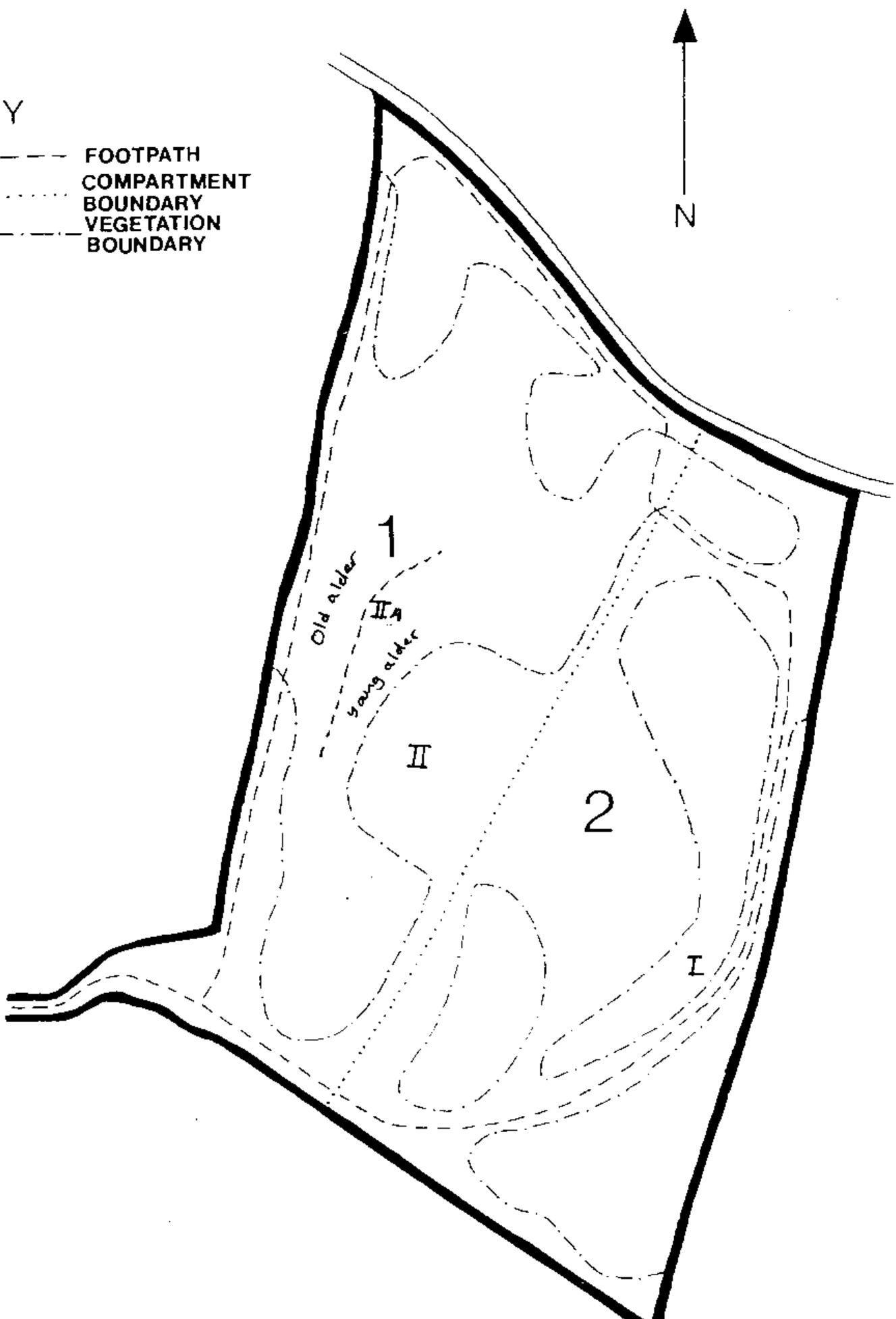
1/2 Km.

ARIA 11/05

THELNETHAM FEN, OLD FEN

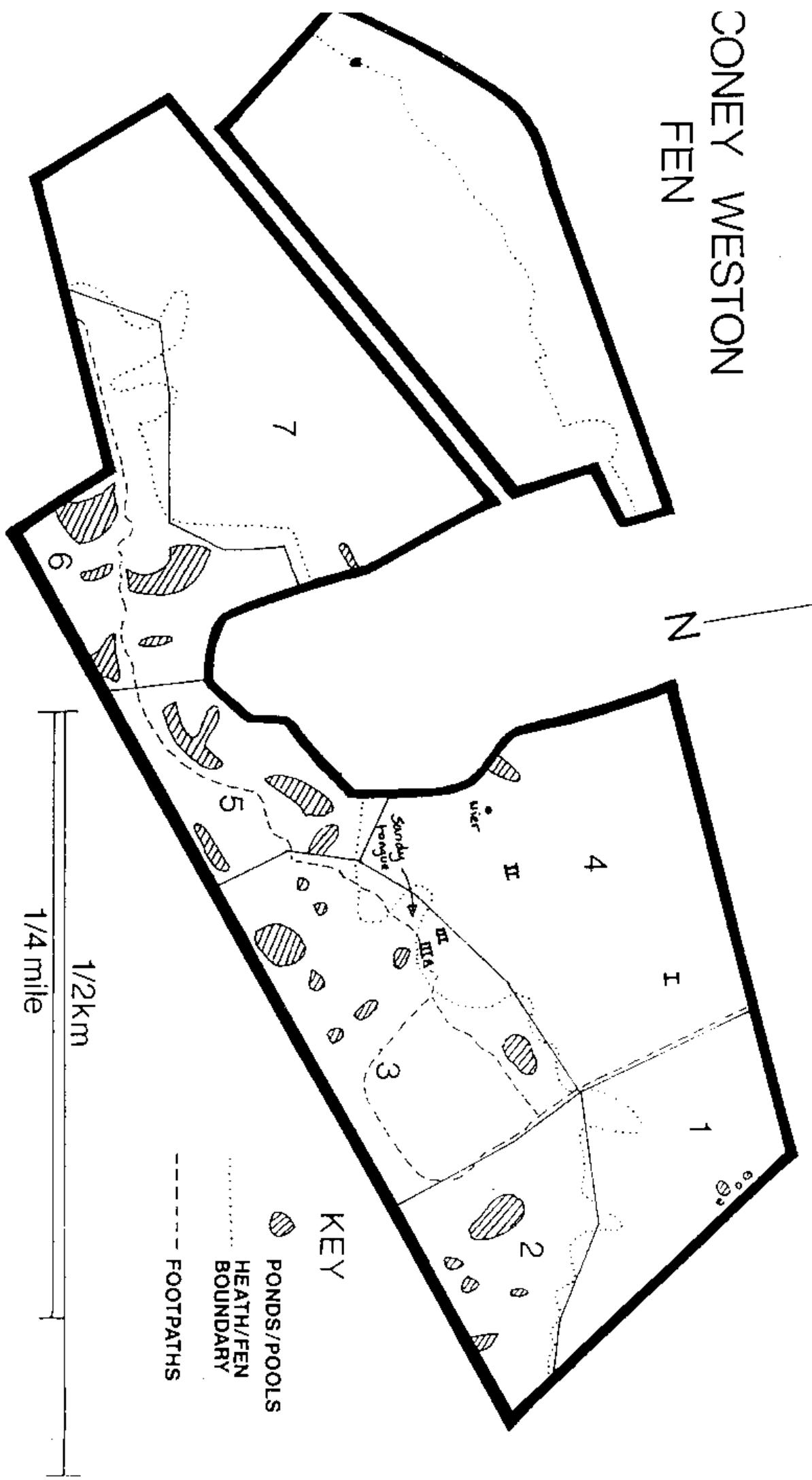
KEY

- FOOTPATH
- COMPARTMENT BOUNDARY
- VEGETATION BOUNDARY



MARKET WESTON FEN

CONEY WESTON FEN



WF SUFFOLK FEN DATA

Redgrave & Lopham - Repeat of D Bellamy's quadrats (Summer 1991)

Notes of stand characteristics

Area I (M)

Sample plot is located within *Betula-Salix* woodland.* Approximately 60% tree cover and 3m high. The remainder is relatively open with much: *J. subnodulosus*, *C. palustre* and *P. australis*. Locally, *C. canescens* and *C. mariscus* are found. The ground is firm and water table below the surface.

*Tree cover cleared winter 1991/92.

Area II

This plot is located between the *Schoenus* and Heath. Last year birch was cleared and now there is much: *P. australis*, *C. canescens* with *E. cannabinum* and *U. dioica*. Locally *Myosotis* is important. The ground surface is dry and there is much litter.

Area IIa

This area is dominated by tall, dense *P. australis* and approx 3% *Betula*. There is patchy *Senecio sylvaticus* and *E. cannabinum*, some *H. lupulus* and scattered *D. carthusiana*. The ground is very uneven and soft (as if structureless). There is virtually 100% litter cover.

Areas III and IV were recorded in 1990 and notes of characteristics were not taken. Both are 'heathy' areas with *Betula* colonisation. In 1992 the Birch was cleared from both areas.

Wanda Fojt
Fens & Bogs

Mike Harding
SWT

5 May 1992

Redgrave Area I

SVC	Quadrat No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2732	<i>Juncus subnodulosus</i>	8	50	35	45	30	80	20	10	40	90	60	10	20	30	50	5	5	5	5	5
418	<i>Cirsium palustre</i>	15	30	20	5	5	10	10	85	20	20	5	10	5	20	10	20	20	20	10	10
680	<i>Holcus lanatus</i>	5	4	5	5	5	5	10	10	25	3	1	1	1	1	20	20	20	20	20	20
961	<i>Phragmites australis</i>	2	50	10	20	60	40	20	25	3	3	1	1	1	1	20	20	20	20	20	20
1268	<i>Solanum dulcamara</i>	65	10	10	10	10	25	5	5	5	40	20	20	20	20	20	20	20	20	20	20
1368	<i>Urtica dioica</i>	5	15	15	5	5	5	5	5	5	30	5	5	5	5	5	5	5	5	5	5
2607	Betula seedling																				
522	<i>Epilobium montanum</i>																				
637	<i>Glechoma hederacea</i>																				
2716	Solid seedling																				
1241	<i>Sempervivum</i>																				
269	<i>Calamagrostis canescens</i>																				
1136	<i>Rubus fruticosus</i>																				
1376	<i>Campylotropus micropodus</i>																				
1519	<i>Brachythecium acutabulum</i>																				
1766	<i>Hypnum cupressiforme</i>																				
1481	<i>Aulacomnium androgynum</i>																				
813	<i>Tychius flor-tenuci</i>																				
1794	<i>Atrium hornum</i>																				
2167	<i>Lepidocelea bidentata</i>																				
419	<i>Cirrium vulgare</i>																				
1677	<i>Eurychium prae longum</i>																				
420	<i>Cladium marinum</i>																				
538	<i>Eupatorium cannabinum</i>																				
384	<i>Ceratium fontanum</i>																				
1884	<i>Pokolia murans</i>																				
1272	<i>Sonchus asperula</i>																				
1780	<i>Amelanchier spicaria</i>																				
	% Bare	5	10	15	0	0	60	0	0	10	0	3	3	0	0	0	0	0	0	0	1
	% Litter	100	80	70	60	100	100	50	100	70	100	90	80	100	40	95	75	95	90	90	30
	x ht veg cm	40	100	60	75	40	60	65	60	85	30	25	80	40	30	100	20	140	150	150	30

Redgrave Area II

Redgrave Area IIIa

Redgrave Area III

NVC	Quadrat No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
876	<i>Molinia caerulea</i>	35	4	4	5	4	5	2	1	5	1	3	4	2	5	3	5	2	5	5	5
418	<i>Cirsium palustre</i>	-	-	1	+	1	-	1	1	1	+	1	1	1	1	2	1	2	1	1	1
961	<i>Phragmites australis</i>	+	-	1	+	1	-	1	1	1	+	1	1	1	+	1	+	+	+	-	-
1305	<i>Succisa pratensis</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	2	2	1	1	1
558	<i>Eupatorium cannabinum</i>	-	-	1	+	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
2732	<i>Juncus subnodulosus</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
1046	<i>Potentilla erecta</i>	-	-	1	+	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
2604	<i>Bentua pubescens</i>	-	-	1	+	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
994	<i>Polygonatum multiflorum</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
612	<i>Galium uliginosum</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
1180	<i>Valeriana dioica</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
576	<i>Festuca rubra</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
339	<i>Carex panicoides</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
167	<i>Angelica sylvestris</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
371	<i>Centaurea nigra</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
574	<i>Fragaria viridis</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
1876	<i>Campylorus trinervius</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
391	<i>Epilobium angustifolium</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
384	<i>Ceratium fimbriatum</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
344	<i>Carex fuliginea</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
1914	<i>Pseudoschoenus purpureus</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
786	<i>Irinum cuthberticum</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
2714	<i>Cirsium dissectum</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
2628	<i>Quercus cerris</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
1445	<i>Calliergon cuspidatum</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
1600	<i>Ceratium molluscum</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
1894	<i>Polytrichum juniperinum</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
1298	<i>Stellaria media</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
1136	<i>Rubus fruticosus agg.</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
680	<i>Holcus lanatus</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
1519	<i>Brachythecium rutabulum</i>	-	-	1	-	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1
	% Bare	+	+	+	+	0	-	1	2	4	-	1	1	1	1	1	1	1	1	1	1
	% Litter	4	3	1	5	1	-	4	4	1	-	3	3	4	3	3	2	3	2	3	-

Species in plot but not recorded in quads:

Valeriana officinalis
Cladium mariscus

not recorded

Redgrave Area IV

NVC	Quadrat No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
876	<i>Molinia caerulea</i>	4	1	4	1	5	2	3	5	1	4	2	2	4	5	1	5	1	2	1	
542	<i>Erica tetralix</i>	1	1	1	4	2	1	1	1	1	1	1	2	1	1	3	1	3	1	1	
574	<i>Festuca ovina</i>	3	5	1	5	+	4	3	1	2	1	3	1	3	1	4	3	4	3	4	
961	<i>Phragmites australis</i>	+	1	1	+	1	1	+	1	+	1	+	1	+	1	+	1	+	+	+	
2604	<i>Betula pubescens</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
278	<i>Cotinus vulgaris</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1305	<i>Succisa pratensis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1046	<i>Potentilla erecta</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1914	<i>Pseudoscleropodium purum</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
339	<i>Carex panicosa</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
344	<i>> pilulifera</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
2628	<i>Quercus seedling</i>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
994	<i>Polygala serpyllifolia</i>																				
1445	<i>Calliergon cuspidatum</i>																				
120	<i>Arenaria coninua</i>																				
1638	<i>Dicranum scoparium</i>																				
	% Bare	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	% Litter	2	1	4	5	4	3	3	3	3	4	1	2	2	1	2	2	2	2	1	

No extra species recorded

+ Heath area not within birch woodland

The Linetham Old Fen - Repeat of D Bellamy's quadrats (Summer 1991)

Notes of stand characteristics

Area I

An area of currently mown fen within an embayment of the 'high ground'. The vegetation is dense, low-growing with *Schoenus*, *Festuca* and a large variety of herbs and mosses. Alder is colonising. There is a deep thatch of litter. NB: *Schoenus* and *Festuca* values are not accurate. The close cut nature of the vegetation led to problems in estimating cover values.

Area II

Tall-herb, unmanaged, fen dominated by *Filipendula* and *Cladium* with *Juncus subnodulosus*. Colonising alder occupies approx 5% of the area. *Sanguisorba* is present throughout. *Molinia* is relatively frequent but not abundant. The litter layer is thick and moss cover is therefore very limited.

Area IIa

Area of young alder carr with an understorey of *C. acutiformis*, *F. ulmaria* and climbers such as *H. lupulus*. The ground is dry and there is much leaf litter. Some ash seedlings were present.

Area III

The area corresponding to Bellamy's Area III could not be identified with any certainty. Two areas are likely contenders. One is within relatively mature alder woodland with a ground layer of *Equisetum cannabinum* (F), *Phalaris* (F), *C. acutiformis* (F), *F. ulmaria* (F). The other possible location is characterised by relatively open vegetation showing evidence of disturbance from the dumping of river silt. Species seen: *Urtica dioica* (A); *G. aparine* (A); *Calystegia sepium* (A); *Polygonum australis* (F); *F. ulmaria* (O).

W Fojt
Fens & Bogs

M Harding
SWT

The Fenham Old Fen. Area I

NVC	Quadrat No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
876	<i>Molinia caerulea</i>	40	10	40	15	20	40	15	30	50	15	45	25	60	40	20	50	15	20	40	40
139	<i>Carex panicoides</i>	5	8	5	5	8	5	8	5	8	4	60	20	5	50	4	5	30	10	10	10
612	<i>Galium uliginosum</i>	2	3	2	2	2	3	3	4	3	2	6	3	5	5	3	5	5	5	5	5
1445	<i>Calliergon giganteum</i>	2	2	1	2	5	5	2	3	5	2	3	6	5	5	10	15	6	15	20	40
2732	<i>Juncus subnodulosus</i>	5	3	10	5	5	8	5	5	8	8	8	8	2	2	5	1	3	5	1	5
1046	<i>Potentilla erecta</i>	8																			
418	<i>Cirsium palustre</i>																				
1190	<i>Sanguisorba officinalis</i>	10	2	2	2	2	2	2	2	10	5	5	4	6	10	4	5	5	5	5	5
1305	<i>Succisa pratensis</i>	25	20	40	20	5	10	25	50	10	50	20	15	10	20	5	10	10	10	10	10
802	<i>Lonicera xylosteum</i>	45	4	8	20	15	10	6	20	5	25	5	10	20	10	10	10	10	10	10	10
690	<i>Hedysarum vulgare</i>	5	2	5	20	10	4	10	8	15	8	15	8	10	10	10	10	10	10	10	10
576	<i>Festuca rubra</i>	25	10	55	15	15	15	15	20	30	10	20	4	15	5	1	1	1	1	1	1
1411	<i>Vicia cracca</i>	2																			
1207	<i>Schizandra nigricans</i>																				
420	<i>Cladonia mucronata</i>																				
558	<i>Eupatorium cannabinum</i>																				
1600	<i>Cnidium mollissimum</i>	2																			
1683	<i>Fistulina adianthoides</i>	2																			
323	<i>Carex flacca</i>	5																			
1914	<i>Pseudoscleropodium purum</i>																				
469	<i>Dactylorhiza praetermissa</i>																				
1571	<i>Camptium stellatum</i>																				
2602	<i>Alnus glutinosa</i>	5	1																		
583	<i>Filipendula ulmaria</i>																				
994	<i>Polygala senega</i>	2																			
944	<i>Parnassia palustris</i>																				
1804	<i>Plagiomnium ellatum</i>																				
911	<i>Oenanthe lachenalia</i>																				
2919	<i>Quercus seedling</i>																				
758	<i>Lathyrus pratensis</i>																				
1280	<i>Ambystegium riparium</i>																				
855	<i>Mentha aquatica</i>																				
1766	<i>Hypnum cupressiforme</i>																				
1680	<i>Eurychium spectabile</i>																				
1519	<i>Brachythecium rivulare</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	% Bare	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Litter	100	80	80	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	x ht veg cm	15	8	8	7	7	7	7	7	8	10	10	10	10	10	10	10	10	10	10	10

X-15

Thelnetham Old Fen, Area II

Theletham Old Fen. Area IIa

NVC	Quadrat No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Cover f
0.16	302	<i>Carex acutiformis</i>	40	10	30	10	10	25	8	4	30	20	40	10	60	20.5 / 9.3	
0.16	583	<i>Filipendula ulmaria</i>	10	30	40	30	75	50	80	15	15	40	20	10	34.3 / 8.0		
16.80	1680	<i>Eryngium campestre</i>				10										1.5 / 13	
0.19	1519	<i>Brachythecium rivulare</i>							20							2.1 / 0.3	
0.19	688	<i>Humulus lupulus</i>	5													0.35 / 0.37	
0.19	1223	<i>Scirpus heterolepis</i>	3													0.2 / 0.06	
0.19	955	<i>Polygonum perfoliatum</i>														1.67 / 0.66	
0.19	1409	<i>Vinca minor</i>														0.33 / 0.36	
0.19	1136	<i>Rubus fruticosus</i> agg.														0.33 / 0.36	
0.19	961	<i>Phragmites australis</i>														0.13 / 0.06	
		% Bare	30	20	30	55	30	40	20	30	6	10	3	15	5	10	
		% Litter	70	80	70	45	70	60	80	70	80	45	85	70	80	70	
		x Ht of ground flora cm	40	50	50	50	40	35	15	50	70	60	15	50	20	35	

No. 44

Beneath a canopy of Alder

5 3 3 4 3 2 4 5 3 3 4 2 3 4 2 3 4

Market Weston Fen - Repeat of D Bellamy's quadrats (Summer 1991)

Notes of stand characteristics.

Area I

An area of tall-herb fen (approx 2m high) comprising a mixture of: *Cladium*; *Phragmites*, *J. subnod.*, *E. cannab.*, *Mentha* and much *Berula*. Mosses (mainly *Brachythecium/Eurynchium*) are localised. Litter covers some 50-70% of the area, and there are also some bare areas.

The plot appears to cross two vegetation types. Towards the river taller herb fen is found with much *Phragmites*, *Epilobium hirsutum* and *Valeriana officianalis*. Towards the sandy tongue *Cladium*, *J. subnod* with some *Molinia* are more characteristic.

The water table level was below the surface (drought year) and the ground was firm.

In general, there is only limited scrub invasion (*Alnus* and *Salix*).

Area II

Located 25m directly from the weir at an angle of 47° to the centre of the plot.

The area is found between the sandy tongue and mature scrub. It is generally flat.

The characteristic species are: *Phragmites*, *Cladium*, *Juncus subnod.* and *M. caerulea*. The vegetation mean height is 1.75 cm, though lower where *Molinia* is found.

Area III - Cladium dominated

This area lies close to the sandy tongue.

Cladium is dominant and tall (more than 1m in height). Locally, *C. paniculata* may be found. Birch covers some 10% of the area of the plot. The water table is close to or above the surface of the peat which was firm under-foot.

Location - 26m from birch stool, 33m from centre of ?

Area III^a Sphagnum dominated

III a

In the 1950s Bellamy had described Area III to consist of *S. plumulosum* lawn and a *Schoenus* vegetation. The latter was not re-found. The former was re-found but now occurs beneath a "canopy" of *Cladium*, *Phragmites* and scattered birch.

This *Sphagnum*-dominated area is only 25m x 7m in area. It is located very close to the sandy tongue: 15m from large, mature birch, 30m from tongue.

The water table was at or above the surface in the lower part of the plot adjacent to the fen (as opposed to the sandy tongue). The *Sphagnum* is then replaced by a vegetation type characterised by the quadrat below.

2 x 2m quadrat (Domin)

<i>P. australis</i>	4
<i>E. cannabinum</i>	5
<i>J. subnodulosus</i>	10
<i>C. palustre</i>	2
<i>Epilobium palustre</i>	3
<i>Hentha aquatica</i>	4
<i>Lychris flos-cuculi</i>	2
<i>E. hirsutum</i>	6
<i>G. uliginosum</i>	3
<i>Equ. palustre</i>	1

x ht veg 1.0
Water table < surface
% cover litter 100

W Fojt Mike Harding
Fens & Bogs SWT

Market Weston. Area I

VC	Quadrat No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
461	<i>Phragmites australis</i>	20	60	15	60	90	10	20	30	20	90	75	20	10	70	10	40	30	2	30	35
855	<i>Mentha aquatica</i>	5	5	40	25	10	20	10	20	10	5	3	5	5	4	5	5	4	30	2	35
1732	<i>Juncus effusus</i>	60	50	40	80	5	70	40	60	15	40	20	50	20	5	5	5	5	1	60	35
420	<i>Cladium mariscus</i>	5	5	5	50	40	2	4	10	5	40	30	5	20	5	5	5	5	1	60	35
232	<i>Berula erecta</i>	+	5	5	5	5	40	4	4	5	2	5	20	1	5	5	5	5	1	4	45
612	<i>Galium uliginosum</i>	20	25	25	25	20	20	20	20	20	20	20	20	1	4	1	4	1	4	1	45
1680	<i>Eryngium spectosum</i>	5	20	5	50	5	5	2	4	5	2	30	20	5	1	4	1	4	1	4	45
295	<i>Cardamine pratensis</i>	5	5	5	5	5	5	2	2	2	2	10	5	30	1	4	1	4	1	4	45
538	<i>Eupatorium cannabinum</i>	+	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	45
1781	<i>Valeriana officinalis</i>	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	45
167	<i>Angelica sibirica</i>	+	5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	45
122	<i>Aegopodium podagraria</i>	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	45
521	<i>Epidendrum hirsutum</i>	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	45
609	<i>Galium palustre</i>	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	45
2256	<i>Riccardia pinguis</i>	70	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	45
523	<i>Lycopus europaeus</i>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
1445	<i>Calliergon cuspidatum</i>	70	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	45
1368	<i>Urtica dioica</i>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
876	<i>Modinea caerulea</i>	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	45
904	<i>Plagiomnium elatum</i>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
1219	<i>Serpyllula auriculata</i>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
813	<i>Lychneus floe-echus</i>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
1411	<i>Vicia cracca</i>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
581	<i>Filipendula ulmaria</i>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
268	<i>Salicornia dulcamara</i>	20	100	100	100	100	0	20	80	80	80	80	100	0	2	50	0	30	30	30	35
802	<i>Lens uliginosus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
1571	<i>Caragana stellatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
1519	<i>Brachythecium rutabulum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
765	<i>Lemna minor</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
677	<i>Eryngium proterogynum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
	% Bare	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	35
	% Litter	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	35
	% H. veg. sim	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	35

17/10/1981

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Market Weston. Area II

NVC	Quadrat No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
420	<i>Cnidium mollissimum</i>	80	80	70	25	80	50	65	50	50	50	20	30	1	5	1	3	3	5	5	1
1712	<i>Juncus subnodulosus</i>	5	5	2	15	25	5	25	30	20	20	30	60	5	30	1	3	3	3	20	19
961	<i>Phragmites australis</i>	10	10	35	30	60	30	40	20	80	60	50	1	3	1	1	1	1	1	1	4
876	<i>Molinia caerulea</i>					5	25	15	20	20	5	1	5	80	40	20	5	5	30	13	6
518	<i>Equisetum cannabinum</i>					2	30	2	40	5	20	5	5	15	5	5	10	20	10	30	3
1207	<i>Schoenus nigricans</i>																	1	1	1	1
612	<i>Gentium uiginosum</i>																				
1136	<i>Rubus fruticosus agg.</i>					5		5	10	2	2	5				5	1				
1445	<i>Caffierion cuspidatum</i>																				
1677	<i>Erychium pratense</i>																				
1914	<i>Pseudoscleropodium purum</i>																				
1046	<i>Potentilla erecta</i>																				
1305	<i>Succisa pratensis</i>																				
167	<i>Angelica sylvestris</i>																				
1571	<i>Carex stans</i>					5															
2167	<i>Lophiocarpha heterophylla</i>																				
1803	<i>Plantago lanceolata</i>																				
7254	<i>Riccardia multifida</i>																				
1940	<i>Rhytidadelphus squarrosus</i>																				
855	<i>Menyanthes trifolia</i>																				
1380	<i>Valeriana dioica</i>																				
1807	<i>Plagiomnium undulatum</i>																				
	% Bare	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Litter	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	x In veg. cm																				
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
	10	9	8	7	6	5	4	3	2	1	0	1	2	3	4	5	6	7	8	9	

Additional species within 10 x 10 but not recorded in quadrats
Lotus uliginosus
Carex panicea

Market Weston. Area III, *Sphagnum* area

NVC	Quadrat No	1	2	3	4	5	6	7	8	9	10
1973	<i>Sphagnum subnitens</i>	50	20	25	5	95	30	80	50	30	60
420	<i>Cladium mariscus</i>	80	65	95	80	90	20	60	10	20	15
961	<i>Phragmites australis</i>	4	2	5	2	3	1	5	5	5	80
1380	<i>Valeriana dioica</i>			10		20	1				50
2732	<i>Juncus subnodulosus</i>			2		5					34
535	<i>Equisetum palustre</i>			2		5					70
855	<i>Menia aquatica</i>	4		2		5		5			40
558	<i>Equatorium carnaudinum</i>	2	2			5		5			30
232	<i>Berula erecta</i>					5	4				40
317	<i>Carex disnicha</i>				2	1					22
1482	<i>Aulacomnium palustre</i>										62
1046	<i>Potentilla erecta</i>										10
525	<i>Epilobium palustre</i>										10
1519	<i>Brachythecium nutans</i>										10
320	<i>Carex elata</i>										10
340	<i>Carex paniculata</i>										10
1381	<i>Valeriana officinalis</i>										10
765	<i>Lemna minor</i>										10
	% Bare	0	0	0	0	0	10	10	10	10	0
	% Litter	100	100	70	100	50	70	20	40	5	20
	x ht veg cm			0	<	<	<	0	0	100	100
	ht of water above (cm) surface							3	5	5	5

Additional species within 10 x 10 but not recorded in quadrats:

Plagiomnium ellatum, *Lophocolea bidentata*, *Caltha palustris*, *Cirsium palustre*, *Angelica sylvestris*, *Galium uliginosum*, *Betula pubescens*, *Lotus uliginosus*, *Succisa pratensis*.

Water below surface

Market Weston. Area III. Cladium dominated

NVC	Quadrat No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2732	<i>Juncus subnodulosus</i>	4	20	5	20	30	15	50	50	5	40	10	50	90	40	20	20	15	30	50	2
961	<i>Phragmites australis</i>	2	15	10	10	40	2	10	2	40	80	1	5	2	1	2	1	60	10	10	10
420	<i>Cladium mariscus</i>	5	60	95	70	25	95	20	45	40	40	5	20	40	20	30	10	10	40	5	5
232	<i>Betula erecta</i>	2	5	10	25	2	50	10	2	20	5	5	5	5	2	2	10	10	10	10	10
855	<i>Mentha aquatica</i>	10	2	5	10	30	15	15	30	15	15	3	3	3	5	5	3	3	5	10	10
521	<i>Epilobium hirsutum</i>	40	10	5	15	10	25	35	40	5	10	5	10	5	5	10	5	5	10	5	10
558	<i>Eupatorium cannabinum</i>	5	5	15	10	25	2	2	2	2	2	2	2	2	1	1	3	3	3	3	3
535	<i>Equisetum palustre</i>																				
340	<i>Carex paniculata</i>	90	20	10	10	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
1445	<i>Calliergon cuspidatum</i>																				
2167	<i>Lophocolea bidentata</i>	2																			
1571	<i>Campylium stellatum</i>																				
1519	<i>Brachythecium rivulare</i>																				
1914	<i>Pseudoscleropodium purum</i>	25																			
1046	<i>Potentilla erecta</i>	80																			
1381	<i>Valeriana officinalis</i>	20		10																	
1411	<i>Vicia cracca</i>																				
765	<i>Lemna minor</i>																				
802	<i>Lotononis uliginosus</i>																				
1677	<i>Eurychium praealtum</i>																				
612	<i>Galium uliginosum</i>																				
1973	<i>Sphagnum subnitens</i>																				
	% Bare	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Litter	100	100	60	90	80	100	60	100	100	5	30	70	95	60	60	80	30	100	60	60
	hit veg cm																				
	hit of water above (✓) surface cm	0	0	0	✓	✓	✓	✓	✓	0	0	0	2	3	4	1	2	0	2	4	1

Additional species within 10 x 10 but not recorded in quadrats: *Caltha palustris*, *Rubus fruticosus* agg., *Betula pubescens*.