ENGLISH NATURE

Common land and conservation

Biological surveys in England and Wales - a synthesis

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Number 77

Common land and conservation

Biological surveys in England and Wales. A synthesis.*

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and Katie Medcalf

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Final report (contract F72-07-02)

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EXECUTIVE SUMMARY

1. This report summarises the results of a series of biological surveys of common lands in England and Wales.

2. Building upon data collated by the Rural Surveys Research Unit on behalf of the Countryside Commission, the study highlights the conservation value of commons in a sample of 18 counties, embracing both upland and lowland environments.

3. Of the 913 commons surveyed, 72% have registered rights of pasture. These include rights to graze sheep (492 commons), cattle (475 commons) and horses/ponies (355 commons). Rights of estovers, turbary and pannage are also recorded.

4. Approximately half of the common land area is grassland, much of it being unimproved acidic or marshy in character. Nearly a quarter of the area is heathland, and some 13% has been invaded by bracken. Acidic flushes and blanket bog characterise a large number of commons. In terms of their vegetation, many of the commons surveyed are of national or regional importance, and contain notable flora and fauna.

5. High proportion of commons in both lowland and upland areas have been subject to improvements that have seriously detracted from their conservation value. Ploughing, re-seeding, drainage and a heavy use of inorganic fertilisers are among the major developments that have had a negative impact. Improved and anthropogenic habitats account for 52% of the common land surveyed in England, and 8% of that in Wales.

6. Although only 14% of the commons were actively managed for recreational use, the report draws attention to the extensive areas of common land to which the public have either a *de jure* or *de facto* right of access. The significance of the access issue and its implications for conservation are broached in the report.

7. That commons are "disproportionately rich in examples of plant and animal communities which have largely been eliminated from surrounding areas" is amply displayed in the large number of commons that have been formally designated for their landscape or nature conservation interest.

8. Nearly a fifth of all commons have experienced very heavy grazing pressure, with a resultant loss of species and diversity. The situation is especially problematic in the uplands of Wales. Many over-grazed commons are of high conservation value. In lowland regions, the majority of small commons are not grazed. Here, the main problem is a lack of positive management.

9. Large numbers of commons have been affected by encroachments of one form or another. The dumping of rubbish (254 commons), internal fencing (155 commons), and damage by off-road vehicles (104) are particularly notable. The conservation implications of these and other developments (eg new road constructions) can be quite serious.

10. It is evident that the common lands of England and Wales protect a biological resource of considerable significance in its richness and diversity. As the report serves to demonstrate, many of these areas are suffering from poor or inadequate management. There is an urgent need for appropriate action, perhaps involving new legislation, to safeguard the many diverse interests in what constitutes a unique national resource.

ACKNOWLEDGEMENTS

The field data presented in this report have been gathered by a number of biological surveyors working on the RSRU common land project since its inception in 1987. The efforts of Ian Francis, Nicola Penford, Marion Finch, Stuart Hedley, Karen Heppingstall, and Jonathan Cox are greatly appreciated. The work of Jan Baptiste, Dr Liz Hughes and Stephanie Allsop in helping to collate data and prepare the final reports is also acknowledged.

In regard to its work on common land, RSRU also wishes to acknowledge the considerable support and interest of John Hopkins (formerly of the Nature Conservancy Council), Paul Johnston (Countryside Commission) and Liz Howe (Countryside Council for Wales). Critical comments on this particular text from Richard Jefferson (English Nature) have been invaluable.

Needless to say, the surveyors are grateful to countless individuals and local organizations around the country who have given of their time and knowledge to ensure that the surveys are as detailed as they could be, given the inevitable constraints on resources.

Finally, it is appropriate in presenting this synthesis report to express our gratitude to Derek Wells of the former Nature Conservancy Council. Without his very considerable commitment to the cause, the biological surveys of the commons of England and Wales would not have been initiated.

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1. INTRODUCTION

Since the early 1980s the Rural Surveys Research Unit (University of Wales, Aberystwyth) has been actively involved in the collation of data pertaining to the use and management of common lands throughout England and Wales. Initial investigations focussed on the compilation of information from the registers of common land created as a result of the Commons Registration Act 1965. Databases and maps were prepared for the Countryside Commission, and these later served as a statistical base for more detailed field surveys of the biological attributes of commons over one hectare in size.

Thus far, the results of these biological surveys have been published in 18 regional reports. Whilst the reports offer a detailed insight into the characteristics of commons within specified areas, there is clearly a need to draw together the main findings to date and in so doing to highlight the general conservation interest in these unique and increasingly coveted tracts of land.

2. COMMON LAND AND CONSERVATION

Although the movement to protect common land from inclosure was based initially on arguments concerning the amenity value of commons and the need to accord the general public a greater degree of public access, it has long been recognised that commons also need to be safeguarded because of their very special conservation value. In presenting evidence to the Royal Commission on Common Land in 1956, the Nature Conservancy stressed (albeit without comprehensive information) that commons were "wildlife sanctuaries", "reservoirs for species", and "disproportionately rich in examples of plant and animal communities which have largely been eliminated from surrounding localities" (Minutes of Evidence, 14, 1965, p445). In similar vein, the Royal Commission itself noted that common lands were often "islands of semi-natural vegetation" and "refuges" for rare and interesting plant and animal life. That commons should be of such ecological significance stems in the main from the wide variety of environments in which they are to be encountered - upland,

lowland and coastal - and the fact that such areas have long been sheltered by statute from many of the pressures that have so markedly transformed habitats in the countryside at large. Commons embrace upland moors, lowland heaths, herb-rich meadows, peat bogs, rivers, lakes, wetlands, marshlands, beaches and ancient woodlands.

Given the significance of common land as a national resource, the Scott Report of 1942, in considering the "well-being of rural communities and the preservation of rural amenities", called for steps to be taken "to record details of common lands, to safeguard any rights of public rights of access or use, and otherwise to ascertain the position of commoners" (Cmnd 6378, 1942, p59). It was not until 1955, however, with the setting up of a Royal Commission on Common Land, that these matters were pursued further. Following a detailed and wide-ranging investigation, the Royal Commission reported in 1958 and made a host of recommendations concerning the protection and management of "these last uncommitted reserves of land". Government failed to respond to the Commission's main recommendations, but did eventually charge local authorities to compile and maintain registers of land, ownership and rights of common (Commons Registration Act, 1965). The process of common land registration was completed in 1972, but numerous disputes concerning ownership and rights of common had to be resolved by Commons Commissioners.

The problems associated with the registration process thwarted efforts to promote further legislation, but the common land question continued to excite debate. In 1976 an inter-departmental working party (Common Land : Preparations for Comprehensive Legislation, DOE, 1976) reaffirmed the main conclusions of the Royal Commission, while the Common Land Forum (established in 1983) put forward detailed proposals concerning public access and the establishment of management associations/schemes for areas of common. Despite widespread agreement and a series of positive pronouncements, the recommendations of the Common Land Forum have again not been acted upon. New legislation is still awaited.

In the meantime, and in preparation for possible legislation, a number of studies have sought to determine the conservation significance of common land. Of these, the reports prepared for the Royal Society for Nature Conservation by Palmer (A Future for Wildlife on Commons, Parts 1 and 2, 1989) and by Bruce (Wildlife Importance of Common Land, 1989) are particularly informative. They overview the situation in England and Wales, and serve as a complement to the more detailed investigations into the biological attributes of commons that are the subject of the present summary report.

3. THE BIOLOGICAL SURVEY OF COMMON LANDS

The Biological Survey of Common Land (BSCL) was commissioned by the Nature Conservancy Council in 1987, largely in response to the report of the Common Land Forum and its various recommendations concerning the future use and management of commons. It was recognised that should a new Commons Act be forthcoming, then there was a woeful lack of comprehensive information concerning the conservation value of commons. Such information was necessary not only to inform debate, but also to provide basic data for the formulation of possible management schemes on commons (as envisaged by the Common Land Forum). Only in this way could conservation interests in common land be protected. To collate the necessary information, detailed surveys of commons were required. In brief, the surveys undertaken by the RSRU involve :

(i) identifying all common land over 1 hectare in size and preparing broad-based vegetation maps using the standard 'Phase 1' coding of the Nature Conservancy Council, and where possible, National Vegetation Classification communities. Phase 1 surveys secure a relatively rapid record of semi-natural vegetation and wildlife habitats at a scale of 1:10000.

(ii) descriptions of the biological interest of each common land unit, principally from a botanical viewpoint, but also recording information on fauna where feasible. Quantitative and textual information summarise the essential attributes of individual commons.

(iii) evaluations of management practices on each common, together with recommendations concerning the resolution of any problems relating to the conservation interest.

A sample of the record schedules prepared for commons is presented below. The data included in the schedules is largely derived from field surveys but also includes much material collated from other sources (eg NCC records, Wildlife Trusts). Precise details of the information-gathering process are presented in the published reports.

CEREDIGION CL9

RURAL SURVEYS RESEARCH UNIT
DEPARTMENT OF GEOGRAPHY,
U.C.W., ABERYSTWYTH.

BIOLOGICAL SURVEY OF COMMON LAND

NATURE CONSERVANCY COUNCIL

CL No: [9] OLD 6 County: DYFED. CEREDIGION..... CODE [49] Grid ref: [2 750 2 750] 10 Km sq. [SN 77] O.S. Sheet: [135]

CL Status: [F] Area (ha): [225].[5] Altitude: Max.[430] Med. [ ] Min. [190] Vice County: [46]

SITE NAME: LAND NEAR DEVIL'S BRIDGE

Date of Visit: [19.05.88]
[C] C = Information Collated

Recorder/ Compiler: [NP, IF] MF

Time on Site: [9 survey hrs]

No. of photographs: [8]

Access permission from:

CONSERVATION STATUS: [5] % [100] [1] % [0.5] [ ] % [ ] [ ] % [ ] [ ] % [ ]

(% = % of site)

1 = SSSI 2 = NCR Site 3 = NNR 4 = LNR 5 = ESA 6 = SPA 7 = National Park
8 = AONB 9 = Heritage Coast 10 = County Trust 11 = National Trust 12 = RSPB 13 = Ramsar 14 = Other (specify below)

General description of site: Four parcels of land. Cymau Mawr parcel is unimproved and semi-improved acidic grassland; part is coniferous plantation. Bancy Bont/Gwar Felin area is improved/semi-improved grassland with broadleaved woodland by the Rheidol. Glan Fedw area is low-lying neutral and marshy grassland with scrub.

Owner(s): Crown Estate Commissioners.

HABITATS (~~NVC~~/Phase 1) + Descriptions:		Areas (ha.)
B12	Semi-improved acid grassland	85.0
B11	Unimproved acid grassland	64.0
A122	Coniferous plantation	55.0
B4	Improved grassland	9.0
E21	Acidic flush	4.0
E11	Blanket bog	2.5
A111	Broad-leaved woodland	2.0
A22	Scattered scrub	1.5
B22	Semi-improved neutral grassland	1.5
B5	Acidic marshy grassland	1.0
	Total Area:	225.5

Public access and recreation:

Subject to a legal right of public access by virtue of deed of Crown Estate Commissioners. Crossed by several public footpaths, and adjacent to minor roads.

MANAGEMENT:

Hay	✓	Grazing Time:	
Mown		Spring	
Cattle			
Sheep	✓	Summer	
Horses	✓		
Rabbits		Autumn	
Burning	✓		
Grouse		Winter	
		All year	✓
Coppice			
Planting		Irregular	
Thinning/felling			
Pollarding			
Recreation			
Fisheries			
Dumping			

Grazing Intensity: High over most of the site: Gwar Felin area moderate.

Managed by: Conservators [ ] Management Committee [ ]
Other [✓] None [ ]
Graziers

Sources of information/references:
Rheidol Woods and Gorge SSSI file. Ancient Woodland Inventory. Field visit.

SITE CHARACTERISTICS:

Main Geology [72] [ ] Main Soils [6.11] [6.54]

Slope [X] Aspect [X]

Ridge + Furrow [ ] Flooding [ ]

Scrub invasion [✓] Mature trees (>60 cm DBH) [ ]

Much dead wood [ ] Base-rich wet flushes [ ]

Bare ground: [✓] Origin Scree

Litter accumulation: [✓] Type Molinia

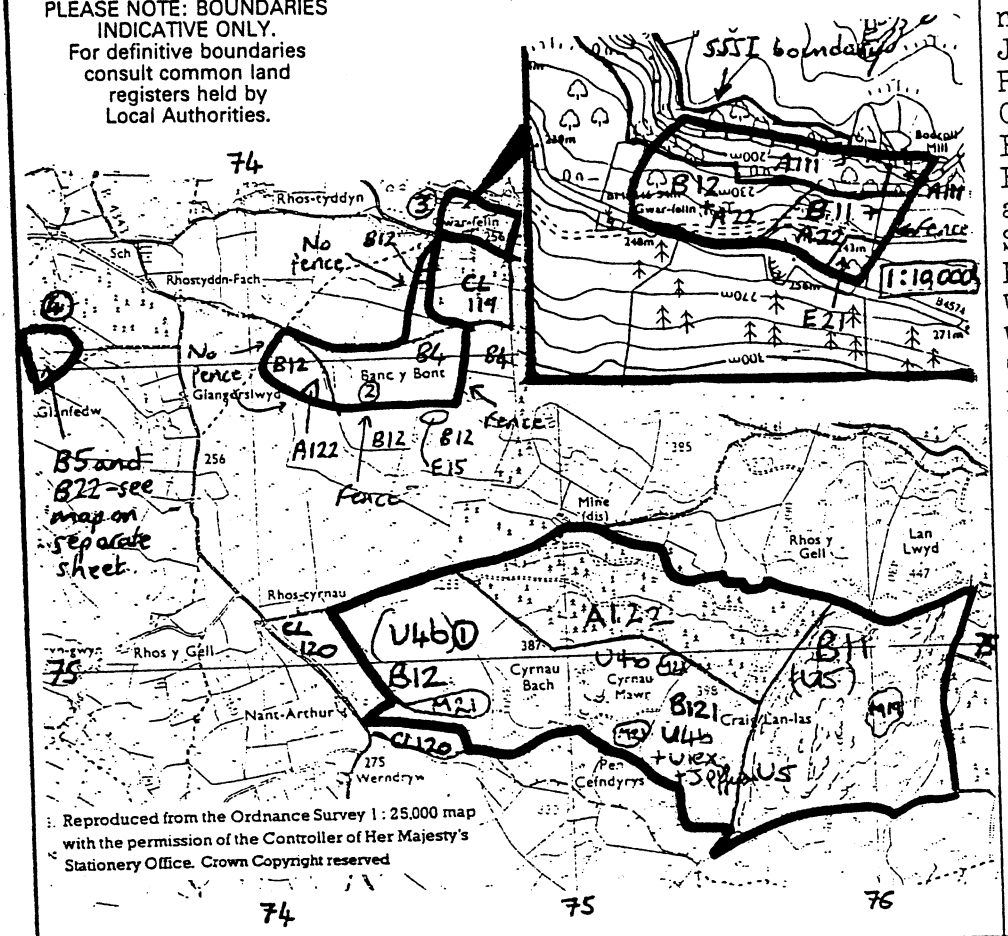
General notes on site:

Five pasture rights for sheep, cattle, horses and ponies. Contiguous with CLs 119 and 120. Two other rights for turbary. Northern area overlaps with Rheidol Woods and Gorge SSSI – c. 1.1 ha of SSSI common land. This small area is also ancient woodland. Internal fences.

CL No: 9 County: DYFED CEREDIGION Site name: LAND NR. DEVIL'S BRIDGE Grid ref: z 750 z 750

MAP: (show scale, north, adjacent habitats) N 1:25,000 (1:10,000)

PLEASE NOTE: BOUNDARIES INDICATIVE ONLY. For definitive boundaries consult common land registers held by Local Authorities.



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Fauna: On visit, following species noted: Cyrnau Mawr - Jackdaw, House Martin, Raven, Carrion Crow, Chaffinch, Skylark, Buzzard, Wheatear. BancyBont/Gwar Felin area - Pied Wagtail, Skylark, Meadow Pipit, Red Kite, Chiffchaff, Willow Warbler, Wheatear, Buzzard, Tree Pipit, Chaffinch, Mistle Thrush, Wren, Song Thrush, Redstart, Wood Warbler, Pied Flycatcher, Siskin, Raven, Garden Warbler, Grey Wagtail. Glanfedw area: Skylark Willow Warbler, Chaffinch, Goldcrest, Redpoll, Carrion Crow, Red Kite, Magpie, Pied Wagtail. Moles noted, also Arion ater, Arion flagellus, Deroceras reticulatum (Molluscs)

Vegetation: (1) Largest block predominantly semi-improved Festuca-Agrostis grassland, which may have been reseeded, as much of the surrounding land is currently being ploughed and reseeded. NVC U4b community, with Trifolium repens and Achillea millefolium in addition to main species. Closely-grazed. Constitutes most of this block, except for eastern end, marked by fence, where NVC U5 Nardus stricta - Galium saxatile grassland occurs on steeper slopes, with frequent Vaccinium myrtillus. 4 bogs occur in the main block - M21 Narthecium / Sphagnum papillosum valley mires in small hollows, with Eriophorum angustifolium, Montia fontana, Viola palustris, Vaccinium oxycoccus, Erica tetralix, Polygala serpyllifolia. M19 Calluna - E. vaginatum mire occurs in eastern area in small hollow, with Trichophorum caespitosum and many Polytrichum hummocks. Mature conifer plantation covers N. part of Cyrnau Bach part. (Contd. on separate sheet - CEREDIG.009).

Management: Southern area (Cyrnau Bach) heavily sheep grazed; several internal fences. Banc y Bont area heavily sheep grazed, with over 350 sheep present on day of visit. Numerous internal fences. B12 area near Glangorslwyd has been drained and fenced, but fewer sheep here and none next to plantation. Gwar-felin section: woodland apparently unmanaged - ponies have access to it, though grazing minimal in wood. Grassland grazed by ponies (2 on date of visit) - grazing levels moderate and probably acceptable. Some local trampling, but also scrub invasion in places. Several old drains on area. Management adequate in present form on Gwar Felin. Main action over rest of CL should be a reduction in grazing pressure, which would allow reversion of improved or semi-impr. areas to more typical acid grassland. Glanfedw: part cut for hay, B5 area unmanaged, one area sheep grazed. Burning in past, & some deep drains drying the site, which could be blocked.

ADDITIONAL NOTES FOR CEREDIGION CL9, Land near Devil's Bridge. (Continued)

Banc y Bont section: Largely B4 improved grassland, with odd patches of Urtica dioica. Grass is short grazed Holcus/Dactylis /Anthoxanthum/Agrostis, with some Rumex acetosa and remnant Endymion non-scripta. Other species include Luzula campestris, Cirsium arvense, C. vulgare, Juncus effusus, Taraxacum officinale, and a little grazed Ulex europaeus. One small area of bare rock (insignificant). Other parts of site are B12 semi-improved acid grassland, fairly close-grazed in places, with much Juncus effusus: also some Molinia and scattered Eriophorum vaginatum, Nardus stricta, Polytrichum sp.. One small conifer plantation in SW (c.50 x 50 m). Field adjacent to common at south end of Banc y Bont has a small basin mire, which, although quite dry, with peripheral drains, has a range of bog species, dominated by E. vaginatum and Molinia.

Gwar-felin section: B11 acid grassland dominated by Festuca ovina, with Nardus stricta, Agrostis capillaris, Rumex acetosella, Molinia, Vaccinium myrtillus, Carex binervis, Potentilla erecta, Pedicularis sylvatica. B12 grassland less diverse, dominated by Anthoxanthum odoratum, heavily trampled in places and manured, with thistles. Crataegus monogyna scrub cover c. 5%. Other species include Luzula campestris, Ranunculus acris, Juncus effusus, Cirsium arvense, Stellaria graminea, Holcus lanatus, Trifolium sp.. E21 flush Molinia dominated, with Carex panicea, Sphagnum recurvum, Juncus effusus, Cardamine pratensis, Succisa pratensis, Filipendula ulmaria, Viola palustris and Angelica. A111 woodland ground flora includes Luzula sylvatica, Circaea lutetiana, Fragaria vesca, Conopodium majus, Ranunculus ficaria, Stellaria holostea, Holcus mollis, Oxalis acetosella, Geranium robertianum, Chrysosplenium oppositifolium, Endymion non-scripta, Viola riviniana, Polystichum setiferum, Thuidium tamariscinum. This woodland is ancient woodland.

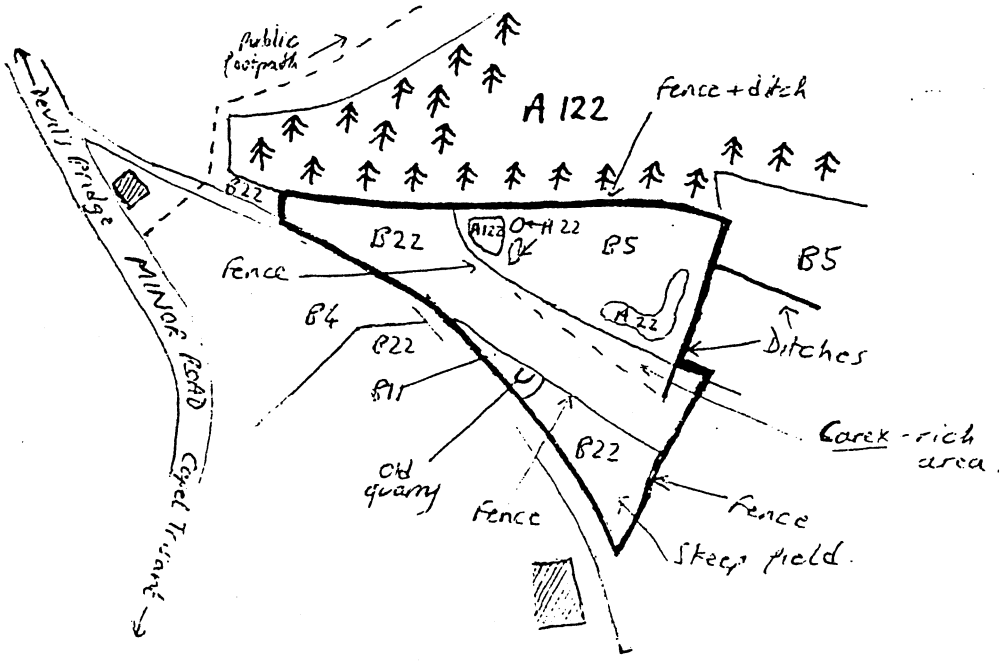
ADDITIONAL NOTES FOR CL9, LAND NEAR DEVIL'S BRIDGE

Glanfedw section: (4)

This area can be divided into 2 parts:

i) B22 semi-improved neutral grassland. The major central strip of the site is ungrazed hay meadow, dominated by Bromus mollis, Poa trivialis, Poa pratensis, Anthoxanthum odoratum, with much Rhinanthus minor (reseeded?), Ranunculus repens, R. acris, Trifolium sp., Plantago lanceolata. Also, Cynosurus cristatus, Centaurea nigra, Rumex obtusifolius, Heracleum sphondylium, Holcus lanatus and scattered Cardamine pratensis and Conopodium majus. The northern ditch is Juncus effusus dominated, with Myosotis secunda, Stellaria alsine and Cirsium palustre. There is a thin wetter Carex rich strip in the east, containing Carex nigra, C. ovalis, C. panicea, C. echinata and C. pallescens; also Juncus acutiflorus and Dactylorhiza fuchsii. The southern B22 area is a steep dry slope, dominated by Anthoxanthum, Plantago lanceolata, Trifolium repens and Cynosurus, with very abundant Conopodium. Other species include Carex caryophyllea, Euphrasia agg. and Luzula multiflora. Rhinanthus rare here. The western section of this steep field has an old quarry, and remnant B11 acid grassland, with Vaccinium myrtillus, Deschampsia flexuosa, Pedicularis sylvatica, Potentilla erecta and Festuca ovina.

ii) B5 marshy grassland. Classified as this, even though in places the peat is >1m deep. Largely Molinia and Juncus effusus dominated, with Ranunculus repens, Cardamine pratensis, and patches of drier acid grassland. There is much scattered scrub, mainly Salix cinerea, but also other Salix sp, Betula sp., Sorbus aucuparia. Some of this scrub is very dense, with little ground cover underneath except patches of Polytrichum commune. There is one small pool containing Eriophorum angustifolium and E. vaginatum. There is a small Picea sitchensis plantation at the western end of this area.



PLEASE NOTE: BOUNDARIES INDICATIVE ONLY. For definitive boundaries consult common land registers held by Local Authorities.

Before summarising the main findings of the BSCL, it is appropriate set the scene with a brief description of the extent and regional distribution of commons nationwide.

In 1989 the 8,675 registered commons in England and Wales covered 1.4 million acres; some 4% of the total land area. Figure 1 shows the distribution of common land within the pre-1974 county divisions. The spatial pattern confirms the the heavy concentration of common land in the uplands of the north and west, the limited acreages occurring in the lowlands of central England, and the higher than average returns recorded for such counties as Hampshire/Isle of White, Sussex and Surrey in the south. Over much of the country commons account for less than 5% of the total area, but figures in excess of 10% apply in the former counties of Breconshire (26.7%), Westmorland (25.5%), Radnor (13.7%), Cumberland (11.4%) and North Riding (11.2%).

Figure 2 summarises the current situation in terms of the biological survey of commons - the counties surveyed and the reports prepared. Given that the initial phase of the survey was for a period of three years, with no guarantee that there would be further extensions to the project, the decision was taken to ensure the inclusion of as wide a variety of environment types as possible in the selection of the survey areas. The counties covered thus far embrace both upland and lowland regions, and grazing and amenity commons are fully represented. A second round of fields surveys is under way, and again the aim is to ensure a wide regional coverage in the choice of study areas.

Table 1 records the number of commons surveyed in each of 18 regions for which reports have been prepared. In all, 913 commons have been surveyed out of a total of 1649. The remaining areas (716) are commons of less than 1 hectare in size. As is to be expected, the majority of very small commons are located in lowland regions. Here the intensity of "open-field"enclosure during the late 18thC and early 19thC was particularly intense. While the proportion of total commons surveyed may appear relatively small (55%), it is evident from Table 2 that such areas actually account for 99.7% of all common land. It should also be added that the majority of commons under 1 hectare are of little conservation interest, and mainly relate to road-side verges and pieces of wasteland. Table 2 shows that common land accounts for less than 1% of the total land area in many of the lowland counties of England. The highest proportions of common land are recorded in Wales, with Radnor and West Glamorgan returning figures in excess of 13%.

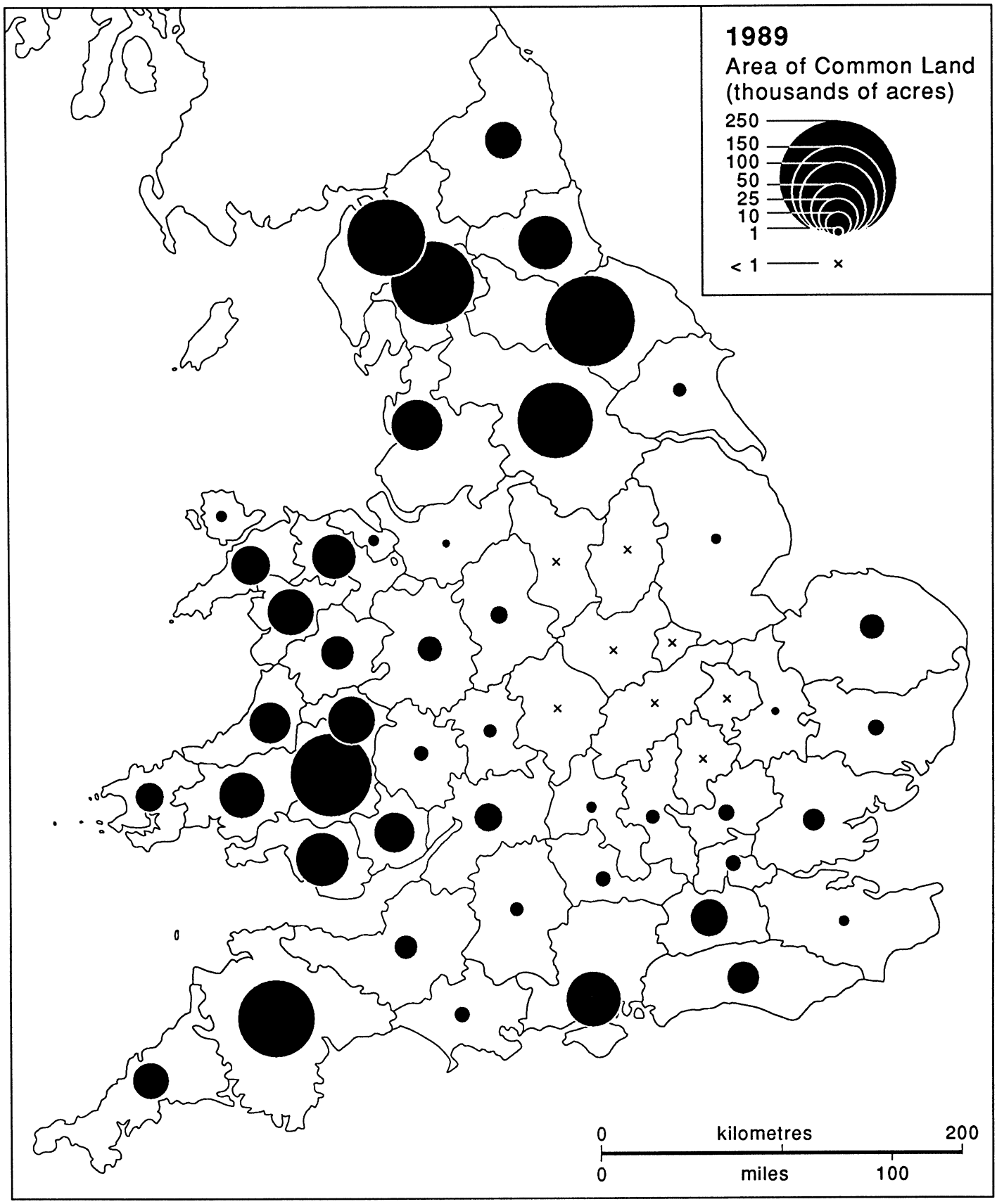

1989
Area of Common Land
(thousands of acres)
250
150
100
50
25
10
1
< 1
0
kilometres
200
0
miles
100

Figure 1

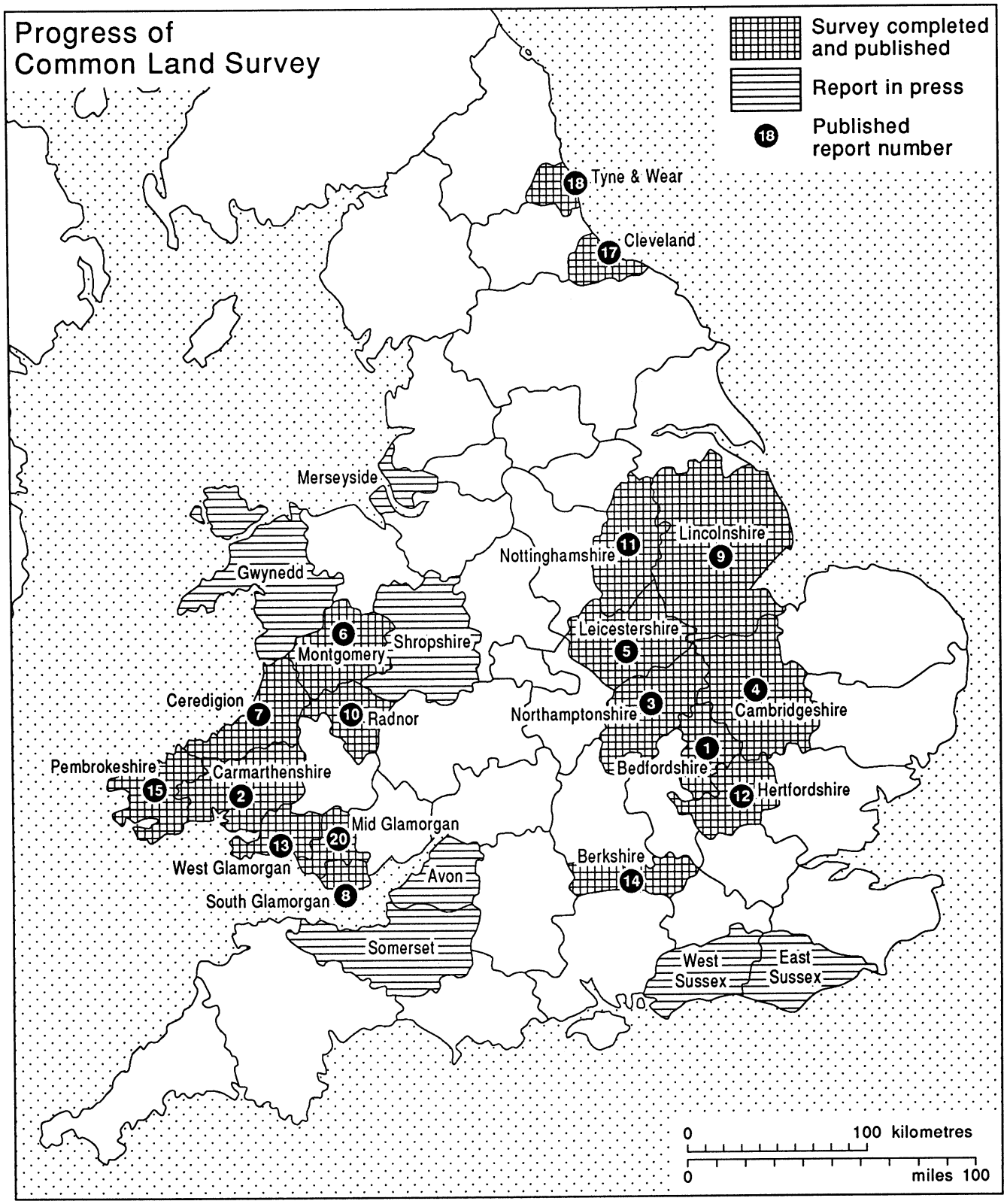

Progress of
Common Land Survey
Survey completed and published
Report in press
18 Published report number
18 Tyne & Wear
17 Cleveland
Merseyside
Gwynedd
11 Nottinghamshire
9 Lincolnshire
6 Montgomery
Shropshire
5 Leicestershire
7 Ceredigion
10 Radnor
3 Northamptonshire
4 Cambridgeshire
1 Bedfordshire
12 Hertfordshire
Pembrokeshire
15
Carmarthenshire
2
Mid Glamorgan
20
13 West Glamorgan
Avon
8 South Glamorgan
Berkshire
14
Somerset
West Sussex
East Sussex
0 100 kilometres
0 miles 100

Figure 2

TABLE 1

NUMBER OF COMMONS IN SURVEY REGIONS

Region	Total Number of Commons	Number Surveyed	Number < 1 ha.
Bedfordshire	51	23	28
Berkshire	91	51	40
Cambridgeshire	135	40	95
Cleveland	11	5	6
Hertfordshire	255	110	145
Leicestershire	71	17	54
Lincolnshire	89	30	59
Northamptonshire	36	2	34
Nottinghamshire	76	26	50
Tyne and Wear	22	8	14
ENGLAND: Sub Total	837	312	505
Carmarthenshire	111	76	35
Ceredigion	126	108	18
Mid Glamorgan	54	47	7
Montgomeryshire	89	77	12
Pembrokeshire	281	167	114
Radnor	67	57	10
South Glamorgan	24	12	12
West Glamorgan	60	57	3
WALES: Sub Total	812	601	211
TOTAL	1649	913	716

TABLE 2

AREA OF COMMON LAND IN SURVEY REGIONS (Hectares)

Region	Total Surveyed	Not Surveyed	Total Area	% Region
Bedfordshire	391.37	11.06	402.43	0.33
Berkshire	1767.88	10.69	1778.51	1.40
Cambridgeshire	698.46	92.68	791.14	0.24
Cleveland	291.43	1.23	292.66	0.50
Hertfordshire	1899.15	41.08	1940.23	1.18
Leicestershire	170.01	13.05	183.06	0.07
Lincolnshire	279.32	21.36	300.68	0.05
Northamptonshire	27.30	6.05	33.35	0.01
Nottinghamshire	348.58	9.79	358.37	0.16
Tyne and Wear	432.42	14.20	446.62	0.83
ENGLAND: Sub Total	6305.92	221.19	6527.05	0.11
Carmarthenshire	15205.70	15.30	15221.50	6.38
Ceredigion	12194.94	7.70	12202.64	6.80
Mid Glamorgan	12573.90	1.90	12575.80	9.70
Montgomery	8177.60	3.40	8181.00	3.97
Pembrokeshire	5615.09	38.40	5653.49	3.54
Radnor	16475.65	2.80	16478.45	13.52
South Glamorgan	146.30	3.90	150.20	0.35
West Glamorgan	11260.45	0.60	11261.05	13.50
WALES: Sub Total	81649.63	74.00	66502.63	5.91
TOTAL	87955.55	295.19	88250.74	2.67

Contrary to popular belief all common land is owned; it does not belong to the public domain. Owners of common land have rights that can be exercized, but their activities are heavily constrained by the collective rights of commoners. The latter are of paramount importance and cannot be ignored or over-ridden. In terms of the conservation interest of common land this relationship has been of particular significance for it has limited the scope for agricultural improvement, inclosure and other forms of development. This was especially true in the past, but has been less so over more recent times. As this study shows, more intensive use and a host of other pressures have seriously affected the conservation value of many commons.

Of the 913 commons surveyed, 497 (54%) are privately owned (Table 3). Local authorities have possession of 364 commons, most of which are waste lands of manors and have no rightholders. Significantly, the National Trust, National Park Authorities and conservation bodies own 131 commons - either in part or in whole.

A very large number of the commons in the survey regions have no known owners. Whilst powers to control the use of these commons has been vested in local authorities, resources are frequently not available to protect them from abuse. It would appear that many are losing wildlife value because of neglect, overgrazing and encroachments such as fencing and cultivation. The fact that so many commons have no recognised owners is clearly of considerable import. It is an issue that will need to be carefully considered in the drafting of new legislation.

TABLE 3

OWNERSHIP OF COMMON LAND

	Number of Commons				
Region	Private	Local Authority	No Known Owner	Conservation Bodies	Other
Bedfordshire	18	14	23	-	-
Berkshire	43	16	36	8	8
Cambridgeshire	47	-	38	3	-
Cleveland	4	2	4	1	2
Hertfordshire	81	75	113	8	12
Leicestershire	11	27	37	1	1
Lincolnshire	13	26	-	50	2
Northamptonshire	10	8	-	17	2
Nottinghamshire	7	33	36	-	3
Tyne and Wear	6	15	3	-	1
ENGLAND:Sub Total	240	216	290	88	31
Carmarthenshire	12	28	39	21	18
Ceredigion	16	36	34	5	16
Mid Glamorgan	35	3	114	1	1
Montgomeryshire	49	2	25	-	20
Pembrokeshire	51	3	163	68	17
Radnorshire	42	13	7	-	11
South Glamorgan	4	8	8	-	8
West Glamorgan	48	8	-	15	21
WALES: Sub Total	257	148	457	43	112
TOTAL	497	364	747	131	143

** For convenience, the term "Conservation Bodies" refers to the National Trust, National Parks and other conservation agencies/organizations.*

The conservation value of common land is greatly affected by the nature and magnitude of associated rights of common. Table 4 indicates that of the 913 commons surveyed, 654 are encumbered with rights of pasture. On 492 commons there are rights to graze sheep, on 475 the rights are for cattle. A further 355 commons have rights for horses and ponies. Also recorded are rights to graze pigs, goats and poultry.

Of course, these figures relate to registered rights and not necessarily to rights that are actually exercised. Be that as it may, it is worth noting that the grazing regimes operating on commons can greatly influence the wildlife interest. While grazing by sheep can enhance the conservation value of areas of semi-natural vegetation, this is certainly not the case when, as on many commons, grazing densities are excessive (see Section 8). In this latter instance, unpalatable, and often rather uninteresting species, assert themselves. Cattle, on the other hand, have a larger bite size and their manner of grazing tends to produce more uneven swards.

It is not possible here to enter into detail concerning actual grazing densities on commons. Suffice it to say that certain commons, especially in lowland regions, suffer from under-grazing; on others, most notably in upland areas, the problem is one of over-grazing (see Section 8). In numerous cases registered rights themselves are way beyond the carrying capacity of the commons to which they relate. An example is CL33 in Ceredigion. This common covers 8.5 hectares and comprises marshy grassland and broad-leaved woodland. For this small common there are six rights of pasture for a total of 52 cattle, 2 pigs, 1 goat, six ducks and 100 sheep (to alternate with 20 cattle). In the regions surveyed there are numerous examples of this type. On certain other commons over-grazing occurs because registered rights are actually exceeded by commoners. This is mainly the case where graziers associations are either absent or ineffective in their control of grazing practices. CAP policies have, of course, been responsible for a considerable intensification of grazing pressures over recent years. Given the widespread nature of the problem, the Common Land Forum recommended that new legislation should make provision for the amendment of registers of rights of common in cases where "the total extent of rights registered over a common is greater than the common can sustain". It will be for the proposed management associations and carefully formulated management schemes to deal with the issue of appropriate grazing levels.

TABLE 4

RIGHTS OF PASTURE ON COMMONS

Region	Total	Grazing Rights						
		Sheep	Cattle	Horses	Pigs	Goats	Poultry	Not Specified
Bedfordshire	11	8	6	4	1	1	-	1
Berkshire	37	19	31	24	7	8	5	1
Cambridgeshire	29	8	6	13	1	-	-	1
Cleveland	3	-	-	-	-	-	-	-
Hertfordshire	41	17	28	25	3	6	13	5
Leicestershire	3	2	3	2	-	-	-	-
Lincolnshire	5	-	1	-	1	-	-	3
Northamptonshire	4	-	-	-	-	-	-	-
Nottinghamshire	20	10	18	10	3	3	3	2
Tyne and Wear	2	-	-	-	-	-	-	-
ENGLAND: Sub Total	155	64	93	78	16	18	21	13
Carmarthenshire	65	63	48	42	5	18	21	-
Ceredigion	82	74	53	35	8	2	3	6
Mid Glamorgan	44	40	40	35	14	8	36	3
Montgomeryshire	72	69	24	12	3	2	1	2
Pembrokeshire	119	69	114	56	28	4	8	1
Radnorshire	56	56	43	43	-	-	4	-
South Glamorgan	12	10	11	10	5	1	5	1
West Glamorgan	49	47	49	44	4	3	12	-
WALES: Sub Total	499	428	382	272	67	38	90	13
TOTAL	654	492	475	355	83	56	111	26

Table 5 records other rights associated with the commons in the surveyed regions. Although less significant than rights of pasture, these rights can influence the conservation interest. Bracken itself may be of little nature conservation value, but in some localities the right to take estovers has resulted in the establishment of an open wood canopy with trees of various ages. Cutting peat and turf (rights of turbary) can also result in the creation of various microclimates, yielding a range of ecological niches and encouraging diversity, with species adapted to different conditions existing in close proximity. Finally, the notable number of rights for pannage may be indicative of the fact that woodland was once much more wide spread than it is now.

To complete the picture, Table 6 lists numbers of commons in the survey regions that are without rightholders. In a number of lowland counties over 75% of commons fall into this category. The majority of these are amenity commons.

TABLE 5

OTHER RIGHTS ON COMMONS

Region	Number of Commons					
	Estovers	Common in Soil	Pannage	Turbary	Piscary	Other
Bedfordshire	2	2	-	-	-	1
Berkshire	37	7	1	13	9	6
Cambridgeshire	1	2	-	1	1	12
Cleveland	-	-	-	2	-	-
Hertfordshire	12	1	1	3	2	1
Leicestershire	-	-	-	-	-	1
Lincolnshire	-	-	-	-	-	1
Northamptonshire	2	1	-	1	-	-
Nottinghamshire	4	-	-	2	1	1
Tyne and Wear	-	-	-	-	-	-
ENGLAND: Sub Total	58	13	2	22	13	23
Carmarthenshire	4	4	9	-	5	49
Ceredigion	19	3	-	33	7	11
Mid Glamorgan	24	6	7	8	4	19
Montgomeryshire	38	3	1	8	-	4
Pembrokeshire	26	4	1	25	5	51
Radnorshire	38	7	-	7	6	-
South Glamorgan	1	1	2	6	-	-
West Glamorgan	39	25	1	9	20	-
WALES: Sub Total	189	53	21	96	47	134
TOTAL	247	66	23	118	60	157

TABLE 6

COMMONS WITHOUT RIGHTS OF COMMON

Region	Number of Commons Without Rights	% Commons Without Rights
Bedfordshire	38	74.51
Berkshire	54	59.34
Cambridgeshire	104	77.04
Cleveland	8	72.73
Hertfordshire	208	81.57
Leicestershire	67	94.37
Lincolnshire	84	94.38
Northamptonshire	31	86.11
Nottinghamshire	57	75.00
Tyne and Wear	20	90.91
Carmarthenshire	45	40.54
Ceredigion	36	28.57
Mid Glamorgan	8	14.81
Montgomeryshire	14	15.73
Pembrokeshire	164	58.36
Radnorshire	10	14.93
South Glamorgan	12	50.00
West Glamorgan	11	18.33

4. THE BIOLOGICAL SIGNIFICANCE OF COMMON LAND

(a) HABITATS

The high biological significance of common land is clearly illustrated in Figure 3 and Table 7. Here are recorded details of the type and extent (absolute and relative) of associated habitats. Figure 4 summarises the situation for 17 regions (Northamptonshire is excluded because of the very small amount of unimproved land in the county), while Table 8 identifies habitats of special conservation value.

Figure 3 indicates that 50% of the common area is composed of grassland of various types. Only 600,000 hectares of semi-natural and rough grassland remain in lowland England and Wales and these pastures have often seen some agricultural improvement, with a corresponding loss in conservation interest. Commons hold a significant part of this lowland pasture resource. It is encouraging to note how little of the grassland on commons has been agriculturally improved; much of it is unimproved acidic or marshy in character.

Continuous bracken accounts for some 13% of the common land surveyed and is spreading through neglect and a retreat from traditional management practices. Bracken is seen to be particularly dominant in South Glamorgan, Radnor and Cleveland (Figure 4). In the past, bracken was considered to be a valuable resource for thatching, animal bedding and fuel. Forming a dense canopy, bracken is a very aggressive competitor, and apart from providing sites for certain species of birds, is of limited ecological value.

Heathland, which claims just over a quarter of the the total area of the common land surveyed, is a significant but vulnerable habitat. The vegetation is easily destroyed by disturbance and an increase in grazing pressure. Britain is unique, internationally, in still having large expanses of heather-dominated vegetation with many uncommon plants associated with the communities. Heather coverage has declined greatly in the last 50 years due to increased grazing, forestry and improvement of pasture. Evidence of change in composition of the vegetation in this survey can be seen in the large amount of dry heath/acidic grass mosaic which develops under high grazing pressure. It would appear that heathland on commons is subject to greater damage through overgrazing than heathland that is not common.

COMMON LAND IN ALL SURVEYED REGIONS
Representation of habitats greater than 1% of the common land area

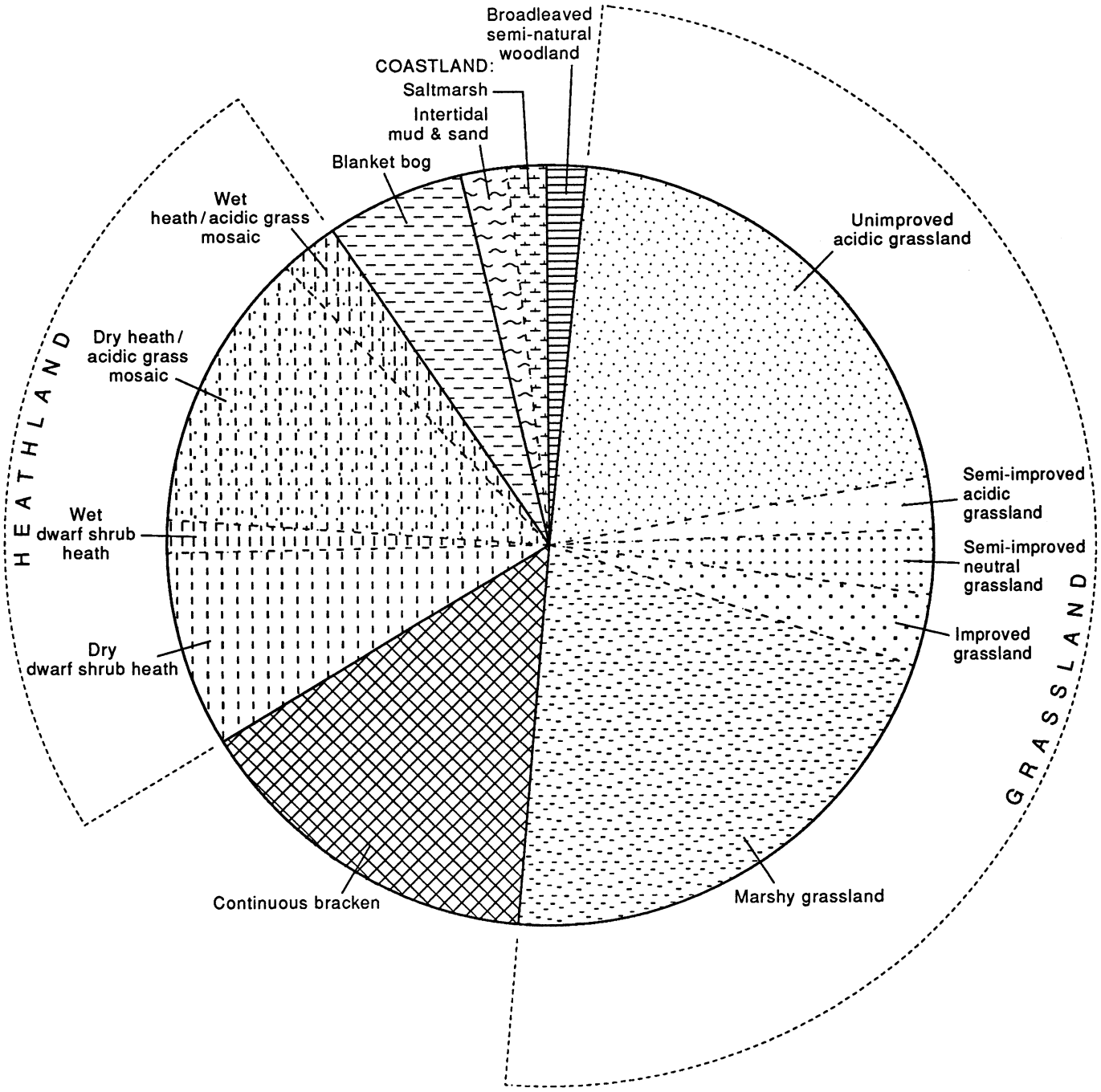
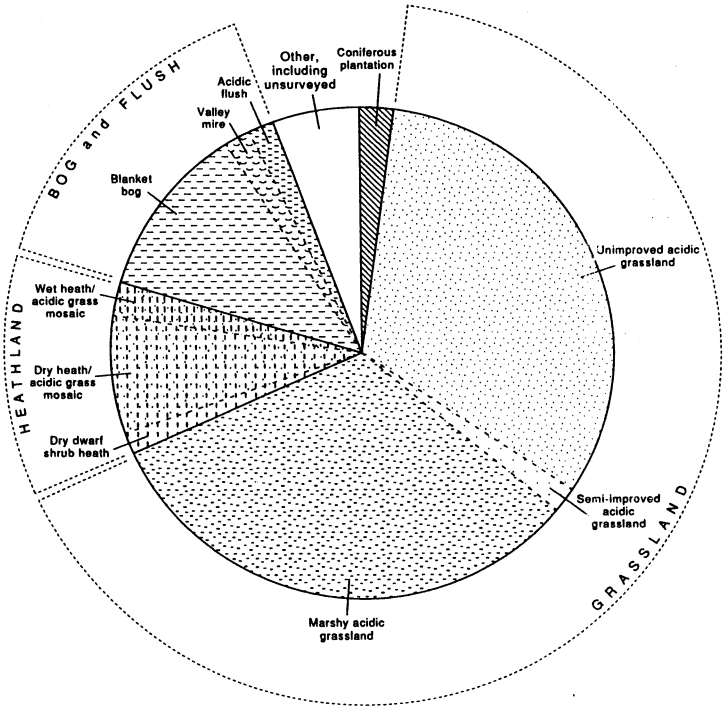


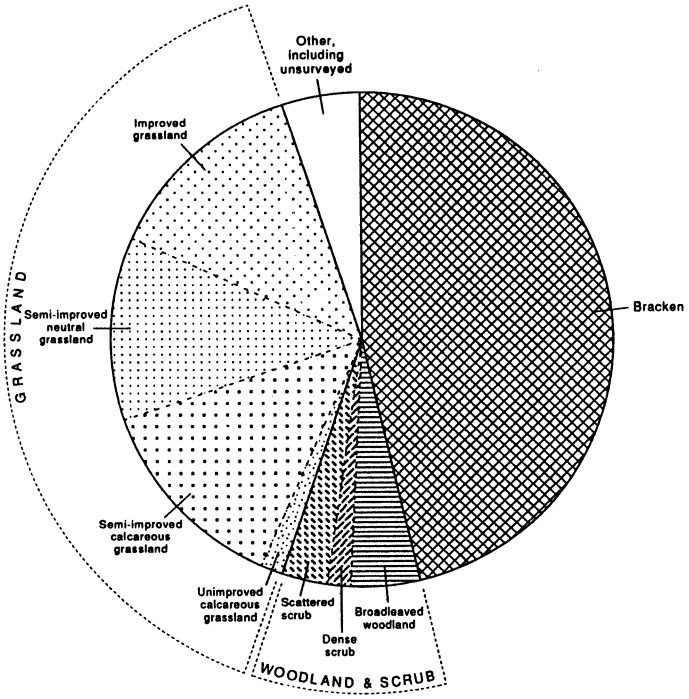
Figure 3

Representation of habitats in each region surveyed

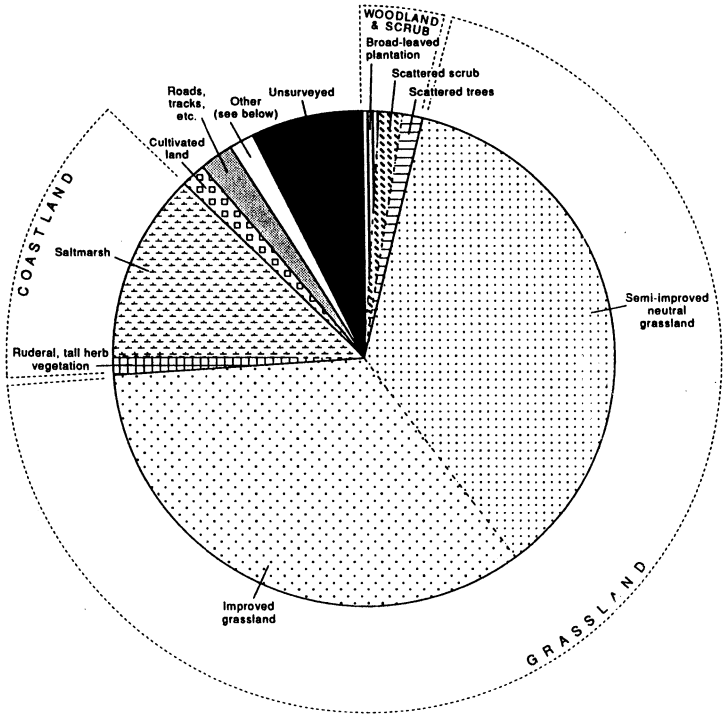
Ceredigion



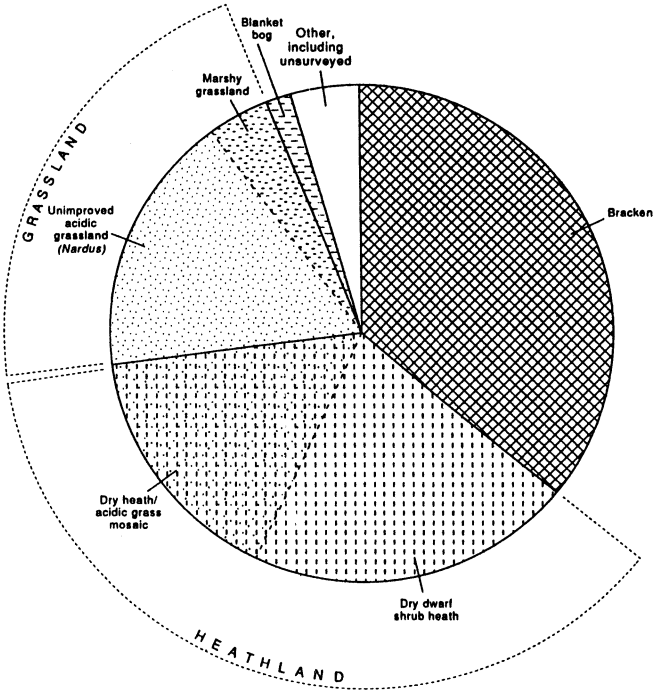
South Glamorgan



Lincolnshire



Radnor District

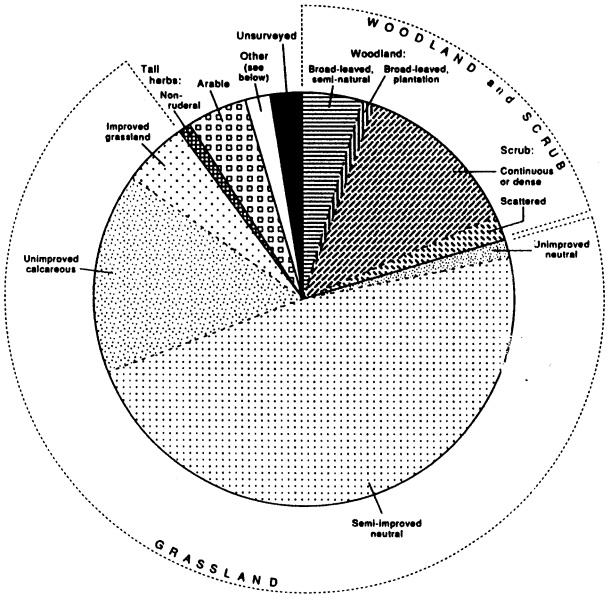


Only habitats over 1% of the total common land area for each region are represented

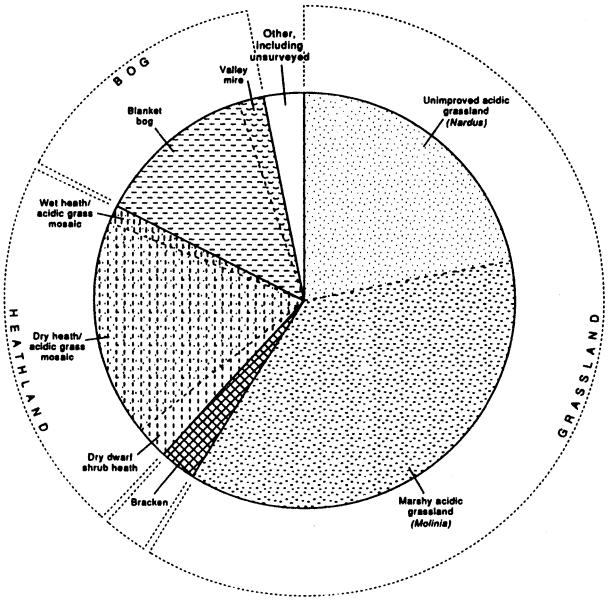
Figure 4

Representation of habitats in each region surveyed

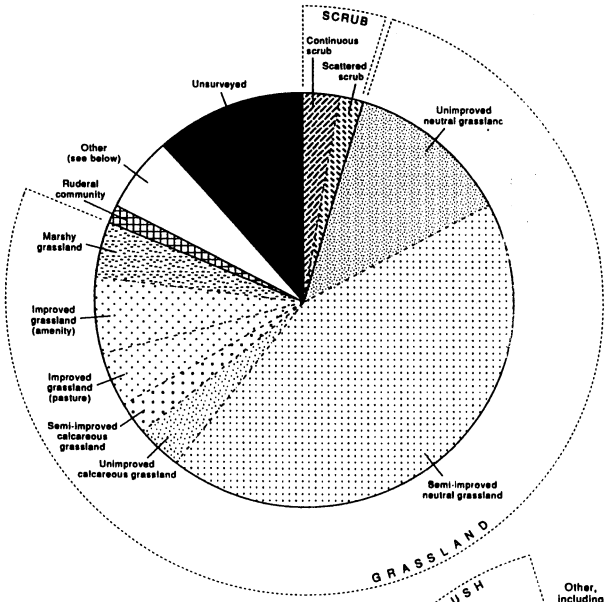
Bedfordshire



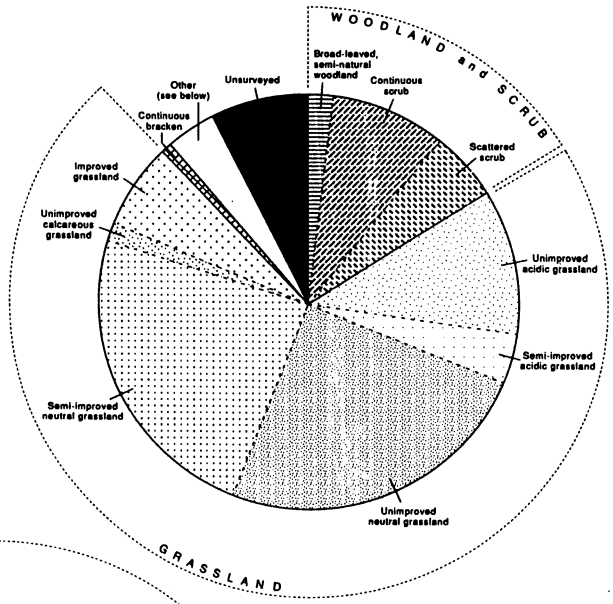
Carmarthenshire



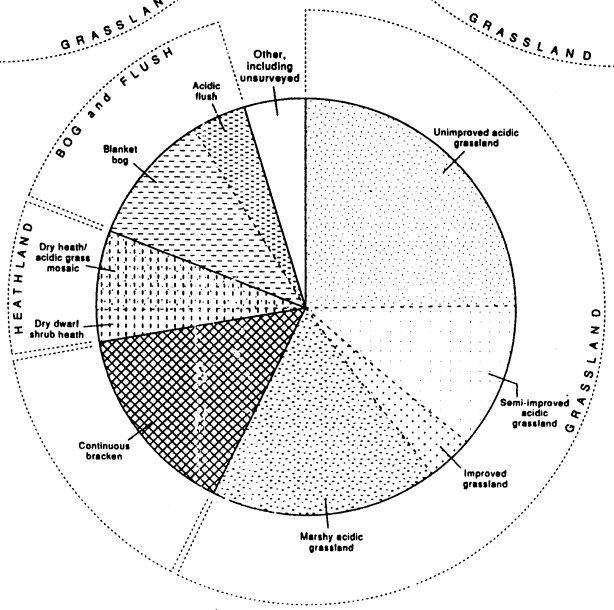
Cambridgeshire



Leicestershire



Montgomery District

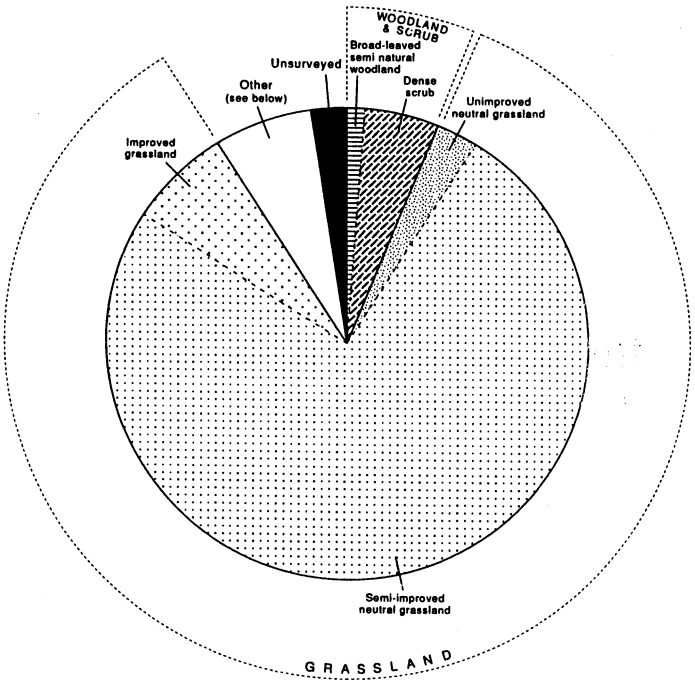


Only habitats over 1% of the total common land area for each region are represented

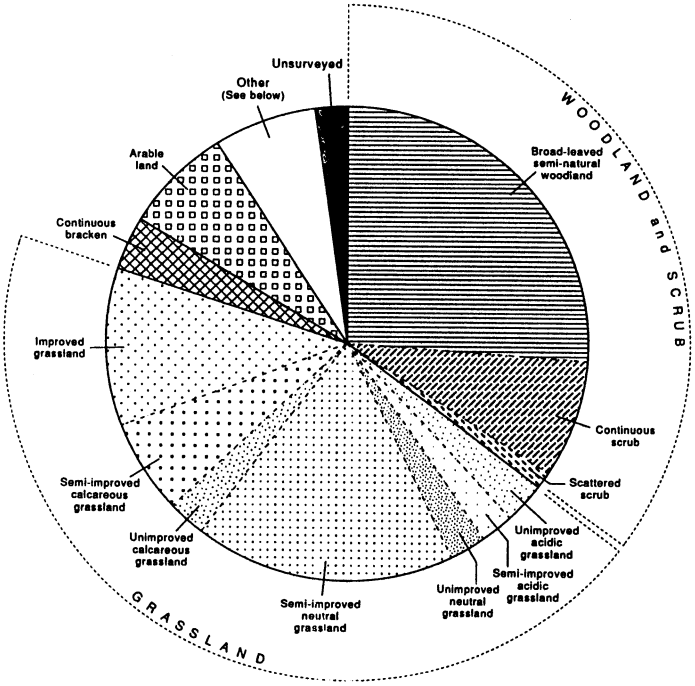
Figure 4

Representation of habitats in each region surveyed

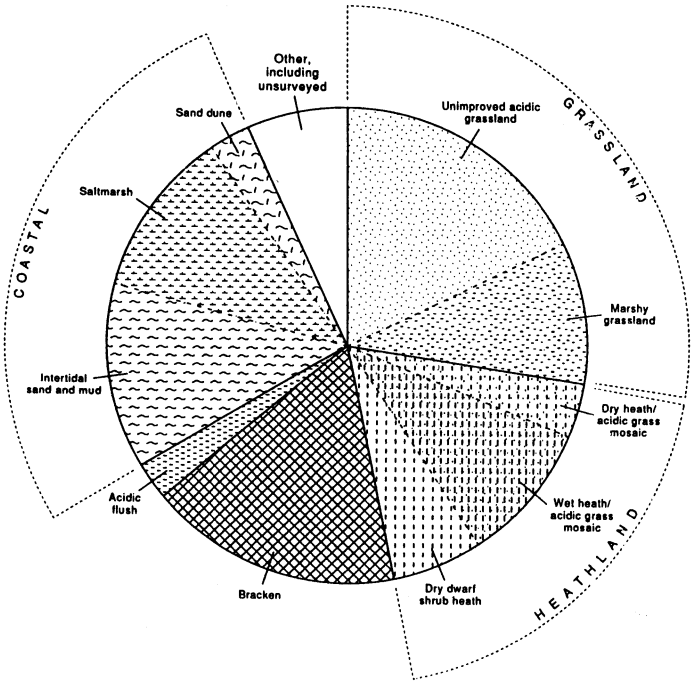
Nottinghamshire



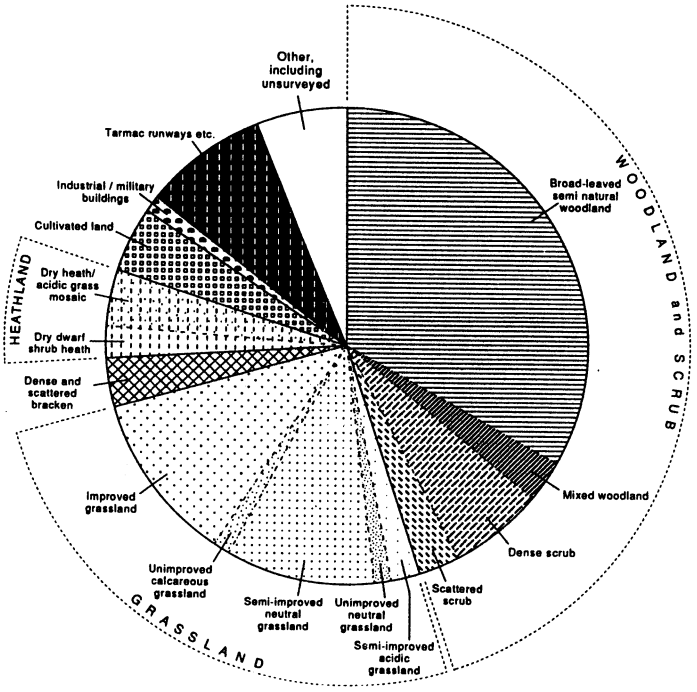
Hertfordshire



West Glamorgan



Berkshire

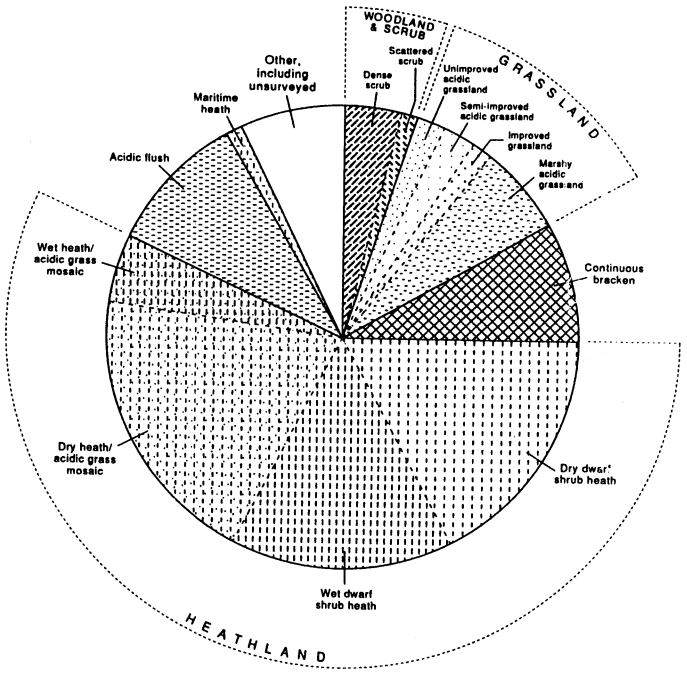


Only habitats over 1% of the total common land area for each region are represented

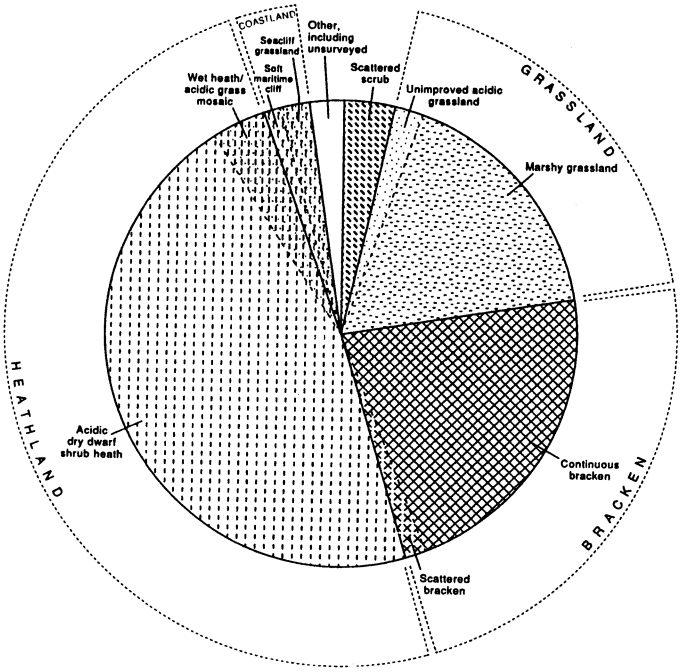
Figure 4

Representation of habitats in each region surveyed

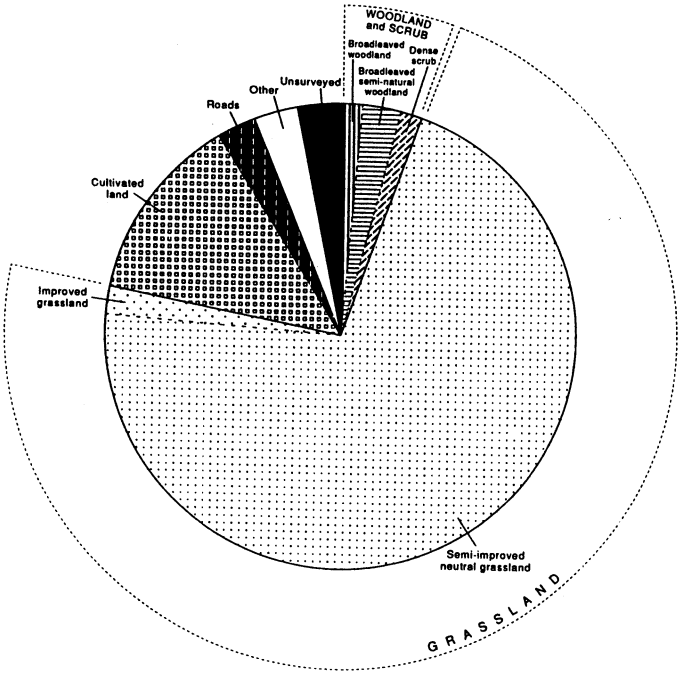
Pembrokeshire



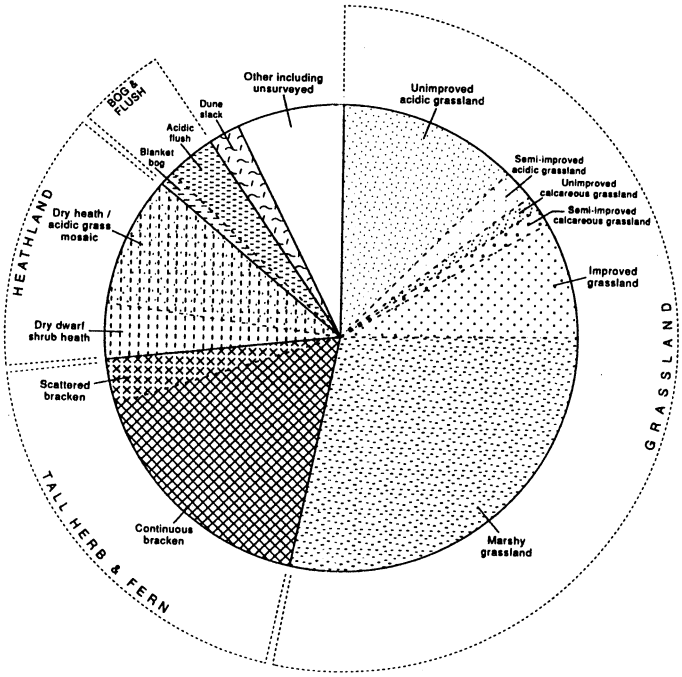
Cleveland



Tyne & Wear



Mid Glamorgan



Only habitats over 1% of the total common land area for each region are represented

Figure 4

Blanket Bog is also seen to be an important habitat in the areas surveyed. It is very susceptible to water level changes, and some wetland plants can be destroyed by water-table movements of only a few centimetres. This is a habitat that can be dramatically affected by drainage schemes, either on the common concerned or in the surrounding area.

Coastal habitats are important for breeding birds as well as unique salt marsh plants. Such areas are at risk from water level changes and increased pollution levels. Many of the commons on the coast are so important that they have been graded as Special Protection Areas (SPA) under the EC Birds Directive, or as Ramsar sites (wildfowl habitats of international importance).

Broad-leaved woodland accounts for only a small proportion of the total common land area, although it is locally very important - especially in Hertfordshire, Berkshire, Leicestershire and Bedfordshire. Ancient woodland supports a wide range of fauna and flora and it is essential that the area remaining be conserved. Semi-natural woodlands, can also be of importance as sites for birds, butterflies and many mammals.

TABLE 7

COMMON LAND BY HABITAT TYPE

Habitat (NCC Phase 1)

Woodland and Scrub

A11	Broadleaved woodland	136.34	33	0.16
A111	Broadleaved semi-natural woodland	1323.77	169	1.52
A112	Broadleaved plantation	30.25	12	0.03
A12	Coniferous woodland	34.00	5	0.04
A122	Coniferous woodland plantation	372.54	23	0.43
A13	Mixed woodland	75.16	15	0.09
A132	Mixed plantation	4.59	4	0.01
A21	Dense scrub	748.54	247	0.86
A22	Scattered scrub	474.67	361	0.54
A3	Scattered trees	34.89	177	0.04
A4	Felled woodland	7.60	2	0.01

Grassland

B11	Acidic unimproved grassland	16136.49	298	18.48
B12	Semi-improved acidic grassland	1812.64	133	2.08
B21	Unimproved neutral grassland	207.27	42	0.24
B22	Semi-unimproved neutral grassland	1992.77	252	2.28
B31	Unimproved calcareous grassland	244.26	41	0.28
B32	Semi-improved calcareous grassland	385.49	21	0.44
B4	Improved grassland	2476.59	209	2.84
B5	Marshy grassland	16456.22	300	18.84
B55	Species rich marshy grassland	192.32	40	0.22
B5F	Species poor fen	43.69	28	0.05

(Table 7 continued)

Tall Herb and Fen

C11	Continuous bracken	11757.14	270	13.46
C12	Scattered bracken	758.49	134	0.87
C3	Tall herb vegetation	2.60	4	0.01
C31	Rudral tall herb vegetation	76.06	100	0.09
C32	Other tall herb vegetation	2.20	1	0.01

Heathland

D11	Dry dwarf shrub heath	6521.16	130	7.47
D12	Limestone heath	15.56	2	0.02
D2	Wet dwarf shrub heath	906.94	52	1.04
D4	Montane heath	10.50	3	0.01
D5	Dry heath/acid grass mosaic	9301.72	163	10.65
D6	Wet heath/acid grass mosaic	2030.51	110	2.33

Bog, Flush and Fen

E11	Blanket bog	4562.82	65	5.22
E12	Upland raised bog	13.50	1	0.02
E13	Lowland raised bog	57.20	6	0.07
E14	Valley mire	622.25	38	0.71
E15	Basin mire	94.20	28	0.11
E21	Acidic flush	1988.10	197	2.28
E22	Base rich flush	5.35	5	0.01
F1	Fen	26.56	7	0.03
F11	Fen (single species dominant)	50.67	17	0.06
F12	Fen (mixed tall fen vegetation)	24.85	14	0.03
F21	Fragmentary marginal vegetation	1.86	10	0.01
F22	Inundation community	0.68	4	0.01

Water

G1	Standing water	73.49	95	-
G11	Eutrophic standing water	0.69	8	-
G12	Mesotrophic standing water	28.20	5	-
G111	Eutrophic small ponds	2.17	8	-
G112	Eutrophic ponds	3.00	1	-
G113	Eutrophic lakes	1.00	1	-
G122	Mesotrophic ponds	0.03	1	-
G13	Oligotrophic standing water	86.47	17	-
G125	Mesotrophic canal & ditch	0.70	1	-
TOTAL G1		195.75	137	0.22
G2	Running water	45.72	73	-
G22	Mesotrophic running water	0.01	1	-
G25	Marl	0.12	1	-
G231	Oligotrophic spring & small stream	0.00	2	-
G211	Eutrophic spring & small stream	2.00	2	-
TOTAL G2		47.85	79	0.05

Coastal

H11	Intertidal mud & sand	1427.30	3	1.63
H2	Saltmarsh	1293.00	6	1.48
H22	Saltmarsh (other species)	44.90	3	0.05
H23	Saltmarsh/dune interface	2.00	1	0.01
H3	Shingle	3.63	3	0.01
H4	Rocks & boulders	8.22	3	0.01
H5	Strandline vegetation	10.51	5	0.01
H6	Sand dune	8.19	5	0.01
H61	Foredune	59.40	4	0.07
H62	Yellow dune	91.20	2	0.10
H63	Grey dune	5.50	1	0.01
H64	Dune slack	274.00	1	0.31
H65	Dune grassland	320.20	5	0.37
H66	Dune heath	2.00	1	0.01
H8	Maritime cliff	13.80	8	0.02

H811	Maritime cliffs	6.00	5	0.01
H812	Maritime grassland	34.90	11	0.04
H813	Maritime heath	66.80	4	0.08
H82	Soft maritime cliff	3.20	1	0.01
H822	Seacliff grassland	5.90	1	0.01

Rock

I11	Inland cliff	99.75	53	0.11
I112	Basic inland cliff	0.70	1	0.01
I121	Acidic scree	0.39	1	0.01
I12	Scree	75.92	22	0.09
I13	Limestone pavement	17.75	5	0.02
I14	Other	61.38	4	0.06
I2	Artificial rock exposure	13.30	4	0.02
I21	Quarry	266.02	37	0.31
I22	Spoil heap	62.85	9	0.07
I24	Rubbish tip	0.00	1	0.00

Anthropogenic Habitats

J1	Cultivated land	343.27	32	0.39
J2	Hedges with or without trees	6.19	13	0.01
J21	Intact hedges	9.81	41	0.01
J22	Defunct hedges	1.03	6	0.01
J23	Hedge with trees	1.47	5	0.01
J24	Fence	0.00	6	0.00
J25	Ditches	0.12	1	0.01
J26	Dry ditch	0.21	3	0.01
J3	Domestic buildings	1.95	5	0.01
J31	Agricultural buildings	1.98	5	0.01
J32	Industrial buildings	25.90	4	0.03
J33	Domestic buildings	20.44	20	0.02
J4	Bare ground (track, spoil)	7.65	14	0.01
J5	Other (roads, tracks etc)	378.80	152	0.43

TOTAL 88 categories 87332.02

It is evident from Figure 4 that commons in lowland and upland regions differ considerably in terms of dominant habitat types. In the uplands unimproved grasslands, bracken, heathland and bog figure prominently; in the lowlands commons have more semi-improved grassland, woodland, scrub and cultivated land. The unimproved habitats in these latter regions are particularly important for conservation as there are so few examples remaining.

Table 8 summarises the nature and incidence of habitats of national and regional importance within each of the 18 regions. The selections listed here relate either to habitats that are highly distinctive or indeed unique within the county concerned, or to habitats which, at a national level, support particularly large populations of interesting plants or animals.

TABLE 8

HABITATS OF PARTICULAR NATIONAL OR REGIONAL IMPORTANCE

Region	Number of Commons	Habitat
Bedfordshire	2	Water meadow/unimproved pasture
	3	Unimproved calcarious grassland
Berkshire	3	Ancient woodland
	4	Alnus dominated gully
	4	Unimproved neutral grassland
	5	Unimproved calcareous grassland
	1	Marshy meadow
	1	Dry dwarf shrub heath
	1	Heathland bryophyte community
	1	Valley mire
Cambridgeshire	5	Unimproved calcicolous grassland
	3	Wetland (Part of Wicken Fen)
Cleveland	1	Seacliff grassland

TABLE 8 (cont.)

Region	Number of Commons	Habitat
Hertfordshire	4	Ancient woodland
	9	Dry unimproved acidic grassland
	6	Unimproved neutral grassland
	1	Marshy grassland
	3	Dry dwarf shrub heath
	1	Fen community
Leicestershire	2	Unimproved neutral grassland
	1	Calcicolous grassland
Lincolnshire	2	Marshy grassland
	1	Salt Marsh
Nottinghamshire	2	Unimproved neutral grassland
Tyne and Wear	3	Base rich flushes within broadleaved woodland
Carmarthenshire	3	Species rich Molinia grassland
	1	Dry dwarf shrub heath
	2	Undamaged basin mire
	1	Basic flush
Ceredigion	3	Small areas ancient woodland
	2	Montane heath
	10	Dwarf shrub heath
	31	Blanket bog
	6	Raised mire
	23	Valley mire
	6	Rhos pasture
	9	Poor fen
	1	Species rich flush
	11	Base rich flush
	7	Fen community
	4	Species rich metalliferous waste

TABLE 8 (cont.)

Region	Number of Commons	Habitat
Mid Glamorgan	1	Woodland
	1	Calcareous grassland
	1	Limestone heath
	1	Agrostis curtisii heath
	1	Valley mire
	2	Dune slack
	1	Dry dwarf shrub heath
Montgomeryshire	1	Ancient woodland
	1	Salix Betula carr
	1	Marshy meadow
	4	Undamaged dry heath
	2	Undamaged wet heath
	13	Blanket bog
	5	Species rich valley mire
	2	Species rich basin mire
	2	Base rich flush
Pembrokeshire	2	Ancient woodland
	2	Species rich unimproved neutral grassland
	12	Species rich Molinia grassland
	28	Poor fen
	20	Dry dwarf shrub heath
	38	Wet dwarf shrub heath
	2	Calcareous flush
	2	Maritime cliff
	11	Maritime grassland
	1	Inland cliff
Radnorshire	3	Ancient woodland
	7	Dry dwarf shrub heath
	1	Wet heath
	7	Blanket bog
	1	Raised mire

TABLE 8 (cont.)

Region	Number of Commons	Habitat
Radnorshire (cont)	1	Valley mire
	2	Species rich acid flush
South Glamorgan	3	Fragments calcicolous grassland
West Glamorgan	1	Ancient woodland
	3	Calcicolous grassland
	2	*Cirsium dissectum-Molinia* meadow
	1	Dry dwarf shrub heath
	20	Wet heath community
	3	Saltmarsh
	8	Limestone maritime cliff

(b) NOTABLE FLORA

Table 9 identifies the wide range of rare or locally important species encountered on the commons surveyed. Many of the species are of fragile wetland habitats; some are Red Data Book species occurring in less than 1% of the 10km grid squares covering the country, and some are notified under the Wildlife and Countryside Act (1981). An example is *Limonium paradoxum* - the Sea Lavender - found in Pembrokeshire. Camarthenshire, Ceredigion, West Glamorgan and Pembrokeshire all have a large number of rare or locally important plants. Even Tyne and Wear with a high proportion of improved land has notable wetland species such as *Potentilla palustris.*

TABLE 9

RARE OR LOCALLY IMPORTANT SPECIES

REGION	
Bedfordshire	*Aceras anthropophorum, Astragalus danicus, Bunium bulbocastanum, Coeloglossum viride, Gentianella amerella, Herminium monorchis, Ophrys apifera, Saxifraga granulata, Senecio integrefolus*
Berkshire	*Myriophyllum verticillatum, Polygonium minus, Polygonium mite, Rhynhospera alba, Utricularia vulgaris*
Leicestershire	*Arabidopsis thaliana, Cirsium dissectum, Erodium cicutarium, Erophila verna, Oenanthe silaifolia, Sanguisorba officinalis, Saxifraga granulata, Saxifraga tridactylites, Serratula tinctoria, Silaum silaus, Teucrium scorodoni, Thalictrum flavum*
Lincolnshire	*Ononis spinosa*
Tyne and Wear	*Carex rostrata, Potentilla palustris*
Carmarthenshire	*Alchemilla filicaulis, Alchemilla vestita, Andromeda polifolia, Asplenium trichomanes, Botrychium lunaria, Carex dioica, Carex montana, Carum verticillatum, Cryptogramma crispa, Cystopteris fragilis, Diphasiastrum alpinum, Eleocharis multicaulis, Eleocharis quinqueflora, Equisetum variegatum, Galium boreale, Hammarbya paludosa, Hieracium reticulatum, Huperzia selago, Juncus ambiguous, Lycopodium clavattum,*

	Osmunda regalis, Polystichum aculeatum, *Potentilla palustris, Rubus saxatilis,* *Saxifraga hypnoides, Sedum forsterianum,* *Sorbus torminalis, Vaccinium vitis-idaea,* *Viola lutea*
Ceredigion	*Andromeda polifolia, Asplenium trichomanes,* *Baldellia ranunculoides, Carex dioica,* *Carex lasiocarpa, Carex limosa,* *Carum verticillatum, Cirsium dissectum,* *Cryptograma crispa, Dactylorhiza praetermissa,* *Drosera anglica, Festuca vivipara,* *Hammarbya paludosa, Hieracium subcrocatum,* *Isoetes echinospora, Isoetes lacustris,* *J uncus subnoduiosus, Lobelia dartmanna,* *Luronium natans, Pilularia globulifera,* *Rhynosochpora alba, Salix herbacea,* *Saxifraga hypnoides, Saxifraga stellaris,* *Schoenus nigricans, Sparganium minimum,* *Subularia aquatica, Utricularia minor*
Mid Glamorgan	*Carex montana*
Montgomery	*Anagallis tenella, Briza media,* *Hypericum elodes, Linum catharticum,* *Listera cordata, Pinguicula vulgaris,* *Sphagnum magellanicum, Wahlenbergia hederacea*
Pembrokeshire	*Allium schoenoprasum, Carum verticillatum,* *Cicendia filiformis, Drosera intermedia,* *Genista pilosa, Hammarbya paludosa,* *Limonium paradoxum, Lycopodiella inundata,* *Pinguicula lusitanica, Ranunculus tripartitus,* *Sedum rosea, Trifolium strictum, Viola lactea*
Radnorshire	*Botrichium lunaria, Ophioglossum vulgatum*

West Glamorgan	*Agrostis curtisii, Aster linosyris,* *Baldellia ranunculoides, Carex curta,* *Carex hostiana, Carex paniculata,* *Carex pulicaris, Carum verticillatum,* *Cirsium dissectum, Draba aizoides,* *Drosera intermedia, Eleocharis multicaulis,* *Gastridium ventricosum, Genista anglica,* *Helianthemum canum, J uniperus communis,* *Menyanthes trifoliata, Nymphoides peltata,* *Ononis reclinata, Osmunda regalis,* *Rhyncospora alba, Rhyncosinapis monensis,* *Rumex rupestris, Salix repens,* *Serratula tinctoria, Sorbus torminalis,* *Veronica spicata, Valeriana dioica,* *Vaccinium oxycoccus, Wahlenbergia hederacea*

(c) NOTABLE FAUNA

The semi-natural vegetation communities present on many commons support a rich and diverse fauna; this is due in part to the presence of assemblages of native plant species and the structural complexity of vegetation. Tables 10 - 13 record only a fraction of those types of fauna referenced in the survey reports. While the listings are impressive, it should be stressed that the field surveys of fauna were necessarily limited in nature. In certain instances, however, other more detailed sources of information were available (eg for commons that are SSSIs). It should also be added that the data do not extend to breeding and feeding records. Be this as it may, it is evident from the series of tabulations that commons are extremely important for a variety of fauna.

Although they are expanding at the the expense of more unusual vegetation, many shrub and bracken-covered commons, especially on the 'ffrith' or in-take (enclosed land lying between open hill grazings and improved in-bye land in valleys), shelter whinchat, tree pipit, redstart, yellow hammer, cuckoo, linnet and stonechat. Moorland commons can be locally important for raptors such as red kite, hen harrier and merlin. Even urban, semi-improved commons provide nesting sites for a range of birds. Several commons are also wetlands with large internationally important populations of waders.

Semi-natural habitats are also important in providing vegetation structure and food plants for interesting Lepidoptera and other invertebrates - for example, the marsh fritillary is adapted to feeding on *Succisa pratensis*, a plant of unimproved pasture communities.

Small mammals such as the yellow-necked mouse and harvest mouse also rely on vegetation structure to keep them safe from predators, as well as providing nesting material. Food source is also critical. Badgers, for example, eat a species of deep burrowing worm, *Lumbericus terrestis*, uncommon on cultivated pasture. Despite the fact that the record for fauna is incomplete, common land can be seen to have great significance for an impressive range of animals.

TABLE 10

BIRDS OF NOTE*

Region	Birds
Bedfordshire	corn bunting, lesser whitethroat , linnet, nightingale, spotted flycatcher, turtle dove, whitethroat, yellow hammer
Berkshire	kingfisher, nightjar, nightingale, redwing, redstart, snipe, yellow wagtail
Cambridgeshire	blacktailed godwit, hen harrier, lapwing, merlin, redshank, ruff, shoveler, snipe
Cleveland	goshawk, red grouse
Hertfordshire	firecrest, kingfisher, nightingale, redstart, siskin, snipe, yellow wagtail
Leicestershire	lapwing, redshank, turtle dove
Lincolnshire	curlew, lapland bunting, lapwing, redshank, snipe, twite, yellow wagtail
Nottinghamshire	lapwing, yellow wagtail, snipe, nightingale, hobby

Tyne and Wear	kingfisher, spotted flycatcher
Carmarthenshire	curlew, dotterel, hen harrier, merlin, raven, red grouse, red kite, redstart, ring ouzel, snipe, whimbrel, whinchat
Ceredigion	barn owl, black grouse, curlew, dotterel, dunlin, golden plover, hen harrier, merlin, peregrine falcon, pochard, raven, red grouse, red kite, redpoll, redstart, ring ouzel, snipe, whinchat, whitethroat
Mid Glamorgan	curlew, lapwing, linnet, merlin, red grouse, redstart, shoveler snipe, stonechat, whinchat
Montgomeryshire	black grouse, choughs, curlew, dunlin, goldeneye, golden plover, Greenland white-fronted goose, hen harrier, lapwing, linnet, merlin, peregrine falcon, raven, red grouse, redshank, redstart, ring ouzel, snipe, stonechat, yellow hammer
Pembrokeshire	barn owl, bewick swan, buzzard, chough, hen harrier, merlin, Montagu's harrier, oystercatcher, pintail, pochard, ravens, ring ouzel, shoveler, stonechat, wigeon, whinchat, whitethroat, whooper swan .
Radnorshire	curlew, dunlin, golden plover, hen harrier, lapwing, linnet, merlin, peregrine falcon, raven, red grouse, red kite, redshank, redstart, ring ouzel, snipe, stonechat, teal, winchat
South Glamorgan	linnet, whitethroat
West Glamorgan	barn owl, bar tailed godwit, black tailed godwit, curlew, dunlin, golden plover, grey plover, knot, lapwing, linnet, oystercatcher, pintail, redstart, ringed plover, sanderling, shoveler, snipe, stonechat, teal, turnstone, wigeon, whinchat, whitethroat

* *Listed under Wildlife and Countryside Act 1981, or Red Data and candidate Red Data Birds*

TABLE 11

NOTABLE LEPIDOPTERA

Region	Lepidoptera
Bedfordshire	brown argus, chalkhill blue, dingy skipper, Duke of Burgundy, green hairstreak, grizzled skipper, small blue, brown scallop, chimney sweeper, cistus forester, wood tiger
Berkshire	chalkhill blue, dingy skipper, grayling, purple emperor, white letter hairstreak
Cambridgeshire	black hairstreak, gatekeeper, green-vained white, grizzled skipper, small tortoiseshell, dingy mocha, four spotted, mere wainscote, small eggar
Hertfordshire	brimestone, brown argus, brown hairstreak, chalkhill blue, dingy skipper, Essex skipper, green hairstreak, holly blue, purple hairstreak, silver washed fritillary, small blue, white admiral, white-letter hairstreak, mere wainscote, pimpernel pug, small yellow underwing
Leicestershire	dingy skipper, grizzled skipper, brown scallop, lead-coloured drab, oak tree pug, pinion spotted pug
Nottinghamshire	white-letter hairstreak
Carmarthenshire	speckled wood, emperor moth, fox moth
Ceredigion	beautiful yellow underwing
Mid Glamorgan	brown argus, grayling, marbled white
Pembrokeshire	dark green fritillary, green hairstreak, marsh fritillary, small pearl bordered fritillary, scarlet tiger moth

(Table 11 continued)

South Glamorgan	gatekeeper, small copper, speckled wood
West Glamorgan	brown argus, dark green fritilary, grayling, marsh fritillary, small blue, small pearl bordered fritillary

TABLE 12

OTHER NOTABLE FAUNA ON COMMON LAND

Adder	Vipera berus
Badger	Meles meles
Brown Hare	Lepus capensis
Common Lizard	Lacerta vivipara
Fallow Deer	Cervus dama
Grass snake	Natrix natrix
Great Crested Newt	Triturus cristatus
Grey Seal	Halichoenus grypus
Harvest Mouse	Micromys minutus
Lesser Horseshoe Bat	Rhinolophus hipposideros
Otter	Lutra lutra
Palmate Newt	Triturus helveticus
Polecat	Mustela putorius
Roe Deer	Capreolus capreolus
Water Shrew	Neomys fodiens
Yellow-necked Mouse	Apodemus flavicollis

TABLE 13

RED DATA BOOK INVERTEBRATES

Snail	Abida secale
Caddisfly	Oxyethira mirabilis
Fly	Tetanocera freyi
Soldier Fly	Vanoyia tenuicornis

5. COMMON LAND AND AGRICULTURAL IMPROVEMENT

In a number of areas of England and Wales commons have been subject to a variety of improvements, largely to ensure more intensive and productive forms of agricultural use. Such developments, which greatly impact upon the conservation value of commons, include ploughing, which completely destroys the sward, drainage of wetland sites, and the use of fertilizers, which increase the performance of competitive grasses against herb species, and can have a detrimental effect on ecosystems when heavy leaching occurs. Increased use of inorganic fertilizers is particularly damaging. Enabling several cuts of grass to be taken for silage before the herbs have flowered, they prevent new seed formation and reduce the herb population. The decline in hay-making is an associated development with significant implications for conservation interests.

Table 14 and Figure 5 summarise the number and area of commons with improved and anthropogenic habitats. It is evident that the situation varies greatly from region to region. In many of the lowland regions high percentages of common land have been affected by improvements of one sort or another. In the uplands, although equivalent percentages are of a lower order, the acreages concerned are by no means insignificant. Whilst the threat of future improvements is likely to be much reduced, given more recent changes in agricultural policies and systems of price support, there is clearly a need to ensure that commons are safeguarded from developments that will lead to a diminution of semi-natural habitats. The dangers are most pronounced for commons that have no registered rightholders. Equally problematic are commons where there are few rightholders, many of whom do not exercise their rights. It should be stressed that in such cases loss of habitat can come not simply from agricultural improvements. In lowland England especially, the pressure on common land for housing, road-building and other developments (eg golf courses) is considerable.

Table 15 confirms that high proportions of commons in the lowland counties of England have been re-seeded. Figures are also high in certain counties of Wales (e.g. Mid and South Glamorgan). Overall nearly 23% of commons are classified as dominantly B4 areas. Some 27% of commons without rightholders have been ecologically destroyed through improvements. Of the lowland commons without rights of common, 47% have been improved. In the uplands the figure is under 15%. Of the commons that have been improved, 47% are managed by landowners and farmers; 22% are looked after by Local Authorities, and 11% are overssen by committees or associations of various types.

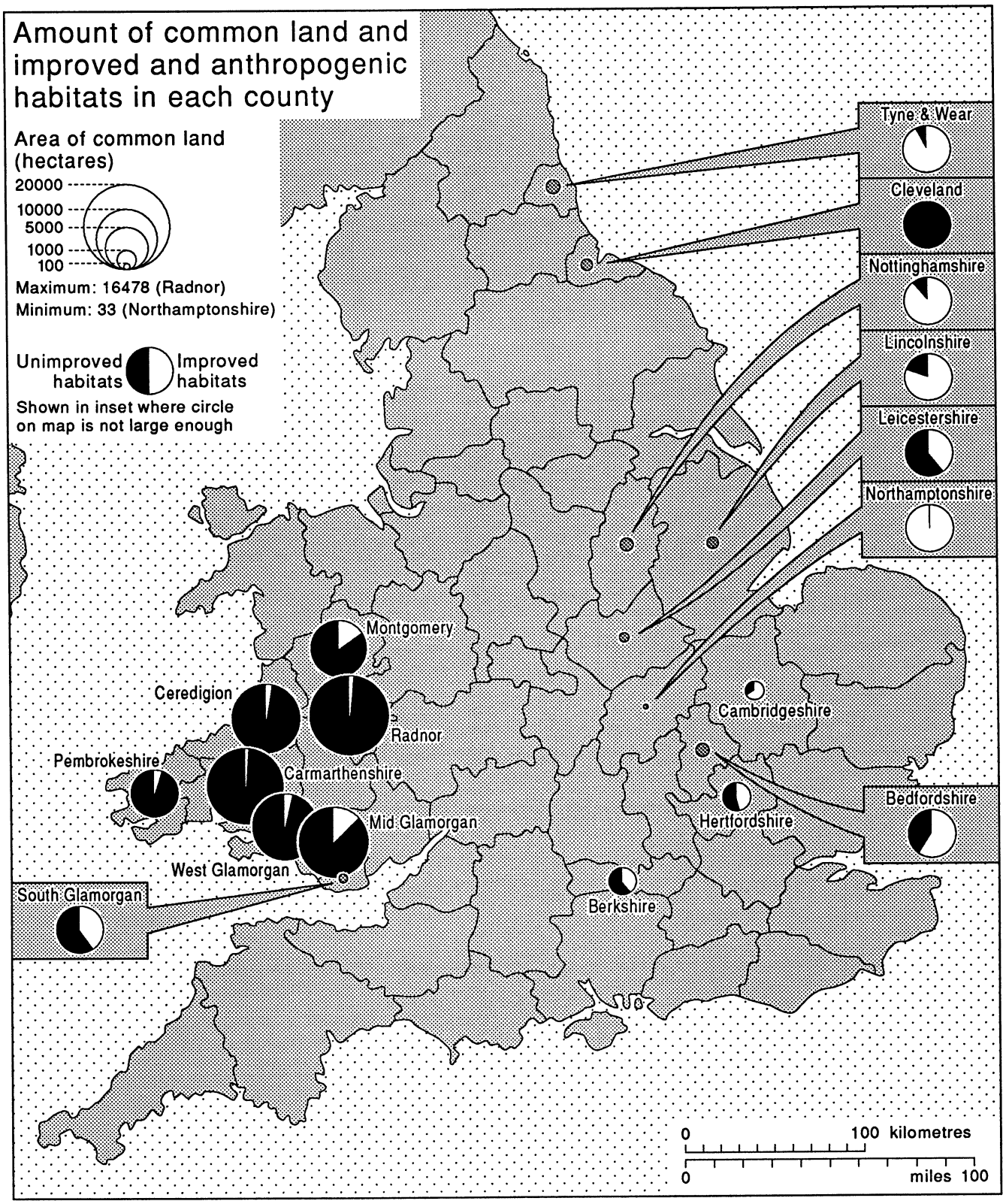

Amount of common land and improved and anthropogenic habitats in each county
Area of common land (hectares)
20000
10000
5000
1000
100
Maximum: 16478 (Radnor)
Minimum: 33 (Northamptonshire)
Unimproved habitats
Improved habitats
Shown in inset where circle on map is not large enough
Tyne & Wear
Cleveland
Nottinghamshire
Lincolnshire
Leicestershire
Northamptonshire
Montgomery
Ceredigion
Radnor
Pembrokeshire
Carmarthenshire
Mid Glamorgan
West Glamorgan
South Glamorgan
Cambridgeshire
Hertfordshire
Bedfordshire
Berkshire
0
100 kilometres
0
miles 100

Figure 5

TABLE 14

COMMONS WITH IMPROVED AND ANTHROPOGENIC HABITATS

Region	Area	% Common Land Area Surveyed
Bedfordshire	231.55	59.16
Berkshire	688.89	38.97
Cambridgeshire	460.78	65.97
Cleveland	0.00	0.00
Hertfordshire	870.15	45.00
Leicestershire	66.92	39.36
Lincolnshire	223.93	80.17
Northamptonshire	27.18	99.56
Nottinghamshire	308.53	88.51
Tyne and Wear	396.67	91.73
ENGLAND: Sub Total	3274.60	51.93
Carmarthenshire	69.78	1.00
Ceredigion	307.66	2.52
Mid Glamorgan	1598.49	12.71
Montgomeryshire	1242.29	15.19
Pembrokeshire	253.11	4.50
Radnorshire	275.45	1.67
South Glamorgan	58.50	39.99
West Glamorgan	390.54	3.47
WALES: Sub Total	4195.82	5.13
TOTAL	7470.42	8.49

6. RECREATIONAL USE OF COMMON LAND

As has been noted, the Common Land Form proposed that the general public should be granted a legal right of access to all common land. This access, it was recommended, should be "on foot" and "for quiet enjoyment". In the survey regions just 14% of commons were recorded as being managed for recreation; of these, some 19% were sown B4 grassland, specifically for amenity use (Tables 15 and 16). It should be stressed that these figures relate solely to commons formally managed for recreational use. Clearly, they do not reflect the high amenity value of common land in general. On many of the commons the general public takes advantage of a *de facto* right of access - this applies particularly to open moorlands in Wales. However, it is also true that on a significant number of commons the public has a *de jure* right of access. This applies to commons in urban areas (Sec. 193 commons), and commons where Deeds of Declaration exist. A notable example of the latter are the 31,000 hectares of common land owned by the Crown Estate in Cardiganshire, Merioneth, Carmarthenshire, Caernarvonshire and Radnorshire.

The issue of access is of course highly contentious, and the conservation implications of extending a general right of access to all common land will need to be carefully evaluated. Unequivocal data are limited, but the impact of disturbance on ground-nesting birds may be significant. So too may be the effect of trampling in certain semi-natural habitats (e.g. blanket bog). Increased pressure may also affect the incidence of fires. The regional reports identify a number of these problems.

TABLE 15

RECREATION AND IMPROVED GRASSLAND ON COMMONS SURVEYED

Region	% Commons B4	% Commons Recreational Management	% B4 Commons Also Recreational Management
Bedfordshire	43.48	34.78	0.00
Berkshire	37.25	7.84	5.20
Cambridgeshire	40.00	27.50	0.00
Cleveland	0.00	40.00	0.00
Hertfordshire	34.54	25.45	33.33
Leicestershire	29.41	23.53	56.25
Lincolnshire	33.33	10.00	40.00
Northamptonshire	50.00	0.00	0.00
Nottinghamshire	34.62	11.54	0.00
Tyne and Wear	12.50	75.00	37.50
ENGLAND: Sub Total	34.94	22.12	9.94
Carmarthenshire	9.21	1.32	15.00
Ceredigion	12.96	12.96	5.56
Mid Glamorgan	42.55	19.15	14.00
Montgomeryshire	23.38	5.19	30.43
Pembrokeshire	13.77	12.57	40.00
Radnorshire	12.28	1.75	20.00
South Glamorgan	41.67	16.67	0.00
West Glamorgan	14.04	14.04	44.75
WALES: Sub Total	16.97	9.98	22.54
TOTAL	22.95	14.12	18.83

TABLE 16

IMPROVED (B4) LAND WITH NO RIGHTS REGISTERED AND RECREATION

Region	% Commons With No Rights Listed	% B4 Commons With No Rights Listed	% Recreational Commons With No Rights Listed
Bedfordshire	65.22	50.00	62.50
Berkshire	35.29	5.20	0.00
Cambridgeshire	37.50	18.75	27.27
Cleveland	40.00	0.00	50.00
Hertfordshire	65.45	57.89	60.71
Leicestershire	76.47	100.00	50.00
Lincolnshire	86.67	60.00	66.67
Northamptonshire	0.00	0.00	0.00
Nottinghamshire	26.92	33.33	0.00
Tyne and Wear	75.00	0.00	66.67
Carmarthenshire	21.05	71.43	100.00
Mid Glamorgan	8.51	5.00	11.11
Montgomeryshire	7.79	5.55	66.67
Pembrokeshire	38.32	52.17	61.90
Radnorshire	1.75	0.00	0.00
South Glamorgan	16.67	20.00	50.00
West Glamorgan	8.77	0.00	37.50

7. THE DESIGNATED CONSERVATION VALUE OF COMMON LAND

Table 17 records the number and area of commons associated with particular landscape and nature conservation designations. The various categories are not mutually exclusive, but they do serve to re-affirm the conservation significance of common land. Thus, the tabulation shows that just over 25% of the common land surveyed (10% of commons) is associated with Sites of Special Scientific Interest. Furthermore, some 68 commons (20% of all common land) are Nature Conservation Review Sites and are of

particularly high quality. So too are the 10 commons that are Ramsar sites (wetland habitats of international importance) and the 5 commons that have been designated as Special Protection Areas (EC Birds Directive). These statistics, coupled with others that identify the incidence of commons in National Parks (117), Environmentally Sensitive Areas (78) and Areas of Outstanding Natural Beauty (61), graphically emphasise the considerable importance of common land as a biological resource.

The regional situation in terms of designated conservation areas on common land is charted in Table 18.

TABLE 17

COMMON LAND WITH SPECIAL CONSERVATION STATUS*

Conservation Status	Number of Commons	% Commons	Hectares	% Common Land Area
SSSI	165	10.13	22179	25.22
NCR	68	4.17	17540	19.94
NNR	4	0.25	85	0.09
LNR	3	0.18	160	0.18
ESA	78	4.79	15965	18.15
SPA	5	0.31	1029	1.17
NATIONAL PARK	117	7.18	17460	19.85
ANOB	61	3.75	5844	6.64
HERITAGE COAST	16	0.98	969	1.10
COUNTY TRUST	32	1.96	551	0.63
NATIONAL TRUST	55	3.38	1586	1.80
RAMSAR	10	0.61	252	0.29
OTHER	31	1.86	864	0.98

* Categories are not mutually exclusive.

TABLE 18

PROPORTION OF COMMON LAND WITH SPECIAL CONSERVATION STATUS

REGION	SSSI	NCR	NNR	LNR	ESA	SPA	National Park	AONB	Heritage Coast	County Trust	National Trust	Ramsar	Other
Bedfordshire	28.35			3.05				42.52		3.18			
Berkshire	14.17							30.24		0.34	15.34		40.15
Cambridgeshire	42.49	26.32	5.71			1.36				6.28	0.96	6.53	
Cleveland	3.06						89.99		6.76		19.93		0.54
Hertfordshire	33.45	2.83		7.66				36.32		10.62	21.64		
Leicestershire	43.01									8.25			
Lincolnshire	26.18									5.02			
Northamptonshire													
Nottinghamshire	9.73												6.65
Tyne and Wear	0.49												
Carmarthenshire	54.87	54.61			14.58		59.77						
Ceredigion	51.40	31.60			85.86					0.44	0.38	0.98	
Mid Glamorgan	1.82						28.33			1.07			
Montgomery	10.79	10.59			17.00								
Pembrokeshire	65.72	55.12					80.99	0.71	5.03	2.12	13.83		2.22
Radnorshire	13.59	0.17			11.46								
South Glamorgan													
West Glamorgan	21.28	9.94	0.40	0.03		8.72		39.53	5.93	0.36	0.15	0.51	

8. COMMONS AND GRAZING PRESSURE

The issue of grazing practices on common land is of considerable significance to the conservation interest. In some areas the value of commons has been destroyed or significantly reduced through neglect and the withdrawl of grazing animals, in others the problem arises as a result of over-grazing (see above). Table 19 summarises the intensity of grazing for the commons surveyed. The categorisation used here is based on field observations of indicator species and heather condition. Overall 19% of commons would appear to be very heavily grazed. On these commons the sward is experiencing loss of species and diversity through over-stocking (ecological over-grazing). The situation is especially worrying in upland regions of Wales. In Ceredigion, Carmarthenshire and Radnorshire over 40% of commons are severely affected. Damage to heather moors on commons with stocking levels of over 2.5 ewes per hectare is evident. Table 20 relates grazing regimes to the commons that are of special conservation interest (see Table 17 above). Without entering into detail, it can be noted that significant proportions of the commons experiencing overgrazing are sites of high conservation interest. The situation in Berkshire, Ceredigion, Pembrokeshire, West Glamorgan and Carmarthenshire is seen to be particularly disturbing. 58% of commons that are overgrazed have some conservation status. Table 21 and 22 indicate that the problem of overgrazing is predominantly associated with medium-sized and upland commons. It worth noting that the great majority of small commons (under 10 hectares) are not grazed. Some 22% of the land area of these small commons is managed by mowing, hay-making or burning. A further 19% is woodland, and a similar proportion is either under bracken or scrub. Many small commons are in urgent need of more positive management.

TABLE 19

GRAZING REGIMES ON COMMONS

Region	Not Grazed %	Lightly Grazed %	Moderately Grazed %	Heavily Grazed %
Bedfordshire	78	13	9	0
Berkshire	75	8	9	8
Cambridgeshire	32	23	40	5
Cleveland	20	80	0	0
Hertfordshire	86	5	7	2
Leicestershire	76	7	17	0
Lincolnshire	74	10	13	3
Northamptonshire	50	50	0	0
Nottinghamshire	54	13	26	7
Tyne and Wear	75	0	25	0
Carmarthenshire	28	18	9	45
Ceredigion	18	17	21	44
Mid Glamorgan	36	21	17	26
Montgomery	6	8	55	31
Pembrokeshire	48	18	29	5
Radnorshire	6	19	32	43
South Glamorgan	67	25	8	0
West Glamorgan	26	28	18	28

TABLE 20

GRAZING REGIMES AND COMMONS WITH CONSERVATION STATUS

Percentage of Commons

Region	Not Grazed	Lightly Grazed	Moderately Grazed	Heavily Grazed
Bedfordshire	39	33	0	0
Berkshire	68	80	100	100
Cambridgeshire	38	56	31	50
Cleveland	100	100	0	0
Hertfordshire	14	60	43	0
Leicestershire	15	100	33	0
Lincolnshire	9	33	0	0
Northamptonshire	0	0	0	0
Nottinghamshire	4	33	0	0
Tyne and Wear	67	0	0	0
Carmarthenshire	10	8	22	65
Ceredigion	65	28	64	88
Mid Glamorgan	0	20	13	50
Montgomeryshire	40	17	29	32
Pembrokeshire	63	57	51	67
Radnorshire	0	15	6	20
South Glamorgan	0	0	0	0
West Glamorgan	33	40	55	65
TOTAL	33	38	37	58

TABLE 21

GRAZING REGIMES AND SIZE OF COMMON

Size Class	Not Grazed	Lightly Grazed	Moderately Grazed	Heavily Grazed
<1 hectare	32	4	2	0
1-10 hectares	245	60	63	28
10-50 hectares	83	47	68	51
50-250 hectares	22	21	49	64
250-1000 hectares	4	6	17	31
>1000 hectares	0	0	1	15

TABLE 22

GRAZING REGIMES AND ALTITUDE OF COMMONS

Size Class	Not Grazed	Lightly Grazed	Moderately Grazed	Heavily Grazed
0-250 metres	360	106	118	36
250-500 metres	26	36	70	109
>500 metres	2	0	16	34

9. OTHER DEVELOPMENTS ON COMMON LAND

While discussions of the conservation value of commons tend to focus heavily on problems associated with over- or under-grazing, there are other devlopments that need to be taken account. Such matters cannot be examined in detail here, but Table 25 serves to highlight a number of harmful encroachments.

The issue of internal fencing can be of significance in that it might indicate an intention on the part of commoners to intensify activities within the areas inclosed. Unless permission has been granted by the Secretary of State for the Environment/Wales, fencing is illegal and violates Sec 194 of the Law of Property Act 1925. The problem of illegal fencing constitutes a *cause cēlèbre* for the amenity lobby since it limits public access. Of course, in certain areas such limitations may be in the conservation interest. Internal fencing applies on 155 of the commons surveyed.

Many commons have been split by roads or have been reduced in size by new developments. New roads cutting through commons with semi-natural habitats cause fragementation and isolation which may have detrimental affects on the population of some fauna. Eight of the study regions have commons under threat from these types of developments. Damage to common land is also being caused by off-road vehicles (mainly scrambler motorbikes). Over 100 of the commons surveyed were affected in this way.

Rubbish dumping is a major nuisance on common lands. In all, 254 commons experienced dumping in one form or another. Dumping was particularly noted along road sides where small hollows and trees provided some cover. Public and agricultural wastes were also recorded. The problem is widespread and affects both upland and lowland commons.

TABLE 23

ENCROACHMENT ON COMMONS

Region	Damage by Off Road Vehicle	Gardens or Buildings	Rubbish Dumping	Roads or Other Devpmt.	Internal Fencing	Other
Bedfordshire	2	2	8	1	2	-
Berkshire	4	8	23	-	11	4
Cambridgeshire	2	-	5	1	2	1
Cleveland	-	-	1	-	-	-
Hertfordshire	6	14	41	5	16	3
Leicestershire	-	-	6	-	3	2
Lincolnshire	54	1	7	-	2	4
Northamptonshire	-	-	-	-	-	-
Nottinghamshire	4	-	8	-	2	2
Tyne and Wear	-	1	2	-	-	-
Carmarthenshire	2	-	5	1	2	1
Ceredigion	4	3	22	8	29	5
Mid Glamorgan	12	1	35	2	14	6
Montgomeryshire	5	10	12	12	42	1
Pembrokeshire	4	17	43	4	27	12
Radnorshire	5	2	9	-	4	1
South Glamorgan	1	-	5	-	-	-
West Glamorgan	1	1	24	-	-	4
TOTAL	104	61	254	34	155	46

10. CONCLUSION

The common lands of England and Wales protect biological resources that are rich and highly valuable. This is graphically reflected in the high number of commons that have been accorded conservation status and in the diversity of habitats, flora and fauna recorded in the surveys discussed here. However, this major resource is clearly under threat. Agricultural improvement, overgrazing, neglect or lack of management, and numerous other pressures, pose serious problems for the wildlife interest on common land. Appropriate action, perhaps involving new legislation and taking into account the deliberations and recommendations of the Common Land Forum, is urgently needed. Without it the very special contribution that commons have made to the conservation of habitats and wildlife in uplands and lowlands alike could be irreparably undermined.