MLURI



THE LAND COVER OF SCOTLAND 1988

EXECUTIVE SUMMARY

THE MACAULAY LAND USE RESEARCH INSTITUTE
CRAIGIEBUCKLER ABERDEEN AB92QJ

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1. Aims of the report

1.1 Introduction

The Land Cover of Scotland 1988 (LCS88) survey is the first ever national census of land cover in Scotland. It has been produced by the Macaulay Land Use Research Institute on behalf of The Scottish Office to assist in developing and monitoring the effectiveness of policies affecting the state of the countryside in Scotland. The aims of this report are: to provide a general background to the survey, to present some initial statistical results and to indicate how the data can be obtained.

1.2 Intended audience

This report is intended for a general readership and assumes little or no knowledge of the technical issues relating to land cover mapping or associated computing. Readers interested in the technical aspects of the survey or more comprehensive statistical information are referred to the main project report (MLURI, 1993).

1.3 Scope of the report

The report is divided into three main sections. These provide background to the project, an outline of the methods used to produce the land cover information, general statistics on the land cover of Scotland on a national and regional basis and details of how the land cover information is released.

2. The survey

2.1 Project overview

The Land Cover of Scotland survey was announced in May 1987, by the then Under Secretary of State, Mr Michael Ancram. The decision to produce the first detailed census of the land cover of Scotland, resulted from increasing concern about the nature and rate of land use change in rural Scotland, and the need for objective baseline information on which to base future countryside policy.

The project was conducted in three main phases. The first phase involved obtaining medium scale aerial photography for the whole of Scotland (1987-89), and was undertaken by commercial contractors, principally Geonex Jasphot Ltd, with quality control by Mason Land Surveys Ltd. The second phase involved the interpretation of this photography to extract the land cover information, and subsequently the conversion of this information into a computer-readable dataset (1989-93). The final phase was a ground validation of the data. The final two phases were the responsibility of the Macaulay Land Use Research Institute (MLURI) and the Scottish Agricultural Statistics Service (SASS) in Aberdeen.

Co-ordination of the project was achieved by a Steering Group comprising the sponsoring agencies: The Scottish Office Environment Department (SOEnD), The Scottish Office Agriculture and Fisheries Department (SOAFD), Scottish Natural Heritage (SNH) and the Forestry Commission (FC), together with MLURI.

2.2 Aerial photography

The decision to use aerial photography was based upon a thorough review of various land cover mapping initiatives in the UK by the Scottish Office consultants, Professor T. Coppock and Dr R. Kirby (Coppock and Kirby, 1987).

The photographic coverage was obtained over three flying seasons from 1987 to 1989, with

Principal features	*Major features*	*Main features*	*Sub-categories based on*
Farms and developed rural land	Isolated farmsteads and other buildings	Isolated farms etc.	with trees with no trees
	Miscellaneous developed features	Factories Airfields Golf courses Cemeteries Recreational land	
Bare ground	Miscellaneous bare ground	Cliffs,bare rock, crags and screes Quarries and opencast Bings and refuse tips Paths Hill roads Water	mapped areas, lines or points
Miscellaneous features	Built-up land		
	Transport features in a rural context	Road Rail	
	Cloud or shadow-obscured areas Snow-obscured areas Ski areas Estuary, below normal tidal limit No photo cover		
Woodland	Coniferous woodland	Plantations Semi-natural	mapped areas lines of trees clumps of trees
	Undifferentiated broadleaved woodland	Broadleaved woodland	
	Undifferentiated mixed woodland	Mixed woodland	
	Undifferentiated low scrub	Undifferentiated low scrub	
	Rhododendron scrub	Rhododendron scrub	
	Management features	Management features	recently ploughed land former woodland recently felled open canopy young plantation land recently 'ripped' for afforestation
Agricultural land	Agricultural land	Improved pasture Arable land	rock outcrops scattered trees clustered farmsteads
Semi-natural ground vegetation	Heather and dwarf shrub heathland	Dry heather moor Wet heather moor Undifferentiated heather moor	muirburn rock outcrops scattered trees

Table 2.1 Land cover features for interpretation

continued on next page

Principal features	*Major features*	*Main features*	*Sub-categories based on*
Semi-natural ground vegetation (continued)	Undifferentiated coarse grasslands	Undifferentiated coarse grasslands	rock outcrops scattered trees
	Smooth grasslands	Smooth grasslands with rushes Smooth grasslands with low scrub Undifferentiated smooth grasslands Undifferentiated bracken	rock outcrops scattered trees
	Blanket bog and other peatland vegetation	Blanket bog with dubh lochans Undifferentiated blanket bog	erosion scattered trees
		Undifferentiated blanket bog	mechanised exploitation domestic exploitation
	Undifferentiated salt marshes	Undifferentiated salt marshes	scattered trees
	Maritime grasslands and heaths	Maritime grasslands and heaths	
	Wetlands	Wetlands	scattered trees drains
	Dunelands	Bare dunes Partially stabilised dunes Links with grassland Links with heathland	
	Montane vegetation	Undifferentiated montane vegetation	rock outcrops

Table 2.1 Land cover features for interpretation (continued)

most of the coverage obtained in 1988. Some 35% of the country was flown in the week 6 - 12 June 1988. The photography is at 1:24 000 scale (approximately two and one half inches to the mile) and is mostly monochrome. However, for commercial reasons the Central Valley is in colour. A set of photography is available for inspection at The Scottish Office Air Photographs Unit, and photographs may be purchased from Geonex UK Ltd.

2.3 Land cover classification

There is no standard land cover classification system in the UK although the need for a common classification framework is well recognised (Wyatt *et al.*, 1993). The classification used in the Land Cover of Scotland survey recognises the sponsors' requirement to have information on rural, and in particular semi-natural, land cover in Scotland.

The hierarchical classification system (Table 2.1) recognises principal, major and main land cover features with various sub-categories. For example, semi-natural ground vegetation (principal feature) may comprise heather and dwarf shrub heathland (major feature) which can be further split to dry heather moor (main feature) which may or may not have muirburn, rock outcrops or scattered trees (sub-categories).

The classification system allows for 126 land cover features to be identified as point, line or area features. Area features were delineated where they were >10 ha for semi-natural ground vegetation, >5 ha for built-up land or >2 ha for woodland.

An important aspect of the classification system is that it allows for mosaics of the single land cover features to be identified. Mosaics are defined as mixtures of two land cover features

where the patches of both are below the minimum mapping area criterion for separate identification. The recognition of mosaics in the Land Cover of Scotland survey expands the number of land cover features from 126 to 1323. Many of these mosaics prove to be nationally important (see Section 3), particularly those including heather moorland, whilst others are of highly localised importance (e.g. arable/dune mosaics in the Western Isles). In the full dataset some 354 single or mosaic features occupy 99% (77 900 km^2) of the land area of Scotland . The remaining 1% (<800 km^2) has some 969 different features!

In order to set the Land Cover of Scotland classification system in context, it has been compared to the classification systems currently being used in the Institute of Terrestrial Ecology's Countryside Survey 1990, the ITE Land Cover of Great Britain from Satellite Imagery, and the SNH National Countryside Monitoring Scheme (Table 2.2).

2.4 Interpretation

The air photo interpretation was done by 11 staff formerly involved in the Soil Survey of Scotland. Areas were allocated according to field experience so that all interpretation was done by individuals who had extensive local knowledge.

All interpreters followed the same procedure. Land cover was interpreted onto acetate overlays using mirror stereoscopes. The overlay information was then transferred onto 1:25 000 OS Pathfinder Series base maps (Figure 2.1) using a Sketchmaster, a simple optical-prism-based transfer instrument which superimposes two images. Editing and checking formed an integral part of the procedure.

2.5 Digitising

The 1:25 000 interpreted base maps were digitised using personal-computer- based digitising work stations running a digitising program. Four digitising work stations were run in parallel to ensure throughput. The maps were checked and double checked manually, and finally, as an aid to quality assurance, an in-house checking program was developed and applied to all sheets.

2.6 Digital datasets

The principal product from the Land Cover of Scotland survey is a computer-readable map or spatial dataset. This type of product is seen as being highly suited to the needs of professional staff advising policy makers. It is flexible, can be used to derive a wide range of statistical and cartographic products and, particularly when integrated with other types of map or census information, is capable of providing new insights. It is seen as a first step towards future decision-support systems for land use policies and management.

In reality, the technology needed to make use of such computer maps is not widely available at the moment. However, this is changing rapidly and many Scottish local authorities are acquiring the necessary computer-based geographic information systems (GIS). There are some difficulties because of the range of systems and the lack of standardisation.

The Land Cover of Scotland 1988 dataset is available in two releases:

i) Release 1 is in raster (cell-based) form where the individual cells have a nominal ground resolution of 50 m (0.25 ha). This is available in ERDAS format;

ii) Release 2 is in vector (x, y co-ordinate pairs) form where the line position error is ± 20 m. This release is fully edge-matched over the entire country and supersedes Release 1 in terms of data quality. It is available in ARC export format (see Section 4).

2.7 Maps and statistics

The Land Cover of Scotland 1988 dataset is map-derived. It can be used to produce single theme maps (e.g. all moorland areas in Scotland) or summary class maps such as the one included with this report. No standard published map series has been produced. Where maps are required they can be obtained on special request to the address on page 11. Examples of such maps might include land cover within defined river catchments, within set proximity to towns, settlements or roads, or

MLURI		NCMS		ITE		LANDSAT
PRINCIPAL FEATURES	MAJOR FEATURES	PRINCIPAL FEATURES	MAJOR FEATURES	FIELD	PRIMARY FEATURES	CLASSES
Semi-natural ground vegetation	Heather and dwarf shrub heathland	Heather	Moorland	Agriculture/ natural vegetation	Moorland and shrub heath	Upland dwarf shrub
	Undifferentiated coarse grasslands	Grassland	Unimproved		Moorland grass	Grass moor
	Smooth grasslands		Semi-improved		Upland grass	Unimproved
			Improved		Unmanaged grassland	Pasture/ amenity
					Lowland agricultural grass	
					Calcareous grassland	Meadow/ verge
	Blanket bog and peatland vegetation	Mire	Blanket (heather- or grass-dominated), lowland		Lowland heath	Heather heath
	Undifferentiated salt marsh				Blanket/ raised/ valley bog	Grass heath
	Wetlands				Saltmarsh	Saltmarsh fen/ marsh
	Dunelands	Bracken			Marsh/ flush/ fen	
	Montane vegetation	Parkland			Maritime vegetation	
					Aquatic vegetation	Bracken
					Tall herb vegetation	
Agricultural land	Agricultural land	Arable			Arable crops	Arable
Woodland	Coniferous woodland	Woodland	Coniferous wood	Forest/ wood/ trees	Woodland/ forest	Deciduous
			Coniferous plantation			Evergreen
	Broadleaved woodland		Broadleaved wood			
			Broadleaved plantation			
	Mixed woodland		Mixed wood			Mixed
			Young plantation			
			Felled woodland			
			Orchard		Orchard	Orchard
	Undifferentiated low scrub	Scrub	Tall, low		Scrub: line/ patch/ scattered/ individual	Scrub
	Trees; line/point; scattered	Linear features	Hedgerow		Trees: individual/ scattered/ line/ belt/ clump	
	Management features		Treeline			
Farms and developed rural land	Isolated farmsteads and other buildings	Built land		Buildings/ structures/ communications	Building/ gardens/ open spaces/ amenity grass/ allotments/ car park/ glasshouse/ embankment/ other	
	Miscellaneous developed features					
Bare ground	Miscellaneous bare ground	Bare rock and soil		Physiography/ inland water/ coastal	Cliffs/ scree/ boulders/ rock	Bare
		Wet ground				Felled
		Marginal inundation			Outcrop/ pebble-sand shore/ mud/	Ruderal weed
		Open water	Standing (natural and man-made), running		Sea/ lade/ canal/ ditch/ stream	Sea/ estuary
		Linear features (unsurfaced tracks, running water)			Spring/ well/ drainage/ gorge/ levee/ waterfall/ soil erosion/ peat hags	Inland water
						Beach
Miscellaneous features	Built-up land	Recreation		Boundaries	Walls	Urban/ industrial
	Transport features	Transport corridor			Fences	
	Cloud-obscured areas				Hedges	
	Snow-obscured areas	Quarry			Others	Suburban

Table 2.2 A comparison of current land cover land classification systems

within a specified administrative area. The statistics that appear in the Appendix were obtained by combining a digital 1:50 000 map of administrative regions with the land cover map.

Statistical output is equally flexible. In this report only the national and regional statistical breakdown of land cover is given. In the main report (MLURI, 1993) data for all districts are given. As above, it is possible to produce a wide range of alternative statistical summaries. Again, special requests should be directed to the address on page 11.

2.8 Validation

The accuracy of the air photo interpretation was validated. The land area of Scotland was divided into three classes according to distance from roads. Some 702 one-kilometre squares were randomly selected within these classes and these were inspected in the field.

Comparison between the field observations and the air photo interpretations indicate that at the principal feature level the error rate for interpretation is 3%, at the major feature level it is 16% and at the main feature level it is under 22%. However, average rates are misleading

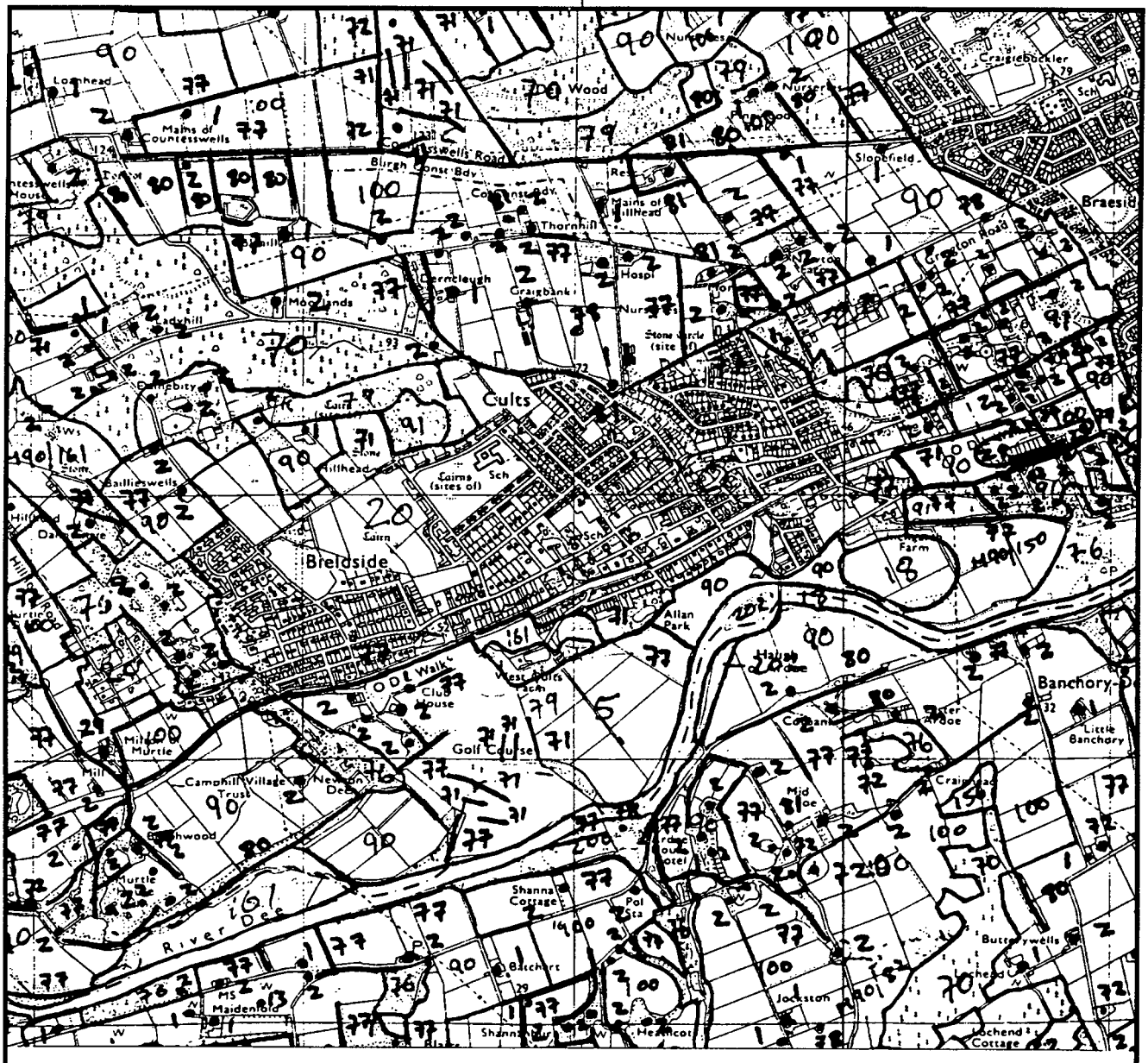


Figure 2.1 Example of base map with superimposed land cover information; area shown is to the west of Aberdeen

and where the individual features are considered it is clear that the greatest errors are in identifying the precise features of some types of woodland (15%) and semi-natural ground vegetation (14%), with very little error in agricultural land identification.

The issues of error and uncertainty are comprehensively covered in Chapter 5 of the main report (MLURI, 1993).

2.9 Pilot applications of the data

The LCS88 dataset has already been used to support the work of the Loch Lomond and Trossachs and Cairngorm Working Parties for SOEnD and in developing a moorland map of Scotland for SOAFD. Two studies of historical land cover change between 1946 and 1988 have been made of the Cairngorms (Gauld *et al.*, 1992) and the Central Valley of Scotland (Dry *et al.*, 1992).

3. The Land Cover of Scotland: preliminary statistical report

3.1 Source of the statistics

The statistical reports presented in the Appendix are based upon analysis of the 50 m raster version of Release 1 of the LCS88 dataset. This digital map has been overlaid by computer on an administrative boundary map to produce national, regional and district land cover reports. A complete breakdown of the statistics appears in Appendix E of the main report (MLURI, 1993). However, in the Appendix to this report only the general summaries are presented for Scotland as a whole and for the regions.

The reader is advised that these are preliminary figures and no account is taken of the uncertainties associated with them due to interpretation errors (see Section 2.8 above). It is advisable, therefore, to treat the area estimates as first approximations.

3.2 Understanding the statistical reports

Because there are 126 land cover features in the classification, it was felt useful to group them together in order to give a more general impression of patterns and trends in land cover at national and regional levels. The summary categories were chosen through consultation with SOEnD, SOAFD, SNH and FC on the basis of their being helpful at a general policy level; they are: Open countryside, Woodland, Wet ground, Developed and Other. The precise definition of these in terms of the LCS88 classes is given in Table 6.2 of the main report (MLURI, 1993).

The Appendix to this Executive Summary provides the statistical tables by summary category for Scotland nationally and regionally. However, some guidance is needed to assist in their interpretation — particularly as to how the mosaics should be treated. The following provides some help using, as an annotated example, the summary table for the Western Isles. (Figure 3.1)

The table is split into three boxes. The land cover summary categories are split according to whether they occur as single features (top left box 1), or as features in mosaics (bottom left box 2 and top right box 3).

The top left box (1) provides the most straightforward breakdown of areas. In the Western Isles example, it can be seen that the area of single features is 1 179.2 km^2 (38.2%) with peatland as the dominant cover type (14.5%). Some 1 911.6 km^2 (61.8%) is, however, covered by mosaics of these features.

Moving to the bottom left box (2), the mosaics are broken down according to those that are nationally significant (based on the national land cover summaries) and those that may not be of national significance but are significant locally. In this box, it can be seen that of the 1 911.6 km^2 of mosaics in the Western Isles, some 1 248.5 km^2 are of heather moorland and peatland. Note that the components of these mosaics are in either order (i.e. includes areas where peatland is the primary feature). Another point to note is that all the percentage figures refer to the total area of the region (i.e. the mosaics of heather moorland and peatland cover 40.4% of the Western Isles).

Turning to the top right box (3): suppose one wanted to calculate the area of arable land in the Western Isles. From box 1, it can be seen that 6.0 km^2 of arable occurs as a single feature. From box 3, it can be seen that 18.0 km^2 occurs as a mosaic with arable as the primary feature (NB other feature not specified) and 10.0 km^2 occurs as a mosaic with arable as the secondary one (again with other feature unspecified).

To calculate the total area of arable it is necessary to understand how the concept of a mosaic effects the area calculations. Put simply, the area of arable does not mean adding up 6.0 km^2 + 18.0 km^2 + 10.0 km^2. This would give an over-estimate for the area of arable because it treats each component of a mosaic as covering the whole area of the mosaic.

Inspect boxes in order **1, 2, 3**

Refer to section 3.2 for additional notes

summary categories are defined according to groups of LCS88 features

3. Summary categories in mosaics

1. Simple breakdown

	Cover types	single feature area	%	features in mosaics primary	secondary
	Open countryside				
A	Arable	6.0	0.2	18.0	10.0
B	Improved grassland	99.9	3.2	129.8	34.1
C	Good rough grassland	26.0	0.8	11.4	77.3
D	Poor rough grassland	12.4	0.4	14.1	17.7
E	Bracken	0	0	0.4	0.2
F	Heather moorland	246.6	8.0	791.9	509.7
G	Peatland	446.9	14.5	890.2	1180.1
H	Montane	46.9	1.5	23.5	15.9
I	Rock and cliffs	32.2	1.0	12.5	39.2
	Woodland				
J	Felled woodland	0	0	0	0
K	Recent planting	3.9	0.1	N.S	N.S
L	Coniferous plantation	5.1	0.2	N.S	0.6
M	Semi-natural coniferous	0	0	0	0
N	Mixed woodland	0.9	N.S	0	0
O	Broadleaved	0.1	N.S	0	0
P	*Scrub*	0.1	N.S	0	0
	Wet ground				
Q	Fresh waters	180.5	5.8	N.S	0.2
R	Marshes	8.8	0.3	1.9	3.2
S	Saltmarshes	4.2	0.1	0.1	0.1
T	Dunes	46.8	1.5	17.5	22.3
U	Tidal waters	0	0	0	0
	Developed				
V	Rural development	5.8	0.2	0.6	0.8
W	Urban	4.3	0.1	0	0
	Other				
X	Missing photography/obscured land	1.9	0.1	0.1	0.1
	SUBTOTAL	**1179.2**	**38.2**		
Y	Mosaics of types above *	1911.6	61.8	1911.6	1911.6
	ISLAND AUTHORITY TOTAL	3090.9	100.0	*	

Example:

ARABLE

6 km² as single feature

18 km² total area with arable as primary feature of mosaic

10 km² total area with arable as secondary feature of mosaic

NB total area of arable does not equal 6 + 18 + 10 km² (refer to Section 3.2)

total area of interpreted features

2. Mosaics alone

Mosaics known to be significant over Scotland as a whole

	Nationally significant mosaics		area	%
FG	Heather moorland	Peatland	1248.5	40.4
DF	Poor rough grassland	Heather moorland	5.6	0.2
CF	Good rough grassland	Heather moorland	5.8	0.2
GH	Peatland	Montane	39.5	1.3
CD	Good rough grassland	Poor rough grassland	3.6	0.1
BC	Improved grassland	Good rough grassland	69.3	2.2
CE	Good rough grassland	Bracken	0	0
DG	Poor rough grassland	Peatland	13.9	0.4
FH	Heather moorland	Montane	0	0
	SUBTOTAL		**1386.2**	**44.8**

Mosaics of local but not national significance

	Locally significant mosaics		area	%
BG	Improved grassland	Peatland	45.0	1.5
GI	Peatland	Rock and cliffs	41.0	1.3
BF	Improved grassland	Heather moorland	35.1	1.1
AT	Arable	Dunes	28.0	0.9
BD	Improved grassland	Poor rough grassland	8.8	0.3
	SUBTOTAL		**157.9**	**5.1**

Mosaics which have no national or local significance

	Remaining mosaics		367.5	11.9
	MOSAICS OF SUMMARY COVER TYPES *		**1911.6**	**61.8**

Table 13.

Western Isles

Land cover summary categories

All areas are expressed in square kilometres to 1 decimal place; the totals shown may not match the totals of the columns due to rounding error discrepancies; 0 = not present; N.S = not significant = < 0.05. Please refer to Figure 6.2 for guidance in the interpretation of this table.

mosaic ordering is not significant

i.e. Peatland/Montane includes Montane/Peatland

* total area of mosaics

(same figure should appear in boxes 1 and 3 also)

all % figures are percentage of the total area

Figure 3.1 Guidance notes for interpreting national and regional summary tables of the form x.x.1. in Appendix E

To calculate the area of arable first requires an assumption to be made about the percentage contribution of the two features to the total area of the mosaic. As a working rule, a 60:40 ratio might be assumed. Using this assumption the area of arable land in the Western Isles can be estimated as shown in Figure 3.2.

The illustration for the Western Isles provides an insight into how to use the statistical reports. Cross-reference between the regional and national tables will allow further assessments of how significant each region's land cover is in terms of the national resource. The statistics have not been expressed this way in order to keep them relatively simple! However, once again it is emphasised that because these data are all held on computer, a wide range of different summaries are possible and readers with particular concerns should contact the address on page 11 if they wish to pursue alternative approaches.

6.0 km²	as a single feature	6.0
60% of 18.0 km²	as the primary feature of a mosaic	10.8
40% of 10.0 km²	as the secondary feature of a mosaic	4.0
total		**20.8 km²**

Figure 3.2 Area of arable land in the Western Isles

The Appendix also provides stacked histograms showing the areas of summary categories and mosaics, and a preliminary commentary on the statistical summaries.

4. Formats, media, copyright and charging

4.1 Introduction

The principal outputs from the Land Cover of Scotland are a digital dataset and statistical reports. This section covers the formats, media, copyright and charging arrangements associated with the release of the digital dataset.

It is impossible to avoid technical descriptions in this section, but as far as possible these are relegated to the accompanying tables.

4.2 Formats and media

The LCS88 dataset is available as two releases (Table 4.1). Release 1 represents an interim vector version, and a derived raster version. Both are superseded by Release 2 which is a fully edge-matched vector dataset provided in ARC export format. The format for the raster version of Release 2 will be 16-bit TIFF. Requests for data should be addressed to the address on page 11.

4.3 Copyright and charging

The Scottish Office and Ordnance Survey have retained copyright over their respective parts of the dataset. MLURI has negotiated agency agreements with The Scottish Office and Ordnance Survey for marketing the dataset. An organisation may lease the data on an annual basis, and a single lease covers the entire organisation. The legal agreement is between the organisation and The Scottish Office. MLURI administers the leases and supplies the data.

Annual charges cover the information content of the dataset and are paid once only, irrespective of the number of copies of data acquired by an organisation in different formats.

For non-commercial users, the royalty charges (excluding VAT) for the whole dataset are as follows:

a) The Scottish Office Royalty:

1st year of lease: £18,500

2nd and subsequent years: £ 4,500

b) Ordnance Survey Royalty: 7.5% of a)

c) MLURI data maintenance: 10% of a)

For commercial users, the charges are increased by 50%.

Sub-sets of the full dataset may be leased in units of 10 km x 10 km tiles, aligned to the OS national grid. The annual charges given above are reduced according to the fraction of the dataset leased. This is calculated as the fraction by area within Scotland (79 000 km²).

Handling charges apply whenever data are delivered. Current handling charges, which include media, post and packing, but not VAT, are as follows:

area leased, km²	*data handling charge*
5 000	£80
10 000	£160
40 000	£220
79 000	£320

The dataset may subsequently be generalised to smaller scales, but there are no plans to do so at present. Possible datasets are 1:250 000, 1:625 000, 1 km × 1 km grid squares.

Transformed or combined datasets containing LCS88 data require to be licensed if the lease of the dataset itself is terminated.

4.4 Map products

The above covers the release of digital data. However, it is recognised that a great many users require map products. It was never the intention to produce a published map series for the Land Cover of Scotland survey. However, it is possible to provide:

i) clean copies of the 1:25 000 interpreted base maps

ii) user-defined thematic maps (showing areas of specified land cover features in particular geographic regions, for example, woodland in Kincardine and Deeside District).

For further information on derived maps, statistical summaries, formats and media, please contact the Data Leasing Officer, Resource Consultancy Unit, MLURI, Aberdeen AB9 2QJ Tel 0224 318611.

FORMATS

		Release 1 Un-edge-matched, as digitised	*Release 2* Edge-matched data
Vector		SPANS VEC/VEH 6 files per tile (2 files each for area, line and point features)	*Vector* ARC/INFO Version 6.0.1 export, 3 files per tile
Raster	*area features*	ERDAS Version 7.5, 50 metre pixels, 1 file per tile, per region or a single file for the whole dataset	*Raster* 16-bit TIFF
	line features	not supplied	
	point features	ASCII text, 1 file per tile, per region, or a single file for the whole dataset	

MEDIA

3.5" diskette	IBM-Compatible PC format. Self-unpacking program and data
DAT	UNIX cpio or tar
EXABYTE tape	UNIX cpio or tar
9 track, 1/2" tape	UNIX cpio ANSI; 1600 or 6250bpi
Optical (WORM) disc	This medium is being used for long-term backup. It will be made available to users if required
CD-ROM	This will be made available if required

Table 4.1 Formats and media for the LCS88 dataset

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Appendix

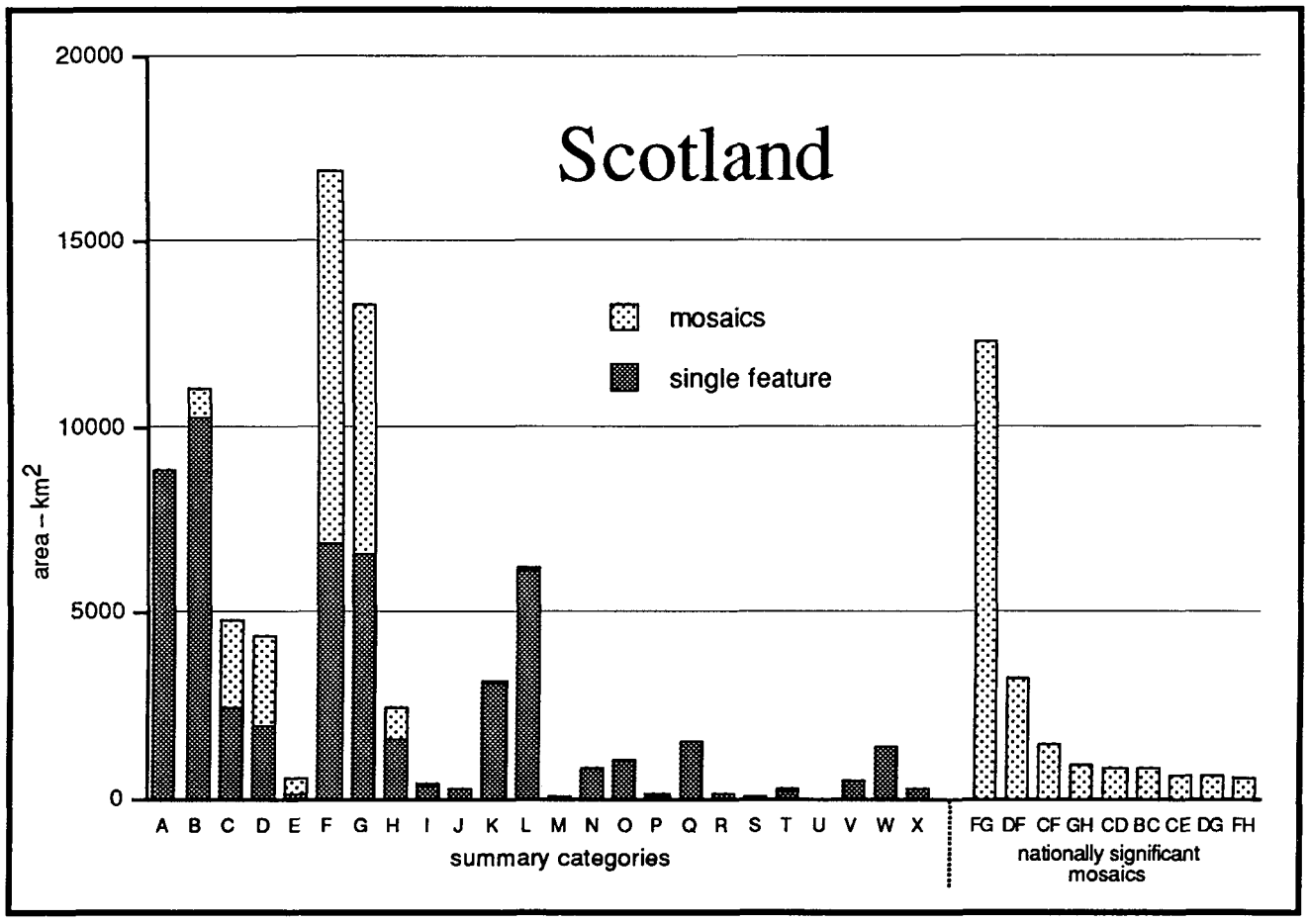
Land Cover of Scotland 1988

National and regional statistical summaries

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Map of summary categories ..... inside back cover



Using the LCS88 dataset, the total land area for Scotland is shown to be 78 828 km^2. Of this, over 50% is covered by semi-natural ground vegetation, of which heather moorland (8.7%) and peatland (8.4%) are the largest single features. Together heather moorland and peatland as features in mosaics represent a further 22.3% of the total land area. Woodland cover types are found predominantly as a single features with coniferous plantation (7.8%), and recent planting (3.9%) accounting for the greatest area. Broadleaved woodland (1.3%), mixed woodland (1.1%) and semi-natural coniferous woodland (0.1%) account for (2.5%) of the area, roughly the same as urban (1.8%) and rural development (0.6%). The agricultural cover types arable (11.2%) and improved grassland (13.0%) are the most extensive single features and significantly they tend not to occur as mosaics, as is the case with woodland cover types. This contrasts markedly with the semi-natural cover the bulk of whose area occurs within mosaics.

	Cover types	single feature area	%	features in mosaics primary	secondary
	Open countryside				
A	Arable	8826.9	11.2	18.1	10.1
B	Improved grassland	10281.1	13.0	1086.2	230.1
C	Good rough grassland	2472.2	3.1	1995.2	2847.3
D	Poor rough grassland	2011.0	2.6	1735.3	3371.8
E	Bracken	117.3	0.1	201.3	752.1
F	Heather moorland	6881.5	8.7	13685.9	4572.6
G	Peatland	6600.2	8.4	3661.1	11308.2
H	Montane	1604.5	2.0	1202.2	346.9
I	Rock and cliffs	348.1	0.4	46.7	98.2
	Woodland				
J	Felled woodland	299.8	0.4	13.6	5.0
K	Recent planting	3092.0	3.9	94.7	110.7
L	Coniferous plantation	6142.1	7.8	85.5	29.5
M	Semi-natural coniferous	75.0	0.1	4.1	14.8
N	Mixed woodland	854.5	1.1	17.1	27.1
O	Broadleaved	1024.3	1.3	39.4	49.3
P	Scrub	74.4	0.1	8.6	82.3
	Wet ground				
Q	Fresh waters	1532.0	1.9	N.S	9.7
R	Marshes	127.9	0.2	8.2	72.0
S	Saltmarshes	60.4	0.1	0.6	1.8
T	Dunes	193.1	0.2	55.7	43.7
U	Tidal waters	27.3	N.S	0	0
	Developed				
V	Rural development	470.3	0.6	50.0	4.2
W	Urban	1444.8	1.8	1.0	1.3
	Other				
X	Missing photography/obscured land	256.0	0.3	1.5	23.1
	SUBTOTAL	**54816.7**	**69.5**		
Y	Mosaics of types above	24011.8	30.5	24011.8	24011.8
	NATIONAL TOTAL	**78828.5**	**100.0**		

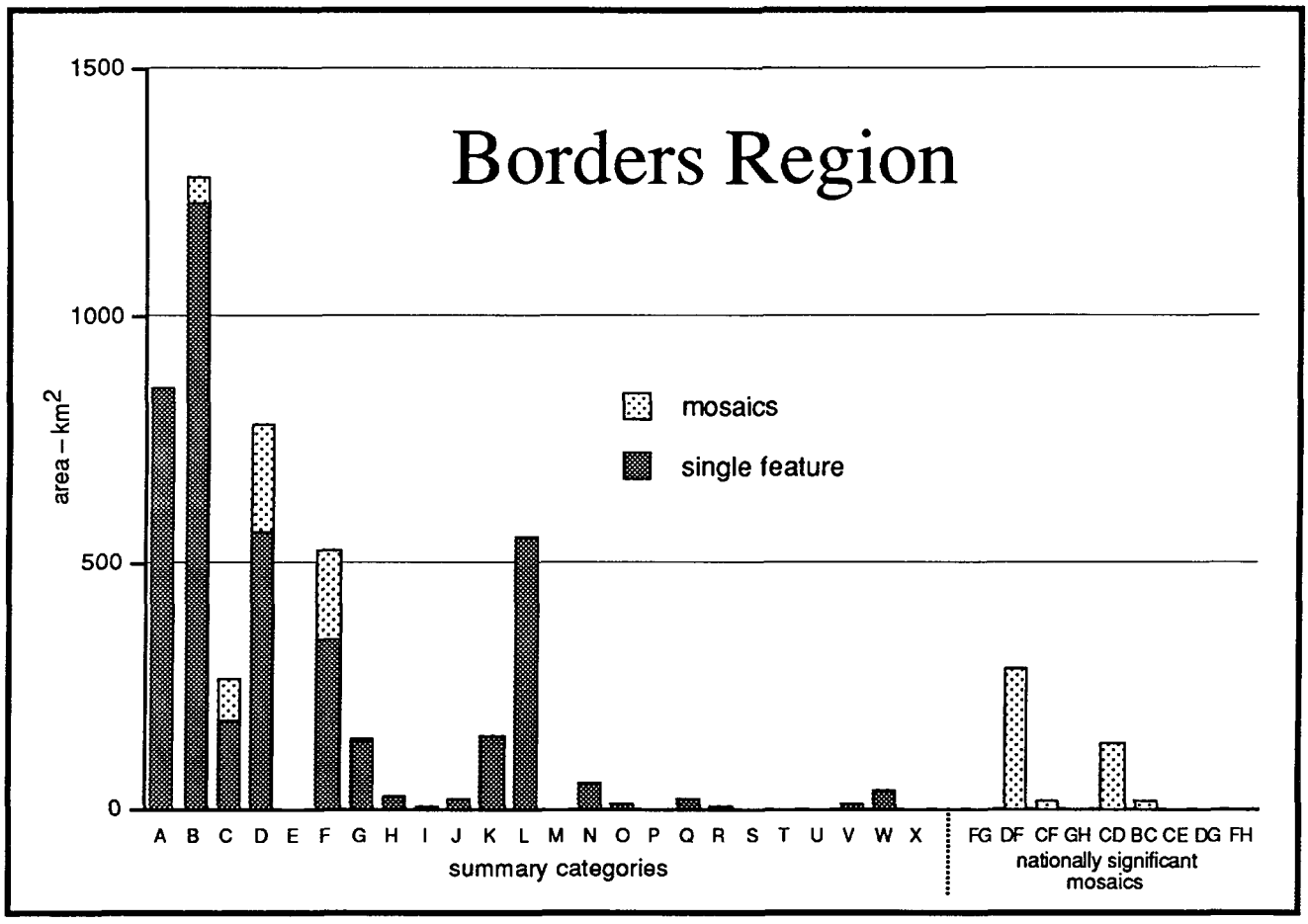
Nationally significant mosaics			area	%
FG	Heather moorland	Peatland	12370.9	15.7
DF	Poor rough grassland	Heather moorland	3230.0	4.1
CF	Good rough grassland	Heather moorland	1452.9	1.8
GH	Peatland	Montane	935.5	1.2
CD	Good rough grassland	Poor rough grassland	848.0	1.1
BC	Improved grassland	Good rough grassland	814.8	1.0
CE	Good rough grassland	Bracken	660.9	0.8
DG	Poor rough grassland	Peatland	634.0	0.8
FH	Heather moorland	Montane	539.9	0.7
		SUBTOTAL	**21486.9**	**27.3**
Remaining mosaics			2524.9	3.2
		MOSAICS OF SUMMARY COVER TYPES	**24011.8**	**30.5**

Table 1

Scotland

Land cover summary categories

All areas are expressed in square kilometres to 1 decimal place; the totals shown may not match the totals of the columns due to rounding error discrepancies; 0 = not present; N.S = not significant = < 0.05. Please refer to Figure 3.1 for guidance in the interpretation of this table.



Using the LCS88 dataset, the total land area for Borders Region is shown to be 4732 km^2. Of this, over 44% is arable and improved grassland as single features, whilst good rough grassland (3.9%) and poor rough grassland (12.0%) account for another 16%. This means that some 60% of the Region is arable or grassland. Of the remainder, recent planting (3.1%) and coniferous plantation (11.7%) account for 15%, and mosaics of poor rough grassland and heather moorland for a further 6%.

The Region is remarkable in the Scottish context for the predominance of the arable and grassland cover types (twice the national average), and the relative unimportance of heather moorland and particularly heather moorland mosaics. The low percentages of peatland should be noted. Overall the data indicate an area dominated by large land cover units reflected in the relative unimportance of mosaic features (11.3%).

	Cover types	single feature area	%	features in mosaics primary	secondary
	Open countryside				
A	Arable	857.8	18.1	0	0
B	Improved grassland	1230.5	26.0	81.9	2.7
C	Good rough grassland	177.6	3.8	66.3	113.5
D	Poor rough grassland	566.3	12.0	94.9	396.7
E	Bracken	0	0	0	0
F	Heather moorland	347.0	7.3	282.9	17.8
G	Peatland	136.8	2.9	3.3	4.5
H	Montane	25.0	0.5	1.1	0
I	Rock and cliffs	2.7	0.1	0	0
	Woodland				
J	Felled woodland	19.0	0.4	0	0
K	Recent planting	145.7	3.1	4.9	0
L	Coniferous plantation	554.2	11.7	0	0
M	Semi-natural coniferous	N.S	N.S	0	0
N	Mixed woodland	53.4	1.1	0	0
O	Broadleaved	8.4	0.2	0	0
P	Scrub	1.8	N.S	0	0
	Wet ground				
Q	Fresh waters	19.2	0.4	0	0
R	Marshes	5.0	0.1	0	0.3
S	Saltmarshes	0	0	0	0
T	Dunes	N.S	N.S	0	0
U	Tidal waters	0	0	0	0
	Developed				
V	Rural development	10.7	0.2	0	0
W	Urban	36.0	0.8	0	0
	Other				
X	Missing photography/obscured land	0.1	N.S	0	0
	SUBTOTAL	**4197.1**	**88.7**		
Y	Mosaics of types above	535.4	11.3	535.4	535.4
	REGIONAL TOTAL	**4732.5**	**100.0**		

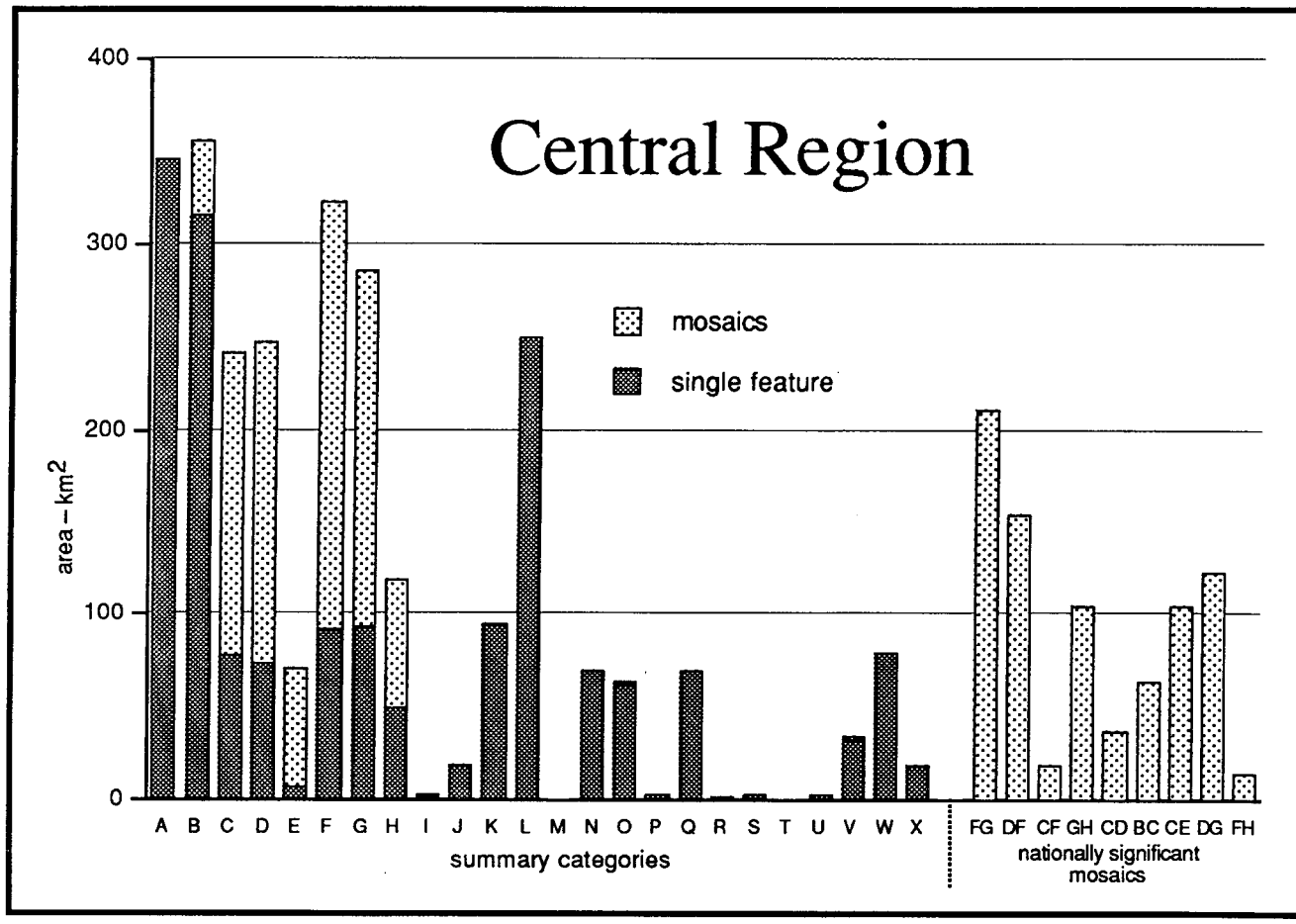
	Nationally significant mosaics		area	%
FG	Heather moorland	Peatland	0	0
DF	Poor rough grassland	Heather moorland	286.5	6.1
CF	Good rough grassland	Heather moorland	13.5	0.3
GH	Peatland	Montane	1.1	N.S
CD	Good rough grassland	Poor rough grassland	131.8	2.8
BC	Improved grassland	Good rough grassland	16.2	0.3
CE	Good rough grassland	Bracken	0	0
DG	Poor rough grassland	Peatland	0	0
FH	Heather moorland	Montane	0	0
	SUBTOTAL		**449.1**	**9.5**
	Locally significant mosaics		area	%
BD	Improved grassland	Poor rough grassland	68.4	1.4
DK	Poor rough grassland	Recent planting	4.9	0.1
CR	Good rough grassland	Marshes	0.3	N.S
	SUBTOTAL		**73.7**	**1.6**
	Remaining mosaics		12.6	0.3
	MOSAICS OF SUMMARY COVER TYPES		**535.4**	**11.3**

Table 2

Borders Region

Land cover summary categories

All areas are expressed in square kilometres to 1 decimal place; the totals shown may not match the totals of the columns due to rounding error discrepancies; 0 = not present; N.S = not significant = < 0.05. Please refer to Figure 3.1 for guidance in the interpretation of this table.



Using the LCS88 dataset the total land area of Central Region is shown to be 2703 km^2. Of this around 25% is made up of arable (12.8%) and improved grassland (11.7%) as single features. Rough grassland accounts for a further 6% including mosaics. Of the remaining area some 9% is accounted for by coniferous plantation and a further 5% by a combination of mixed woodland (2.5%) and broadleaved woodland (2.3%) which is over twice the national average. Some 35% of the Region is accounted for by mosaics in which heather moorland, peatland and poor rough grassland combinations predominate.

The Region is remarkable for the relatively high percentage of mixed and broadleaved woodland, and urban/ rural development. The breakdown of single feature and mosaic classes indicates an intermediate type of landscape which is more developed than average but which retains significant areas of the nationally extensive semi-natural vegetation types.

	Cover types	single feature area	%	features in mosaics primary	secondary
	Open countryside				
A	Arable	346.0	12.8	0	0
B	Improved grassland	316.5	11.7	65.1	1.5
C	Good rough grassland	77.8	2.9	165.3	165.1
D	Poor rough grassland	73.5	2.7	189.0	154.6
E	Bracken	6.6	0.2	25.1	123.3
F	Heather moorland	91.7	3.4	322.7	93.1
G	Peatland	94.4	3.5	62.3	387.4
H	Montane	48.9	1.8	109.4	11.5
I	Rock and cliffs	0.7	N.S	0	2.1
	Woodland				
J	Felled woodland	19.1	0.7	0.4	0.2
K	Recent planting	94.9	3.5	0.1	0
L	Coniferous plantation	250.9	9.3	0.1	0.7
M	Semi-natural coniferous	0	0	0	0
N	Mixed woodland	68.6	2.5	0.2	1.8
O	Broadleaved	62.3	2.3	0.4	0.8
P	Scrub	3.0	0.1	0	0.4
	Wet ground				
Q	Fresh waters	69.1	2.6	0	0
R	Marshes	1.5	0.1	0.3	0.7
S	Saltmarshes	2.6	0.1	0	0
T	Dunes	0	0	0	0
U	Tidal waters	2.5	0.1	0	0
	Developed				
V	Rural development	31.7	1.2	2.9	0
W	Urban	79.2	2.9	0	0
	Other				
X	Missing photography/obscured land	18.5	0.7	0	0
	SUBTOTAL	**1759.9**	**65.1**		
Y	Mosaics of types above	943.3	34.9	943.3	943.3
	REGIONAL TOTAL	**2703.2**	**100.0**		

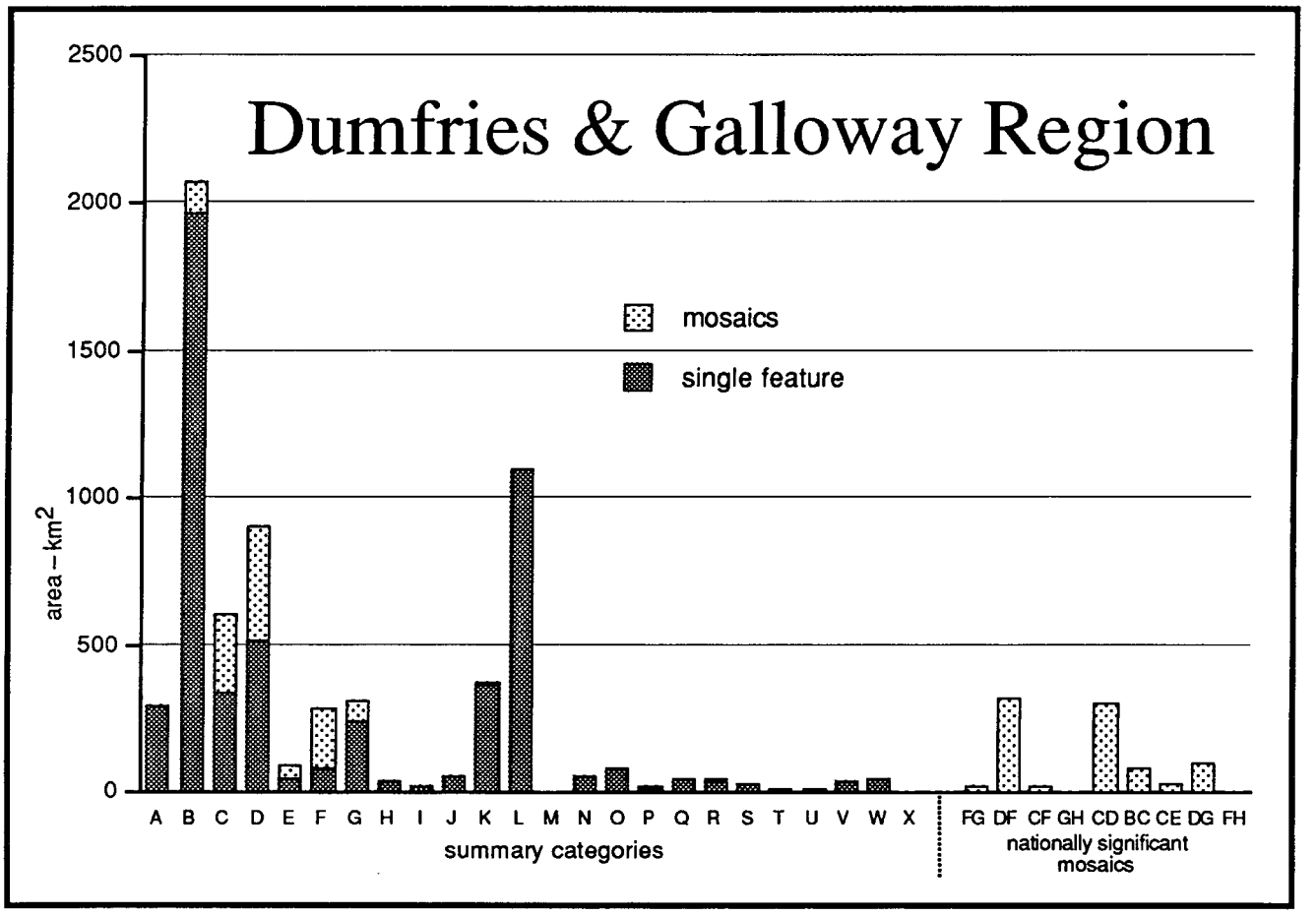
Nationally significant mosaics			area	%
FG	Heather moorland	Peatland	211.0	7.8
DF	Poor rough grassland	Heather moorland	154.5	5.7
CF	Good rough grassland	Heather moorland	17.9	0.7
GH	Peatland	Montane	104.5	3.9
CD	Good rough grassland	Poor rough grassland	36.9	1.4
BC	Improved grassland	Good rough grassland	62.5	2.3
CE	Good rough grassland	Bracken	104.8	3.9
DG	Poor rough grassland	Peatland	123.8	4.6
FH	Heather moorland	Montane	14.1	0.5
	SUBTOTAL		**830.1**	**30.7**
Locally significant mosaics			area	%
DE	Poor rough grassland	Bracken	24.7	0.9
EF	Bracken	Heather moorland	17.0	0.6
CG	Good rough grassland	Peatland	8.7	0.3
BD	Improved grassland	Poor rough grassland	2.8	0.1
NV	Mixed woodland	Rural development	1.8	0.1
	SUBTOTAL		**55.1**	**2.0**
Remaining mosaics			58.1	2.2
MOSAICS OF SUMMARY COVER TYPES			**943.3**	**34.9**

Table 3

Central Region

Land cover summary categories

All areas are expressed in square kilometres to 1 decimal place; the totals shown may not match the totals of the columns due to rounding error discrepancies; 0 = not present; N.S = not significant = < 0.05. Please refer to Figure 3.1 for guidance in the interpretation of this table.



Using the LCS88 dataset the total land area of Dumfries and Galloway Region is shown to be 6478 km^2. Of this, over 45% is represented by a combination of improved grassland (30.4%), good rough grassland (5.2%) and poor rough grassland (7.9%) as single features. Arable accounts for only 4.5%, less than half the national average, but recent planting (5.6%) and coniferous plantation (17.0%) account for over 22% of the area. This is over twice the national average. Only a very small proportion of the remaining area is accounted for by the nationally important semi-natural cover types of heather and peatland, the majority of the mosaics (totalling 16.8%) being grassland mixes.

The Region is remarkable for the very high percentage of grassland and coniferous plantation which together account for over 70% of the area. In contrast, the Region has very little in the way of nationally significant heather moorland or peatland cover.

	Cover types	single feature area	%	features in mosaics primary	secondary
	Open countryside				
A	Arable	291.5	4.5	0	0
B	Improved grassland	1971.0	30.4	151.1	24.2
C	Good rough grassland	334.1	5.2	220.8	334.6
D	Poor rough grassland	512.0	7.9	340.0	460.2
E	Bracken	47.2	0.7	44.8	31.3
F	Heather moorland	83.3	1.3	253.5	108.8
G	Peatland	240.7	3.7	62.2	78.4
H	Montane	37.0	0.6	0	0
I	Rock and cliffs	14.4	0.2	2.4	0.4
	Woodland				
J	Felled woodland	49.1	0.8	3.7	0
K	Recent planting	364.3	5.6	4.0	3.5
L	Coniferous plantation	1098.9	17.0	0.2	0.1
M	Semi-natural coniferous	N.S	N.S	0	0.2
N	Mixed woodland	55.4	0.9	0.6	0
O	Broadleaved	81.6	1.3	0.5	0.2
P	Scrub	3.8	0.1	0	38.8
	Wet ground				
Q	Fresh waters	46.3	0.7	0	0
R	Marshes	38.3	0.6	1.9	4.5
S	Saltmarshes	24.4	0.4	0	0
T	Dunes	11.0	0.2	0.5	0.8
U	Tidal waters	5.3	0.1	0	0
	Developed				
V	Rural development	34.6	0.5	0.1	0.3
W	Urban	45.5	0.7	0.1	0
	Other				
X	Missing photography/obscured land	1.6	N.S	0	0
	SUBTOTAL	**5391.3**	**83.2**		
Y	Mosaics of types above	1086.4	16.8	1086.4	1086.4
	REGIONAL TOTAL	**6477.6**	**100.0**		

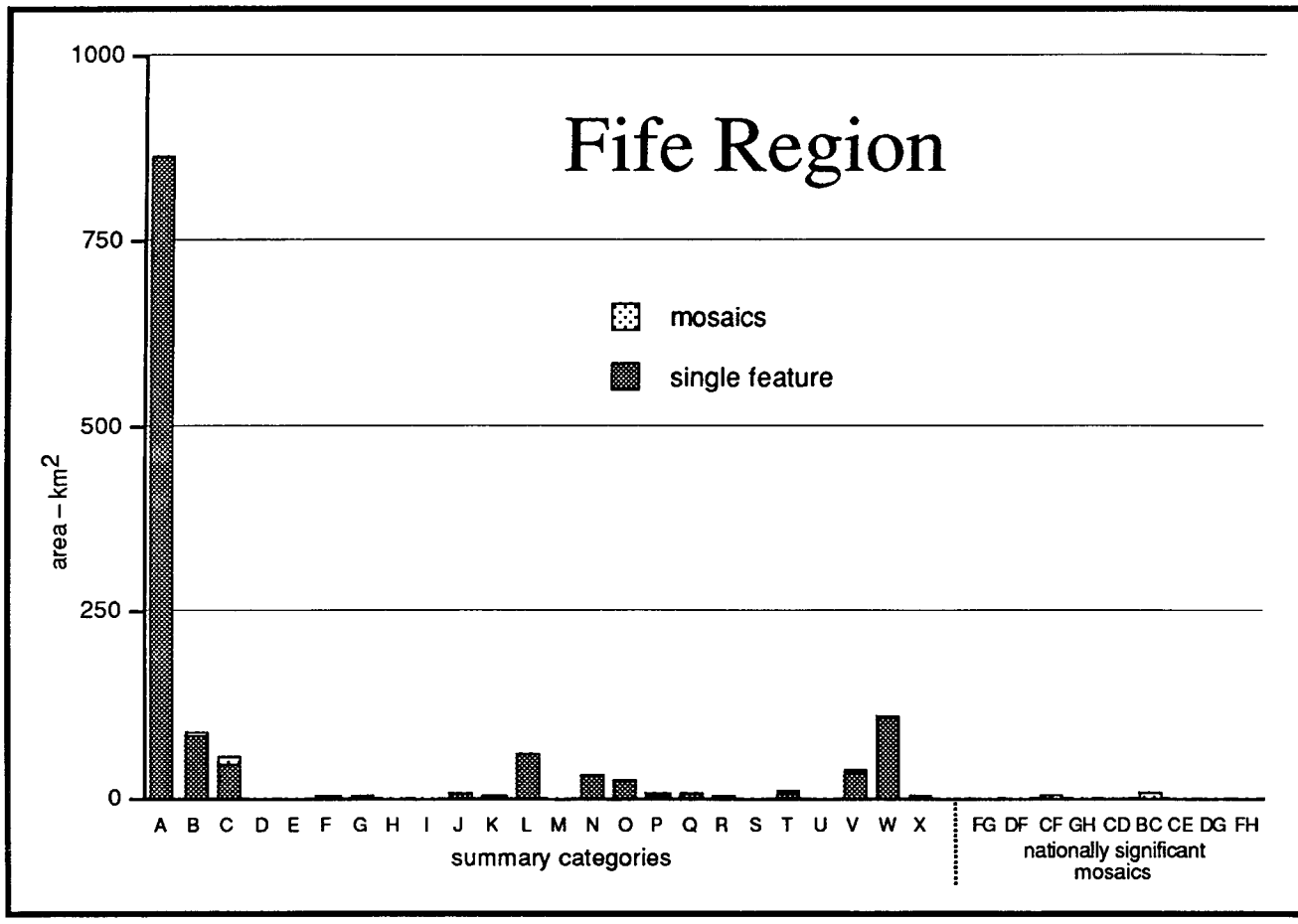
Nationally significant mosaics			area	%
FG	Heather moorland	Peatland	14.0	0.2
DF	Poor rough grassland	Heather moorland	315.8	4.9
CF	Good rough grassland	Heather moorland	14.3	0.2
GH	Peatland	Montane	0	0
CD	Good rough grassland	Poor rough grassland	300.7	4.6
BC	Improved grassland	Good rough grassland	75.2	1.2
CE	Good rough grassland	Bracken	25.7	0.4
DG	Poor rough grassland	Peatland	93.6	1.4
FH	Heather moorland	Montane	0	0
		SUBTOTAL	**839.3**	**13.0**
Locally significant mosaics			area	%
BD	Improved grassland	Poor rough grassland	57.7	0.9
BP	Improved grassland	Scrub	33.0	0.5
DE	Poor rough grassland	Bracken	29.1	0.4
CG	Good rough grassland	Peatland	17.4	0.3
EF	Bracken	Heather moorland	14.7	0.2
		SUBTOTAL	**152.0**	**2.3**
Remaining mosaics			95.1	1.5
MOSAICS OF SUMMARY COVER TYPES			**1086.4**	**16.8**

Table 4

Dumfries & Galloway Region

Land cover summary categories

All areas are expressed in square kilometres to 1 decimal place; the totals shown may not match the totals of the columns due to rounding error discrepancies; 0 = not present; N.S = not significant = < 0.05. Please refer to Figure 3.1 for guidance in the interpretation of this table.



Using the LCS88 dataset the total land area of Fife Region is shown to be 1319 km^2. Of this, over 65% is arable as a single feature with improved grassland (6.4%) and good rough grassland (3.5%) accounting for a further 10%. Of the remainder, over 10% is made up of urban (8.2%) and rural development (2.6%). Woodland is the largest remaining class with a total of just under 10% roughly divided between coniferous plantation, mixed woodland and broadleaved woodland. Only 2.2% of the area was mapped as mosaic and the nationally significant semi-natural communities of heather moorland and peatland are rare.

The Region is remarkable for the predominance of arable agriculture and improved grassland at some three times the national average. Likewise, the urban and rural development is some four times the average. The lack of the nationally significant semi-natural categories is unusual amongst the Scottish Regions, with only Lothian having a similarly low amount.

	Cover types	single feature area	%	features in mosaics primary	secondary
	Open countryside				
A	Arable	863.5	65.4	N.S	0
B	Improved grassland	83.9	6.4	9.2	0.5
C	Good rough grassland	45.9	3.5	6.1	14.9
D	Poor rough grassland	0.9	0.1	0.1	0
E	Bracken	0.1	N.S	0	0.7
F	Heather moorland	2.3	0.2	2.7	0.2
G	Peatland	3.3	0.2	0	0
H	Montane	0	0	0	0
I	Rock and cliffs	0.2	N.S	0	0
	Woodland				
J	Felled woodland	5.4	0.4	0	1.1
K	Recent planting	3.2	0.2	0	0.1
L	Coniferous plantation	59.7	4.5	1.3	0.7
M	Semi-natural coniferous	0	0	0	0
N	Mixed woodland	30.6	2.3	0	1.5
O	Broadleaved	25.3	1.9	0	1.3
P	Scrub	3.6	0.3	0	3.6
	Wet ground				
Q	Fresh waters	7.3	0.5	0	0
R	Marshes	4.4	0.3	0	0.2
S	Saltmarshes	0.8	0.1	0	0
T	Dunes	4.7	0.4	3.6	3.6
U	Tidal waters	0.5	N.S	0	0
	Developed				
V	Rural development	34.7	2.6	5.4	0
W	Urban	108.2	8.2	0	0
	Other				
X	Missing photography/obscured land	2.6	0.2	0	0
	SUBTOTAL	**1291.1**	**97.8**		
Y	Mosaics of types above	28.4	2.2	28.4	28.4
	REGIONAL TOTAL	**1319.5**	**100.0**		

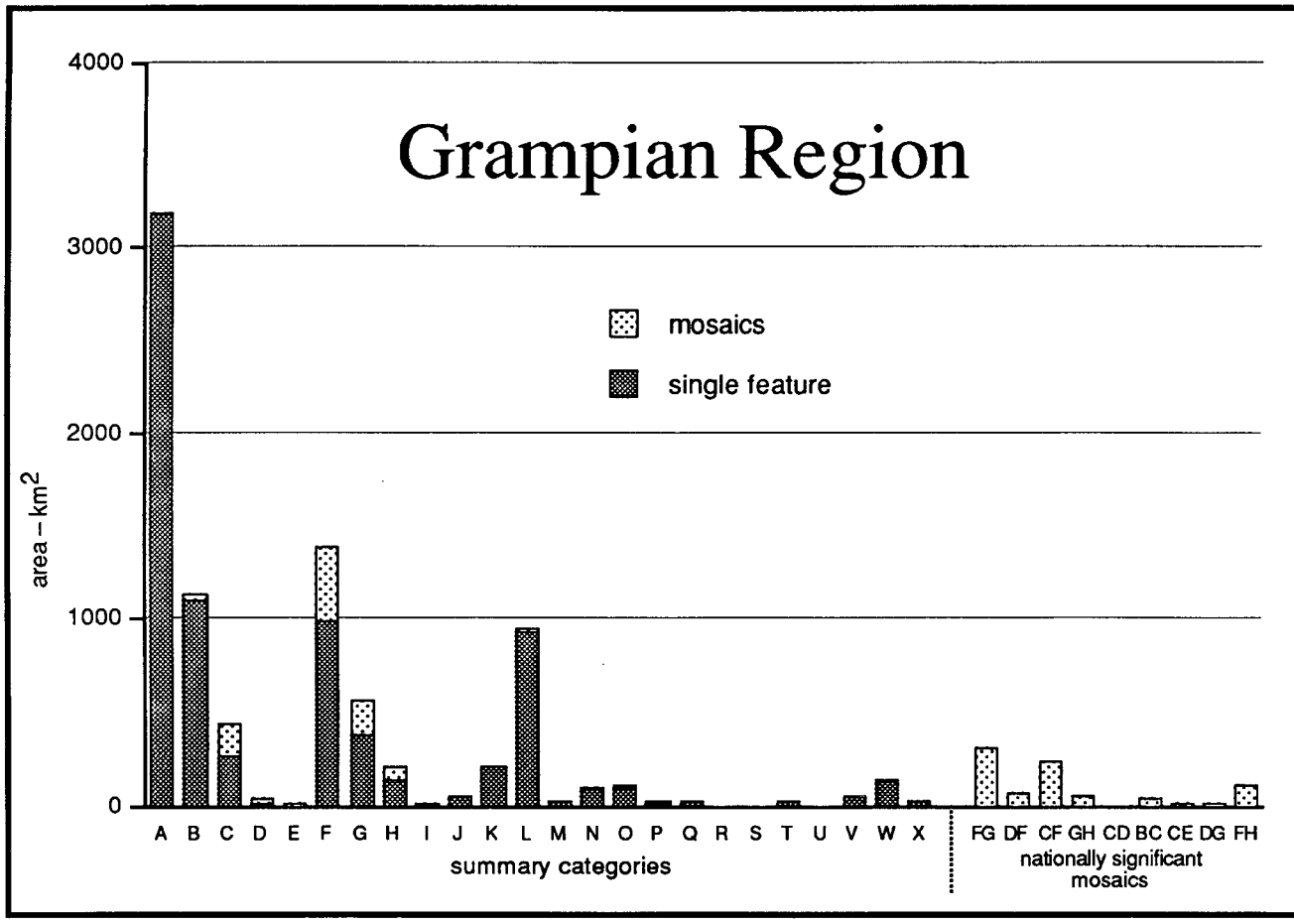
Nationally significant mosaics			area	%
FG	Heather moorland	Peatland	0	0
DF	Poor rough grassland	Heather moorland	0	0
CF	Good rough grassland	Heather moorland	2.8	0.2
GH	Peatland	Montane	0	0
CD	Good rough grassland	Poor rough grassland	0.1	N.S
BC	Improved grassland	Good rough grassland	6.4	0.5
CE	Good rough grassland	Bracken	0.6	N.S
DG	Poor rough grassland	Peatland	0	0
FH	Heather moorland	Montane	0	0
		SUBTOTAL	**9.9**	**0.8**
Locally significant mosaics			area	%
BP	Improved grassland	Scrub	3.2	0.2
CV	Good rough grassland	Rural development	2.0	0.2
NV	Mixed woodland	Rural development	1.5	0.1
OV	Broadleaved	Rural development	1.3	0.1
JL	Felled woodland	Coniferous plantation	1.1	0.1
		SUBTOTAL	**9.1**	**0.7**
Remaining mosaics			9.4	0.7
MOSAICS OF SUMMARY COVER TYPES			**28.4**	**2.2**

Table 5

Fife Region

Land cover summary categories

All areas are expressed in square kilometres to 1 decimal place; the totals shown may not match the totals of the columns due to rounding error discrepancies; 0 = not present; N.S = not significant = < 0.05. Please refer to Figure 3.1 for guidance in the interpretation of this table.



Using the LCS88 dataset the total land area of Grampian Region is shown to be 8755 km^2. Of this, around half is arable (36.5%) and improved grassland (12.6%) as single features, over twice the national average. Of the remaining area, heather moorland and peatland account for over 20% of which the majority is not mosaic. Recent planting (2.5%) and coniferous plantation (10.8%) account for another 13% represented as single features.

The Region is remarkable for the relatively high percentage of arable and improved grassland and the relatively low percentage of semi-natural features in mosaics.

	Cover types	single feature area	%	features in mosaics primary	secondary
	Open countryside				
A	Arable	3192.3	36.5	0	0
B	Improved grassland	1099.8	12.6	39.6	8.0
C	Good rough grassland	268.7	3.1	115.6	261.1
D	Poor rough grassland	9.1	0.1	27.6	46.8
E	Bracken	1.4	N.S	2.4	9.0
F	Heather moorland	994.0	11.4	516.2	227.2
G	Peatland	383.5	4.4	136.4	256.7
H	Montane	138.1	1.6	70.7	86.7
I	Rock and cliffs	7.2	0.1	1.4	6.5
	Woodland				
J	Felled woodland	56.2	0.6	0.2	0
K	Recent planting	214.6	2.5	1.5	0.2
L	Coniferous plantation	941.4	10.8	0.9	0.7
M	Semi-natural coniferous	25.4	0.3	0	0.7
N	Mixed woodland	100.0	1.1	2.3	0.8
O	Broadleaved	102.2	1.2	4.6	1.7
P	Scrub	15.8	0.2	0.9	14.4
	Wet ground				
Q	Fresh waters	24.4	0.3	0	0
R	Marshes	5.1	0.1	0.2	0.2
S	Saltmarshes	3.1	N.S	0	0
T	Dunes	28.1	0.3	5.4	5.6
U	Tidal waters	4.3	N.S	0	0
	Developed				
V	Rural development	56.4	0.6	3.0	1.6
W	Urban	133.6	1.5	0.1	1.0
	Other				
X	Missing photography/obscured land	21.7	0.2	0	0
	SUBTOTAL	**7826.3**	**89.4**		
Y	Mosaics of types above	929.0	10.6	929.0	929.0
	REGION TOTAL	**8755.3**	**100.0**		

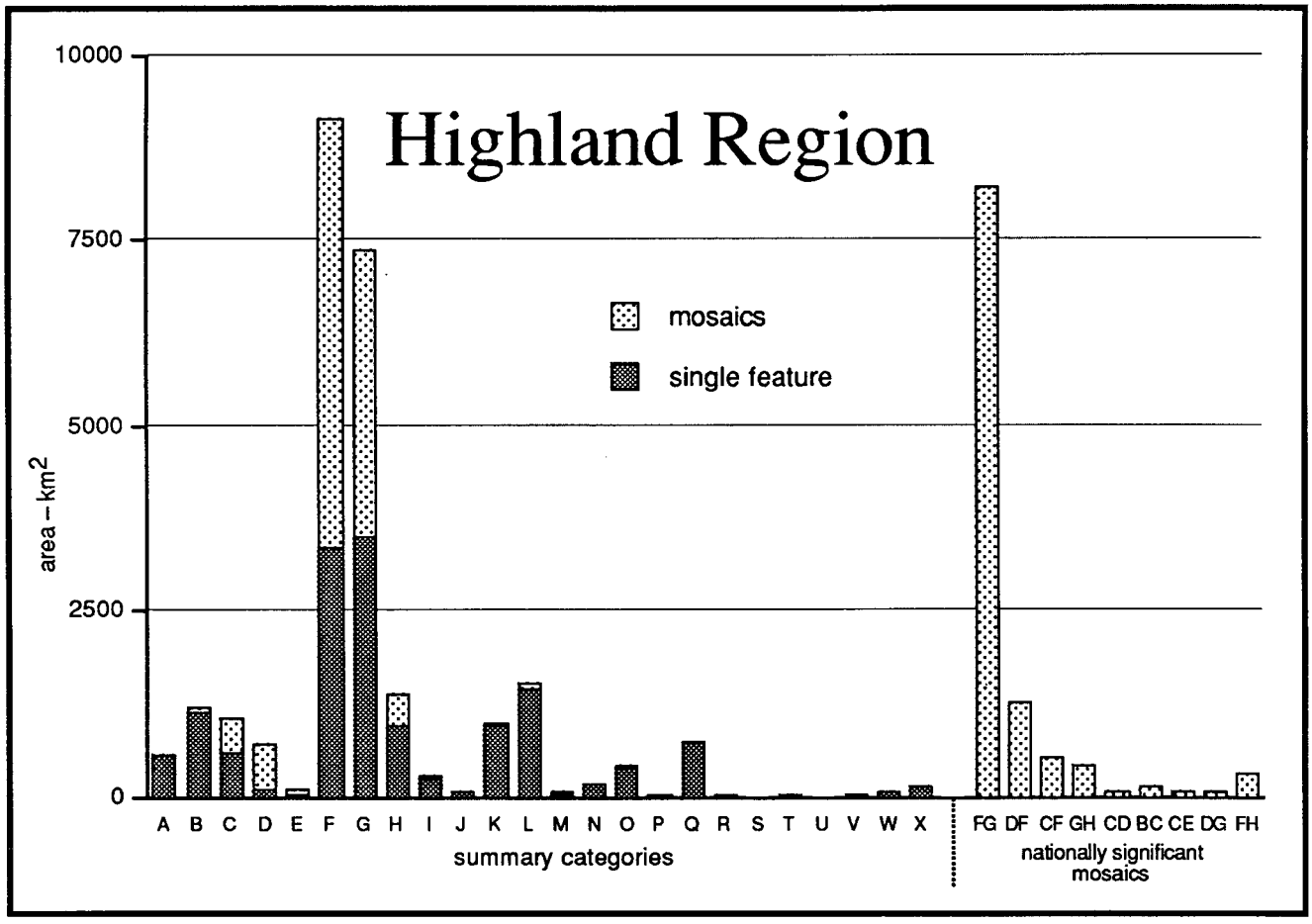
Nationally significant mosaics			area	%
FG	Heather moorland	Peatland	316.2	3.6
DF	Poor rough grassland	Heather moorland	65.0	0.7
CF	Good rough grassland	Heather moorland	233.5	2.7
GH	Peatland	Montane	48.8	0.6
CD	Good rough grassland	Poor rough grassland	1.3	N.S
BC	Improved grassland	Good rough grassland	42.0	0.5
CE	Good rough grassland	Bracken	7.9	0.1
DG	Poor rough grassland	Peatland	6.9	0.1
FH	Heather moorland	Montane	107.8	1.2
		SUBTOTAL	**829.3**	**9.5**
Locally significant mosaics			area	%
CG	Good rough grassland	Peatland	19.8	0.2
FI	Heather moorland	Rock and cliffs	5.6	0.1
FP	Heather moorland	Scrub	4.8	0.1
BP	Improved grassland	Scrub	3.6	N.S
CO	Good rough grassland	Broadleaved	2.9	N.S
		SUBTOTAL	**36.8**	**0.4**
Remaining mosaics			62.9	0.7
	MOSAICS OF SUMMARY COVER TYPES		**929.0**	**10.6**

Table 6

Grampian Region

Land cover summary categories

All areas are expressed in square kilometres to 1 decimal place; the totals shown may not match the totals of the columns due to rounding error discrepancies; 0 = not present; N.S = not significant = < 0.05. Please refer to Figure 3.1 for guidance in the interpretation of this table.



Using the LCS88 dataset the total land area of Highland Region is shown to be 26 132 km^2. Around 44% of this area is represented by mosaic features of which heather moorland/ peatland mosaics (31.5%) predominate. Heather moorland (12.8%) and peatland (13.4%) individually account for another 26% as single features. Of the remaining area, coniferous plantation (5.6%) and recent planting (3.7%) account for over 9%, and arable (2.1%), improved (4.3%) and good rough grassland (2.4%) for a further 9%. Because of its size, Highland Region contains significant areas of rare cover types such as broadleaved woodland (around one-third of the national total), and montane (around two-thirds of the national total).

The Region is remarkable because of the predominance of the semi-natural heather moorland and peatland (over 60%) and the comparative lack of agricultural land at about one-third of the national average. The complexity of the landscape is reflected in the predominance of the mosaic features.

	Cover types	single feature area	%	features in mosaics primary	secondary
	Open countryside				
A	Arable	560.5	2.1	N.S	N.S
B	Improved grassland	1117.0	4.3	146.1	26.0
C	Good rough grassland	616.1	2.4	313.9	605.9
D	Poor rough grassland	100.0	0.4	249.2	1167.5
E	Bracken	32.1	0.1	35.0	111.7
F	Heather moorland	3352.0	12.8	8098.5	2365.0
G	Peatland	3500.5	13.4	1868.6	6919.0
H	Montane	938.4	3.6	623.4	142.4
I	Rock and cliffs	248.9	1.0	17.7	22.9
	Woodland				
J	Felled woodland	58.4	0.2	4.0	1.4
K	Recent planting	959.8	3.7	32.4	37.0
L	Coniferous plantation	1464.7	5.6	66.4	13.3
M	Semi-natural coniferous	45.5	0.2	4.1	12.3
N	Mixed woodland	160.6	0.6	10.8	2.8
O	Broadleaved	382.6	1.5	20.8	29.7
P	Scrub	21.3	0.1	7.3	17.9
	Wet ground				
Q	Fresh waters	741.7	2.8	0	1.1
R	Marshes	26.8	0.1	3.2	7.0
S	Saltmarshes	11.4	N.S	N.S	1.4
T	Dunes	31.4	0.1	9.1	5.2
U	Tidal waters	3.7	N.S	0	0
	Developed				
V	Rural development	37.4	0.1	0.4	0.2
W	Urban	67.7	0.3	0.5	0.2
	Other				
X	Missing photography/obscured land	141.0	0.5	1.4	23.0
	SUBTOTAL	**14619.6**	**55.9**		
Y	Mosaics of types above	11512.9	44.1	11512.9	11512.9
	REGIONAL TOTAL	**26132.5**	**100.0**		

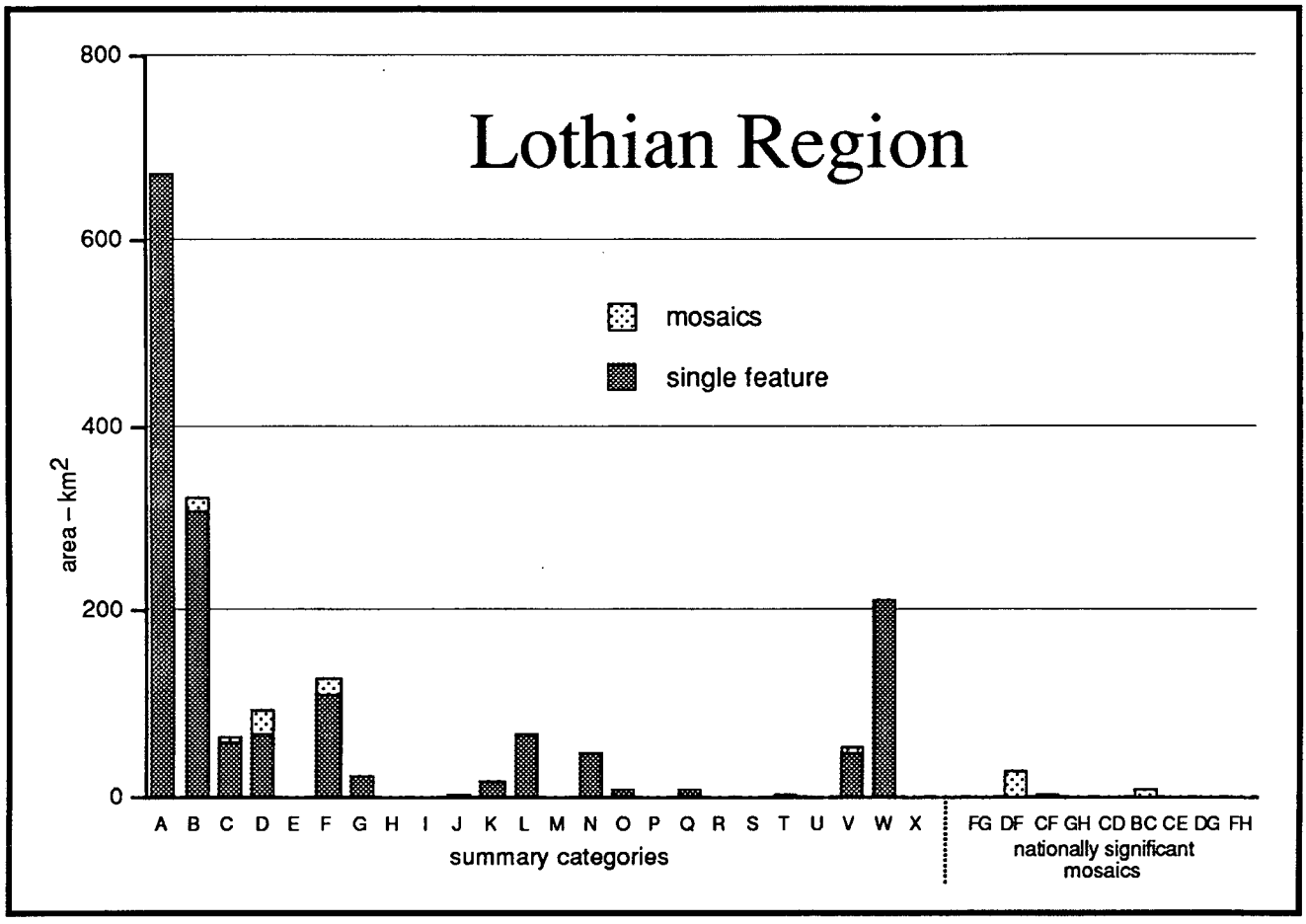
Nationally significant mosaics			area	%
FG	Heather moorland	Peatland	8231.0	31.5
DF	Poor rough grassland	Heather moorland	1265.0	4.8
CF	Good rough grassland	Heather moorland	528.2	2.0
GH	Peatland	Montane	406.4	1.6
CD	Good rough grassland	Poor rough grassland	66.8	0.3
BC	Improved grassland	Good rough grassland	144.0	0.6
CE	Good rough grassland	Bracken	76.8	0.3
DG	Poor rough grassland	Peatland	73.0	0.3
FH	Heather moorland	Montane	305.7	1.2
		SUBTOTAL	**11096.9**	**42.5**
Locally significant mosaics			area	%
CG	Good rough grassland	Peatland	54.7	0.2
EF	Bracken	Heather moorland	52.9	0.2
KL	Recent planting	Coniferous plantation	36.1	0.1
FI	Heather moorland	Rock and cliffs	29.8	0.1
HX	Montane	Missing photography/obscured land	24.2	0.1
		SUBTOTAL	**197.7**	**0.8**
Remaining mosaics			218.3	0.8
MOSAICS OF SUMMARY COVER TYPES			**11512.9**	**44.1**

Table 7

Highland Region

Land cover summary categories

All areas are expressed in square kilometres to 1 decimal place; the totals shown may not match the totals of the columns due to rounding error discrepancies; 0 = not present; N.S = not significant = < 0.05. Please refer to Figure 3.1 for guidance in the interpretation of this table.



Using the LCS88 dataset the total land area of Lothian Region is shown to be 1730 km^2. Over 55% of this is arable (38.9%) and improved grassland (17.9%) as single features while urban (12.3%) and rural development (2.8%) accounts for a further 15%. Semi-natural cover types are relatively unimportant, for example, heather moorland and peatland account for only about 9% including mosaics. The lack of complexity in the landscape is reflected in the fact that only 4% of the area is covered by mosaics of which those with a rural development component are unusual.

The Region is remarkable because of its high proportion of urban and rural development, which at over 15%, is some six times the national average.

	Cover types	single feature area	%	features in mosaics primary	secondary
	Open countryside				
A	Arable	672.6	38.9	0	0
B	Improved grassland	309.4	17.9	11.3	17.9
C	Good rough grassland	58.4	3.4	3.3	10.5
D	Poor rough grassland	67.9	3.9	16.5	36.3
E	Bracken	0	0	0	0
F	Heather moorland	110.3	6.4	29.8	0
G	Peatland	23.5	1.4	0.1	0
H	Montane	0	0	0	0
I	Rock and cliffs	N.S	N.S	0	0
	Woodland				
J	Felled woodland	2.1	0.1	0	0
K	Recent planting	17.9	1.0	0	0
L	Coniferous plantation	69.0	4.0	0	0.7
M	Semi-natural coniferous	0.1	N.S	0	0
N	Mixed woodland	46.5	2.7	0	1.3
O	Broadleaved	7.8	0.5	0	2.6
P	Scrub	1.0	0.1	0	0
	Wet ground				
Q	Fresh waters	8.6	0.5	0	0
R	Marshes	0.8	N.S	0	0
S	Saltmarshes	0.5	N.S	0	0
T	Dunes	2.1	0.1	0	0
U	Tidal waters	0	0	0	0
	Developed				
V	Rural development	49.1	2.8	8.1	0
W	Urban	213.0	12.3	0	0
	Other				
X	Missing photography/obscured land	0.2	N.S	0	0
	SUBTOTAL	**1660.5**	**96.0**		
Y	Mosaics of types above	69.2	4.0	69.2	69.2
	REGIONAL TOTAL	**1729.7**	**100.0**		

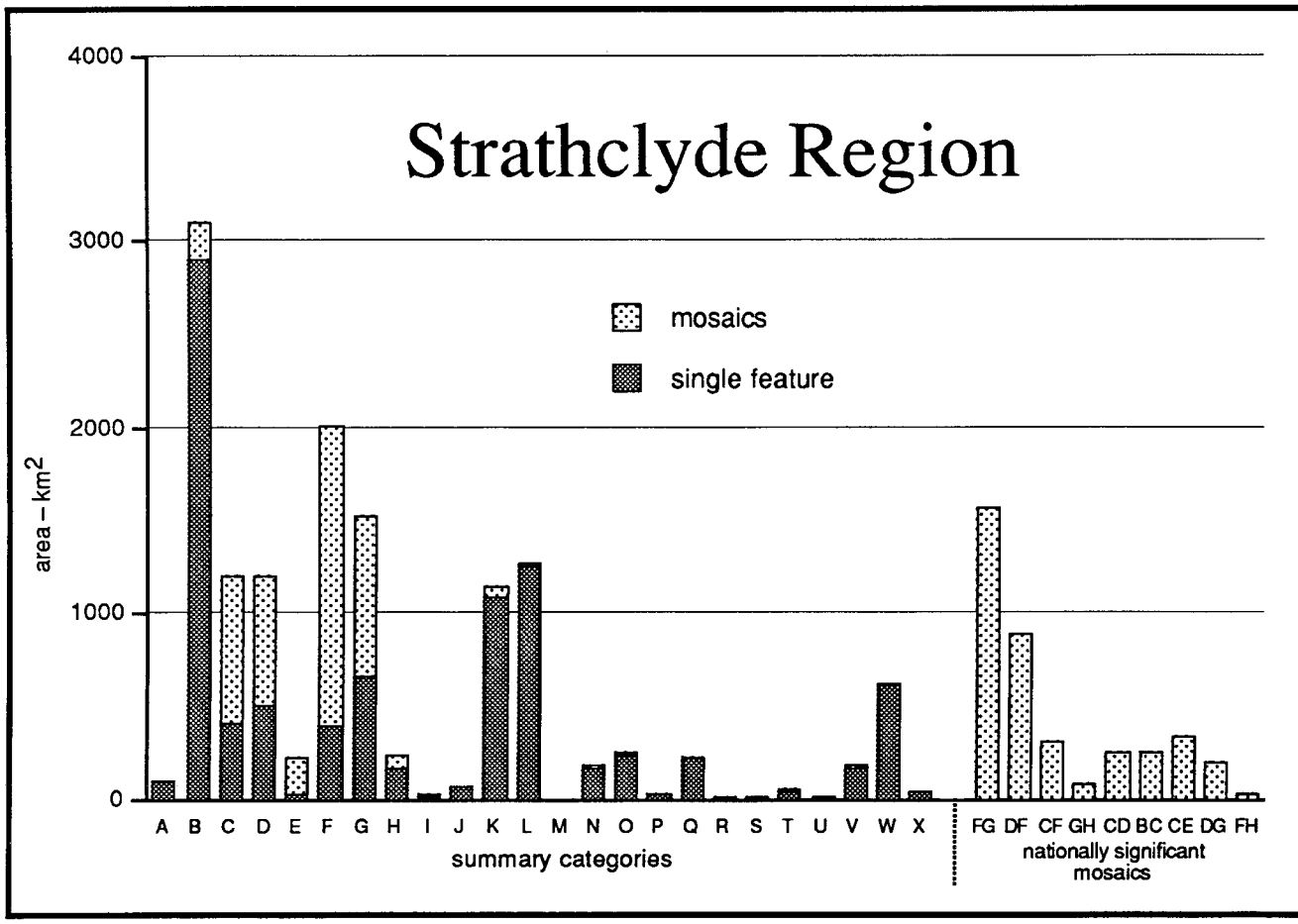
Nationally significant mosaics			area	%
FG	Heather moorland	Peatland	0	0
DF	Poor rough grassland	Heather moorland	27.8	1.6
CF	Good rough grassland	Heather moorland	2.1	0.1
GH	Peatland	Montane	0	0
CD	Good rough grassland	Poor rough grassland	0.3	N.S
BC	Improved grassland	Good rough grassland	6.7	0.4
CE	Good rough grassland	Bracken	0	0
DG	Poor rough grassland	Peatland	0.1	N.S
FH	Heather moorland	Montane	0	0
	SUBTOTAL		**36.9**	**2.1**
Locally significant mosaics			area	%
BD	Improved grassland	Poor rough grassland	22.5	1.3
OV	Broadleaved	Rural development	2.6	0.1
DV	Poor rough grassland	Rural development	2.2	0.1
CV	Good rough grassland	Rural development	1.4	0.1
NV	Mixed woodland	Rural development	1.3	0.1
	SUBTOTAL		**29.9**	**1.7**
Remaining mosaics			2.4	0.1
	MOSAICS OF SUMMARY COVER TYPES		**69.2**	**4.0**

Table 8

Lothian Region

Land cover summary categories

All areas are expressed in square kilometres to 1 decimal place; the totals shown may not match the totals of the columns due to rounding error discrepancies; 0 = not present; N.S = not significant = < 0.05. Please refer to Figure 3.1 for guidance in the interpretation of this table.



Using the LCS88 dataset the total land area of Strathclyde Region is shown to be 13 756 km^2. The most important single feature is improved grassland (21.1%); coniferous plantation (9.2%) and recent planting (7.9%) together total 17% as the second most important features. Apart from these features there are no other predominant cover types, although the rural development/urban class is almost three times the national average, while the arable area is significantly less than the average (0.7% as opposed to 11.2%).

Some 33% of the Region's landscape has mosaics, of which the majority are nationally significant types, predominated by mosaics of heather moorland and peatland (11.5%).

The Region is remarkable in terms of the relatively high proportion of improved grassland and coniferous plantation and the relatively small amount of arable land.

	Cover types	single feature area	%	features in mosaics primary	secondary
	Open countryside				
A	Arable	99.2	0.7	0	N.S
B	Improved grassland	2906.9	21.1	286.0	63.6
C	Good rough grassland	416.2	3.0	760.8	830.4
D	Poor rough grassland	510.7	3.7	572.7	875.1
E	Bracken	24.7	0.2	92.9	351.6
F	Heather moorland	388.8	2.8	2200.9	753.7
G	Peatland	668.6	4.9	428.0	1513.4
H	Montane	173.2	1.3	96.0	31.9
I	Rock and cliffs	13.0	0.1	12.7	20.8
	Woodland				
J	Felled woodland	66.7	0.5	5.2	2.2
K	Recent planting	1088.9	7.9	51.5	69.6
L	Coniferous plantation	1264.5	9.2	15.7	10.5
M	Semi-natural coniferous	1.2	N.S	0	0
N	Mixed woodland	174.7	1.3	2.5	11.9
O	Broadleaved	240.4	1.7	12.8	12.1
P	Scrub	21.7	0.2	0.3	7.2
	Wet ground				
Q	Fresh waters	221.1	1.6	0	N.S
R	Marshes	13.4	0.1	0.5	11.9
S	Saltmarshes	6.9	0.1	0.1	N.S
T	Dunes	42.5	0.3	14.8	4.7
U	Tidal waters	7.0	0.1	0	0
	Developed				
V	Rural development	166.9	1.2	18.3	1.4
W	Urban	627.1	4.6	0.2	0.1
	Other				
X	Missing photography/obscured land	39.6	0.3	0	0
	SUBTOTAL	**9183.7**	**66.8**		
Y	Mosaics of types above	4572.1	33.2	4572.1	4572.1
	REGIONAL TOTAL	**13755.9**	**100.0**		

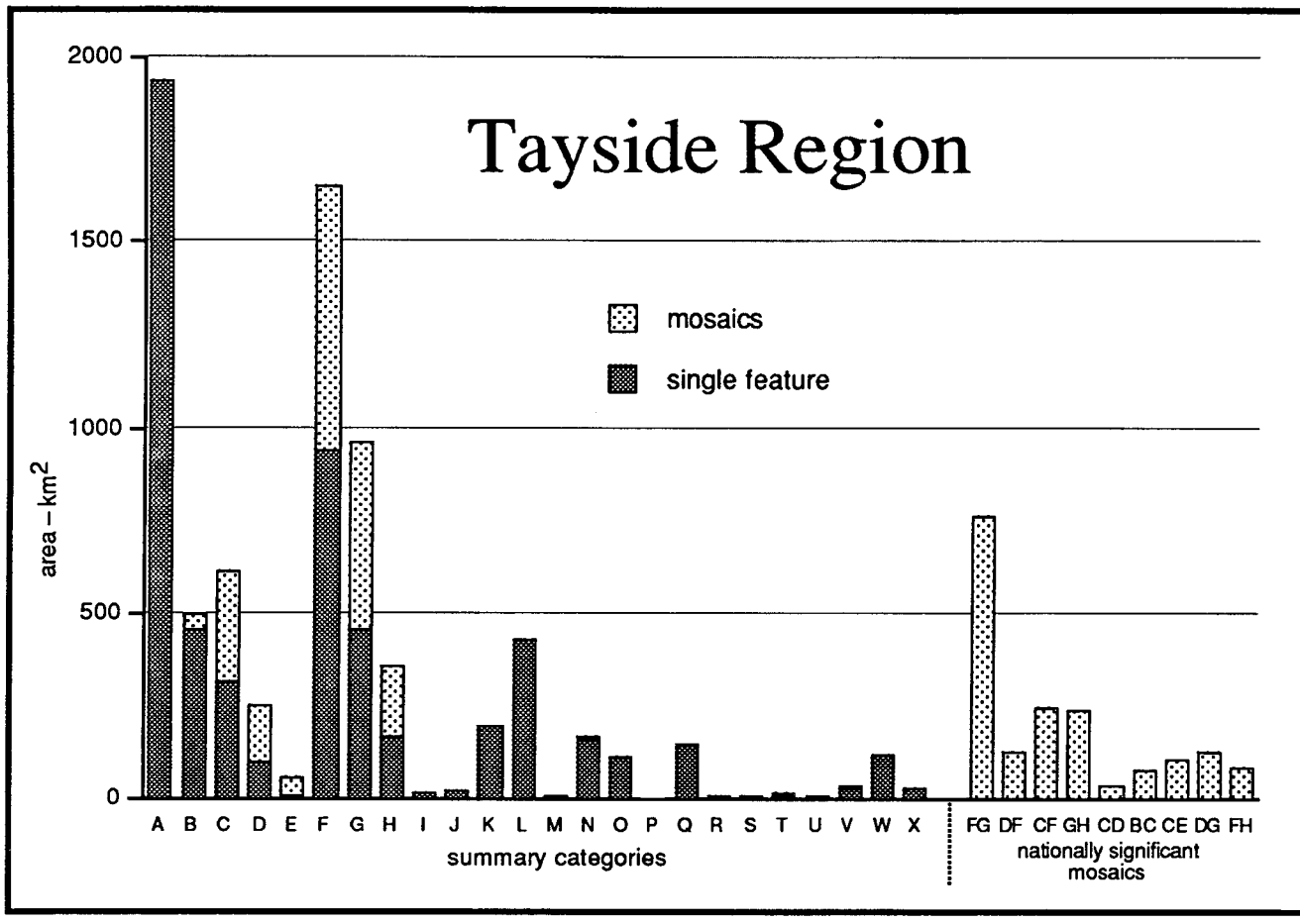
Nationally significant mosaics			area	%
FG	Heather moorland	Peatland	1575.4	11.5
DF	Poor rough grassland	Heather moorland	894.4	6.5
CF	Good rough grassland	Heather moorland	306.8	2.2
GH	Peatland	Montane	87.6	0.6
CD	Good rough grassland	Poor rough grassland	258.6	1.9
BC	Improved grassland	Good rough grassland	260.1	1.9
CE	Good rough grassland	Bracken	341.6	2.5
DG	Poor rough grassland	Peatland	191.0	1.4
FH	Heather moorland	Montane	29.9	0.2
	SUBTOTAL		**3945.4**	**28.7**
Locally significant mosaics			area	%
BD	Improved grassland	Poor rough grassland	68.6	0.5
EF	Bracken	Heather moorland	65.2	0.5
CG	Good rough grassland	Peatland	62.2	0.5
FK	Heather moorland	Recent planting	60.8	0.4
DE	Poor rough grassland	Bracken	24.8	0.2
	SUBTOTAL		**281.5**	**2.0**
Remaining mosaics			345.2	2.5
MOSAICS OF SUMMARY COVER TYPES			**4572.1**	**33.2**

Table 9

Strathclyde Region

Land cover summary categories

All areas are expressed in square kilometres to 1 decimal place; the totals shown may not match the totals of the columns due to rounding error discrepancies; 0 = not present; N.S = not significant = < 0.05. Please refer to Figure 3.1 for guidance in the interpretation of this table.



Using the LCS88 dataset the total land area of Tayside Region is shown to be 7646 km^2. Over 74% of the Region is covered by single feature categories reflecting a predominance of relatively homogeneous landscape types. The principal single features are arable (25.3%) and heather moorland (12.3%) with grasslands accounting for a further 11.5% and woodlands 12.2%. Mosaics of heather moorland and peatland (10%) are the most significant mosaic type.

The Region is remarkable for its high percentage of arable land, over twice the national average, combined with a relatively low percentage of improved grassland, less than half the national average.

	Cover types	single feature area	%	features in mosaics primary	secondary
	Open countryside				
A	Arable	1937.4	25.3	0	0
B	Improved grassland	458.1	6.0	68.0	11.0
C	Good rough grassland	321.1	4.2	276.8	327.9
D	Poor rough grassland	100.1	1.3	166.9	128.4
E	Bracken	5.1	0.1	0.7	124.3
F	Heather moorland	943.8	12.3	963.3	325.2
G	Peatland	459.9	6.0	193.5	963.8
H	Montane	173.3	2.3	271.7	57.8
I	Rock and cliffs	10.4	0.1	0	3.4
	Woodland				
J	Felled woodland	23.8	0.3	0.2	N.S
K	Recent planting	198.8	2.6	0.2	0.3
L	Coniferous plantation	433.5	5.7	0.9	2.0
M	Semi-natural coniferous	2.8	N.S	0	1.6
N	Mixed woodland	163.7	2.1	0.7	6.9
O	Broadleaved	113.4	1.5	0.2	0.8
P	Scrub	2.3	N.S	0	0
	Wet ground				
Q	Fresh waters	145.0	1.9	0	0
R	Marshes	4.6	0.1	0.2	0.9
S	Saltmarshes	4.9	0.1	0.3	0.2
T	Dunes	8.7	0.1	1.5	1.5
U	Tidal waters	4.0	0.1	0	0
	Developed				
V	Rural development	26.7	0.3	11.2	0
W	Urban	119.8	1.6	0	0
	Other				
X	Missing photography/obscured land	28.9	0.4	0	0
	SUBTOTAL	**5690.2**	**74.4**		
Y	Mosaics of types above	1956.2	25.6	1956.2	1956.2
	REGIONAL TOTAL	**7646.4**	**100.0**		

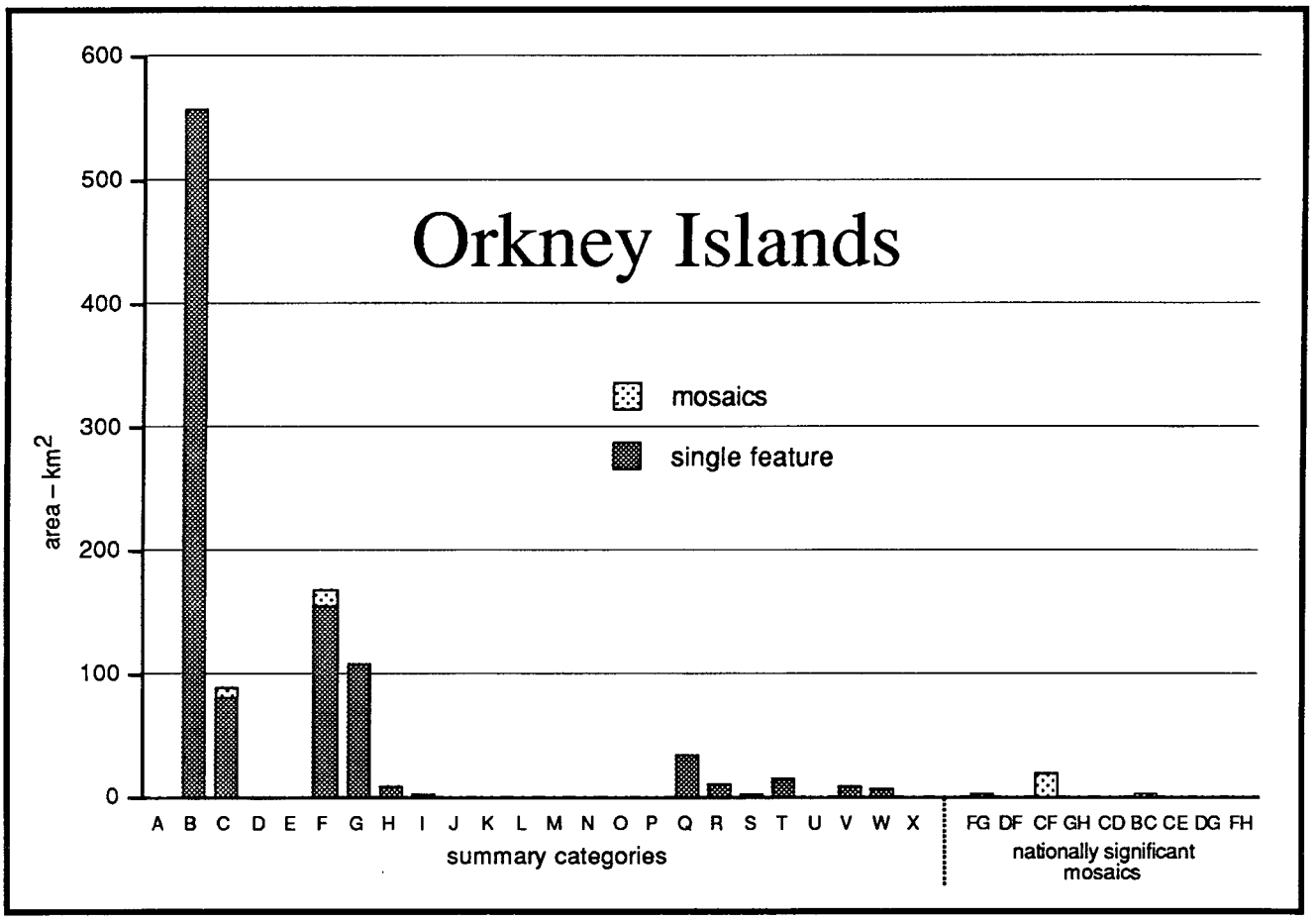
Nationally significant mosaics			area	%
FG	Heather moorland	Peatland	764.3	10.0
DF	Poor rough grassland	Heather moorland	126.9	1.7
CF	Good rough grassland	Heather moorland	248.6	3.3
GH	Peatland	Montane	243.4	3.2
CD	Good rough grassland	Poor rough grassland	37.3	0.5
BC	Improved grassland	Good rough grassland	78.3	1.0
CE	Good rough grassland	Bracken	103.4	1.4
DG	Poor rough grassland	Peatland	126.7	1.7
FH	Heather moorland	Montane	82.4	1.1
	SUBTOTAL		**1811.3**	**23.7**
Locally significant mosaics			area	%
CG	Good rough grassland	Peatland	22.7	0.3
EF	Bracken	Heather moorland	18.7	0.2
NV	Mixed woodland	Rural development	6.9	0.1
HI	Montane	Rock and cliffs	2.7	N.S
DE	Poor rough grassland	Bracken	2.3	N.S
	SUBTOTAL		**53.4**	**0.7**
Remaining mosaics			91.5	1.2
	MOSAICS OF SUMMARY COVER TYPES		**1956.2**	**25.6**

Table 10

Tayside Region

Land cover summary categories

All areas are expressed in square kilometres to 1 decimal place; the totals shown may not match the totals of the columns due to rounding error discrepancies; 0 = not present; N.S = not significant = < 0.05. Please refer to Figure 3.1 for guidance in the interpretation of this table.



Using the LCS88 dataset the total land area of the Orkney Islands is shown to be 1012 km^2. Over 97% of the area is covered by single feature categories reflecting a predominance of relatively homogeneous landscape types of which improved grassland (55.1%), heather moorland (15.4%) and peatland (10.7%) are the most significant single features. Only 2.3% of the Islands' area has a land cover with features in mosaics.

The Orkney Islands are remarkable for the relatively few cover types represented and the predominance of improved grassland, which at 55.1% is over four times the national average. Arable and woodland features are remarkable by their absence.

	Cover types	single feature area	%	features in mosaics primary	secondary
	Open countryside				
A	Arable	0	0	0	0
B	Improved grassland	557.2	55.1	0	1.3
C	Good rough grassland	80.5	8.0	9.3	10.3
D	Poor rough grassland	0	0	0	0
E	Bracken	0	0	0	0
F	Heather moorland	156.3	15.4	13.0	7.9
G	Peatland	108.0	10.7	0.8	1.5
H	Montane	9.1	0.9	0	0
I	Rock and cliffs	2.1	0.2	0	0
	Woodland				
J	Felled woodland	0	0	0	0
K	Recent planting	0	0	0	0
L	Coniferous plantation	0.1	N.S	0	0
M	Semi-natural coniferous	0	0	0	0
N	Mixed woodland	N.S	N.S	0	0
O	Broadleaved	0.2	N.S	0	0
P	Scrub	0	0	0	0
	Wet ground				
Q	Fresh waters	32.9	3.3	0	2.0
R	Marshes	11.5	1.1	0	0
S	Saltmarshes	1.5	0.1	0	0
T	Dunes	15.4	1.5	0	0
U	Tidal waters	0	0	0	0
	Developed				
V	Rural development	8.3	0.8	0	0
W	Urban	5.7	0.6	0	0
	Other				
X	Missing photography/obscured land	0	0	0	0
	SUBTOTAL	**988.7**	**97.7**		
Y	Mosaics of types above	23.1	2.3	23.1	23.1
	ISLAND AUTHORITY TOTAL	**1011.8**	**100.0**		

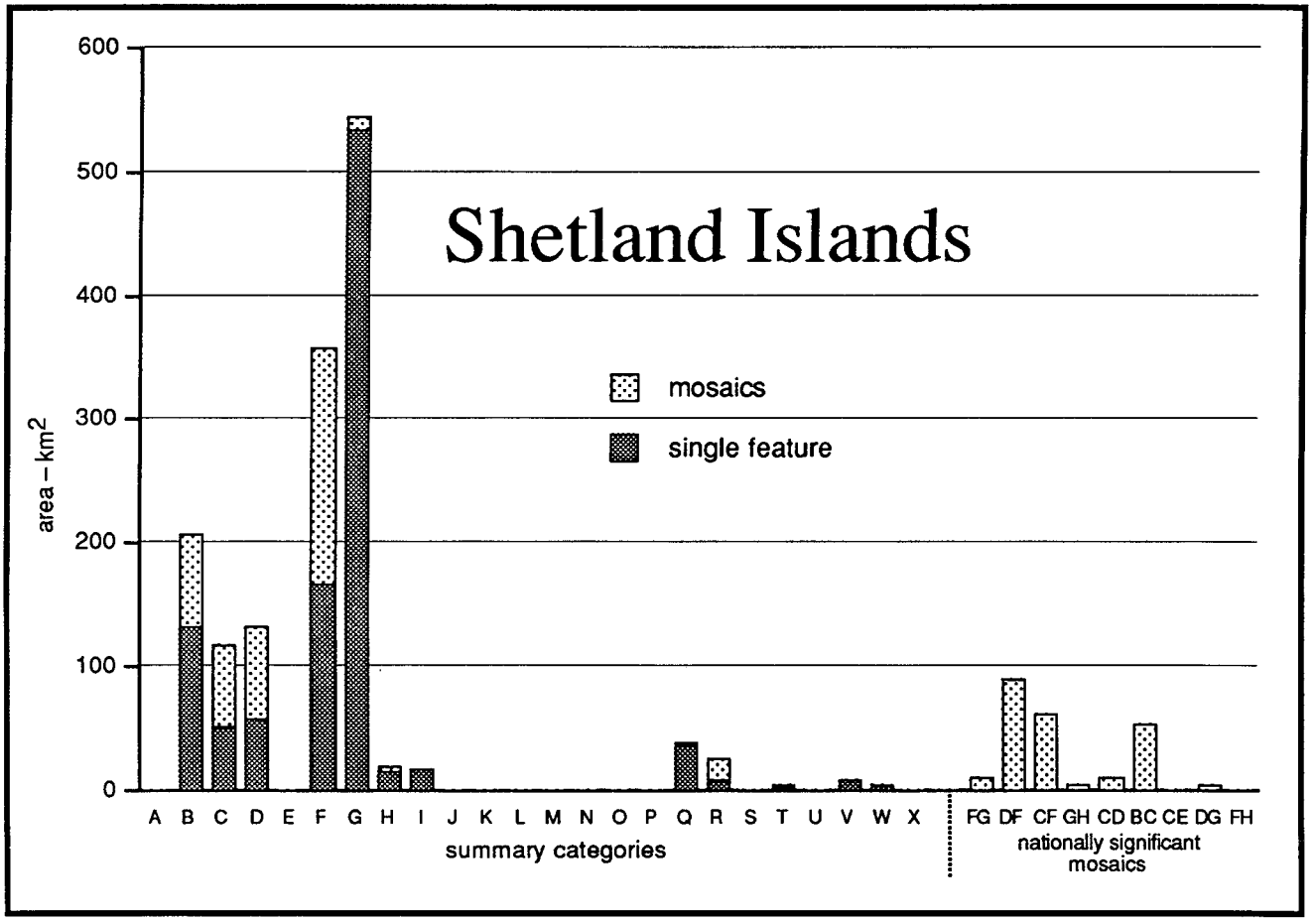
Nationally significant mosaics			area	%
FG	Heather moorland	Peatland	0.7	0.1
DF	Poor rough grassland	Heather moorland	0	0
CF	Good rough grassland	Heather moorland	18.2	1.8
GH	Peatland	Montane	0	0
CD	Good rough grassland	Poor rough grassland	0	0
BC	Improved grassland	Good rough grassland	1.3	0.1
CE	Good rough grassland	Bracken	0	0
DG	Poor rough grassland	Peatland	0	0
FH	Heather moorland	Montane	0	0
	SUBTOTAL		**20.2**	**2.0**
Locally significant mosaic			area	%
FQ	Heather moorland	Fresh waters	2.0	0.2
	SUBTOTAL		**2.0**	**0.2**
Remaining mosaics			0.8	0.1
	MOSAICS OF SUMMARY COVER TYPES		**23.1**	**2.3**

Table 11

Orkney Islands

Land cover summary categories

All areas are expressed in square kilometres to 1 decimal place; the totals shown may not match the totals of the columns due to rounding error discrepancies; 0 = not present; N.S = not significant = < 0.05. Please refer to Figure 3.1 for guidance in the interpretation of this table.



Using the LCS88 dataset the total land area of the Shetland Islands is shown to be 1473km^2. Almost 70% is covered by single feature cover types reflecting predominantly homogeneous landscape types dominated by peatland (36.3%), heather moorland (11.2%) and grassland (16.2%). Notably, of the 30.1% covered in mosaic features, the grassland/heather moorland mosaics predominate (10.2%).

The Shetland Islands, like the Orkney Islands, are remarkable for the restricted range of cover types present with insignificant areas of woodland and arable features. However, unlike Orkney, Shetland's landscape is dominated by semi-natural vegetation communities. Its peatland cover is over four times the national average.

	Cover types	single feature area	%	features in mosaics primary	secondary
	Open countryside				
A	Arable	0	0	0	0
B	Improved grassland	131.1	8.9	98.6	39.3
C	Good rough grassland	49.9	3.4	45.7	95.8
D	Poor rough grassland	58.1	3.9	64.3	88.4
E	Bracken	0	0	0	0
F	Heather moorland	165.4	11.2	210.5	164.0
G	Peatland	534.3	36.3	15.6	3.4
H	Montane	14.7	1.0	6.3	0.8
I	Rock and cliffs	16.3	1.1	0	2.9
	Woodland				
J	Felled woodland	0	0	0	0
K	Recent planting	0	0	0	0
L	Coniferous plantation	0.1	N.S	0	0
M	Semi-natural coniferous	0	0	0	0
N	Mixed woodland	N.S	N.S	0	0
O	Broadleaved	0	0	0	0
P	Scrub	0	0	0	0.1
	Wet ground				
Q	Fresh waters	36.0	2.4	0	6.3
R	Marshes	7.9	0.5	0	43.1
S	Saltmarshes	0.1	N.S	0	0
T	Dunes	2.3	0.2	3.1	0
U	Tidal waters	0	0	0	0
	Developed				
V	Rural development	8.0	0.5	0	0
W	Urban	4.9	0.3	0	0
	Other				
X	Missing photography/obscured land	0	0	0	0
	SUBTOTAL	**1029.1**	**69.9**		
Y	Mosaics of types above	444.1	30.1	444.1	444.1
	ISLAND AUTHORITY TOTAL	**1473.2**	**100.0**		

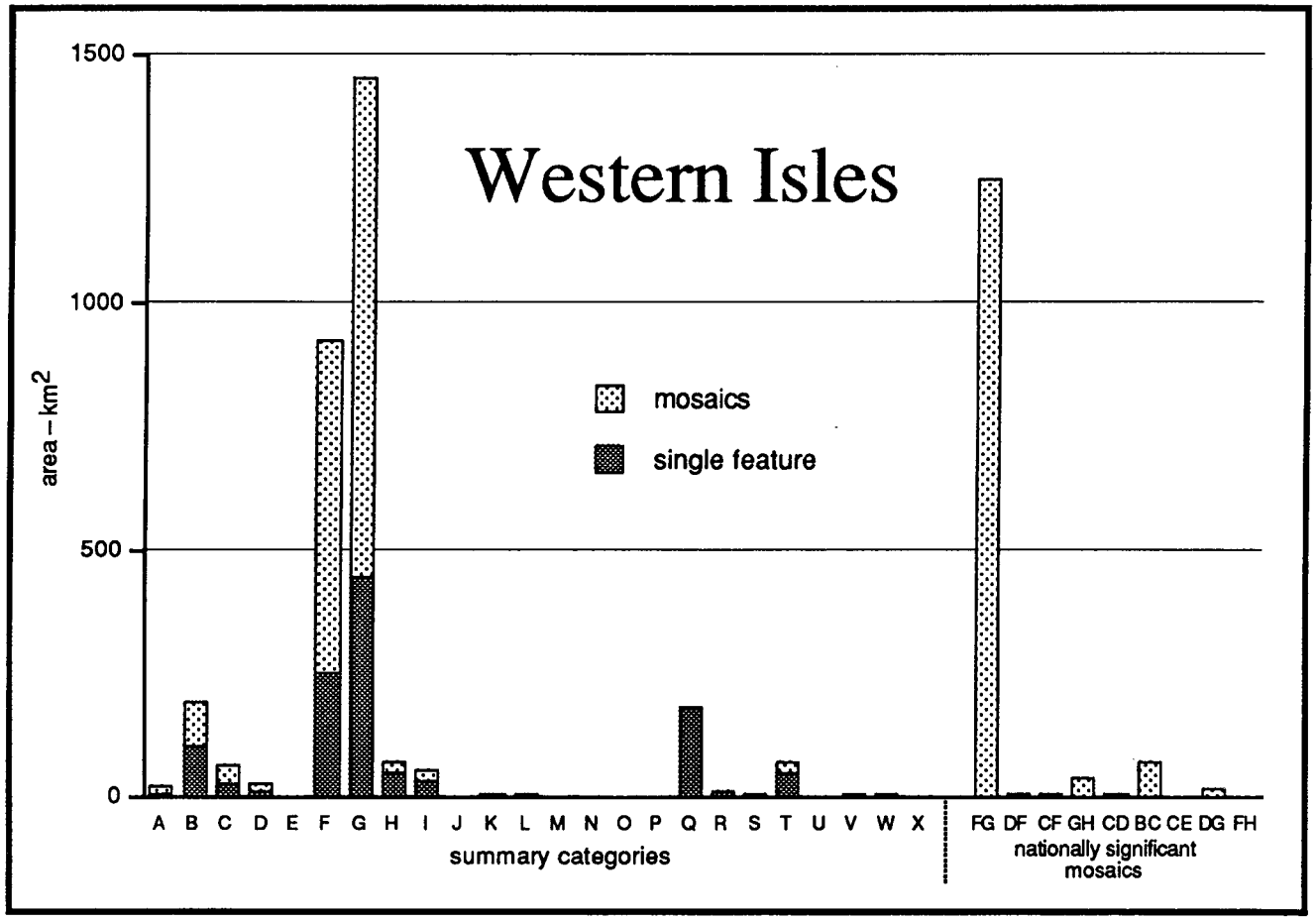
Nationally significant mosaics			area	%
FG	Heather moorland	Peatland	9.8	0.7
DF	Poor rough grassland	Heather moorland	88.6	6.0
CF	Good rough grassland	Heather moorland	61.2	4.2
GH	Peatland	Montane	4.1	0.3
CD	Good rough grassland	Poor rough grassland	10.7	0.7
BC	Improved grassland	Good rough grassland	52.8	3.6
CE	Good rough grassland	Bracken	0	0
DG	Poor rough grassland	Peatland	5.0	0.3
FH	Heather moorland	Montane	0	0
	SUBTOTAL		**232.2**	**15.8**
Locally significant mosaics			area	%
BD	Improved grassland	Poor rough grassland	45.0	3.1
BR	Improved grassland	Marshes	34.8	2.4
FQ	Heather moorland	Fresh waters	6.3	0.4
BF	Improved grassland	Heather moorland	5.3	0.4
DR	Poor rough grassland	Marshes	3.4	0.2
	SUBTOTAL		**94.8**	**6.4**
Remaining mosaics			117.0	7.9
MOSAICS OF SUMMARY COVER TYPES			**444.1**	**30.1**

Table 12

Shetland Islands

Land cover summary categories

All areas are expressed in square kilometres to 1 decimal place; the totals shown may not match the totals of the columns due to rounding error discrepancies; 0 = not present; N.S = not significant = < 0.05. Please refer to Figure 3.1 for guidance in the interpretation of this table.



Using the LCS88 dataset the total land area of the Western Isles is shown to be 3091 km^2. Just under 40% of this is represented by single feature cover types reflecting the relatively heterogeneous nature of the landscape. Of this, peatland (14.5%) heather moorland (8.0%) and fresh waters (5.8%) account for the largest area. Of the 62% of mosaics around two-thirds is accounted for by mosaics of heather moorland and peatland. The dataset indicates therefore that while the landscape of the Western Isles is extremely heterogeneous in terms of the mixing of features, it has little diversity in terms of the range of cover types identified by the LCS88 dataset.

The Western Isles are remarkable for the degree to which peatland and heather moorland dominate the landscape (over 75%). Arable, grassland and woodland cover types are all significantly below the national average while the area covered by fresh waters is about three times the national average.

	Cover types	single feature area	%	features in mosaics primary	secondary
	Open countryside				
A	Arable	6.0	0.2	18.0	10.0
B	Improved grassland	99.9	3.2	129.3	34.1
C	Good rough grassland	26.0	0.8	11.4	77.3
D	Poor rough grassland	12.4	0.4	14.1	17.7
E	Bracken	0	0	0.4	0.2
F	Heather moorland	246.6	8.0	791.9	509.7
G	Peatland	446.9	14.5	890.2	1180.1
H	Montane	46.9	1.5	23.5	15.9
I	Rock and cliffs	32.2	1.0	12.5	39.2
	Woodland				
J	Felled woodland	0	0	0	0
K	Recent planting	3.9	0.1	N.S	N.S
L	Coniferous plantation	5.1	0.2	N.S	0.6
M	Semi-natural coniferous	0	0	0	0
N	Mixed woodland	0.9	N.S	0	0
O	Broadleaved	0.1	N.S	0	0
P	Scrub	0.1	N.S	0	0
	Wet ground				
Q	Fresh waters	180.5	5.8	N.S	0.2
R	Marshes	8.8	0.3	1.9	3.2
S	Saltmarshes	4.2	0.1	0.1	0.1
T	Dunes	46.8	1.5	17.5	22.3
U	Tidal waters	0	0	0	0
	Developed				
V	Rural development	5.8	0.2	0.6	0.8
W	Urban	4.3	0.1	0	0
	Other				
X	Missing photography/obscured land	1.9	0.1	0.1	0.1
	SUBTOTAL	**1179.2**	**38.2**		
Y	Mosaics of types above	1911.6	61.8	1911.6	1911.6
	ISLAND AUTHORITY TOTAL	**3090.9**	**100.0**		

Nationally significant mosaics			area	%
FG	Heather moorland	Peatland	1248.5	40.4
DF	Poor rough grassland	Heather moorland	5.6	0.2
CF	Good rough grassland	Heather moorland	5.8	0.2
GH	Peatland	Montane	39.5	1.3
CD	Good rough grassland	Poor rough grassland	3.6	0.1
BC	Improved grassland	Good rough grassland	69.3	2.2
CE	Good rough grassland	Bracken	0	0
DG	Poor rough grassland	Peatland	13.9	0.4
FH	Heather moorland	Montane	0	0
		SUBTOTAL	**1386.2**	**44.8**
Locally significant mosaics			area	%
BG	Improved grassland	Peatland	45.0	1.5
GI	Peatland	Rock and cliffs	41.0	1.3
BF	Improved grassland	Heather moorland	35.1	1.1
AT	Arable	Dunes	28.0	0.9
BD	Improved grassland	Poor rough grassland	8.8	0.3
		SUBTOTAL	**157.9**	**5.1**
Remaining mosaics			367.5	11.9
MOSAICS OF SUMMARY COVER TYPES			**1911.6**	**61.8**

Table 13

Western Isles

Land cover summary categories

All areas are expressed in square kilometres to 1 decimal place; the totals shown may not match the totals of the columns due to rounding error discrepancies; 0 = not present; N.S = not significant = < 0.05. Please refer to Figure 3.1 for guidance in the interpretation of this table.

The Land Cover of Scotland 1988



Nationally significant mosaics

- Heather moorland / Peatland — FG
- Poor rough grassland / Heather moorland — DF
- Good rough grassland / Heather moorland — CF
- Peatland / Montane — GH
- Good rough grassland / Poor rough grassland — CD
- Improved grassland / Good rough grassland — BC
- Good rough grassland / Bracken — CE
- Poor rough grassland / Peatland
- Heather moorland / Montane — FH

Remaining mosaics

Regional boundaries

Summary cover types - single feature

- Arable — A
- Improved grassland — B
- Good rough grassland — C
- Poor rough grassland
- Bracken
- Heather moorland — F
- Peatland — G
- Montane — H
- Rock and cliffs — I
- Felled woodland — J
- Recent planting — K
- Coniferous plantation — L
- Semi-natural coniferous — M
- Mixed woodland
- Broadleaved — O
- Scrub — P
- Fresh waters — Q
- Marshes — R
- Saltmarshes — S
- Dunes — T
- Tidal waters — U
- Rural development — V
- Urban
- Missing photography/ obscured land — X

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