

11. Devon

11.1 Physical

Geology

Beyond the granite intrusion which forms the uplands of Dartmoor, Devon is dominated by sedimentary rocks, mainly sandstones and shales of Devonian and Carboniferous age. In the east New Red Sandstone dominates the lower grounds with a capping of Upper Greensand forming the Blackdowns. On the south coast there is an outcrop of Precambrian metamorphic rock at Start Point and Bolt Head.

Soils

Beyond the upland soils of Dartmoor and Exmoor there are large areas of podzols and brown sands in the Devon Redlands Natural Area (NA90). In other areas brown podzolic soils dominate valley sides (Map 1a).

11.2 Landscape history

19th Century

In the early 19th century small commons were widespread except in South Devon. In the Devon Redlands Natural Area very large areas of common land occupied ridge tops at Great and Little Haldon, and the heaths of the Devon Pebble Beds, while smaller commons also dominated the ridge tops on the Blackdowns. Most of these have since been enclosed.

Current landscapes and Natural Areas

Dartmoor (NA92) and Exmoor and the Quantocks (NA87) Natural Areas contain extensive unenclosed upland heathland and moorland. Between the two moors, The Culm Natural Area (NA93) is noted for its rich wet acid grassland whilst the Devon Redlands Natural Area (NA90) still contains large areas of heathland on the East Devon Pebblebeds. In the South Devon Natural Area (NA91) coastal cliff habitats are the main interest. Finally the Blackdowns Natural Area (NA89) contains a few areas of heathlands as well as many wetter grasslands on seepage lines.

11.3 Existing information

Flora

The coincidence maps of the lowland acid grassland species listed in Table 1 (Maps 2 to 4) show a very rich acid grassland flora along the coasts and on the fringes of Dartmoor. The coastal flora includes many southern oceanic species including *Erodium maritimum*, *Lotus angustissimus*, *Lotus subbiflorus*, *Trifolium glomeratum*, *Trifolium ornithopodoides* and *Trifolium scabrum*. The Dartmoor fringes support species such as *Chamaemelum nobile*, *Filago minima*, *Ornithopus perpusillus* and *Teesdalia nudicaulis* and once contained *Hypochaeris glabra* (now extinct). The Devon Redlands Natural Area is also quite rich but the Blackdowns and The Culm are remarkably poor in dry acid grassland species. The north coast records appear to be mainly associated with dune systems. The post-1970 records indicate considerable losses. One rare species which may be associated with parched acid grasslands on rock outcrops is *Hypericum linariifolium*.

Lists of lowland acid grassland species for some of the Natural Areas were determined from Ivimey-Cook (1984) and are given in Table 6. The relevant data has been extracted from this table and is reproduced below.

Habitat surveys

The Grassland Inventory indicates that little dry acid grassland has been surveyed. The Heathland Inventory records surviving heathland as occurring mainly in the fringes of Dartmoor and the Devon Redlands. Beyond this, the only published reference to acid grassland is the recording of 0.67ha in the very rich dune site of Dawlish Warren on the south coast (Radley, 1994).

The maps in the NVC Volume 3 indicate that U1e, U1f, U4a, U4b and U4e were sampled from the county (Rodwell, 1992).

Summary of consultations with Local Team Conservation Officers

The problem of distinguishing between upland and lowland grassland in Devon is particularly difficult, with acid grassland often regarded as degraded heathland in the uplands. In Devon the boundaries of economic Less Favoured Areas such as Exmoor and Dartmoor are considered the best way of splitting off upland from lowland.

The acid grassland of Dartmoor, although upland or upland fringe, is of interest. Here there is 5,300ha of acid grassland and 4,900ha of Bracken supporting the densest population of Wheatears in southern England, numbering around 1,500 pairs. The area is also important for the plants *Viola lactea* and *Chamaemelum nobile* and the High Brown (*Argynnis adippe*) and Pearl Bordered Fritillary (*Boloria euphrosyne*) butterflies.

Beyond Dartmoor there is approximately 100-500ha of acid grassland. This largely comprises moist acid grassland (Festuca-Agrostis-Galium grassland, U4), with small amounts of Deschampsia flexuosa grassland (U2), parched acid grassland (Festuca-Agrostis-Rumex grassland, U1) and a little Agrostis curtisii grassland (U3). Generally acid grassland occurs in mosaics with more interesting habitats, or is the result of degradation of heath. The Blackdowns has the most dry acid grassland, followed by The Culm, with only small amounts elsewhere.

A current survey of the Red Data Book plant *Lotus angustissimus* has identified a species-rich type of the little known NVC community Festuca-Agrostis-Rumex Grassland Hypochaeris sub-community (U1f), which occurs in small areas of thin droughty soil on coastal cliff tops (Simon Leach pers. com. 1996). Associated with the *Lotus angustissimus* are species such as *Lotus subbiflorus*, *Trifolium glomeratum*, *Trifolium ornithopodioides*, *Trifolium scabrum*, *Moenchia erecta*, *Erodium maritimum* and *Erodium moschatum*. Quadrat data has shown there to be little *Festuca rubra* and no *Festuca ovina*, although considerable *Vulpia bromoides*. A consistency table for U1f, based on quadrat data from the survey, is presented in Volume I, Appendix 1, to illustrate the richness of this cliff top acid grassland. The community is best developed from Start Point in Devon to Looe in Cornwall, on the south coast. It is less well-developed on the north coast where south-facing slopes are rare. The coastal habitat where this community occurs is much degraded by the lack of grazing and spread of Gorse, and many stands are therefore reduced to narrow bands along paths.

11.4 Summary of resource

Extent and composition

The status of lowland acid grassland in Devon is complicated and the areas with the most dry acid grassland in a definitely lowland situation, the Blackdowns and The Culm Measures, are of low

floristic interest. In contrast, small areas of acid grassland present on the south coast and the Devon Redlands have, or have had, the richest acid grassland flora. The decidedly upland Dartmoor has very strong lowland elements in its grasslands at lower altitudes, with quite a rich lowland acid grassland flora recorded.

Conservation value

In Devon the richness of the flora rather than the extent of lowland acid grassland is of more significance for nature conservation. The importance of the southern oceanic element found in the warmest acid grasslands in southern Devon has been overlooked until the work of Simon Leach. Together with Cornwall, the coastal cliff tops in Devon are one of the most important areas for acid grassland in the country. The transitional nature of the Dartmoor fringe grasslands is likely to confer added value when compared to other upland acid grasslands.

11.5 Future requirements for survey and conservation

Survey

It is not considered that there is a need for Phase 2 survey of acid grasslands in Devon although the over-looked floristic richness of some acid grasslands will require further investigation. The cliff top Ulf vegetation is a priority due to the threat from habitat neglect but some inland areas are also indicated as having been of great interest and should be followed up.

Conservation

The restoration of grazing and gorse management to the cliff top grasslands is a high priority. Heathland restoration, especially including grazing, is probably also important in the lowland heaths of southern Devon.

11.6 References

- IVIMEY-COOK, R. B. 1984. *Atlas of the Devon flora*. Exeter: The Devonshire Association for the Advancement of Science, Literature and Art.
- RADLEY, G. P. 1994. *National sand dune vegetation survey of Great Britain: a national Inventory. Part 1: England*. Peterborough: Joint Nature Conservation Committee.

Extract from Table 6 Devon: occurrence of plant species generally faithful to lowland acid grassland

County: Devon					
Natural Areas:	89	90	91	92	87/93
<i>Chamaemelum nobile</i>	0	0	1	1	1
<i>Crassula tillaea</i>			1		
<i>Erodium maritimum</i>			1		1
<i>Filago minima</i>		1	1	1	1
<i>Hypochaeris glabra</i>		0	0		0
<i>Lotus angustissimus</i>		0	1		1
<i>Lotus subbiflorus</i>	0	1	1		1
<i>Moenchia erecta</i>	1	1	1	0	1
<i>Ornithopus perpusillus</i>	1	1	1	1	1
<i>Potentilla argentea</i>		0	0	1	
<i>Sagina subulata</i>	1	1	1	1	1
<i>Stellaria pallida</i>			1		
<i>Teesdalia nudicaulis</i>	0	1	1	1	1
<i>Trifolium glomeratum</i>		1	1		1
<i>Trifolium ornithopodioides</i>		1	1		1
<i>Trifolium scabrum</i>		1	1		1
<i>Trifolium striatum</i>		1	1		1
<i>Trifolium subterraneum</i>	1	1	1		1
<i>Viola lactea</i>	0	1	1	1	1
Total no. of species extant	4	12	17	7	15
Total no. of species extinct	4	4	2	1	1
Total no. of species recorded	8	16	19	8	16

89 = Blackdowns

90 = Devon Redlands

91 = South Devon

92 = Dartmoor

87/93= North Devon, Exmoor and the Quantocks and The Culm

1 = Recent record

0 = Apparently extinct

Devon acid grassland surveys

Survey	GR	Date	Landscape Types	Comments	No Sites	Site Area	Gr Area	AG Area	H Area	LHA
Grassland Inventory		1984-91	Field, Enc. relic, Heath	Very limited survey	9	247.2	37.7	NI		
Heathland Inventory		1974-94	Heath and Enclosure relics	Mainly NA90 & Dartmoor fringe + Coastal cliffs	150	1129.0			1960.0	51.1
Estimates, Classes		1996		Rob Wolton, English Nature				C		

Survey Name	U1	U1a	U1b	U1c	U1d	U1e	U1f	U2	U2a	U2b	U3	U4	U4a	U4b	U4c	U4d	U4e	U5	U6	SD10	SD11	U20r	
Grassland Inv.																							
Heathland Inv.																							
Estimates, Class	A					A	A	A			A	C	+	+			+						+

Key

Column headings

GR = Grid reference if relevant

No Sites = Number of sites

Site Area = Area of sites

GR Area = Area of grassland

A G Area = Area of acid grassland

H Area = Area of dry heath

LHA = Area of lichen heath

NI = No information

NA = Natural Area

U1-U20r = NVC communities/sub-communities

Area estimates

A = Less than 50 ha

B = 50-100 ha

C = 100-500 ha

D = 500-1,000 ha,

E = 1,000-5,000 ha

F = 5,000-10,000 ha

G = Greater than 10,000 ha

+ = Present but no area given

? = Possibly present

12. Dorset

12.1 Physical

Geology

The youngest deposits in Dorset are the Tertiary sands and clays of the Poole Basin. These are surrounded by the Chalk downs with local caps of acid drift. Beyond the Chalk, a complex mixture of Lower Cretaceous and Jurassic sediments exist, including the acid sands of the Upper Greensand and the Bridport Sand. There are recent sand terraces by the River Avon.

Soils

Extensive areas of soils associations dominated by podzols are confined to the Tertiary deposits of the Poole Basin and on relic Tertiary sediments that cap the Downs. Recent deposits giving rise to acidic soils include sand terraces by the River Avon, including areas of inland blown sand at Cowards Marsh (SZ1595) (Map 1a).

12.2 Landscape history

19th Century

The Poole Basin was dominated by vast, unenclosed, heathland commons in the early 19th century. Elsewhere, unenclosed rough grazings were widespread, including quite extensive areas on the chalk downs and smaller hilltop heathlands to the west.

Current landscapes and Natural Areas

The Poole Basin (Dorset Heaths Natural Area (NA81)) still contains large areas of heathland in spite of the well-documented and massive losses in the last two hundred years. Some of the Poole Basin acid grasslands may be a consequence of past heathland reclamation that did not proceed towards intensive agriculture. To the north of the heaths, the South Wessex Downs (NA80) have suffered an even more drastic loss of rough grazing, with virtually all the plateau grassland ploughed up, although scarp downland is still widespread and relics of more acidic grassland can be found at the top of scarp slopes on superficial acidic deposits and locally on flint screes on the slopes. Many of the top-of-slope localities have suffered eutrophication from adjacent intensive agriculture.

The Purbeck area (Isles of Portland and Purbeck (NA82)) to the south has a remarkable mix of landscapes in a small area and includes the outstanding Corfe Common, which is on acid soils. To the west, the Wessex Vales (NA83) and a small area of the Blackdowns (NA89) still harbour relics of hill top heathlands.

12.3 Existing information

Flora

The coincidence maps of the lowland acid grassland species listed in **Table 1 (Maps 2 to 4)** show an exceptional concentration of acid grassland species in the Poole Basin and Purbeck. This flora, although showing a decline, is still significant. Beyond these areas, the acid grassland flora is very limited.

The acid grassland floras of the east and west of the county are compared in **Table 6**, from which the relevant data is extracted and given below. The comparison is striking; in the east of the county twenty four characteristic species have been recorded, of which one is probably extinct, whilst in the west, only five species have been recorded, of which two are probably extinct. The total recorded from the east of the county is one of the highest recorded in England. The condition of the acid grassland flora, however, is critical. Many are listed in the county red data book (Mahon & Pearman, 1993) and have suffered a serious decline in this century.

Byfield & Pearman (1996) have produced very valuable data on this decline in a study which re-surveyed 390 heathland stands from which the vascular plant flora had originally been recorded in the 1930s by Professor R. Good. They found that 35% of these stands had been destroyed, 22% by agriculture and 7% by forestry. Three-quarters of the surviving stands have received some form of protection as nature reserves and/or SSSIs. The declines in the occurrence of 41 species of particular note however, were much greater. In total there had been a 75% loss of such species from the stands, including 11 species listed in **Table 1**. For these species the decline was even higher, at 88%. In contrast, wet heath species and valley mire species had declined by 41% and 50% respectively. It was concluded that the primary cause of the much higher decline in dry acid grassland species than heath and mire species was the cessation of grazing on the Dorset Heaths.

The modern distribution of nine of the species in **Table 1** have been mapped by Dorset Environmental Record Centre (DERC) by 1km grid square. These are reproduced below to give an indication of the fine detail of the likely distribution of acid grassland (**Map 25 to 33**).

Fauna

The contractor is not aware of any general description of the contribution of acid grassland to the important invertebrate and vertebrate fauna of the Dorset Heaths. As examples, however, there are several studies of the fauna of an area of acid grassland developed in abandoned sand and clay workings in former heathland around Sandford, Wareham (SZ98) (Corbett *et al.*, 1994, Edwards, 1994, Jones 1995, Parker, 1994, Roberts, 1994, Roberts, 1996).

The most interesting vertebrate records have come from an area of Gorse and *Agrostis curtisii* (U3) which has been burned some years before. Here a colony of Sand Lizards has been recorded and a Nightjar nest noted. Both these species appear to be able to use the grassland because of the cover offered by the regrowing Gorse.

The invertebrate fauna includes the declining Notable species of Asilid fly, *Asilus crabroniformis*, which is now believed to be extinct in many areas, eg East Anglia, and it may be revised to RDB3 soon. The Aculeate Hymenoptera records include the RDB2 Bee Wolf *Philanthus triangulum*, one of the first records for Dorset since 1829, (subsequently spreading in the south), along with other rare and scarce species including the RDB3 *Nomada goodeniana*. The Orthoptera includes the nationally notable Tawny Cockroach *Ectobius pallidus* and the county notable Stripe-winged Grasshopper *Stenobothrus lineatus* and Mottled Grasshopper *Myrmeleotettix maculatus*. The spider fauna is not particularly rich but includes the ant mimic *Micaria romana*, normally found on calcareous grassland in southern England.

Habitat surveys

The Grassland Inventory reflects the Phase 2 survey of Porley (1992) discussed below. The Heathland Inventory shows the concentration of heathland in the Poole Basin with a scatter of hill top sites to the west.

Calcifugous grasslands in Dorset (Porley, 1992).

Porley's Phase 2 survey of acid grassland in Dorset was carried out in late summer and did not cover the bulk of the Poole Basin. However, it gives a good idea of the range of acid grasslands in parts of the county.

In the Poole Basin and Purbeck, parched acid grassland (U1) dominates with the typical sub-community (U1b) found on the very sandy terraces along the west bank of the River Avon and the Hypochaeris sub-community (U1f) elsewhere, with a few stands of U1d and U1e. Corfe Common also had Agrostis curtisii grassland (U3), which is also widespread in the many unsurveyed stands in the Poole Basin. Porley also described extensive herb-rich Bracken stands found at Corfe Common as Festuca-Agrostis-Galium grassland Lathyrus-Stachys sub-community (U4c). Personal experience (N. A. Sanderson), however, suggests that these stands are similar to the herb-rich Bracken stands (a variant of U20) of the New Forest, and have less relation to U4c as described in the NVC.

The western acid grasslands also have parched acid grasslands (U1b & U1f) and Agrostis curtisii grassland (U3) but the main difference is the appearance of moist acid grasslands (U4). Selected data from a western site are presented in Volume I, Appendix 1, as an example of U4 in enclosed pasture.

Sandford acid grassland (Colebourn, 1994 & Sanderson, 1995c)

A Phase 2 survey was carried out of the acid grasslands at Sandford. The dry grasslands included 1.7 ha of U1f, locally approaching the Anthoxanthum-Lotus sub-community (U1d), and on the less disturbed areas, 0.6ha of Agrostis curtisii grassland (U3).

The total flora of the site, which includes *Junco-Molinion* grasslands and an ephemeral pond as well as the dry acid grasslands, totalled 197 species. There were 10 acid grassland species listed in **Table 1** found by Ecological Planning & Research (EPR) in 1995, and since the original EPR survey J. Cox of English Nature has added *Hypochaeris glabra* and *Lotus subbiflorus*, and a further unpublished EPR survey has added *Potentilla argentea* and *Moenchia erecta*. The total of fourteen species is higher than the total found in many other counties, and in the whole of west Dorset! A total of 32 species on the provisional indicator list (**Table 8**) were recorded, including six nationally scarce species. These figures give an indication of the level of plant species richness to be expected from a very high quality lowland acid grassland site.

Summary of consultations with Local Team Conservation Officers & local experts

DERC has recently tabulated Phase 1 data from SSSI and SSSI notifications, giving the totals for unimproved and semi-improved acid grassland from Dorset as 462ha and 421ha respectively.

In the east of the county U1 and U3 acid grasslands dominate. Of the parched acid grassland, U1b is confined to free draining substrates, mainly the very sandy area west of the Avon, and is often characterised by the presence of *Carex arenaria*. On the more impeded soils which are more typical of the east of Dorset, U1f is more typical. This sub-community can also occur as small stands on banks and anthills in neutral grasslands.

Small patches or fragments of U1a, U1c, U1d and U1e have also been recorded. Where these and the U3 grassland are grazed, they can be rich in species declining generally in the countryside. Ungrazed stands, especially the Agrostis curtisii grasslands (U3), are usually very species-poor. The best areas tend to be found in grazed relic heathland, old mineral workings or grassy grazed commons and not in the famous blocks of heathland which often have rather over-grown grasslands. Many of these are derived from failed attempts at heathland reclamation. The restoration of grazing to some of the larger blocks has begun and this should increase the area of high quality acid grassland. Most smaller acid

grassland fragments are now covered by SSSIs or SNCIs but in the recent past the natural rush to protect the surviving heaths led to a few high quality grassland sites being over-looked. The SNCI series has probably picked up most of these and in at least one case a SSSI has been extended to cover a high quality site.

Sand Lizards often utilise the edges of acid grassland as basking areas where it is mixed with taller dry heath, and the rare bush cricket, the Wart-Biter (*Decticus verrucivorus*) survives in an area of acid grassland mixed with dry heath. The fauna of acid grassland, where this is associated with heathland, can be particularly rich, some species use both habitats.

In the west of the county, acid grassland is mainly found on clay with flint caps, and on the Bridport Sand. As well as mixtures of U1f, U1e and U3 with heath (H4) in heathland relics there are extensive areas of species-poor, often semi-improved, Festuca-Agrostis-Galium grassland (U4). The U4 stands at Pilsden Pen suggest that at least some of these grasslands are the result of the conversion of heathland mosaics of H4, U3 and U1 on enclosure by ploughing and fertilising. Reversion as can be seen at Lambert's Castle where U4 grades to U1e. It is reported that there are several areas of acid grassland on the Greensand and clay with flints over Chalk in the centre of Dorset, which had not been surveyed (J.Cox pers. comm. 1996), including Woodland Hill, Bulbarrow; Okeford Hill, Okeford Fitzspaine and Giant Hill, Cerne Abbas.

12.4 Summary of resource

Extent and composition

There is 500-1000ha of acid grassland in Dorset, evenly distributed between the south east and the rest of the county. The acid grasslands of the south east are much more varied and species-rich than those of the west, which include large areas of species-poor semi-improved grassland.

Conservation value

The acid grassland of the Poole Basin and Purbeck, although greatly reduced in area, is of great importance at a national level, and is an integral part of the conservation value of the internationally important heathlands of Dorset. Outside the Poole Basin the most important single site is Corfe Common which is comparable with the best of the New Forest dry grasslands and is easily of national or international importance in its own right. The acid grassland flora is among the most threatened features of the Dorset Heaths. While some acid grassland has been covered by SSSI extension, the conservation of fragmented and small sites still present a considerable challenge.

In comparison, the acid grasslands of west Dorset are of limited significance in a national context. The main significance of the U4 grasslands is probably their role in indicating areas where heathland restoration could be worth while.

12.5 Future requirements for survey and conservation

Survey

The Local English Nature team suggested that acid grasslands on the clay with flints over the Chalk could be surveyed at Phase 2 level but EPR considers these to be a relatively low national priority; they are species poor and potentially semi-improved.

Fragments of rich acid grassland in the Poole basin have been surveyed to the Phase 1 level with species lists (Brian Edwards, pers. com. 1996). EPR considers that given the threats to, and the importance of,

the south eastern Dorset acid grasslands, this is not adequate. At a minimum the existing data requires collation, with possibly some follow-up Phase 2 survey.

Conservation

The conservation of the acid grasslands of the Poole Basin is one of the highest priorities in the recovery of the Dorset Heaths. The decline of acid grassland species described by Byfield & Pearman (1996) has occurred even faster on protected sites than on unprotected sites, and is due to the lack of effective management. The re-introduction of extensive grazing to surviving heathlands is likely to be the most useful method and return of stock is already under way.

The next priority should be the re-creation of acid grassland from intensive agriculture and is likely to be easier than the re-creation of species-poor dry heath. Acid grassland and heathland re-creation should have equal priority although the area of grassland perhaps could be a fraction of the area of heath, say a minimum of 10%.

12.6 References

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- CORBETT, K.F. 1994. *Sandford and Northford Bypass, baseline ecological studies, reptiles 1994*. Report prepared by Ecological Planning & Research for Dorset County Council.
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Extract from Table 6 for Dorset: occurrence of plant species generally faithful to lowland acid grassland

County: Dorset		
Natural Areas:	81/82	80/83
Grasses		
<i>Vulpia ciliata ambigua</i>	1	
Other Vascular Plants		
<i>Chamaemelum nobile</i>	1	0
<i>Crassula tillaea</i> *	1	
<i>Dianthus deltoides</i>	1	
<i>Erodium maritimum</i>	1	
<i>Filago minima</i> *	1	
<i>Gladiolus illyricus</i>	0	
<i>Hypochaeris glabra</i> *	1	
<i>Lotus angustissimus</i>	1	
<i>Lotus subbiflorus</i> *	1	
<i>Moenchia erecta</i> *	1	1
<i>Ornithopus perpusillus</i> *	1	1
<i>Potentilla argentea</i> *	1	
<i>Sagina subulata</i> *	1	
<i>Stellaria pallida</i> *	1	
<i>Teesdalia nudicaulis</i>	1	
<i>Trifolium glomeratum</i> *	1	0
<i>Trifolium ornithopodioides</i> *	1	1
<i>Trifolium scabrum</i>	1	
<i>Trifolium striatum</i> *	1	
<i>Trifolium subterraneum</i> *	1	
<i>Trifolium suffocatum</i>	1	
<i>Vicia lathyroides</i>	0	
<i>Viola lactea</i> *	1	
Total no. of species extant	22	3
Total no. of species extinct	2	2
Total no. of species recorded	24	5

Species recorded from Sandford = *

81/82 = Dorset Heaths and Isles of Portland and Purbeck
80/83 = South Wessex Downs and Wessex Vales

1 = Recent record
0 = Apparently extinct

Dorset acid grassland surveys

Survey Name	GR	Date	Landscape Types	Comments	No Sites	Site Area	Gr Area	AG Area	H Area	LHA
Grassland Inventory		1984-90	Enclosure relics & Grass heath	Heathland areas poorly covered	20	2177.7	13.0	NI		
Heathland Inventory		1982-94	Heathland and Enclosure relic	Most in Dorset Heaths + Wessex Downs & Vales	170	15428.0			2125.8	0.0
Porley (1992) NA 81/82		1992	Enclosure relics & Grass heath	Report on Phase 2 survey	7	NI	NI	NI		
Porley (1992) NA 80/83		1992	Enclosure relics as hill top caps	Report on Phase 2 survey	6	NI	NI	NI		
Sandford (EPR, 1994-95)		1994-95	Mineral workings	Site with 14 acid grassland spp			2.3			
SSSI & SNCI Phase 1		1996		Figures from DERC Unimproved/semi-improved				462/421		
Estimates NA 81/82		1996	Enclosure relics, Heath, Grassheath	Brian Edwards, DERC				C		
Estimates NA 80/83		1996	Enclosure relics on hill tops	Brian Edwards, DERC				C		
Estimates, county		1996		Brian Edwards, DERC				D		

Survey Name	U1	U1a	U1d	U1c	U1d	U1e	U1f	U2	U2a	U2b	U3	U4	U4a	U4b	U4c	U4d	U4e	U5	U6	SD10	SD11	U20r
Grassland Inv.																						
Heathland Inv.																						
Porley NA81/82	+		+		+	+	+				+											+
Porley NA80/83	+						+	+	+		+	+	+	+	?							
Sandford(94-95)					+		1.7				0.6											
SSSI & SNCI																						
Est. NA 81/82	B	?	A	?	A	A	B				B											A
Est. NA 80/83	A		A			A	A	A	A		A	C	A	B	?							
Est. county	B	?	A	?	A	A	A	A	A		B	C	A	B	?							A

Key

Column headings

GR = Grid reference if relevant

No Sites = Number of sites

Site Area = Area of sites

GR Area = Area of grassland

A G Area = Area of acid grassland

H Area = Area of dry heath

LHA = Area of lichen heath

NI = No information

NA = Natural Area

U1-U20r = NVC communities/sub-communities

Area estimates

A = Less than 50 ha

B = 50-100 ha

C = 100-500 ha

D = 500-1,000 ha,

E = 1,000-5,000 ha

F = 5,000-10,000 ha

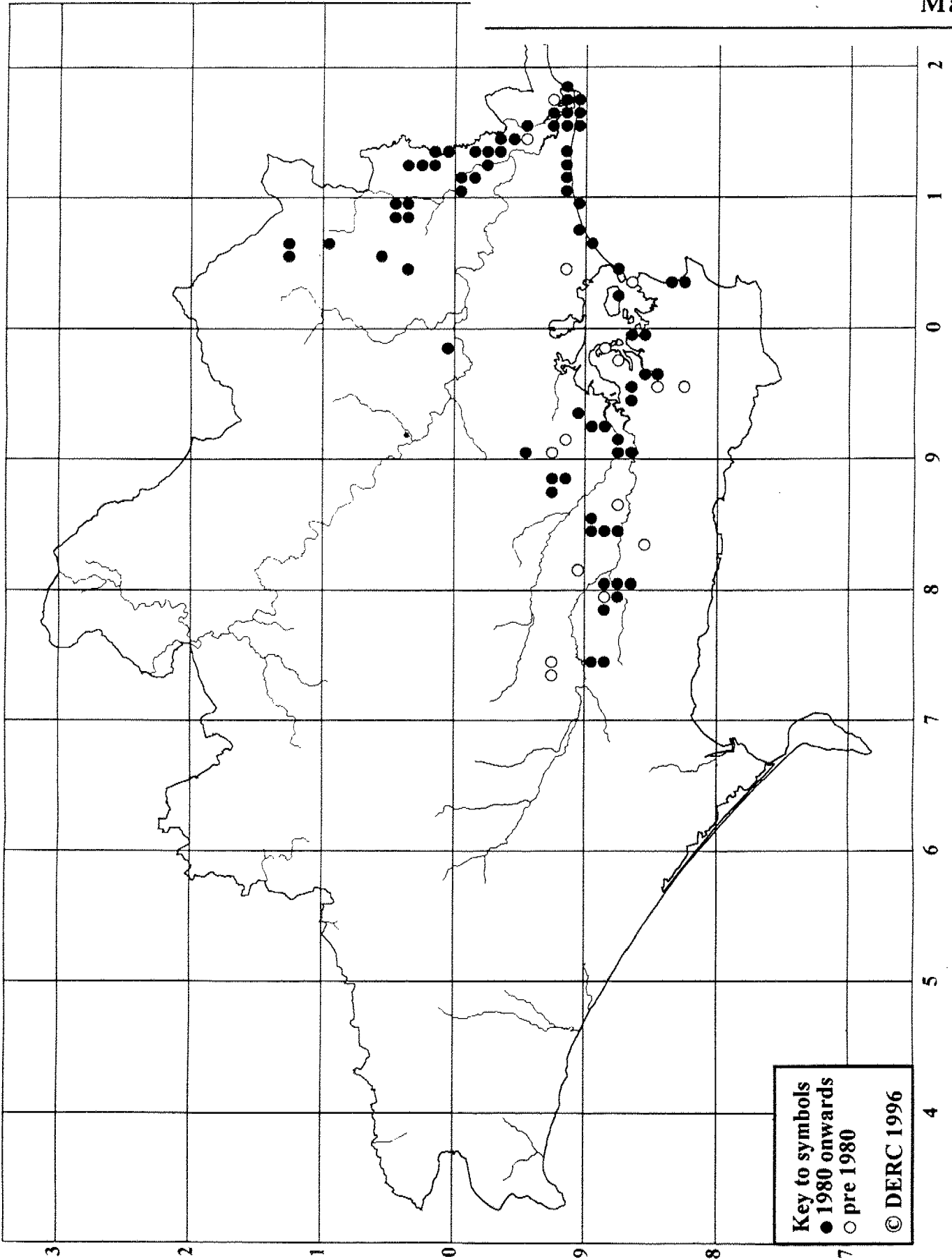
G = Greater than 10,000 ha

+ = Present but no area given

? = Possibly present

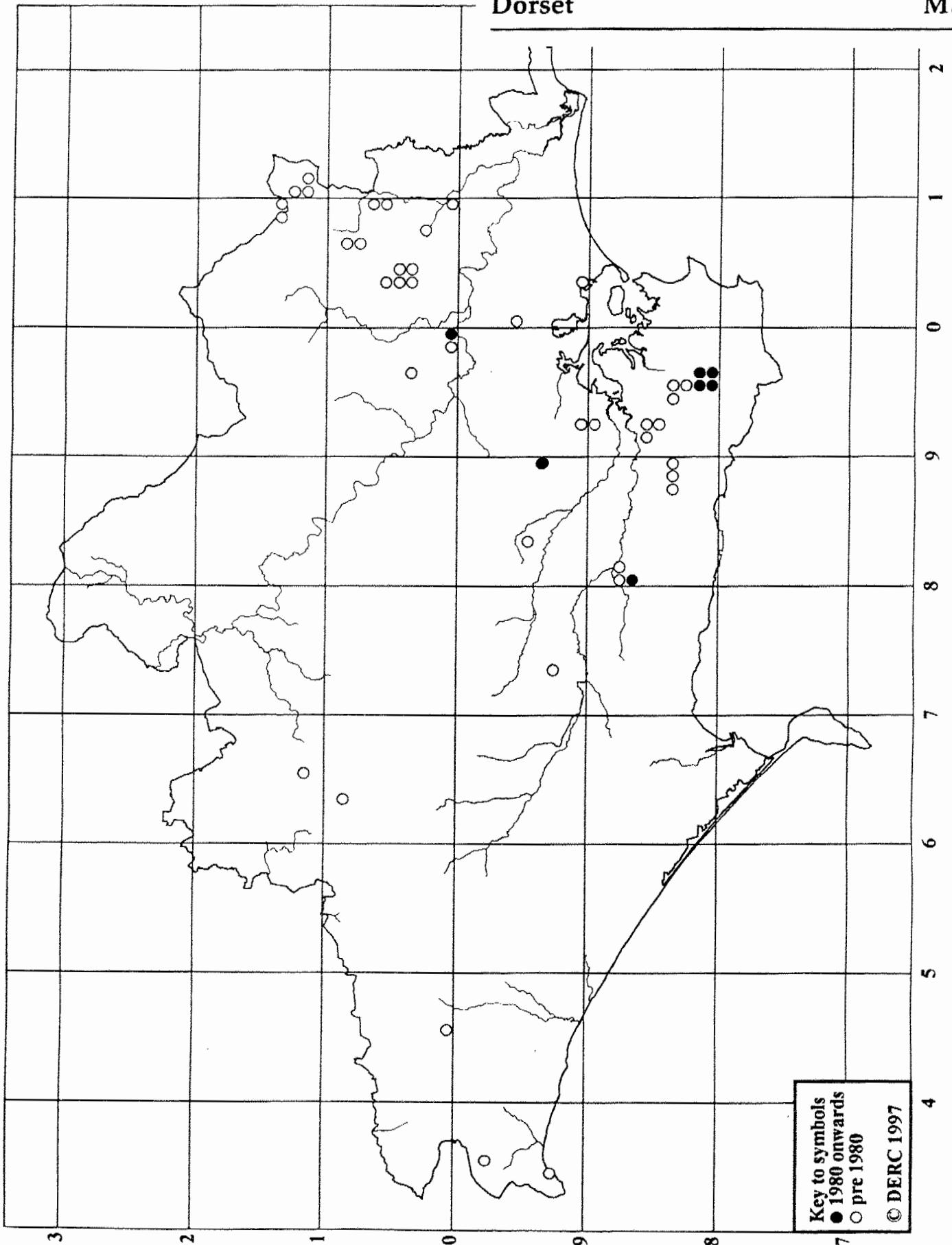
Distribution of *Crassula tillaea* in Dorset

Map 25



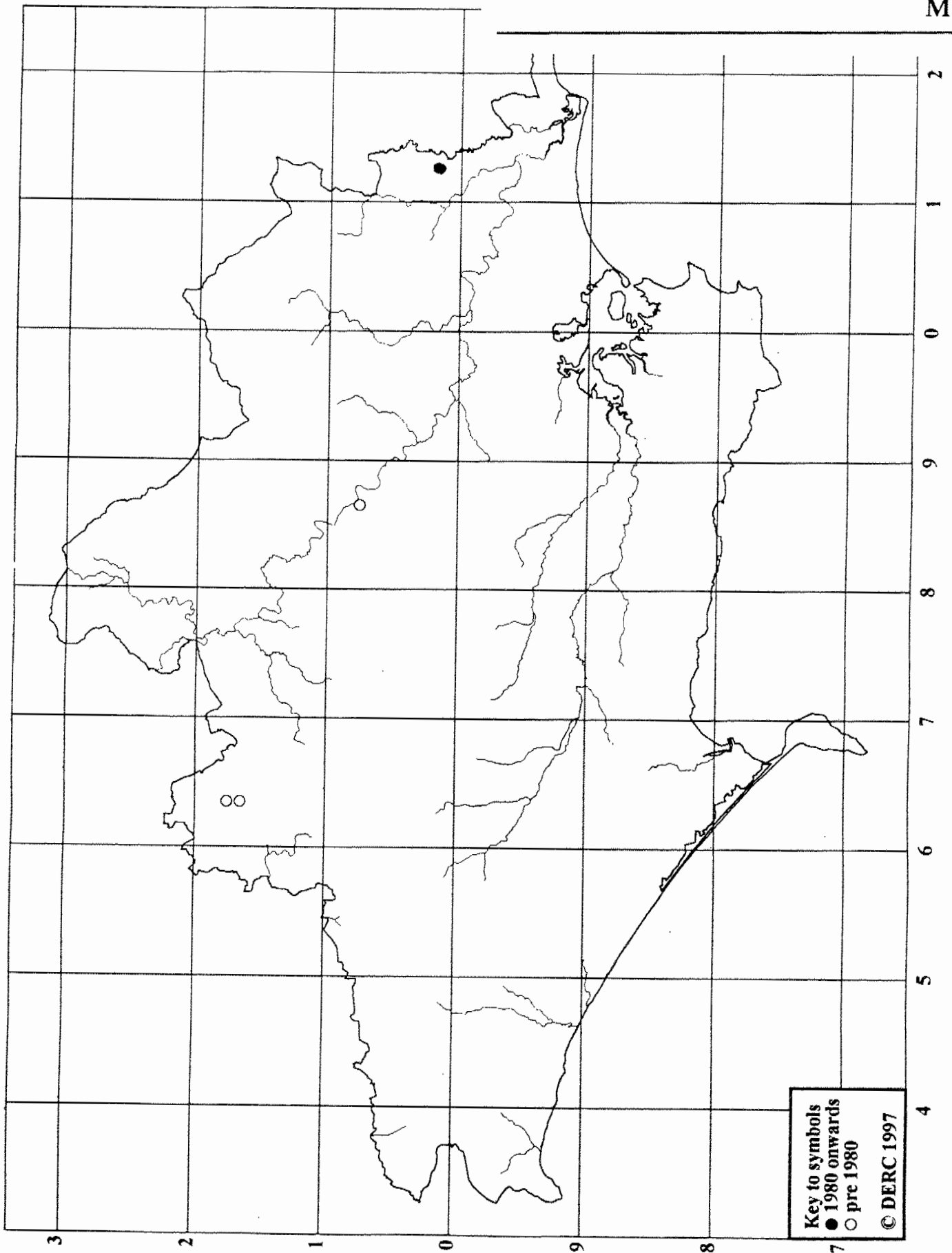
Distribution of *Chamaemelum nobile* in Dorset

Map 2



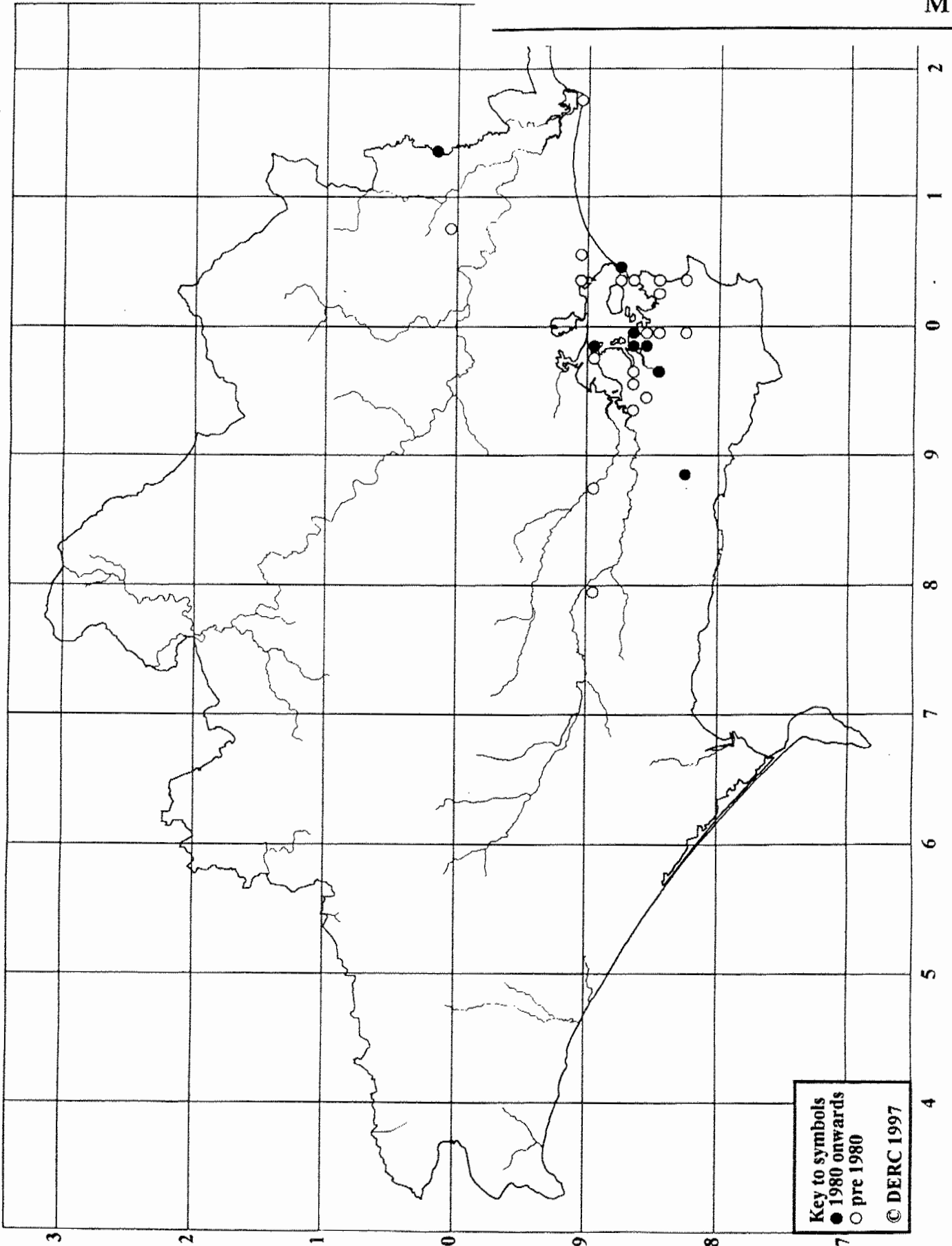
Distribution of *Dianthus deltoides* in Dorset

Map 27



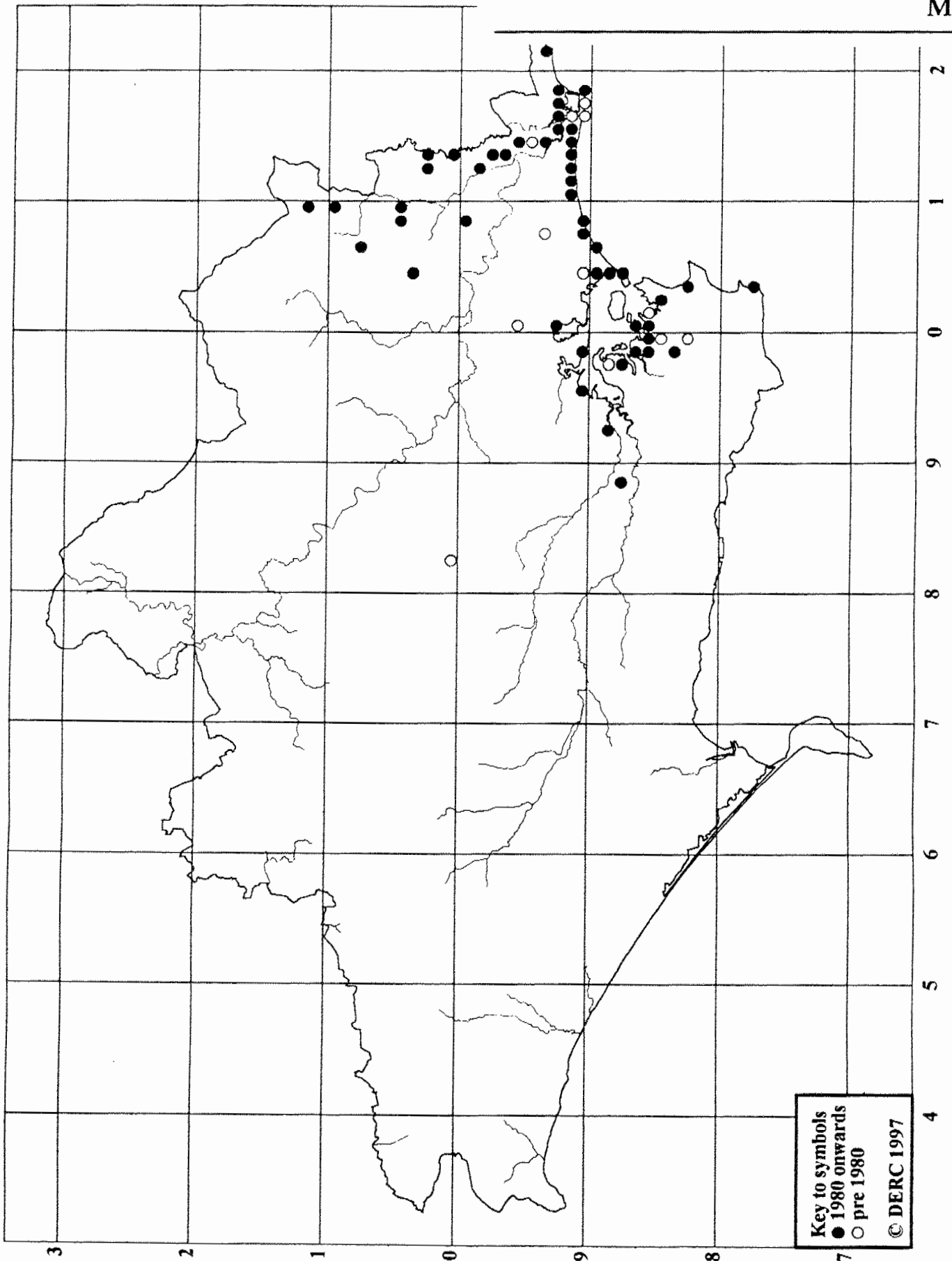
Distribution of *Hypochaeris glabra* in Dorset

Map 2



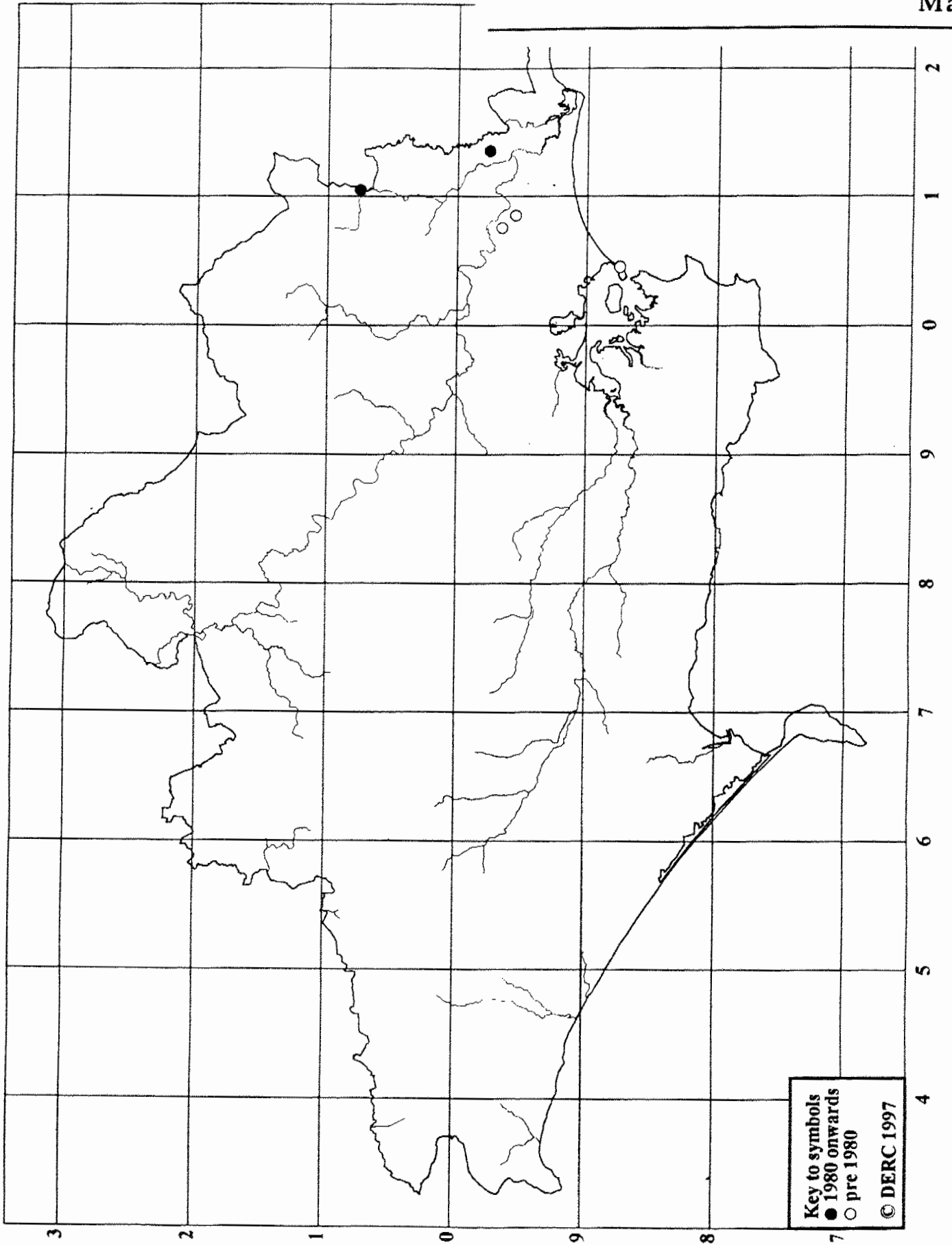
Distribution of *Lotus subbiflorus* in Dorset

Map 29



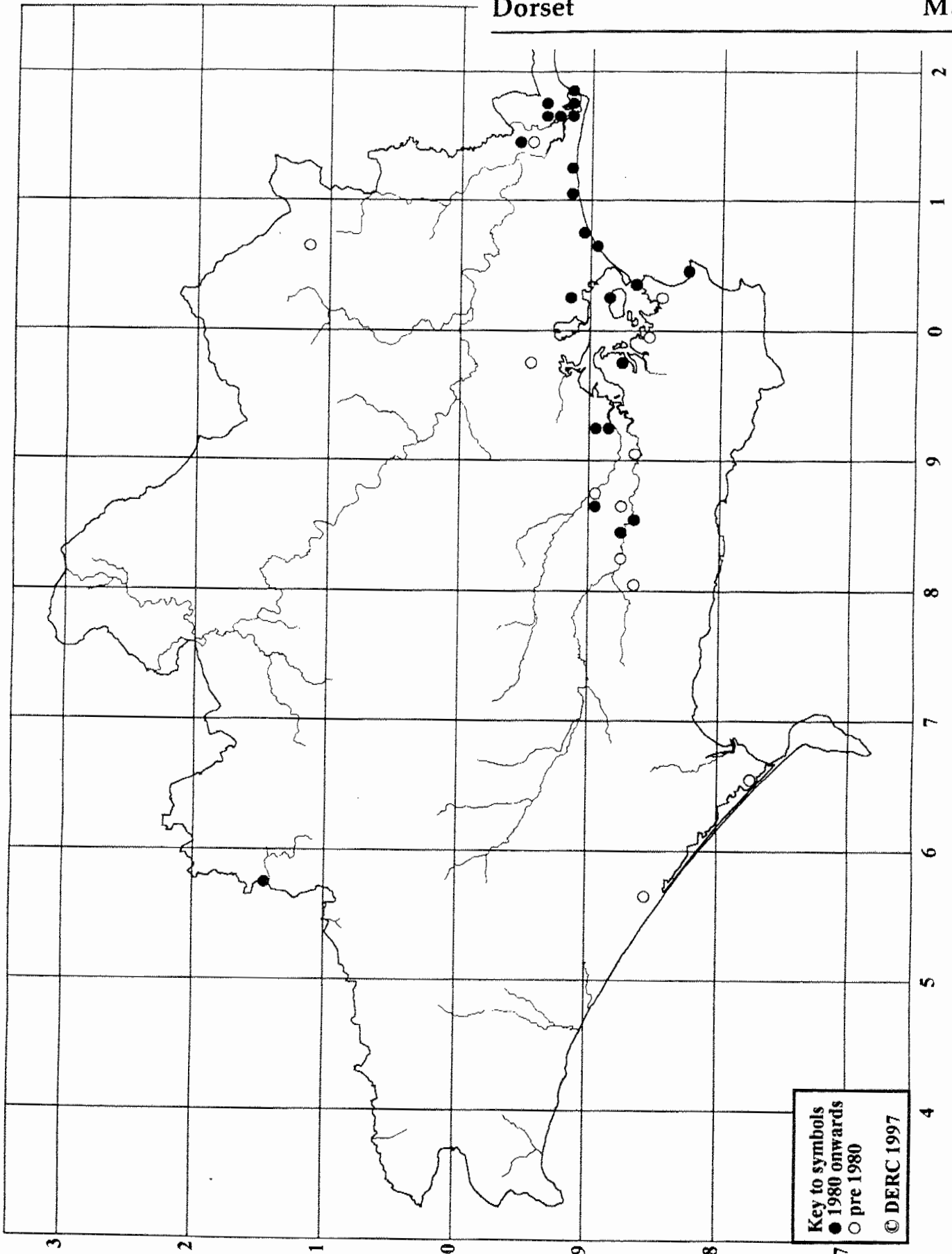
Distribution of *Teesdalia nudicaulis* in Dorset

Map 30



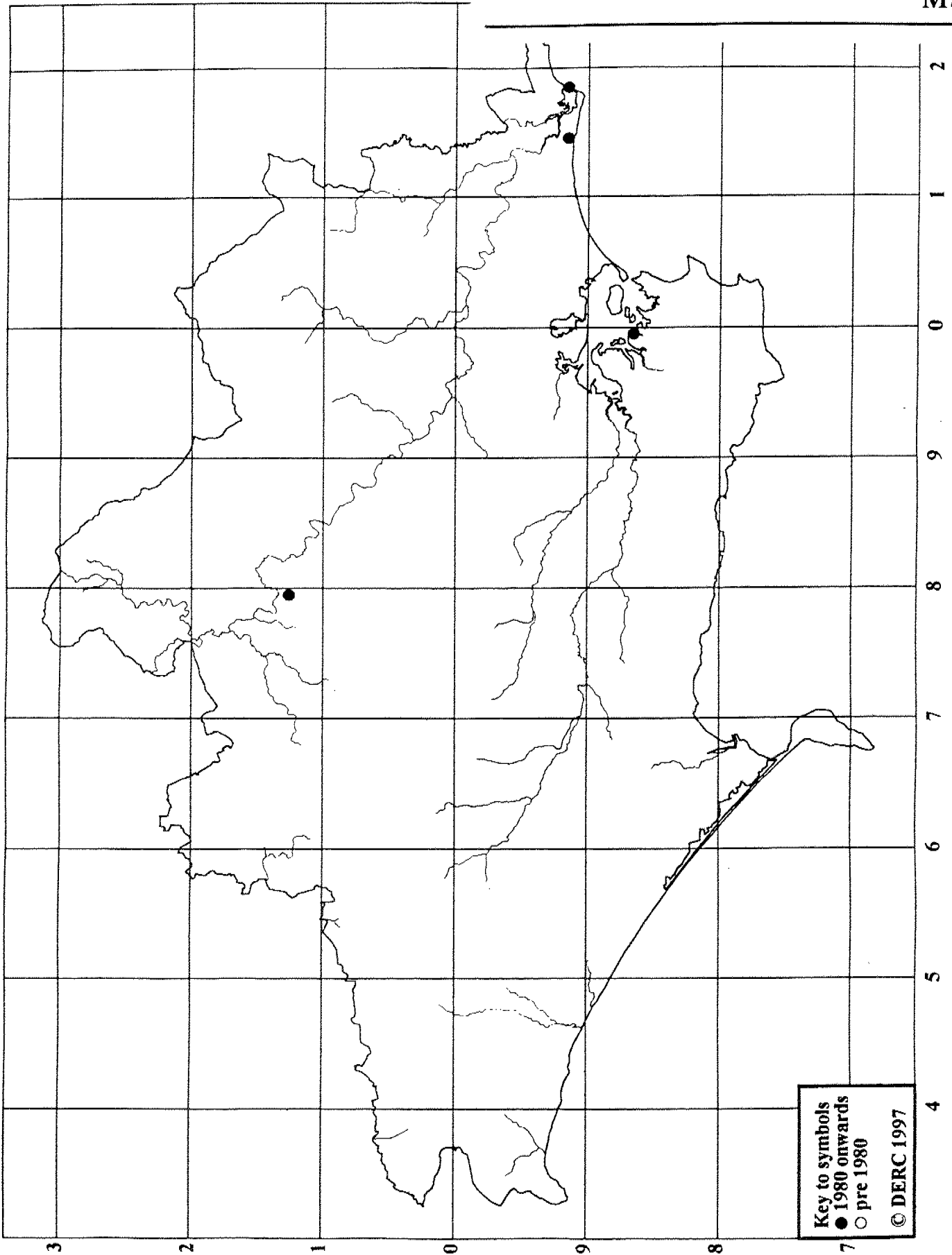
Distribution of *Trifolium glomeratum* in
Dorset

Map 31



Distribution of *Vicia lathyroides* in Dorset

Map 3



Distribution of *Viola lactea* in Dorset

Map 33

