



Butterfly Conservation

South-Central England

Regional Action Plan

This action plan was produced in response
to the **Action for Butterflies** project funded by
WWF, EN, SNH and CCW

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Executive Summary

This document sets out the 'Action Plan' for butterflies, moths and their habitats in South-Central England (Dorset, Hampshire, Isle of Wight & Wiltshire), for the period 2000-2010. It has been produced by the three Branches of Butterfly Conservation within the region, in consultation with various other governmental and non-governmental organisations. Some of the aims and objectives will undoubtedly be achieved during this period, but some of the more fundamental challenges may well take much longer, and will probably continue for several decades. The main conservation priorities identified for the region are as follows:

a) Species Protection

- To arrest the decline of **all** butterfly and moth species in South-Central region, with special emphasis on the **15 high priority and 6 medium priority butterfly species** and the **37 high priority and 96 medium priority macro-moths**.
- To seek opportunities to extend breeding areas, and connectivity of breeding areas, of high and medium priority butterflies and moths.

b) Surveys, Monitoring & Research

- To undertake ecological research on those species for which existing knowledge is inadequate. Aim to publish findings of research.
- To continue the high level of butterfly transect monitoring, and to develop a programme of survey work and monitoring for the high and medium priority moths.

c) Liaison

- To collaborate closely with possible partners to ensure that actions and targets identified in this plan are implemented within the proposed time-scales.
- To provide feedback to landowners and land managers, and provide them with management recommendations that are realistic and could be maintained in the long term.

d) Management agreements and acquisition of reserves

Targeted reserves acquisition in "key areas" coupled with management agreements at other key sites, is a crucial component of the overall conservation strategy for Lepidoptera within the region. Not only does such an approach conserve key habitat and species, but it also raises the profile of Butterfly Conservation and the individual Branches concerned. It also gives the Society the opportunity to demonstrate "best practice" in the management of a particular habitat for Lepidoptera in general, or for particular species.

e) Re-establishments

This is the least desirable option for conserving Lepidoptera within the region. It is recognised, however, that in certain situations strategic re-establishments of key species to sites within their former range may be necessary. This approach to re-establishment within the former range would be as a last resort, and only undertaken when there is no prospect of natural recolonisation, and where appropriate long-term management can be reasonably assured at the receptor sites, and where the donor sites would not be jeopardised.

f) Education and publicity

Through education and publicity increase the public awareness of the plight of butterflies, moths and their habitats, and the work of Butterfly Conservation.

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1.1 Background

The *Action for Butterflies* Project and Regional Action Plans: Their role within Butterfly Conservation and the Biodiversity planning process.

Background to the Biodiversity planning process

At the Earth Summit in Rio de Janeiro in 1992, the UK Government signed the Convention on Biological Diversity which required the development of a national strategy. In early 1994, the Government produced the UK Biodiversity Action Plan which adopted a systematic approach whereby targets are used to focus conservation action. This has since ensured that there is now considerable effort going into the production of Local Biodiversity Action Plans through the Agenda 21 process. Butterfly Conservation is attempting to maximise the benefits for butterflies and moths and their habitats through the Action for Butterflies project.

The Action for Butterflies Project

The project began in 1994 and is funded by the World Wide Fund for Nature (WWF-UK) and the Country Agencies (English Nature, Scottish Natural Heritage, Countryside Council for Wales). It aims to place the conservation work of the Society within an overall framework, aiding the Society at national and local level to develop priorities for action. National Species Action Plans have been written for the 25 most threatened butterflies, and Butterfly Conservation Branches are also producing Regional Action Plans for each of 14 regions in the UK, to guide action at the local level.

This Regional Action Plan (for South-Central England) is one of a series being drawn up by Butterfly Conservation Branches in consultation with staff at the Conservation Office, following a standard format devised following a series of workshops held in 1995 and 1996. This particular Regional Action Plan draws significantly on the "Hampshire and Isle of Wight Action Plan (1994-2000)" published in June 1994, but is expanded to cover all four counties that constitute South-Central region (ie Dorset, Hampshire, Isle of Wight, Wiltshire). It is completely revised and updated, and is intended to cover both national and regional priorities, as well as aiding the conservation of species and habitats characteristic of the local area.

Regional Action Plans: The wider context

As well as guiding BC's own actions, our Regional Action Plans are designed to provide our conservation partners with detailed and sound conservation priorities for Lepidoptera for inclusion in **Local Biodiversity Action Plans**.

1.2 General Aims of the South-Central England Regional Action Plan

- To identify butterfly and moth species most at risk within the region
- To outline the site and management requirements of these species
- To identify the most important areas and sites for butterflies and moths within the region
- To establish a coordinated network of recorders for each of the high priority species
- To highlight further survey, management or monitoring work required

1.3 REGIONAL PRIORITY BUTTERFLY LIST

The list of species below has been developed from Butterfly Conservation's national priority list using the four criteria listed in Section 1.4.

1.3.1 High Priority Butterflies (n = 15)

Silver-spotted Skipper (*Hesperia comma*)
Lulworth Skipper (*Thymelicus acteon*)
Grizzled Skipper (*Pyrgus malvae*)
Wood White (*Leptidea sinapis*)
Brown Hairstreak (*Thecla betulae*)
Small Blue (*Cupido minimus*)
Silver-studded Blue (*Plebejus argus*)
Adonis Blue (*Lysandra bellargus*)
Duke of Burgundy (*Hamearis lucina*)
Purple Emperor (*Apatura iris*)
Small Pearl-bordered Fritillary (*Boloria selene*)
Pearl-bordered Fritillary (*Boloria euphrosyne*)
High Brown Fritillary (*Argynnis adippe*)
Marsh Fritillary (*Eurodryas aurinia*)
Glanville Fritillary (*Melitaea cinxia*)

1.3.2 Medium Priority Butterflies (n = 6)

Dingy Skipper (*Erynnis tages*)
White-letter Hairstreak (*Satyrium W-album*)
Chalkhill Blue (*Lysandra coridon*)
White Admiral (*Ladoga camilla*)
Wall (*Lasiommata megera*)
Grayling (*Hipparchia semele*)

1.4 Methods used for assigning regional priorities

If the national rating was 'high' or 'medium', the species automatically qualified for this rating at regional level. At a regional level, a species was elevated to a higher priority if it fulfilled any one or more of the following criteria (see Table 1):

Criteria 1: Rate of decline

If a species has shown dramatic regional decline over recent decades its regional priority could be elevated relative to the stated national priority. Applying the equation given in the national guidelines produced inconsistent results due to varied data-sets and recording effort between the various counties over the recording periods being considered. The figures calculated for each county (Appendix 1; Table 2) give values for rate of change from the initial recording period 1980-94 relative to the most recent recording period 1995-99, based on change in the number of tetrads (or 1km squares) for which a species was recorded, and taking due consideration of change in recorder effort. The regional pattern of change was calculated by summation of tetrad data for the four counties. Although the value determined probably has a significant error bar, we found that however the calculation is performed it doesn't really affect the list of priority species. The figures derived for change over a 25 year period, using the equation of Bourn *et al.* (1996) are given in square brackets (Table 2) for comparison. If **≥ 30% regional decline at tetrad level over the 12 year period 1987 (mid point of first recording period) to 1999 (end of most recent recording period)**, the regional priority of a species was elevated. The following were elevated to higher status at regional level by applying this criteria (see Table 1 pg.7, and Appendix 1 (Table 2).

Raised from national 'medium' to regional 'high' priority:

Grizzled Skipper (*Pyrgus malvae*), Wood White (*Leptidea sinapis*), Brown Hairstreak (*Thecla betulae*), Small Blue (*Cupido minimus*), Duke of Burgundy (*Hamearis lucina*), Purple Emperor (*Apatura iris*), and Small Pearl-bordered Fritillary (*Boloria selene*).

Raised from national 'low' to regional 'medium' priority:

Dingy Skipper (*Erynnis tages*), Wall (*Lasiommata megera*) and Grayling (*Hipparchia semele*).

Green Hairstreak *Callophrys rubi* (-33%) and White-letter Hairstreak *Satyrium W-album* (-30%) were borderline but not raised due to under-recording considerations.

Criteria 2: Rarity

The size of the region is approximately 2746 tetrads (Dorset = 653, Hampshire = 1027, Isle of Wight = 114, Wiltshire = 952). Following Regional Action Plan guidelines, under consideration of 'rarity', the regional butterfly priorities should increase from national priority if a species occurs in **≤ 0.6% of tetrads** in the region (= **16.48 tetrads** in South-Central England), or occurs in **≤ 30 colonies** (see Appendix 2, Table 3).

Criteria 3: Major UK stronghold

If the region holds **≥ 20% of the total UK resource** for a particular species, then the regional priority of this species should go up a level relative to the specified national priority.

(see Table 1, next page)

Table 1. Butterfly species showing a regional change in their national priority rating as judged by criteria which follow Butterfly Conservation's national guidelines for producing Regional Action Plans (see Bourn *et al.*, 1996)

Species	Criteria 1 (rate of decline)■	Criteria 2 (rarity)●	Criteria 3 (proportion of national resource)	Priority rating change
Lulworth Skipper			✓ 100%	M to H
Grizzled Skipper	✓ -31%		✓	M to H
Wood White	✓ -46%	✓		M to H
Brown Hairstreak	✓ -35%	✓		M to H
Small Blue	✓ -40%		✓	M to H
Silver-studded Blue			✓ 29%	M to H
Adonis Blue			✓ 57%	M to H
Duke of Burgundy	✓ -50%		✓	M to H
Purple Emperor	✓ -51%	✓	✓ >25%	M to H
Small Pearl-bordered Fritillary	✓ -66%	✓		M to H
Glanville Fritillary		✓	✓ 100%	M to H
Dingy Skipper	✓ -39%			L to M
Chalkhill Blue			✓ 41%	L to M
White Admiral	✓ -44%		✓	L to M
Wall	✓ -41%			L to M
Grayling	✓ -23% ^x			L to M

■ see Appendix 1 (Table 2)

● see Appendix 2 (Table 3)

^x Although relatively stable on heathland and coastal sites, the **Grayling** has been elevated in priority due to massive losses from the Chalk.

1995-99	"South-Central"	UK total	% in region
Lulworth Skipper	57 tetrads	57 tetrads	100%
Silver-studded Blue	29 10km squares	100 10km squares	>29%
Adonis Blue	183 tetrads	321 tetrads	57%
Purple Emperor	22+ 10km squares	89 10km squares	>25%
Glanville Fritillary	25 tetrads	25 tetrads	100%
Chalkhill Blue	286 tetrads	693 tetrads	41%

1.5 High Priority Macro-Moths Nationally and Regionally Important

Based on Dr Paul Waring's 1996 JNCC review (see Bourn *et al.*, 1996) and UK BAP High Priority moths detailed in UK Biodiversity Group (1999a,b), the following 37 moths have been identified as High Priority macro-moths for the region. All of these species occur in less than 15 ten km squares nationally, or else have their national stronghold in the region. Species accounts for these high priority macro-moths are given in Section 3.4 (pg.53).

		Pg.
(0160) Reed Leopard	<i>Phragmataecia castaneae</i>	53
(0174) The Triangle	<i>Heterogenea asella</i>	54
(1675) Dinky Mocha	<i>Cyclophora pendularia</i>	56
(1714) Portland Ribbon Wave	<i>Idaea degeneraria</i>	58
(1731) Chalk Carpet	<i>Scotopteryx bipunctaria</i>	59
(1785) Barberry Carpet	<i>Pareulype berberata</i>	61
(1787) Argent & Sable	<i>Rheumaptera hastata</i>	62
(1878) Drab Looper	<i>Minoa murinata</i>	64
(1880) Barred Tooth-striped	<i>Trichopteryx polycommata</i>	66
(1982) Narrow-bordered Bee Hawk	<i>Hemaris tityus</i>	68
(2053) Speckled Footman	<i>Coscinia cribraria</i>	70
(2108) Lunar Yellow Underwing	<i>Noctua orbona</i>	72
(2131) Square-spotted Clay	<i>Xestia rhomboidea</i>	74
(2148) Pale Shining Brown	<i>Polia bombycina</i>	76
(2153) Bordered Gothic	<i>Heliophobus reticulata marginosa</i>	77
(2172) White Spot	<i>Hadena albimacula</i>	79
(2191) Double Line	<i>Mythimna turca</i>	81
(2219) Striped Lychnis	<i>Shargacucullia lychnitis</i>	83
(2226) Beautiful Gothic	<i>Leucochlaena oditis</i>	85
(2257) Orange Upperwing	<i>Jodia croceago</i>	86
(2264a) Southern Chestnut	<i>Agrochola haematidea</i>	88
(2277) Scarce Merveille du Jour	<i>Moma alpium</i>	90
(2315) Heart Moth	<i>Dicycla oo</i>	92
(2317) White-spotted Pinion	<i>Cosmia diffinis</i>	94
(2346) Morris's Wainscot	<i>Photedes morrisii</i>	95
(2376) Blair's Wainscot	<i>Sedina buettneri</i>	96
(2378) Brighton Wainscot	<i>Oria musculosa</i>	97
(2393) Reddish Buff Moth	<i>Acosmetia caliginosa</i>	98
(2401) Marbled Clover	<i>Heliothis virescens</i>	99
(2402) Shoulder-striped Clover	<i>Heliothis maritima</i>	100
(2454) Light Crimson Underwing	<i>Catocola promissa</i>	102
(2455) Dark Crimson Underwing	<i>Catocola sponsa</i>	104
(2465) The Four-spotted	<i>Tyta luctuosa</i>	106
(2480) Buttoned Snout	<i>Hypena rostralis</i>	108
(2482) White-line Snout	<i>Schrankia taenialis</i>	109
(2488) Common Fan-foot	<i>Pechipogo strigilata</i>	111
(2495) Olive Crescent	<i>Trisateles emortualis</i>	112

1.6 Medium priority macro-moths - Notable species occurring in the region

At present these include all Red Data Book (RDB) species and all nationally notable (Na or Nb) species which are currently known to occur in the region, and not listed in the high priority list (see Section 3.5 for further detail). Current status is taken from Waring, in prep (also see Waring, 1994).

1.7 Micro-moths

A provisional list of high and medium priority micro-moths is given in Appendix 5.

2. Sources of information

The production and compilation of this Action Plan was co-ordinated by Andy Barker through the three Butterfly Conservation Branches that constitute South-Central England, namely, Dorset, Hampshire & Isle of Wight, Wiltshire. The following individuals were significantly involved in the process of county-level compilation of data, identifying key areas and through consultation, drawing up the detail of the various actions contained within the Action Plan: Andy Barker, Andy Butler, Peter Davey, Paul Davies, Mike Fuller, John Grearson, David Green, Frank Lowe, Tim Norriss, Colin Pope, Bill Shreeves, Phil Sterling.

References and reports used to compile this document are listed in Section 12, including all individual references mentioned in the species accounts.

3. Species accounts

The **two-page species accounts for high and medium priority butterflies** are subdivided into six sections: Distribution and Status, Threats, Survey, Monitoring, Management and finally, Actions and Targets.

Low priority butterfly species occurring in South-Central England are simply listed (pg.52), with no individual accounts.

The monitoring section states the number of transects in the region on which a particular species is regularly recorded. Overall there are **at least 165 transects** in the region (see Section 6 and Appendix 4). Whilst the majority of species are well represented on the transects, others such as the Glanville Fritillary are currently poorly represented.

The **species accounts for high priority macro-moths** (single or double-page) are arranged in a similar fashion to those for butterflies, but with an additional section dealing with habitat (and ecological information, where known).

3.1 High priority species (n = 15)

3.1.1 Silver-spotted Skipper *Hesperia comma*

Distribution and Status: A species that has always had limited distribution in the region, and now confined to about 11 colonies largely concentrated in four areas (Fontmell Down, Martin Down, Porton Down, Meon Valley). Even so, the region probably accounts for 30% of the total UK resource. Of those colonies that remain, the majority are on nature reserves managed for the species. Most seem to have had relatively stable or else strengthening populations over the last 10-15 years.

Dorset: 1995-99 = 8 km sq. Single site (Fontmell Down) with small/medium-sized population. Average transect count 1980-98 = 22. Occasional individuals to north on Compton Down and Melbury Hill.

Hampshire: 1995-99 = 12 tetrads. Currently known from 8 sites, 3 of these are on the border with Wiltshire (Broughton Down, Porton Down(2)), 4 are in the Meon Valley, and the final site (Martin Down) is on the border with Dorset. Two of the Meon Valley sites represent natural colonisations in the last twenty years, another stems from a reintroduction in 1990.

Isle of Wight: Either never present, or long since extinct.

Wiltshire: 1995-99 = 15 tetrads. Probably 4-5 colonies, principally focused on the Porton Down area (which extends into Hampshire).

Threats:

- lack of grazing
- overgrazing (by rabbits)
- grazing too close to emergence in July-August
- increased scrub
- isolation and small area of breeding habitat on some sites

Survey: Most of the present colonies have been known for some time. Occasional stray individuals turn up at other chalk downland sites, and thorough searching in the 1990's (throughout the region) located two additional small colonies in Wiltshire.

Monitoring: Most of the known sites have well established butterfly transects and some have been monitored for many years. Extensive research on ovipositing and other ecological aspects has been undertaken on two of the Hampshire (Meon Valley) sites by Warren & Thomas. Fontmell Down has local weather and management data integrated with transects. A detailed review of trends on monitored sites is given by Wilson & Bourn (1998).

Management: Most sites use a mixture of sheep (\pm cattle) grazing to maintain short turf (assisted by all-year rabbit grazing; intense in some years). Periodic scrub clearance is required at some sites to check encroachment. It is now thought vital (Warren *et al.*, 1999) to terminate grazing at least a month before emergence. For further detail on ecological requirements and conservation management refer to the Warren & Thomas (1993), and Barnett & Warren (1995a).

ACTIONS AND TARGETS:

TARGET 1: To have four core populations (Meon Valley, North Dorset Downs, Martin Down, Porton Down) self-supporting by 2003.

TARGET 2: To maintain present populations and encourage spread onto nearby sites by promoting favourable management.

ACTIONS:

Action	BC's Targets	Possible Partners
1. Continue to monitor and collate results on all current transects.	Ongoing	Local volunteers.
2. Maintain search for additional colonies, especially in core areas, but also in areas considered to have been under-surveyed.	Ongoing	Local volunteers.
3. Provide feedback to owners and site managers.	Ongoing	Local volunteers
4. Assess whether there is scope for habitat improvement to increase potential suitable habitat/ breeding areas at known sites. Especially by promoting the development of Countryside Stewardship schemes.	2005	FWAG, EN.
5. Assess the potential for habitat improvement at sites lacking the species but in close proximity to known colonies.*	2002	Local volunteers
6. Re-survey sites with occasional or intermittent records to evaluate whether low-density populations exist or whether they are simply strays.	2002	Local volunteers

* For example, by promoting more detailed vegetation surveys focused on NVC CG2/a.ii (*Festuca ovina-Avenula pratensis* grassland)

3.1.2 Lulworth Skipper *Thymelicus acteon*

Distribution and Status: The "Threatened Butterflies in Europe" project identifies the Lulworth Skipper as a SPEC 2 species, and one of four UK species classified as *vulnerable* at European level (see van Sway & Warren, 1999). It is currently experiencing major decline through much of its European range. In Britain, this species is confined to Dorset, and has always had a very limited distribution primarily centred on Purbeck. After some increase in range during the 1970's and 1980's, the species has shown a very slight decline in the 1990's due to changes in the management of key habitat in the area.

Dorset: 1995-1999 = 100 km squares; 70+ colonies. All but four of the colonies are located on the chalk and limestone grasslands of the Isle of Purbeck, east of Weymouth. Relatively isolated colonies exist on the west coast of Dorset at Burton Bradstock and on Portland. Two further colonies are located behind the Fleet.

Hampshire: Absent

Isle of Wight: Absent.

Wiltshire: Absent.

Threats:

- Loss of habitat due to improvement of grassland and pressure from recreational use.
- Increases in grazing through entry into Countryside Stewardship schemes and need to conserve short-turf species such as the Adonis Blue.
- Increase in rabbit numbers.
- Scrub encroachment and the unknown effects associated with the practice of burning scrub and *Brachypodium pinnatum*.
- Isolation of small colonies. The furthest single-step colonisation recorded is 2.25km.

Surveys: Surveys undertaken by J. Thomas (1978) and by G.Pearman, B. Goodger, N. Bourn & M. Warren (1997). A comparison of the surveys showed 19 colonies lost, 11 gained, making a net loss of eight. The number of large colonies (>10,000 individuals) dropped from 6 to 3, and of small colonies (<1,000) from 63 to 50, whereas the number of medium colonies rose from 14 to 20. Millennium Atlas surveying in 1998 found small, previously undetected colonies, behind the Fleet.

Monitoring: There are 4 transect walks: Ballard Down (since 1976, average Annual Index = 19); Durlleston East (since 1988, av.=268); Durlleston West (since 1990, av.= 642; Townsend Quarry (since 1990, av.= 4).

Management: 64% of the colonies (1997) were under private ownership, 24% were National Trust & 6% under Local Authority; the MOD own 5% of the colonies, but these had by far the largest population. Of the sites occupied in 1978, 17% are now under Countryside Stewardship. The inland sites along the Purbeck ridge are mostly grazed and usually burnt in the early spring. Coastal sites are usually not grazed (except by rabbits).

National Trust policy is to create mixed turf heights. See Lulworth Skipper Species Action Plan by Bourn & Warren (1997b) for further detail.

ACTIONS AND TARGETS:

TARGET 1: Maintain the core populations along the coastal sites, the Army ranges and the Purbeck Ridge.

TARGET 2: Devise and implement a management policy for the calcareous grasslands from east of Weymouth to Purbeck so that certain areas retain long turf for the Lulworth Skipper, and where Adonis Blue and Lulworth Skipper coexist aim to manage in such a way as to produce both taller and short turf.

ACTIONS:

Action	BC's Targets	Possible Partners
1. Improve short-term monitoring by setting up counts on the Army Ranges, the west Dorset coast and west Purbeck Ridge.	2002	MOD, EN, NT, BC volunteers
2. Carry out a comprehensive audit of all known colonies at least every 10 years (comparable to 1978 and 1997 surveys).	2007	BC, ITE
3. Ensure the Countryside Stewardship schedules and SSSI site management statements specify appropriate areas of taller turf.	Ongoing	EN, Purbeck Biodiversity Steering Gp., NT, MAFF
4. Identify link areas where Countryside Stewardship could restore suitable habitat.	Ongoing	EN, FWAG, Purbeck Biodiversity Steering Gp.
5. Promote further research into the results of scrub and grass burning for the survival of the Lulworth Skipper.	2002?	BC, Bournemouth University
6. Continue to survey other areas for possible colonies, especially between Burton Bradstock and Portland.	Ongoing	BC volunteers

3.1.3 Grizzled Skipper *Pyrgus malvae*

Distribution and Status: Still fairly widely distributed throughout the region, and although rate of regional decline from 1980 to 1999 has been estimated at -31% (Appendix 1; Table 2a), some parts of the region have fared much worse than others. Upgraded from national medium priority to regional high priority, based on rate of decline and because South-Central England contains around 30-35% of total UK resource .

Dorset: 1995-99 = 147 km sq. (> 100 ? colonies). The biggest colonies are on the chalk grasslands. Smaller colonies persist in the woodlands of west Dorset and Cranborne Chase. Present but not common on Purbeck, Portland and the heathlands.

Hampshire: 1995-99 = 102 tetrads (c. 80 colonies, 1999)

Isle of Wight: 1995-99 = 19 tetrads (c. 20-25 colonies, 1999)

Wiltshire: 1995-99 = 88 tetrads (< 100 colonies)

Threats:

- woodland rides and clearings becoming too overgrown and shady.
- scrub encroachment on chalk downland remnants
- excessive overgrazing by rabbits
- loss and changing plant communities of short-medium turf roadside verges ?
(eg (1) fertilizer/spray enrichment of roadside verges leading to grass/nettle dominated verges; (2) salting of roads ?).
- decline in quality of habitat on disused railway lines due to scrub encroachment and shading by marginal trees.
- droughts
- decline in coppicing & shading of rides

Survey: There has not been a thorough survey in Dorset. Since 1994 it has been recorded in 10 new km squares. The increase of 186 km squares in the 1980-94 survey from 128 in the 1970-84 survey probably reflects more observers and greater coverage. The decline to 147 km squares (1995-1999), suggests a decline or else fluctuating fortunes between recording periods.

Monitoring: Currently recorded on 50 transects in the region, of which, 24 in Dorset, 10 in Hampshire, c. 2 on the Isle of Wight, and 14 in Wiltshire. Average Annual Index values for Dorset transects range from 1 (Garston Wood) to 162 (Cerne Giant).

Management: At Fontmell Down the species seems to respond favourably in years following scrub clearing, which maximises the spread of wild strawberry. In woodland sites it is quick to colonise new clearings and soon disappears as regrowth occurs. See Brereton (1997) and Brereton *et al.* (1998) for further detail regarding ecological requirements, management and conservation.

ACTIONS AND TARGETS:

TARGET 1: Survey entire region and compile list of all colonies classified according to type & habitat.

TARGET 2: Select key groups of sites throughout the region representing different habitats, and take steps to maintain and expand suitable breeding areas. Aim to maintain colonies in c.22 core areas where the species is still present in reasonable numbers.

ACTIONS:

Action	BC's Targets	Possible Partners
1. Classify all sites according to habitat type, and re-check all localities with post-1990 records.	2005	BC volunteers
2. Ensure that managers and owners of the key target sites are aware of the conservation needs of Grizzled Skipper. Encourage appropriate management.	Ongoing	BC volunteers
3. Review the distribution of transect walks covering the species in the region and make sure the key areas are monitored adequately.	2002	BC volunteers
4. Survey key areas adjacent to target sites for possible habitat improvement under EMS & Stewardship & WIGs.	2004	BC volunteers
5. Maintain/restore coppicing and woodland management throughout the region (to increase the frequency of canopy gaps and linking wide rides)	Ongoing	FC, private landowners, County Councils, EN
6. Target research into foodplants and habitat in the less well known heathland areas. Identify favoured areas for feeding and egg-laying at all sites.	2010	BC volunteers, University students

3.1.4 Wood White *Leptidea sinapis*

Distribution and Status: One of the rarest species in the region. Now restricted to a single colony in Dorset.

Dorset: 1995-99 = 7 km squares. Sole remaining colony is at Powerstock, west Dorset, which originated from an introduction in 1974-1976. Satellite colonies have now developed in many parts of Powerstock and have spread along the disused railway line to Kingcombe. Occasional individuals observed in the Lyme Regis area are from the undercliff colony in Devon.

Hampshire: extinct since c.1940's

Isle of Wight: extinct

Wiltshire: Considered extinct since 1987, but two Wood Whites were reported from Bentley Wood in 1997 and a singleton positively identified in May 1998. (Note: Now known to be released specimens).

Threats:

- Shade levels of woodland rides and disused railway lines rising above 50%.
- Too frequent cutting of marginal vegetation along rides (3-6 years is ideal).
- Site isolation (4km dispersal has been recorded, but < 300m seems to be the norm).
- Decline of coppicing and demand for coppice products.
- Even-aged woodland sites.

Survey: The Dorset km-square surveys of 1974-84, 1980-1994 & 1994-98 have failed to locate new colonies or any survivors in the former colonies at Bracketts or Cheddington Woods. The recent sightings (1997-98) in Bentley Wood (Wilts) instigated detailed habitat survey work in 1998, and it was considered that Bentley Wood may be a potential site for a controlled introduction.

Monitoring: Recorded regularly on 3 transect walks: Powerstock North (1985-1998, av. Annual Index = 25), Powerstock Bridleway (1991-98) and Powerstock Railway (1994-98). It is recorded on two other walks where there has been at least one zero return: Powerstock Poorwood (1991-97); Kingcombe Stones (1989-92).

Management: Powerstock is managed by the Dorset Wildlife Trust as is Kingcombe. The aim is to remove conifers, restore coppice cycles and grassland glades. For further details on the ecology of the Wood White, and managing for the Wood White, see Warren (1985) and Warren & Bourn (1998).

ACTIONS AND TARGETS:

TARGET 1: Maintain and expand suitable breeding habitat at the remaining Dorset site.

TARGET 2: Consider and prepare for introductions/re-establishments at suitable sites in Dorset and Wiltshire where appropriate habitat management is in place and has long-term potential.

ACTIONS:

Action	BC's Targets	Possible Partners
1. Carry out research on detailed distribution, egg-laying and foodplants at Powerstock-Kingcombe, in order to ascertain the factors limiting expansion.	2000-2001	DWT
2. Investigate the suitability of introductions into other west Dorset woods like Bracketts, Hooke Park and Cheddington.	2003	DWT, FC
3. Introduction to Bentley Wood (Wilts) if all parties agree, and habitat can be maintained.	Self-supporting population by 2010.	Bentley Wood Trustees
4. Possible introductions to other parts of Dorset (and Wilts), where coppicing has been reintroduced; Piddles Wood, Stubhampton & Chase Woods.	2004	FC, EN, Pitt River Estates
5. Ensure that Management Committee at Powerstock and Kingcombe are aware of the needs of the Wood White and prepare a conservation and expansion plan.	2001-2002	DWT
6. Survey the undercliff west of Lyme Regis to assess the potential for assisted expansion from the adjacent Devon colony.	2001	EN, Devon Branch BC, BC volunteers

3.1.5 Brown Hairstreak *Thecla betulae*

Distribution and Status: One of the rarest species in the region, occurring in 4-6 scattered populations in Dorset, Wiltshire and Hampshire.

Dorset: 1995-99 = 12 km squares. 1-3 populations in the Blackmoor Vale, in the area bounded by Rooksmoor, Deadmoor and Lydlinch Common.

Hampshire: 1995-99 = 17 tetrads (2-3 populations, 1 shared with Wiltshire)

Isle of Wight: Considered extinct, but recent records 1998-99 (still to be verified) give some hope of a low density population in the north of the Island.

Wiltshire: 1995-99 = 17 tetrads (3 populations, 1 shared with Hampshire)

Threats: - hedgerow removal

- extensive annual mechanical cutting of blackthorn hedgerows in core areas.
- isolation and fragmentation of remaining habitat blocks.
- elimination or neglect of scrub edges.
- ploughing right to the field edge (= inhibits sucker growth of blackthorn)

Survey: Intensive surveys for the Dorset km-maps (1970-1994) have failed to locate any new colonies to add to those already known. Winter surveys for ova in north-west Hampshire have proved useful in defining the breeding areas in a part of the county with low density populations, but numerous blackthorn hedgerows.

Monitoring: Egg-counts in the key areas of habitat have generally proved the best method for evaluating whether a breeding population exists in a given area. The adult butterfly is extremely elusive making normal monitoring methods unreliable. With the possible exception of Noar Hill (Hampshire), the species tends to breed in low densities over large areas where a network of blackthorn hedgerows and scrub exists. Transect walks at Lydlinch and Deadmoor (Dorset) record Annual Indices of 1-7, at Noar Hill (Hants) the Annual index is typically 10-30 (max. (1995) = 98).

Management: Regular, but not excessive, cutting of blackthorn hedgerows and scrub is undertaken in many of the key areas. Few of the remaining sites are on managed nature reserves. At Noar Hill (Hampshire) blocks of blackthorn scrub are periodically cut to allow regrowth and thus generating a mosaic of blackthorn scrub of various ages. In Dorset all three sites are managed via EN-approved plans. It is hoped that the Blackmoor Vale Habitat Restoration Project will bring local farmers into an agreed hedge management plan. Sections of hedgerow at Rooksmoor are managed on a five year rotation. For further details of management for the species, refer to Bourn & Warren (1998a).

ACTIONS AND TARGETS:

TARGET 1: Maintain and expand suitable breeding habitat at existing sites and appropriate habitat in close proximity.

TARGET 2: To promote appropriate hedgerow management by land-owners throughout the key areas where the species occurs.

ACTIONS:

Action	BC's Targets	Possible Partners
1. Survey all potentially suitable habitat within a 5km radius of existing colonies.	2002	Local volunteers
2. Liaise with landowners in areas where the Brown Hairstreak occurs. Specifically with regard to appropriate blackthorn hedgerow management to improve breeding habitat for the species. Distribute Brown Hairstreak leaflets ("Hedgerows for Hairstreaks").	Ongoing	EN, FWAG, MAFF, BC volunteers, BVHRP, MOD
3. Identify areas where Countryside Stewardship type schemes could be implemented.	Ongoing	EN, FWAG, MAFF
4. Organise winter egg counts and attempt to standardise procedures so that comparable data can be collected.	Ongoing	BC volunteers

3.1.6 Small Blue *Cupido minimus*

Distribution and Status: Although still present in all four counties of the region, this species has shown a major decline in recent decades. Estimated 40% regional decline in the number of colonies from 1980-1999. The species is largely confined to calcareous grasslands, and is more common in the west of the region. Even with the declines mentioned, the region may account for as much as 30% of the total UK resource.

Dorset: 1995-99 = 63 km sq. (c.50 colonies). Colonies persist on Cranborne Chase, and all over the chalk downlands, but they are alarmingly small and transient. Only in Purbeck and Portland are larger, more permanent colonies to be found.

Hampshire: 1995-99 = 56 tetrads (c. 30-40 colonies, 1999)

Isle of Wight: 1995-99 = 13 tetrads (c. 10 colonies, 1999), including an important site at Mount Joy Cemetery.

Wiltshire: 1995-99 = 72 tetrads (c. 100 colonies ?)

Threats:

- undergrazing of sites and scrub encroachment
- overgrazing of sites. Excessive uncontrolled rabbit grazing can be a particular problem, since the rabbits eat the flower-heads of kidney vetch, where the Small Blue oviposits.
- droughts
- excessive trampling of sites (eg horses/people)
- inappropriate grazing or mowing regimes

Survey: The last detailed survey in Dorset was in the late 1970's. There has been a decline of 9km squares between 1970-84 and 1980-94, which is almost certainly a real one. It was not recorded in 1993-97 from any of the monitored sites that had populations in the 1970's and mid 1980's.

Monitoring: Currently recorded on 26 transects in the region, of which, 10 in Dorset, 8 in Hampshire and 9 in Wiltshire. Of the 10 Dorset transects only 4 have recorded Small Blue every year, and only 3 of the transects have average annual indices in double figures: Portland Broadcroft (48), Townsend Quarry (51) and Durlleston West (14).

Management: Although many Dorset sites are on NT and DWT reserves there is no consistent view on how to manage for this species. At Fontmell, it was accidentally grazed out by sheep on the adjoining private farmland in the late 1970's. An attempted introduction failed, but the species reappeared naturally in 1997. For further details on the ecology of the Small Blue and management for the species, see Bourn & Warren (2000a).

ACTIONS AND TARGETS:

TARGET 1: To identify core areas for the species, and since it is known to occur on and colonise appropriately managed roadside verges and roundabouts, make guidance on management of such habitat a key target.

TARGET 2: Investigate chalk downland sites that manage to retain this species alongside other key chalk downland species, and formulate a management plan for achieving this more widely.

ACTIONS:

Action	BC's Targets	Possible Partners
1. Advise highways authorities, local councils and other organisations concerning appropriate management of roadside verges, roundabouts and churchyards for Small Blue.	Ongoing	HCC, DCC, WCC, IWC.
2. Undertake detailed ecological studies at typical chalk downland sites where the species survives and attempt to draw up management guidelines. (Note: Many Small Blue sites are also Duke of Burgundy sites; assess the link and whether certain aspects of management suit both species).	2003	NT
3. Consider re-establishment in parts of former range where natural colonisation seems unlikely.	2010	All
4. Organise a thorough survey (especially in Dorset ?) to check old sites and look for new. Species Coordinator approach.	2002	Local volunteers
5. Organise new transect walks or annual timed counts in poorly monitored areas (eg Isle of Wight, south Dorset chalk downs & west Purbeck).	2003	Local volunteers

3.1.7 Silver-studded Blue *Plebejus argus*

Distribution and Status: The heathlands of Dorset and Hampshire support nationally important populations of this high priority species. The region probably has c.40% of the total UK resource. It is not present on the Isle of Wight, and only occurs in the southernmost part of Wiltshire, at the very edge of the New Forest heathlands.

Continued heathland fragmentation in recent decades, especially around the Bournemouth-Poole conurbation, has put added pressure on remaining populations.

The *cretaceus* form (= calcareous race) of *Plebejus argus* survives only on Portland, where there are large populations feeding on bird's-foot trefoil in the abandoned quarries and closely attended by black *Lasius sp.* ants.

Dorset: 1995-99 = 120 km sq. (c.100 colonies). Apart from Portland, the vast majority of colonies are on the heathlands of the Poole-Bournemouth basin and Purbeck.

Hampshire: 1995-99 = 97 tetrads. Probably nine separate meta-populations in the New Forest based on evaluation of data from the 1990s. Strong metapopulations also exist in 'East Hants' and 'NE Hants', plus a single colony in N.Hants.

Isle of Wight: Absent.

Wiltshire: 1995-99 = 2 tetrads (1 colony, 1999). The only remaining site is near Pound Bottom on the Wilts/Hants border at the northern limit of the New Forest heathlands.

Threats:

Heathland: - habitat fragmentation due to housing and infrastructure development

- birch/pine encroachment/invasion of heathlands
- fires (beneficial on big sites, devastating on small isolated sites)
- lack of appropriate management resulting in inadequate supply of pioneer heath.
- increased pressures at urban fringe (mountain bikes, people/dogs/horses)
- increased water abstraction modifying level of water table

Calcareous:

- increased quarrying
- use of quarries for landfill
- scrub encroachment

Survey: 1994 survey of Portland by Paul Green recorded 28 colonies. Constant surveying for the Dorset mapping projects shows an increase from 156 km sq. (1970-84) to 192 (1980-94). However, a systematic survey of heathland sites is urgently required.

Monitoring: Currently recorded on 12 transects in the region, of which, 8 in Dorset (6 on heaths, 2 on Portland), and 4 in Hampshire. On Dorset's transects, the average annual indices range from 826 at West Moors to 31 at Tadnoll. The highest average count on Portland is at Broadcroft with 430. On many sites, transects are proving a poor method of monitoring because metapopulations exist and the principal breeding areas vary over time, with local colonisations and extinctions according to the age/condition of the heathland. The use of 'line-counts' and other monitoring methods are being trialed in Dorset.

Management: Unlike many high priority species, the majority of Silver-studded Blue colonies are not on managed nature reserves. On the New Forest heathlands the main forms of management are horse-grazing and periodic controlled (and uncontrolled) burns. In Dorset a high proportion of the heathland colonies are EN, RSPB or DWT reserves. Burning and grazing are both used. The large colony at West Moors flourishes under a system of mown firebreaks ordered by the RAOC because of the high risk of the site. On Portland the main site at Broadcroft (BC reserve) is primarily rabbit grazed.

ACTIONS AND TARGETS:

TARGET 1: To define core areas for the species, and stop further habitat fragmentation.

TARGET 2: Support all initiatives for the restoration of heathland and help to monitor these areas.

ACTIONS:

Action	BC's Targets	Possible Partners
1. Advise all organisations on appropriate management for Silver-studded Blue (eg via distribution of "Heathland Management for the Silver-studded Blue" leaflet; Joy (1995)).	Ongoing	EN, FC, RSPB, DWT, HWT etc.
2. Make local authorities and city/county planners aware of the problems of habitat fragmentation, especially heathlands in the vicinity of Bournemouth/Poole.	Ongoing	Local authorities
3. Survey the New Forest to define areas where populations freely interchange, and those areas where there are major barriers to movement.	2003	BC volunteers
4. Evaluate the extent to which isolated sites are becoming extinct and introduce measures to counteract this (eg support for FE's "Forest to Heathland" initiative).	2005	FE, EN, PBSG, Herpetological Society.
5. Improve the spatial distribution of monitored sites and investigate more effective methods of monitoring to supplement transects.	2003	Local volunteers

3.1.8 Adonis Blue *Lysandra bellargus*

Distribution and Status: Although still present in all four counties of the region, Wiltshire and Dorset are the main strongholds. It is estimated that the region supports c.55-60% of the total UK resource. The Adonis Blue experienced a major decline in the number of colonies from the 1950's to the 1970's, but since the mid 1980's the situation has become more stable in South-Central England, indeed with some improvement in the Purbeck area (Dorset). The species is entirely confined to short turf calcareous grasslands, with an abundance of the larval foodplant, Horseshoe Vetch *Hippocrepis comosa*.

Dorset: 1995-99 = 137 km sq.; c.60-100 colonies (1998), of which 41 colonies are in Purbeck, 5-7 in Portland and the remainder scattered along the scarp slopes of the chalk downs. Isolated small colonies survive on the more heavily farmed areas of east Dorset.

Hampshire: 1995-99 = 7 tetrads (1 colony; Martin Down).

Isle of Wight: 1995-99 = 13 tetrads (c. 8-9 colonies, 1999)

Wiltshire: 1995-99 = 83 tetrads (c. 90 colonies, 1995)

Threats:

- Undergrazing and scrub encroachment, allowing turf heights to exceed 6cm.
- Overgrazing. Excessive uncontrolled rabbit grazing can be a particular problem.
- Droughts

Survey: Dr J. Thomas' survey of Purbeck was repeated by G. Pearman, B. Goodger, N. Bourn & M. Warren in 1997, and found no site losses and an increase in the number of colonies from 23 to 41. The km-square surveys in Dorset found an increase to 138 km sq. (1980-94) compared to 111 (1970-84). A further survey of the inland chalk downs in 1998 found that the species had spread considerably.

Monitoring: Currently recorded on 24 transects in the region, of which, 10 in Dorset, 3 in Hampshire, 3 on the Isle of Wight, and 8 in Wiltshire. In addition, there are 5 other Dorset sites where the species appears intermittently. The transects show huge swings in numbers from year to year (eg the average Annual Index for Fontmell is 264, but this ranges from 27 to 878 over 19 years).

Management: In Purbeck just over half the sites are controlled by conservation organisations but a high proportion of the privately owned sites are under Countryside Stewardship type schemes. In the north Dorset chalk downs a very high proportion of the sites are under the control of NT, DWT or under Stewardship. Most sites are cattle and/or sheep-grazed with a considerable input from rabbits. The species does best on sites where turf-heights 2.5-6.0cm exist. Recent research on Purbeck shows that turf heights have no correlation with stock density, so Stewardship schedules should state required turf heights, not stock densities. If other species like Chalkhill Blue or Lulworth Skipper are to be catered for, then a varied mosaic of turf heights is required. See Bourn & Warren (1998b) for further detail.

ACTIONS AND TARGETS:

TARGET 1: Define the essential core areas for the species where there are sufficient interlinked areas of suitable habitat to sustain substantial populations even in bad down swing years. Aim to maintain a minimum of c.25 core areas/sites.

TARGET 2: Work with other organisations to forge better links between existing colonies by identifying areas of improved chalk grassland or scrub-encroached sites which have potential for returning to traditional downland management.

ACTIONS:

Action	BC's Targets	Possible Partners
1. Define the core areas in Dorset, Wilts and Isle of Wight, and ensure that adequate management and monitoring are in place.	Ongoing	IWNHAS
2. Work closely with the partners involved in developing County/Regional BAPs in order to identify areas that could link core areas if brought under Countryside Stewardship.	2005	EN, FWAG, PBSG
3. Repeat versions of the 1978 and 1997-98 Dorset surveys at least every 10 years.	2008	ITE, Universities, BC volunteers
4. Continue transect monitoring, and expand where possible. Special attention to monitoring of isolated sites to evaluate their capacity for long-term survival.	Ongoing	Local volunteers
5. Habitat enhancement at existing sites by avoiding over-grazing and scrub encroachment, but also by identifying favoured egg-laying sites.	2005	BC volunteers, BTCV, site owners/managers
6. Maintain and enlarge suitable habitat to help smaller colonies.	2007	BC volunteers, BTCV, site owners/managers
7. Assess the feasibility of re-establishments to former strongholds (eg Winchester area) where the species is currently absent, but where there are clusters of suitable sites with appropriately managed habitat).	2010	BC volunteers, HWT

3.1.9 Duke of Burgundy *Hamearis lucina*

Distribution and Status: Although still present in all four counties of the region, Wiltshire is the main stronghold for the species. It is estimated that the region supports c.30-40% of the total UK resource. The Duke of Burgundy has experienced a significant decline in the number of colonies over recent decades. Few primrose-based woodland sites remain, most colonies are scrub/cowslip-based chalk grasslands.

Dorset: 1995-99 = 28 km sq.; c.10 colonies (1995). Only 1 woodland primrose-based colony remains on Cranborne Chase. One small colony struggles on in west Dorset. The remainder are all scrub/cowslip sites on the chalk grasslands and Cranborne Chase.

Hampshire: 1995-99 = 37 tetrads (c.15-18 colonies, 1999)

Isle of Wight: 1995-99 = 4 tetrads (c.2-4 colonies, 1998)

Wiltshire: 1995-99 = 57 tetrads (c. 90 ? colonies, 1995)

Threats:

- overgrazing of chalk downland sites. Excessive uncontrolled rabbit grazing can be a particular problem, especially when combined with dry July weather which turns a large percentage of the cowslips prematurely yellow.
- droughts
- changing nature of woodland management, especially decline in active coppicing within parts of the region.

Survey: Work for the Millennium Atlas in Dorset has failed to find the species at many of its former sites. In Hampshire, several site extinctions occurred in the 1990's, but a few new colonies were also located. Stray individuals are sometimes encountered away from known sites.

Monitoring: Currently present on 19 transects in the region, of which, 6 in Dorset, 6 in Hampshire, 0 on the Isle of Wight and 7 in Wiltshire. Of the Dorset transects, the average Annual Index is 48 for Wimborne St Giles (1990-98) and 12 for Fontmell (since 1980). Regular timed counts and larval eating surveys are undertaken at a number of sites. Sites on the Isle of Wight need to be monitored more regularly.

Management: In Dorset woodland, the revival of coppicing at Stubhampton Bottom using a joint DBC/FE agreement has resulted in Dukes being recorded in the coppiced areas in 1998. Intense rabbit pressure and a series of years with below average July rainfall have reduced many of the north Dorset populations to very low levels. An experimental rabbit exclusion zone at Fontmell Down has yet to yield any positive results. It is difficult to combine management for this species with management for short-turf species like Adonis Blue. See Bourn & Warren (1998c) for further detail.

ACTIONS AND TARGETS:

*** TARGET 1: Identify surviving woodland and primrose colonies and try to arrange appropriate woodland improvement grants to attain the right management.**

****TARGET 2: Identify target areas where linked colonies occur on cowslip/scrub/downland sites and work with other bodies to extend the areas of suitable habitat via ESA/Countryside Stewardship schemes. Aim to maintain clusters of colonies/metapopulations in about 25 core areas.**

ACTIONS:

Action	BC's Targets	Possible Partners
1. Experiment with rabbit exclusion fences on grassland sites where populations have sunk to low levels.	2003	BC, EN, NT, site owners/managers
2. Continue transect monitoring, and expand where possible. Monitor isolated sites by timed counts and larval eating surveys.	Ongoing	BC volunteers
3. Inform site owners/managers of rarity of Duke of Burgundy, its vulnerability, ecology and needs.	Ongoing	BC volunteers
4. Maintain optimum condition of breeding habitat at all sites, and where possible increase the area of suitable breeding habitat.	Ongoing	BC, EN, NT, site owners/managers

* Dorset target areas: CRANBORNE CHASE: Stubhampton Bottom/Chase Woods, Shaftesbury Estate; WEST DORSET: Powerstock.

** Dorset target areas: NORTH DORSET DOWNS: Fontmell, Zig Zag, Melbury, Sutton Combe, Batcombe, Cerne & Blackhill Downs, Grimstone.

3.1.10 Purple Emperor *Apatura iris*

Distribution and Status: A few colonies exist in Dorset and Wiltshire, but Hampshire is undoubtedly the stronghold for the species. The species is not found on the Isle of Wight. South-Central England probably has c.25-30% of the total UK resource for this species. No noticeable change in the range of this species over recent decades.

Dorset: 1995-99 = 1 km sq.; 1 colony ? (1998). There have been no recent records of a breeding colony and hardly any recent sightings.

Hampshire: 1995-99 = 29 tetrads (> 20-25 colonies, 1995)

Isle of Wight: Absent (last known record: Bridlesford Copse, 1983).

Wiltshire: 1995-99 = 16 tetrads (c. 6 colonies, 1999)

Threats: - fragmentation of major woodland complexes (smaller and more isolated nature of remaining woodland habitat).

- clearance of sallows from woodland rides
- collectors ?

Survey: - regular recording in Hampshire throughout the 1990's has confirmed the presence of the Purple Emperor in many woodlands/forests throughout the county, but always in low density populations. Visits to some of the best woodland complexes rarely record more than a few individuals, and on most visits even experienced recorders struggle to see more than one or two Purple Emperors, and often see none. The cumulative Purple Emperor tally for a given year from all 130+ regular contributors to the annual Hampshire and Isle of Wight Butterfly & Moth Report rarely exceeds 25.

Monitoring: Currently present on 8 transects in the region, of which, 3 in Hampshire, and 5 in Wiltshire. Most of the major woodland sites are surveyed on an annual basis, but there are many smaller woods and those on private estates that are seldom visited.

Management: Goat Willow ('Sallow') *Salix caprea* is the most favoured larval foodplant, although Grey Willow *S. caprea* is also used (Bourn & Warren, 2000b). Sallow management is therefore crucial for the long-term success of Purple Emperor colonies. Ideally, a varied willow age structure should be maintained, and the 'master' trees (usually Oak spp.) used by territorial males should be retained (Wilmott, 1994). In the past many woodland complexes had their ride-side sallows cut and removed because of interference with forest operations and access. However, sallows of mixed age and a variety of settings in broad rides are of vital importance for the Purple Emperor. By developing box-junctions and embayments along major rides of larger woodland complexes, and even strategic planting of willow, it should be possible to retain sallows in a range of appropriate settings without causing problems to forestry operations.

ACTIONS AND TARGETS:

TARGET 1: Ensure that there is no further fragmentation of major woodland complexes where the species breeds.

TARGET 2: Create appropriate habitat conditions in the New Forest (Hants) to enable the species to become more firmly established in this area once again. Similarly for Grovely Wood, Savernake Forest and Langley Wood (Wilts).

ACTIONS:

Action	BC's Targets	Possible Partners
1. Resurvey all woodlands in known range in order to evaluate core breeding sites and extent of metapopulations.	2002	Local volunteers
2. Advise landowners and site managers of the importance of retaining sallows of varying age and position within woodlands.	Ongoing	FC, local wildlife trusts, Woodland Trust, NT
3. Introduce sallows into a selection of major woodland complexes in the New Forest where the Purple Emperor formerly occurred.	2005	FC
4. For all known sites, identify favoured sallows, master trees, congregating areas and inform owners/managers.	2008	BC volunteers
5. Protect 4 above.	Ongoing	FC, private estate owners, local wildlife trusts, NT

3.1.11 Small Pearl-bordered Fritillary *Boloria selene*

Distribution and Status: South-Central England is largely at the eastern edge of the species' UK range, and it is in the south-west of the region where most remaining colonies are found. The species has shown drastic regional decline in recent decades due largely to changes in woodland management, and loss of unimproved damp meadows due to more intensive modern farming methods, increased water abstraction and development. At a regional level the Small Pearl-bordered Fritillary is very close to extinction, and all remaining sites in Hampshire, Wiltshire and the Isle of Wight are very isolated, often small populations.

Dorset: 1995-99 = 27 km sq. (c. 8 ? colonies). Except for Bracketts Coppice and Powerstock in west Dorset, all the traditional coppiced woodland sites have gone. The once numerous colonies on Cranborne Chase seem extinct. The remaining colonies are on the scrub/neutral grassland of Rooksmoor/Deadmoor in the Blackmoor Vale, along the west Dorset coast at Stonebarrow, and possibly on the east Dorset heathland between the R.Piddle and the R.Frome. Isolated colonies also survive in Purbeck.

Hampshire: 1995-99 = 13 tetrads (c. 5-6 colonies, 1999)

Isle of Wight: 1995-99 = 4 tetrads (c.1-2 colonies, 1999)

Wiltshire: 1995-99 = 10 tetrads (c. 2 colonies, 1999)

Threats:

- fragmentation of major woodland complexes
 - loss of damp unimproved meadow habitat due to development and changing farming practices.
 - increased water abstraction, drought, global warming ?
 - decline of coppicing; end of bracken management.
- (see Bourn & Warren (1995b) for further detail)

Survey: Fairly intense surveying for the Millennium Atlas project has revealed that most of the 86 km squares for the 1980-94 Dorset map no longer contain colonies. Estimate for 1998 is c. 25 occupied km squares in Dorset.

Monitoring: Currently recorded on 17 transects in the region, of which, 8 in Dorset, 3 in Hampshire, 1 on the Isle of Wight, and 5 in Wiltshire. Transect monitoring trends (1980-1998) throughout the region have shown losses from sites where the species used to occur, and an overall downward trend at many sites. In Dorset, the highest Annual Index averages are at Bracketts Copse in west Dorset (46) and Deadmoor in the Blackmoor Vale (44).

Management: Despite management often specifically arranged for the benefit of the Small Pearl-bordered Fritillary, the species is being lost at an alarming rate, both on and off nature reserves. A review of management is urgently needed to assess exactly what is going wrong with this species in the region. At Lydlinch (Dorset) a policy of scrub control seems to be coinciding with the decline of the species. At Stonebarrow (W.Dorset) the NT's regime of gorse cutting and cattle grazing seems to be keeping the colony stable.

ACTIONS AND TARGETS:

TARGET 1: Define core areas for the species.

TARGET 2: Aim to establish 10-15 core areas by 2010.

TARGET 3: Increase the total area of suitable breeding habitat in the remaining core areas to provide a better chance of supporting the species on a long-term basis. Aim to double the amount of suitable breeding habitat in the core areas of the region by 2010.

TARGET 4: Allowing for natural rates of dispersal and recolonisation, if natural colonisation into suitably managed habitat does not occur by 2010, consider selected controlled re-establishments within core areas.

ACTIONS:

Action	BC's Targets	Possible Partners
1. Resurvey all post-1980 sites to establish whether the species is still present and whether suitable breeding habitat remains.	2002	Local volunteers
2. Undertake an urgent review of existing management for the species at all known sites, in an attempt to assess why the species has been lost from so many sites in the region since the early 1980's.	2002	County wildlife trusts, NT, FC
3. Attempt to halt the loss of colonies by liaising with land-owners and site managers to encourage appropriate management at all known sites (eg via Stewardship, WIGs).	Ongoing	Blackmoor Vale Habitat Restoration Project
4. In 'core areas' only, consider re-establishments to woodlands where appropriate management has been re-established and can be maintained long term (eg Chase Wood/Stubhampton).	2006	BC, FC, other site owners/managers

DORSET core areas: (Woodland) - Chase Woods (Dorset/Wilts) to Stubhampton; Piddles Wood, Powerstock/Kingcombe, Bracketts; (Grassland) - Blackmoor Vale: Rooksmoor, Deadmoor, Lydlinch; Stonebarrow/ Golden Cap.

3.1.12 Pearl-bordered Fritillary *Boloria euphrosyne*

Distribution and Status: A species that has shown a major contraction in range over the last 25 years. From being present in many woodlands of the region, it's long-term future is now a serious cause for concern. It is probably restricted to less than 25 sites, most of which support small populations.

Dorset: 1995-99 = 13km squares. Possibly only 2 colonies remain: (1) a metapopulation of five small sites around Stubhampton Bottom in the Cranborne Chase area; (2) an introduction to Piddles Wood in the Blackmoor Vale.

Hampshire: 1995-99 = 29 tetrads. Recorded from 48 sites since 1990, but only 9 known colonies in 1998. All of these colonies occur in west Hampshire and the New Forest.

Isle of Wight: 1995-99 = 12 tetrads. In 2000, Parkhurst Forest remains the only confirmed site for the species, although other sites not recently surveyed may still persist. A temporary colony at Walter's Copse in the 1990's (which no longer persists) is now confirmed as an attributable introduction.

Wiltshire: WBMS (1982-94) recorded from at least 23 localities but by 1999 there were only 3-4 confirmed colonies.

Threats:

- neglect (ie no woodland management).
- inappropriate woodland management (especially cessation of coppicing or lack of continuity of coppicing regime, failure to maintain woodland rides that are wide enough to remain sunny as trees grow, churning-up rides when using heavy vehicles for woodland operations when rides are water-logged).
- site isolation (small colonies especially vulnerable)
- ? overgrazing by deer; ? increased water abstraction.

(see Barnett & Warren (1995c) for further detail)

Survey: Most of the present sites have been known for some time. Occasional sightings are made at other locations, but rarely in consecutive years, thus suggesting that they are probable stray individuals. In Hampshire, all sites with a post-1980 record were re-surveyed in the mid-1990's. A few re-discoveries were made, but most revisited sites proved negative. In Dorset, 1990's surveys have failed to locate any new colonies, although some of the private estates need re-checking.

Monitoring: Most known sites are visited annually, and several have well established butterfly transects that have produced data for many years. In Dorset, Stubhampton Bottom (since 1984 average transect Annual Index = 16) & Piddles Wood (since 1994 = 2). In Hampshire, Pignal Inclosure (New Forest) has a recently established transect.

Management: Most remaining Pearl-bordered Fritillary sites are on private estates or in woodland managed by the Forestry Commission. Relatively few sites are nature reserves. Management is variable reflecting the different woodland types in which the colonies are located. Most sites have either a long-established coppice regime or are large mixed woodland complexes with wide (often gravel) rides and adjacent drainage ditches. Several

sites are not managed primarily for the Pearl-bordered Fritillary. In Dorset, the major problem of how to regenerate old overgrown and overplanted coppice is being tackled by the construction of deer exclusion fences to give the coppice maximum recovery opportunity. At Stubhampton Bottom a long term plan for regenerating coppice has been drawn up by DBC & FE, and financed by FE. At Piddles Wood, DWT is operating a commercial coppice scheme with traditional charcoal burning. A major conservation effort by FE in the Pignal area of the New Forest has produced a network of appropriately managed rides. This has given increased Pearl-bordered Fritillary numbers in the late 1990s.

ACTIONS AND TARGETS:

TARGET 1: To maintain core populations in 8 key areas (1. Penchet Forest (Hants/Wilts border), 2. Grovely Wood (Wilts), 3. Braydon Forest (North Wilts), 4. Porton Down Woods (Hants/Wilts border), 5. New Forest (Hants), 6. West-central Hampshire, 7. north-west Isle of Wight, 8. Dorset: Stubhampton Bottom, Cranborne Chase Area).

TARGET 2: To encourage natural colonisation of nearby sites by promoting favourable management in appropriate woodland.

ACTIONS:

Action	BC's Targets	Possible Partners
1. Continue to monitor and collate results on all current transects.	Ongoing	Local volunteers.
2. Maintain search for additional colonies, especially in core areas, but also in areas considered to have been under-surveyed.	Ongoing	Local volunteers.
3. Provide feedback to owners and site managers to ensure appropriate management (eg Parkhurst Forest, New Forest sites).	Ongoing	FE, private land-owners.
4. Assess whether there is scope for habitat improvement to increase potential suitable habitat/ breeding areas at known sites.*	2005	Dorset Biodiversity Forum, HCC
5. Assess the potential for habitat improvement at sites lacking the species but in close proximity to known colonies.	2003	Local volunteers
6. Re-survey sites with occasional or intermittent records to evaluate whether low-density populations exist or whether they are simply strays. **	2003	Local volunteers

* AND help to make the landowners aware of the range of Woodland Improvement Grants.

** especially by gaining permits for access to private woodland estates.

3.1.13 High Brown Fritillary *Argynnis adippe*

Distribution and Status: Probably extinct from the region, although occasional reports from Bentley Wood on the Hants/Wilts border up to and including 1997. It is possible that a small breeding population still persists, but it is equally possible that uncontrolled releases have occurred at the site. The long-term future of the High Brown Fritillary at this site is precarious to say the least.

The High Brown Fritillary formerly occurred in both Dorset, Hampshire and the Isle of Wight. It was extinct on the Isle of Wight by the late 1950's, and although it was widely reported in Dorset and considered common in parts of Hampshire (eg New Forest) up to the 1970's, the last definite records were in 1985. It has been regarded as extinct in both Dorset and Hampshire since that time.

Dorset: Extinct (last record 1985).

Hampshire: Extinct (last record 1985).

Isle of Wight: Extinct (last record 1950's)

Wiltshire: Two possible colonies (Bentley Wood, Great Ridge Wood), but the extreme scarcity and irregularity of recent records suggests that the species probably became extinct in the 1990s.

Threats:

- Abandonment or inappropriate change in woodland/bracken management.
- Fragmentation and extreme isolation of sites
- ? collectors

Survey: Last Wiltshire records were of a singleton from Bentley Wood in 1997, and Great Ridge Wood in 1993. There have been no Hampshire or Dorset records post-1985. Intermittent re-surveying of former New Forest haunts has taken place in the 1990's, but without success. The species is probably extinct from the region. Bentley Wood was thoroughly re-surveyed in 1998 by Dr Susan Clark and it was concluded that the site no longer has suitable habitat, and that the High Brown Fritillary was not present.

Monitoring: Regular butterfly transect monitoring has occurred at Bentley Wood since 1986. However, the species has never been recorded on transect!

Management: Appropriate management of bracken habitats is crucial to the long-term future of the High Brown Fritillary, with up to 80% of remaining UK colonies breeding in such habitat (Barnett & Warren, 1995d). All post-1970 sites in South-Central England region were associated with such habitat, breeding in woodland clearings and bracken edges of major woodland complexes. In South-Central England there has been little management specifically for High Brown Fritillary. For further detail on management for the species see Barnett & Warren (1995d).

ACTIONS AND TARGETS:

TARGET 1: To evaluate whether the species still exists in the region, and if it does, consider whether there is enough suitable habitat to maintain a viable population long-term.

ACTIONS:

Action	BC's Targets	Possible Partners
1. To thoroughly re-survey Great Ridge Wood and New Forest to assess whether the High Brown Fritillary is still present.	2006	Local volunteers.
2. To thoroughly re-survey Great Ridge Wood and New Forest to assess the extent and suitability of appropriate habitat.	2006	Local volunteers.
3. If the species is found to exist in the region, provide feedback to owners and site managers to ensure appropriate management.	Ongoing	Local volunteers
4. Assess whether there is scope for habitat improvement to increase potential suitable habitat/ breeding areas at known (possible) sites.	2010	Local volunteers, site owners/managers
5. Assess the potential for habitat improvement at sites lacking the species but in close proximity to known (possible) sites.	2010	Local volunteers

3.1.14 Marsh Fritillary *Eurodryas aurinia*

Distribution and Status: Classified as a SPEC 3 (*vulnerable*) species in the Red Data Book of European Butterflies (van Sway & Warren, 1999), with major declines in the majority of European countries. In South-Central England (UK), c.70 colonies in 1997. Now essentially confined to the west of the region, the species having been lost from east and north-east Hampshire during the 1990's. Salisbury Plain is a stronghold for the species at both regional and national level. The majority of remaining sites are on chalk rather than in damp unimproved grasslands/meadows.

Dorset: 1995-99 = 58 km squares. Estimated 15+ colonies in 1997. 56% of colonies are on the chalk downs. Major metapopulations exist in West Dorset (20%) and in the Blackmoor Vale (20%).

Hampshire: 1995-99 = 12 tetrads. Following apparent loss of all colonies in east and NE Hampshire, the species is now restricted to a few small colonies in W/SW Hampshire.

Isle of Wight: 1995-99 = 1 tetrad. Following an attributable introduction in the 1990's, a single colony exists in north-west Isle of Wight, but is unlikely to succeed long-term.

Wiltshire: 1995-99 = 74 tetrads; c.40 colonies (1999) plus a large network on Salisbury Plain.

Threats:

- lack of management/grazing of rough grasslands/damp meadows.
- direct loss of sites due to development.
- indirect loss due to development (housing/roads), primarily due to drying out of sites due to modification of drainage patterns and increased water abstraction, leading to lowering of water table.
- fragmentation and habitat loss leading to site isolation.

Survey: In Hampshire all former sites with records from the 1980's were revisited to establish those sites where the species still occurs. All remaining Hampshire sites (c.3-4) are surveyed annually. Surveying in Wiltshire (1982-1994) recorded the species from about 90 localities, but by 1990 there were reckoned to be about 56 definite colonies (*Martin Warren*), together with about 28 singletons/vagrants. In 1996 the species was recorded from 47 localities. In Dorset, the 1980-1994 recording effort showed a 76% increase in the number of occupied km squares compared to 1970-1984, but many of the records probably relate to stray individuals, or temporary satellite colonies that flourish briefly then vanish.

Monitoring: Recorded on 30 transects: Hampshire (3), Dorset (17, but of these, 9 have disappeared from the count at least once), Wiltshire (10). Additionally, there are regular timed counts on several sites, and frequent larval web counts on others. See Warren (1996) for review of trends on monitored sites.

Management: (a) Meadows & Woodland clearings: some sites have cattle grazing, but other sites require the introduction of a more regular regime of grazing. However, for

some woodland sites it may be impractical to introduce grazing (eg unfenced). Encroachment and invasion by tree and scrub species (eg Silver Birch) is a problem at small sites. Regular clearance is required to avoid increased shading and drying out.

(b) Chalk grassland: sheep (\pm cattle) grazing coupled with regular clearance of invasive scrub species are the principal approaches for management of this habitat type for Marsh Fritillary. At some sites (eg Martin Down) management can be difficult and sometimes compromised because of the necessity to also manage the site for plant and butterfly species requiring short turf. See Barnett & Warren (1995e) for further detail.

ACTIONS AND TARGETS:

TARGET 1: Aim to maintain 15-20 core areas with metapopulations in Dorset and

Wiltshire. DORSET: 1. Melbury Hill & Down, Zig Zag Hill & Fontmell; 2. Hod & Hambledon Hills; 3. Cerne & Blackhill Downs; 4. Hogcliffe & Grimstone Downs; 5. Maiden Castle ?; 6. Blackmoor Vale; 7. Powerstock & Kingcombe; 8. Bracketts Coppice; 9. Lambert's Castle?; 10. Purewell; 11. West Knighton/Empool Heath ?. **WILTS:** 1. Braydon Forest; 2. Penchet Forest; 3. SPTA(W); 4. SPTA(C); 5. SPTA(E); 6. Great Ridge Wood; 7. Mere Downs; 8. Prescombe Down; 9. Pewsey Downs; 10. Morgan's Hill; 11. Wylde Down; 12. Cockey Down; 13. Boscombe Down.

TARGET 2: Evaluate the distribution and suitability of remaining habitat in the species' former stronghold of north-east Hampshire. Aim to reintroduce appropriate management and ultimately reintroduce the species to this area.

ACTIONS:

Action	BC's Targets	Possible Partners
1. Maintain existing colonies, concentrating on larger networks of sites to ensure no further extinctions occur.	Ongoing	EN, MOD, Wildlife Trusts
2. Maintain search for additional colonies, especially in core areas, but also in areas considered to have been under-surveyed.	Ongoing	Local volunteers.
3. Provide feedback to owners and site managers to ensure appropriate management.	Ongoing	EN, MOD, Wildlife Trusts
4. Continue to monitor and collate results on all current transects.	Ongoing	Local volunteers
5. Assess the potential for habitat improvement at sites lacking the species but in close proximity to known (probable) sites.*	Ongoing	Local volunteers

* especially by looking for key NVC communities (eg for chalk downs; CG2.b. *Succisa pratensis*- *Leucanthemum vulgare* sub-community), and promoting Countryside Stewardship.

3.1.15 Glanville Fritillary *Melitaea cinxia*

Distribution and Status: With the exception of one colony established on the south Hampshire coast in the early 1990's, this species has been, and still is essentially confined to the eroding undercliffs on the south coast of the Isle of Wight. The region has 99% of the total UK resource. With the exception of the colony that became established on the south Hampshire coast and which is currently thriving, there has been no significant change in the status and distribution of this species during recent decades.

Dorset: Absent

Hampshire: 1995-99 = 3 tetrads (1 colony, 1999)

Isle of Wight: 1995-99 = 22 tetrads (c. 15 colonies (1999), probably representing 5-8 core populations, Bourn & Warren, 1997a)

Wiltshire: Absent

Threats: - The main limiting factors are probably climatic and its specialised habitat requirements (Bourn & Warren, 1997a). Other threats include:

- loss of undercliff habitat due to development/ sea defences.
- further tourist development (a threat to some sites).
- collectors and visitor pressure (a potential minor threat).

Survey: In order to assess population fluctuations on the Isle of Wight, annual surveys have been undertaken in the spring of each year to assess the number of larval webs. Such surveys have been undertaken every year since 1983 (see Bourn & Warren (1997a), and Pope (1999) for further details). Similar surveys have also been done at the recently established Hampshire colony.

Monitoring: Regular monitoring of larval webs takes place and is a very effective means of assessing the strength of colonies. There are no transects that specifically monitor for this species. However, since 1989 the Glanville Fritillary has become (temporarily?) established on Mottistone Down and is recorded on transect.

Management: As emphasized by Pope (1999), coastal erosion provides the most effective management tool in providing new areas of bare earth for the larval foodplant, Ribwort Plantain (*Plantago lanceolata*), to seed into. If cliff slippage is severe during winter storms, many hibernating larval webs may be lost to the sea (Pope, 1999), but if cliffs become naturally or artificially stabilised, succession occurs and the plantain becomes smothered and new seedlings cannot develop. At present it seems as though a good balance is being maintained. Rabbit grazing may be locally significant, but with the exception of a site near Ventnor (cattle grazed), none of the coastal sites are grazed by stock (Bourn & Warren, 1997a).

ACTIONS AND TARGETS:

TARGET 1: Avoid any loss of habitat due to development or coastal defences in the key sections of coast on the south coast of the Isle of Wight and at Hordle Cliffs (Hampshire).

TARGET 2: Establish at least one transect on the south coast of the Isle of Wight in order to monitor fluctuations in numbers, both annually and on a long term basis.

TARGET 3: Establish precise ecological requirements of the species and identify key areas of sites where the butterfly breeds.

ACTIONS:

Action	BC's Targets	Possible Partners
1. Keep Isle of Wight Council, HCC and local councils well aware of the significance of this species, and where the main populations are located.	Ongoing	NT, HWT, local and County Councils.
2. Continue to develop coastal policies that allow natural erosion to continue with minimal need for coastal defences in the range of the Glanville Fritillary.	Ongoing	IWC, NFDC, HCC, EA, NT
3. Maintain regular larval web counts each spring along key habitat on Isle of Wight (and Hampshire) coastal areas where the species is known to breed.	Ongoing	IWNHAS volunteers, BC volunteers
4. Monitor planning applications in the coastal areas where the species breeds.	Ongoing	IWNHAS, IWC
5. Advise conservation agencies and site owners/managers on requirements of the Glanville Fritillary to ensure all known and potential habitats are protected.	Ongoing	BC, EN, NT, ITE
6. Establish a transect at Compton Chine	2002	local volunteers, IWNHAS

Note: For further detail on 'Actions' see the Glanville Fritillary Species Action Plan (Bourn & Warren, 1997a)

3.2 Medium priority species (n = 6)

3.2.1 Dingy Skipper *Erynnis tages*

Distribution and Status: Still fairly widely distributed throughout the region, but on the basis of 30-40% regional decline from the 1980-94 recording period to the 1995-99 period, the species has been upgraded from national low priority to regional medium priority. Short to medium turf unimproved calcareous grasslands account for the vast majority of sites.

Dorset: 1995-99 = 184 km sq. (> 100 ? colonies, 1999). The species seems relatively stable on the Chalk Downs (34% of km records), Purbeck uplands (25%) and Portland (5%). But elsewhere; Blackmoor Vale (5%), Cranborne Chase (7%), West Dorset (9%), West Dorset Coast (?) and Heathland (10%) numbers seem to be very small and colonies transitory.

Hampshire: 1995-99 = 90 tetrads (c. 50 ? colonies, 1999)

Isle of Wight: 1995-99 = 25 tetrads (c. 20-40 ? colonies, 1999)

Wiltshire: 1995-99 = 97 tetrads (c. 100 colonies ?, 1999)

Threats: - woodland rides and clearings becoming overgrown and shady

- scrub encroachment on chalk downland remnants
- excessive overgrazing by rabbits
- loss and changing plant communities of short-medium turf roadside verges ?
(eg (1) fertilizer/spray enrichment of roadside verges leading to grass/nettle dominated verges; (2) salting of roads ?).
- decline in quality of habitat on disused railway lines due to scrub encroachment and shading by marginal trees.
- droughts

Survey: No thorough surveys in Dorset but km square mapping projects recorded 218 km squares in 1970-84, 292 in 1980-94, and 184 in 1995-99. The fluctuations can partly be explained in terms variable time-length of recording period and recording effort, but the major decline in the 1990's is considered to be real across the whole region.

Monitoring: Currently recorded on 54 transects in the region, of which, 24 in Dorset, 14 in Hampshire, 3 on the Isle of Wight, and 13 in Wiltshire. 17 out of 24 Dorset transects have recorded the species without a single zero year. Zero year records came entirely from sites in Cranborne Chase, West Dorset, Blackmoor Vale & Heathland.

Management: Most of the chalk grassland sites are well-grazed by sheep and/or cattle. Those with the largest colonies tend to be under conservation management. Small colonies survive in woodlands where there is active management in the form of ride widening and clearings. The colonies in the Kingcombe area seem to be suffering under the farmland grazing regimes there.

ACTIONS AND TARGETS:

TARGET 1: Undertake a comprehensive survey of the region to identify core areas, and draw up a list of colonies classified according to their habitat and estimated size.

TARGET 2: Select target areas where there are clusters of colonies and colonies that are in different habitats. Aim to maintain colonies in c.22 core areas.

ACTIONS:

Action	BC's Targets	Possible Partners
1. Survey farmland, set-aside areas and roadside verges to assess to what extent such habitats are used.	2005	Local volunteers
2. Investigate the possibility of introducing Countryside Stewardship type agreements to link key sites in 'Key areas'.	2005	EN, county councils
3. Review the distribution of transect walks to ensure a good balance of monitoring between habitat types and target areas.	2002	BC volunteers
4. Inform site owners of species' presence and requirements.	Ongoing	Local volunteers, County Wildlife Trusts
5. For all sites identify sub-areas favoured for egg-laying. Protect such sub-areas from over-grazing and scrub invasion.	2010	Local volunteers, site managers

3.2.2 White-letter Hairstreak *Satyrium w-album*

Distribution and Status: The species was decimated in the 1970's and 1980's by the effects of Dutch Elm disease on its principal larval foodplants (*Ulmus spp.*). By the late 1980's the species was extremely scarce and there were grave concerns for its future both at regional and national level. However, in the early to mid-1990's the species showed a remarkable resurgence, with many new colonies being discovered throughout the region. Although the effects of Dutch Elm disease are still being felt, with many local colonies becoming extinct as their particular elms succumb to the disease, the White-letter Hairstreak has demonstrated the ability to disperse and colonise new elms as well as colonising hedgerow elms and non-native elm species in some city parks. The future of the species is delicately poised, but a lot healthier than the situation in the late 1980's. The White-letter Hairstreak is probably more widely distributed within the region than currently recognised. It is one of the few species where many new colonies have been discovered in the 1990's.

Dorset: 1995-1999 = 18 km sq. (c. 10 colonies, 1998). Relatively few records since 1990 and in most cases it is not known whether they relate to actual colonies.

Hampshire: 1995-99 = 65 tetrads (c. 50 ? colonies, 1999)

Isle of Wight: 1995-99 = 13 tetrads (c. 20-25 colonies, 1999)

Wiltshire: 1995-99 = 35 tetrads (c. 50 ? colonies (1995)

Threats:

- Dutch Elm disease
- removal of hedgerows, and thus loss of hedgerow elms
- vulnerable to changes in hedgerow management
- few colonies are on protected sites

Survey: In Dorset the number of km squares has fallen from 76 in 1970-84, 28 in 1980-94, to 18 in 1995-99, but more comprehensive surveying is required. In Hampshire, survey work continues to find new sites, at the same time as others die out due to renewed loss of elms through Dutch Elm disease.

Monitoring: Currently present on 5 transects in the region, of which, 0 in Dorset, c.2 in Hampshire, 3 in Wiltshire and 0 on the Isle of Wight.

Management: Virtually nothing known about management for this species, and since most colonies are in hedgerows and suburban areas, there are probably few if any sites where there is active management for this species. It is possible that county councils (eg IWC) could encourage laying of hedges that contain plenty of elm. This works well, and prolongs the life of quite big trees. Elm lays very well, and shoots easily.

ACTIONS AND TARGETS:

TARGET 1: Raise the standard of survey work to a high level across the whole region.

TARGET 2: Investigate conservation methods where there are known colonies.

ACTIONS:

Action	BC's Targets	Possible Partners
1. Monitor the longevity of individual colonies.	2005	BC volunteers
2. Establish the core areas for the species, and the extent of metapopulations.	2010	BC volunteers
3. Establish the precise ecological requirements of the species, and evaluate the number of <i>Ulmus spp.</i> other than Wych Elm on which the species breeds.	2010	Local volunteers, University researchers
4. Arrange a full educational programme on how to survey (eg larval eating damage, ova) and target surveying in poorly recorded areas.	2005	BC volunteers, wildlife trusts, Woodland Trust
5. Consider possible conservation measures such as coppicing elms with Dutch Elm disease, planting new Wych Elms, and other alleged disease resistant species like 'Autumn Gold'.	Ongoing	BC volunteers, BTCV, site owners/managers

3.2.3 Chalkhill Blue *Lysandra coridon*

Distribution and Status: Despite the loss of many small sites over recent decades, the species is still widely distributed on unimproved chalk grasslands of the region. Indeed, the region of South-central England is an important national stronghold for the species, probably accounting for c.40% of the total UK resource.

Dorset: 1995-99 = 121 km sq. (c. 100 ? colonies, 1999). The strongholds for the species are the steep scarp slopes of the chalk downs, the Purbeck Uplands and Portland. On Cranborne Chase and the flatter and more improved eastern part of the Chalk outcrop small colonies struggle to survive.

Hampshire: 1995-99 = 69 tetrads (c. 30-40 colonies, 1999)

Isle of Wight: 1995-99 = 26 tetrads (c. 20 colonies, 1999)

Wiltshire: 1995-99 = 112 tetrads (c. 150 colonies, 1999)

Threats:

- lack of management, leading to scrub encroachment on chalk grassland remnants
- excessive overgrazing by rabbits
- heavy grazing in favour of Adonis Blue.

Survey: No comprehensive survey in Dorset since 1978 but the km square map projects show a decline from 185 km sq. (1970-84) to 154 km sq. (1980-94).

Monitoring: Currently recorded on 41 transects in the region, of which, 14 in Dorset, 12 in Hampshire, 5 on the Isle of Wight, and 10 in Wiltshire. In Dorset, the average Annual Index varies from 17 (Ballard Down) to 1292 (Fontmell).

Management: Most sites are cattle and/or sheep grazed, with considerable input from rabbits. Especially in North Dorset and Purbeck a good proportion of the sites are managed by conservation bodies or are under Countryside Stewardship. The combined local weather and transect data for Fontmell suggests that the species is particularly vulnerable when there is above average rain in May-June, when the night-feeding larvae are developing. Management at Magdalen Hill Down, Hampshire (BC reserve) has produced a progressive increase in Chalkhill Blue numbers, with transect figures (annual indices) rising from 317 in 1991 to 1,931 in 1999. The regime at this site involves several grazing compartments, and a varied regime of autumn/winter sheep/cattle grazing, and intervening years with no stock grazing (although all-year rabbit grazing). Occasional intense summer cattle grazing has been used in some of the compartments with a taller sward, when there has been a build up of dead thatch at ground level.

ACTIONS AND TARGETS:

TARGET 1: Identify core areas where there are clusters of colonies and increase breeding habitat at or in the near vicinity of such sites by bringing about changes in management. Aim to maintain clusters of colonies in about 25 core areas within the region.

TARGET 2: Support research into how the requirements of this species differ from other chalk downland species like the Adonis Blue and Silver-spotted Skipper. From this, draw up guidelines for management.

ACTIONS:

Action	BC's Targets	Possible Partners
1. Support Biodiversity Plans to expand areas of calcicolous downland under traditional management, especially in core areas.	2010	Purbeck Biodiversity Steering Gp.
2. Review the distribution of transects and make sure that target areas are adequately monitored.	2001	BC volunteers
3. Re-survey the entire region to evaluate the number of colonies.	2002	BC volunteers
4. Continue to monitor isolated sites in order to assemble data on how long such sites can survive.	Ongoing	BC volunteers
5. Maintain and enlarge/link suitable habitat at small sites.	Ongoing	Reserve wardens, local volunteers, BTCV
6. At all sites identify favoured egg-laying areas, and protect such areas from over-grazing and scrub invasion.	Ongoing	BC volunteers, site managers/wardens

3.2.4 White Admiral *Ladoga camilla*

Distribution and Status: The region has always been an important stronghold for this species, and since it favours more shaded woodlands, it generally fared well with the decline in coppiced woodlands. However, in cases where woodlands have been entirely neglected and rides are narrow, the rides have become steadily more shaded and ultimately unsuitable for this species. Even so, the species remains widely distributed and the region probably supports c.25% of the total UK resource.

Dorset: 1995-99 = 57 km sq. (50-100 colonies, 1995). The Blackmoor Vale is the main stronghold. Colonies also exist in the east Dorset and Purbeck heathlands, and small colonies still occur in the woods of Cranborne Chase. There have been no records from west Dorset since 1986. There is one colony on the Purbeck uplands.

Hampshire: 1995-99 = 142 tetrads (c.80-100 colonies, 1999)

Isle of Wight: 1995-99 = 22 tetrads (c.20-30 colonies, 1999)

Wiltshire: 1995-99 = 43 tetrads (c. 50 colonies, 1999)

Threats:

- practice of honeysuckle removal from some managed woodland estates
- total lack of woodland management leading to increase in level of shade
- heavy woodland clearance eliminating half-shaded rides and clearings.

Survey: The Dorset km square project shows a decline from 204 km squares (1970-84) to 191 km squares (1980-1994) despite an increased level of recording.

Monitoring: Currently recorded on 40 transects in the region, of which, 10 in Dorset, 13 in Hampshire, 4 on the Isle of Wight, and 13 in Wiltshire. The highest average Annual Index in Dorset is 30 (Piddles Wood) and in Hampshire 116 (Pamber Forest).

Management: Most Dorset records come from woods that are privately owned and have limited or no public access. The best monitored woods are under DWT, FE, EN or WT control. All have clear management plans involving ride-widening, coppicing, replacement of conifers with deciduous trees. When the coppice programme began at Piddles Wood there was a spectacular increase in numbers. Conversely, the gradual shading of the transect at Stubhampton coincided with the reappearance of the species after 4 years of zero records.

ACTIONS AND TARGETS:

TARGET 1: Obtain permits for surveys in privately owned woods especially in areas where there appear to be a shortage of records.

TARGET 2: Target large areas of interlinked woodlands for maintaining core populations. Aim to maintain at least 12 core woodland areas across the region: Penchet Forest (S.E. Wilts), Braydon Forest (N. Wilts), Selwood Forest (W. Wilts), Cranborne & Vernditch Chase Woods, Grovely Wood, "Marlbor" woods.

ACTIONS:

Action	BC's Targets	Possible Partners
1. Design standard habitat survey forms to encourage cataloguing of suitable habitats with semi-shaded trailing honeysuckle.	2003	local volunteers, site managers/wardens
2. Inform woodland owners/managers of species' requirements (ie honeysuckle, flowering bramble, open sunny rides and clearings).	Ongoing	BC volunteers
3. Encourage management that promotes appropriate habitat creation and enhancement. Check management plans to ensure that the urgent need to open woodland does not adversely affect the White Admiral.	Ongoing	BC volunteers, FC, NT, Woodland Trust, Estate owners, wildlife trusts,
3. Review the distribution of transect walks to ensure that the target areas are well monitored.	2001	BC volunteers, wildlife trusts
4. Investigate the possibility of creating suitable habitat in woodland adjacent to the target areas via WIGs.	2005	FC
5. At all sites, identify favoured egg-laying and nectaring areas. Afford special protection to such key areas within sites.	Ongoing	local volunteers, site managers

3.2.5 Wall *Lasiommata megera*

Distribution and Status: Within the region, this once common species has shown a major contraction in range, estimated at >50% decline in sites since 1980. This is most pronounced in the east of the region, and in Hampshire the Wall has largely disappeared from inland chalk sites so that in the late 1990s it was generally confined to coastal sites, although with signs of slight recovery in 1999.

Dorset: 1995-99 = 401 km sq. (> 100 colonies, 1999). Although the number of km squares looks impressive, the reality is that away from the coast there are frequently no recent records. Along the Purbeck coast and on Portland, numbers are good and there is often a late 3rd brood.

Hampshire: 1995-99 = 52 tetrads (< 25 colonies, 1999)

Isle of Wight: 1995-99 = 78 tetrads (< 40 colonies, 1999)

Wiltshire: 1995-99 = 74 tetrads (< 100 colonies, 1995)

Threats: Causes of recent major decline are very poorly understood!

- inappropriate management of grassland sites, eliminating areas of rough 'tussocky' ground.
- dominance of sheep-grazing on downlands (produces sward that is too tight and even).
- climatic changes ?

Survey: No detailed survey work has been undertaken for this species.

Monitoring: Currently recorded on 21 transects in the region, of which, 8 in Dorset, 2 in Hampshire, 6 on the Isle of Wight, and 5 in Wiltshire. In Dorset, only 8 out of 29 transects that have recorded Wall were still recording the species in 1998.

Management: Continuous sheep grazing of downland sites produces a sward that is too 'tight' and even, and may be detrimental to the breeding success of the Wall.

ACTIONS AND TARGETS:

TARGET 1: Undertake research on the precise habitat requirements of the species to understand why so many inland colonies have been lost.

TARGET 2: Target key inland areas/sites where the appropriate requirements can be sustained and any recovery or otherwise carefully monitored.

TARGET 3: Maintain strong colonies in c.15 core areas across the region.

ACTIONS:

Action	BC's Targets	Possible Partners
1. Organise surveys of poorly covered areas (eg west Dorset coast from Lyme Regis to Weymouth).	2003	BC volunteers
2. Survey heathland sites in east Dorset behind the coastal colonies to see whether there is scope for management changes to facilitate dispersal inland.	2005	BC volunteers
3. Choose successful inland sites and coastal sites for comparative ecological research.	2008	University researchers, site managers
4. At known sites, identify micro-habitat favoured for egg-laying.	Ongoing	BC volunteers
5. Protect those areas identified in 4, and undertake detailed research into the precise inter-relationships between butterflies, bare ground and vegetation.	2010	University researchers, site managers

3.2.6 Grayling *Hipparchia semele*

Distribution and Status: Like the Wall, this once common species has shown a major contraction in range, estimated at c.25% decline in sites since 1980-94 recording period, with > 70% decline from Chalk sites. Still widely distributed and locally common on the heathlands and coastal areas of Hampshire and Dorset, the species has declined greatly at chalk grassland sites, so much so that it is now almost extinct in Wiltshire.

Dorset: 1995-99 = 261 km sq. (> 100 colonies, 1999). About 74% of the km square records come from the heathlands of east Dorset and Purbeck, where there is no cause for concern. The only surviving calcareous sites are on the Purbeck coast and Portland, all the colonies on the inland chalk downs having disappeared in the late 1970's.

Hampshire: 1995-99 = 113 tetrads (c.30-40 colonies, 1999). All remaining colonies are heathland or coastal, the last chalk site became extinct in the 1980's.

Isle of Wight: 1995-99 = 14 tetrads (c. 8-10 colonies, 1999)

Wiltshire: 1995-99 = 15 tetrads (6-8 colonies, 1999). In 1998 there were estimated to be two populations of c.6 colonies (?) on the Chalk, and a further 1-2 colonies in the extreme south of Wiltshire that are probably part of the New Forest population.

Threats: Causes of decline are very poorly understood!

- inappropriate management of chalk grassland sites ? (uniformly smooth short swards lacking regular disturbances and bare patches).
- climatic changes ?

Survey: In Dorset, whilst the km square mapping project shows an increase from 380 to 437 km squares between 1970-84 and 1980-1994 surveys, it also indicates the complete collapse of the inland chalk grassland sites (as has also been the case in Hampshire and Wiltshire).

Monitoring: Currently recorded on 19 transects in the region, of which, 13 in Dorset, 4 in Hampshire, 2 on the Isle of Wight, and 0 in Wiltshire. In Dorset, 6 out of 13 sites are on coastal Chalk or Limestone. The Purbeck sites have all experienced recent dramatic declines. The heathland counts seem stable as do counts on Portland.

Management: It is thought that rabbit scrapes are possibly the only hope for recovery on Chalk and Limestone sites. On the Dorset heathlands the highest numbers seem to be generated by the regular mowing of fire breaks by the RAOC site at West Moors, where the average Annual Index has been 1721 over a 13 year period. In some areas of Purbeck, the trampling of numerous boots along the coastal path seems to be creating the desired disturbed habitat.

ACTIONS AND TARGETS:

TARGET 1: Instigate ecological research to find out why the Grayling is declining on Chalk and Limestone habitats and what management changes need to be made to halt its further decline.

TARGET 2: Select key target areas where there are interlinked colonies on (a) heathland and (b) Chalk and/or Limestone in an attempt to conserve core populations.

ACTIONS:

Action	BC's Targets	Possible Partners
1. Find students/supervisors able and willing to undertake ecological research into the requirements of Grayling in different habitat types.	2007	University researchers, site managers
2. Review the transect walks to make sure that all target areas are adequately surveyed.	2001	BC volunteers
3. Survey areas in the region that are under-recorded and where Grayling colonies may exist (eg west Dorset coast, west side of New Forest).	2003	BC volunteers
4. Maintain survey work at isolated colonies in order to build up data on the ability of Grayling to survive at such sites (eg Stonebarrow & Hardy's Monument (Dorset)).	2005	BC volunteers

Core areas: (1) Coastal grasslands and heathlands of Dorset, Hampshire and Isle of Wight; (2) Heathlands elsewhere in Dorset and Hampshire; (3) Purbeck; (4) Chalk ridge of Isle of Wight (but declining); (5) WILTS: SPTA(C), Porton Down, S.E. Wilts heathland.

3.3 Low Priority Butterflies (n = 28)

(breeding species and common migrants)

- 3.3.1 Essex Skipper *Thymelicus lineola*
- 3.3.2 Small Skipper *Thymelicus sylvestris*
- 3.3.3 Large Skipper *Ochlodes venata*
- 3.3.4 Clouded Yellow *Colias croceus*
- 3.3.5 Brimstone *Gonepteryx rhamni*
- 3.3.6 Large White *Pieris brassicae*
- 3.3.7 Small White *Pieris rapae*
- 3.3.8 Green-veined White *Pieris napi*
- 3.3.9 Orange Tip *Anthocharis cardamines*
- 3.3.10 Green Hairstreak *Callophrys rubi*
- 3.3.11 Purple Hairstreak *Quercusia quercus*
- 3.3.12 Small Copper *Lycaena phlaeas*
- 3.3.13 Brown Argus *Aricia agestis*
- 3.3.14 Common Blue *Polyommatus icarus*
- 3.3.15 Holly Blue *Celastrina argiolus*
- 3.3.16 Red Admiral *Vanessa atalanta*
- 3.3.17 Painted Lady *Cynthia cardui*
- 3.3.18 Small Tortoiseshell *Aglais urticae*
- 3.3.19 Peacock *Inachis io*
- 3.3.20 Comma *Polygonia c-album*
- 3.3.21 Dark Green Fritillary *Argynnis aglaja*
- 3.3.22 Silver-washed Fritillary *Argynnis paphia*
- 3.3.23 Speckled Wood *Pararge aegeria*
- 3.3.24 Gatekeeper *Pyronia tithonus*
- 3.3.25 Marbled White *Melanargia galathea*
- 3.3.26 Meadow Brown *Maniola jurtina*
- 3.3.27 Ringlet *Aphantopus hyperanthus*
- 3.3.28 Small Heath *Coenonympha pamphilus*

3.4 High Priority Macro-moths (n = 37)

3.4.1 (0160) Reed Leopard *Phragmataecia castaneae* (Hübner)

UK Red Data Book Category 2 (Vulnerable)

UK Biodiversity Action Plan: Species of Conservation Concern

Distribution and status - Very local in England. Confined to Wicken Fen and Chippenham Fen, Cambridgeshire, the Norfolk Broads and a single locality in south-east Dorset. In the early 1990's it was considered that the species may be extinct from Dorset (Mahon & Pearman, 1993), as there had been no records since the early 1960s. However, surveying in the late 1990s was successful in confirming that the species did still exist in Dorset, and thus the region.

Known colonies - Dorset 1, Hampshire 0, Isle of Wight 0, Wiltshire 0.

Habitat - The species is exclusively associated with reed-beds, where the larvae have a two-year life-cycle, feeding in the roots and lower stems of the foodplant, Common Reed, *Phragmites australis* (Porter, 1997).

Threats - Loss of reed beds due to development and water abstraction are potential threats to this and other species of reed-beds. Other than the extreme isolation of the single colony, there are few obvious threats in the region. The Dorset locality is a National Nature Reserve.

Management - Winter cutting of Reed is likely to be less damaging than summer cutting and annual cutting more harmful than on a less frequent basis. Burning is not recommended, though larvae may survive in rootstocks (Waring, *in press*).

Survey - There has been a limited amount of survey work for the species in Dorset.

Monitoring - There is currently no specific monitoring for the species.

ACTIONS AND TARGETS:

TARGET 1: Maintain and enhance known populations.

ACTIONS:

Action	BC Targets	Possible Partners
1. Initiate annual monitoring at the single known Dorset locality.	2003	Dorset Moth Groups, DERC, EN, LBAPs

3.4.2 (0174) The Triangle *Heterogenea asella* ([Denis & Schiffermüller])

UK Red Data Book Category 3 (Rare)

UK Biodiversity Action Plan: Species of Conservation Concern

Distribution and status - There are post-1980 records from Essex, Kent, East Sussex, Hampshire, south Wiltshire, Devon and Cornwall. The species is very local and scarce throughout its range.

Known colonies - Dorset 0, Hampshire c.5+, Isle of Wight 0, Wiltshire 0

Habitat - This is an inconspicuous and easily overlooked resident species associated with the canopy of ancient and semi-natural deciduous woodland. The larvae feed from late August to early October on the leaves of oak *Quercus* spp. and Beech *Fagus sylvatica*.

Threats - Other than large-scale clearance of the trees on which it breeds, any threats to this species are presently unknown due to poor knowledge of its ecology. Some former sites have been lost due to felling of trees and in others the broadleaves have been largely replaced by conifers (Waring, in press).

Survey - Recent BENHS & BC field meeting in the New Forest (Hampshire). Survey of Savernake Forest (Wiltshire) in 2000. (Note: It is important to start trapping at dusk for this species (B.Fox, pers.comm.))

Monitoring - There is currently no specific monitoring undertaken for this species in the region.

Management - In the absence of detailed ecological knowledge, management should aim to maintain stands of mature broadleaved trees and ensure continuity of age classes.

ACTIONS AND TARGETS:

TARGET 1: Determine the true status of The Triangle within the region.

TARGET 2: Maintain all known populations.

ACTIONS

Action	BC Targets	Possible Partners
1. Survey known and potentially suitable sites in the New Forest.	2005	BC volunteers, local moth groups, FC, BENHS
2. Survey Savernake Forest (Wilts), Alice Holt Forest and West Walk, Wickham (Hants) larger ancient semi-natural oak woodlands in Dorset to determine if the species is still present.	2003	BC volunteers, local moth groups, FC, DERC, LBAPs, BENHS
3. Establish regular monitoring at sites where the species occurs.	Ongoing	BC volunteers, local moth groups, LBAPs
4. Initiate autoecological studies to inform management.	2005	BC volunteers, local moth groups, LBAPs
5. Liaise with landowners and managers about the presence of the moth and the importance of beneficial management for its conservation.	2005	BC volunteers, Biological Record Centres, FC, EN County Wildlife Trusts

3.4.3 (1675) Dingy Mocha *Cyclophora pendularia* (Clerck)

UK Red Data Book Category 3 (Rare)

UK Biodiversity Action Plan: Priority Species

Distribution and status - A very local species, confined to Dorset and west Hampshire, where it occurs on the Purbeck heaths between Studland and Wareham, the Ringwood area of the New Forest, and the Luscombe Valley nature reserve in east Dorset. Formerly the moth was reported from heathy areas of south Wiltshire, Surrey, Sussex and Suffolk. There are also old records from Devon, Kent and South Wales (UK Biodiversity Action Plan, 1999).

Known colonies - Dorset 10, Hampshire 5+, Isle of Wight 1? (single record, Freshwater, 29.5.92), Wiltshire 0.

Habitat - A species associated with damp heathland, where the larvae feed on the foliage of small-leaved *Salix* species such as Eared Willow *S. aurita* and Grey Sallow *S. cinerea*; 1-3m tall bushes are preferred (Waring, in prep.).

Threats - Loss of heathland to development or forestry. Succession to woodland (often from self-sown pine) on unmanaged heathland. Extensive clearance of willow carr as part of heathland management and restoration programmes.

Survey - EN-funded survey (2000) of Dorset and Hampshire localities, including autoecological studies.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - The ecological requirements are not fully understood. The value of sallow scrub should be recognised in any programme of heathland management.

ACTIONS AND TARGETS:

TARGET 1: Maintain all known populations of the Dingy Mocha.

TARGET 2: Enhance the population size at all known sites by 2010.

TARGET 3: Improve understanding of autoecological requirements.

ACTIONS:

Action	BC Targets	Possible Partners
1. Initiate surveys in Hampshire and Dorset to discover precise breeding areas, and from this evaluate the number of breeding colonies.	2005	BC volunteers, local moth groups, County Wildlife Trusts, FC, LBAPs, EN
2. Initiate autoecological studies to inform management.	2005	BC volunteers, local moth groups, DERC, FC, EN
3. Establish regular monitoring at sites where the species occurs.	Ongoing	BC volunteers, local moth groups, FC
4. Liaise with landowners and managers about the presence of the moth and promote the importance of scrub elements within heathlands.	2005	BC volunteers, EN, Biological Records Centres, County Wildlife Trusts.
5. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.4.4 (1714) Portland Ribbon Wave *Idaea degeneraria* (Hübner)

UK Red Data Book Category 3 (Rare)

UK Biodiversity Action Plan: Species of Conservation Concern

Distribution and status - In the UK, the Portland Ribbon Wave is only found in an area of rough grassy and bushy undercliff on the Isle of Portland, Dorset. Elsewhere it has occurred near Torquay, South Devon, and more recently on the Purbeck Coast, Dorset. Records from elsewhere in southern England are believed to relate to migrant individuals.

Known colonies - Dorset 2+, Hampshire 0, Isle of Wight 0, Wiltshire 0.

Habitat - Associated with coastal scrub growing on warm sites with limestone substrate. The foodplant in the wild is unknown.

Threats - None apparent.

Survey - No specific surveys have been undertaken for this species in the region.

Monitoring - There is currently no monitoring for this species in the region.

Management - The breeding grounds at Portland are within the Portland SSSI which was rescheduled in 1984 and re-notified during 1989/90 and which takes account of the moth.

ACTIONS AND TARGETS:

TARGET 1: Maintain all known populations.

TARGET 2: Improve understanding of autoecological requirements.

ACTIONS:

Action	BC Targets	Possible Partners
1. Survey potentially suitable sites along the Dorset coast.	2005	BC volunteers, local moth groups, DERC, MOD, NT
2. Initiate autoecological studies to inform management.	2003	BC volunteers, local moth groups, DERC

3.4.5 (1731) Chalk Carpet *Scotopteryx bipunctaria* (Prout)

Nationally Scarce - Notable B (Nb)

UK Biodiversity Action Plan: Priority Species

Distribution and status - The Chalk Carpet occurs on chalk and limestone grasslands in southern England and Wales. It also occurs on the Carboniferous Limestone of north Derbyshire, the coastal Chalk of Yorkshire and the Chalk and Magnesian Limestone of Co. Durham. There are old records from the limestone around Arnside Knott, Cumbria and from the Northumberland coast. It is present at a number of sites in all four counties of South-Central England. The Chalk Carpet is generally considered to have declined on downland and is unlikely to be under-recorded, as it is noticeable by day. (UK Biodiversity Action Plan, 1999)

Known colonies - Dorset 10+?, Hampshire 5-7, Isle of Wight 2, Wiltshire 1.

Habitat - The Chalk Carpet occurs on chalk and limestone grasslands. The main habitats occupied are short-grazed areas with bare earth patches, including embankments, quarries and sheep tracks. Populations can be quite large and persist for decades. The larvae feed at night on bird's-foot-trefoil *Lotus corniculatus* and other trefoils and clovers, such as black medick *Medicago lupulina*, horse-shoe vetch *Hippocrepis comosa*, red clover *Trifolium pratense* and white clover *T.repens*. The pupa is formed in a cocoon on the ground. The adults are nocturnal, but can be readily disturbed from the vegetation during the day during July and August. The moth overwinters as a larva. (UK Biodiversity Action Plan, 1999)

Threats - Loss of unimproved calcareous grasslands and fragmentation of remaining habitat.

- Inappropriate grazing management.

Survey - Survey work in 2000 included National Trust survey of coastal grasslands, HWT-funded survey work (and autoecological studies ?) at Broughton Down, and Dorset Moth Group casual surveys in Dorset.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - The moth appears to be dependent on short swards with bare ground, so sites must not be allowed to become rank, and grazing may be necessary. Bird's-foot-trefoil can be encouraged by heavy grazing one year followed by a release from grazing for a year or two on a rotational basis. Banks and landslips are likely to be favoured by this species and should not all be fenced off and allowed to become rank or invaded by scrub (Waring, in press).

ACTIONS AND TARGETS:

TARGET 1: Identify core areas in the region, and enhance populations at all known sites.

TARGET 2: Ensure the requirements of the Chalk Carpet are taken into consideration when implementing the action plan for lowland calcareous grassland.

ACTIONS:

Action	BC Targets	Possible Partners
1. Implement appropriate management at all known sites.	2005	EN, County Wildlife Trusts, MOD, LBAPs
2. Survey all unimproved calcareous grassland sites within "key areas" to establish a more complete picture of the distribution and status of the species.	2003	Local volunteers, NT local moth groups, Biological Record Centres, LBAPs
3. Initiate autoecological studies to inform management.	2005	BC volunteers, local moth groups, HWT
4. Liaise with landowners and managers about the presence of the Chalk Carpet, and the importance of beneficial management for its conservation.	Ongoing	BC volunteers, EN, Biological Record Centres, County Wildlife Trusts
5. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan	Ongoing	BC volunteers, local moth groups

3.4.6 (1785) Barberry Carpet *Pareulype berberata* ([Denis & Schiffermüller])

UK Red Data Book Category 1 (Endangered)

UK Biodiversity Action Plan: Priority Species

Wildlife and Countryside Act 1981, Schedule 5 Protected Species

Distribution and status - In the UK, colonies of the Barberry Carpet are known to occur in Gloucestershire, Wiltshire and Dorset. There have also been recent records of the moth from Hampshire and Suffolk and it is possible there may still be populations surviving in these counties. Formerly the moth occurred in other counties from Devon and Sussex northwards to Yorkshire.

Known colonies - Dorset 1, Hampshire 0?, Isle of Wight 0, Wiltshire 3.

Habitat - The larvae feed on leaves of Wild Barberry *Berberis vulgaris* and occasionally other species of barberry which occur in hedgerows and woodland edges.

Threats - Damage to the foodplant by burning, hedgerow removal and effects of modern mechanised hedgerow management. (see Waring (2000) for further detail).

Survey - Survey work has been undertaken in Hampshire, Wiltshire and Dorset. In 2000 there was ongoing English Nature Species Recovery Programme work (Dorset & Wilts)

Monitoring - All known Dorset and Wiltshire sites are monitored annually. Continued monitoring of possible former Hampshire site ?

Management - Rotational winter pruning to encourage vigorous *Berberis* growth, and to keep the bushes free of competition from other hedgerow species (Waring, in press).

ACTIONS AND TARGETS:

TARGET 1: Take appropriate measures to conserve remaining site(s) in the region.

(Note: The species has been the subject of an English Nature Species Recovery Programme since 1995).

ACTIONS:

Action	BC Targets	Possible Partners
1. Identify any unsurveyed <i>Berberis vulgaris</i> and inform the Species Recovery Programme.	2005	BC, local moth groups, Biological Record Centres, County Wildlife Trusts
2. Offer assistance with surveys and regular monitoring programmes carried out as part of the Species Recovery Programme.	Ongoing	BC volunteers, local moth groups

3.4.7 (1787) Argent and Sable *Rheumaptera hastata* (Linnaeus)

Nationally Scarce - Notable B (Nb)

UK Biodiversity Action Plan: Priority Species

Distribution and status - The Argent & Sable occurs throughout most of England, except East Anglia, eastern Wales, and the Southern Uplands, the Hebrides, and the far north-west of Scotland. It has declined throughout much of England and is now only thinly scattered. It is limited to just a few scattered colonies within South-Central England. (UK Biodiversity Action Plan, 1999)

Known colonies - Dorset 1, Hampshire 3, Isle of Wight 0, Wiltshire 1.

Habitat - In South-Central England, the Argent & Sable breeds in woodland with birch regrowth. Many of the populations that survive are in the rides and edges of conifer plantations established from the 1950's onwards, where a weed growth of birch is still available though often diminishing. The larva of this species feeds on birches *Betula pendula* (and probably *B. pubescens*). Eggs are found on birch regrowth <30cm tall, in full sun, and in woodland the larvae are mostly found on low birch coppice. (UK Biodiversity Action Plan, 1999)

Threats - Lack of birch regeneration in wood edges and rides in high forest systems due to the decline of coppicing and other active woodland management.

Survey - Surveys are currently being undertaken for this species at "Coppice for Butterflies Challenge" (Woodland Improvement Grant) sites. In 2000 FC "Coppice for Butterflies Challenge" surveys and autoecological studies took place, and there was a survey of Savernake Forest (Wiltshire).

Monitoring - There is currently no specific monitoring for this species in the region.

Management - Rotational coppice management provides ideal breeding conditions. If coppicing is impractical, appropriate rideside management, including rotational cutting of box junctions can also provide adequate habitat conditions (Waring, in prep.). The Wessex/Hampshire Chalk is one of three areas nationally targeted under Forest Authority's 'Coppice for Butterflies' Challenge (Woodland Improvement Grant) scheme. Increasing the amount of traditionally-managed woodland in this area should improve prospects for the Argent and Sable.

ACTIONS AND TARGETS:**TARGET 1: Maintain the range of the Argent & Sable.****TARGET 2: Enhance population size at all known sites by 2010.****ACTIONS:**

Action	BC Targets	Possible Partners
1. Undertake surveys and establish a regular monitoring programme for the species.	2004	BC volunteers, local moth groups, Biological Record Centres, County Wildlife Trusts, FC, LBAPs
2. Liaise with landowners and managers about the presence of the moth and the importance of beneficial management for its conservation.	Ongoing	BC volunteers, local moth groups, EN, FWAG, Biological Record Centres, County Wildlife Trusts
3. Investigate the possibility of creating suitable habitat in woodland adjacent to known colonies using WIG schemes etc.	2005	FC
4. Initiate autoecological studies to inform management.	2005	BC volunteers, local moth groups, County Wildlife Trusts, FC, LBAPs
5. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan	Ongoing	BC volunteers, local moth groups

3.4.8 (1878) Drab Looper *Minoa murinata* (Scopoli)

Nationally Scarce - Notable B (Nb)

UK Biodiversity Action Plan: Priority Species

Distribution and status - In the UK this species has two centres of distribution. One extends from Gloucestershire and Monmouthshire northwards through Herefordshire and Worcestershire. The other is centred on Hampshire, and including south Wiltshire, Berkshire and West Sussex. There are outlying colonies in Somerset, Kent and, possibly South Wales. It has been lost from many woods in these areas. It formerly occurred in Oxfordshire and eastwards to Bedfordshire and Essex, where it has been lost since the 1940s (UK Biodiversity Action Plan, 1999).

Known colonies - Dorset 4, Hampshire 5-6, Isle of Wight 0, Wiltshire 3.

Habitat - Both the moth and the foodplant are associated with areas of recent felling and coppicing in woodland. The larvae feed on Wood Spurge *Euphorbia amygdaloides*, preferring the flowers and floral leaves of plants growing in full sun (UK Biodiversity Action Plan, 1999).

Threats - Decline of coppicing and other active woodland management, with resultant lack of continuity of abundant larval foodplant in sunny open conditions associated with recently cleared compartments. Replacement of small-scale rotational felling by management of large-scale plantations of even-aged tree crops, particularly conifers.

Survey - Surveys are currently being undertaken for this species at "Coppice for Butterflies Challenge" (Woodland Improvement Grant) sites. In 2000 additional woodlands in both Hampshire and Wiltshire were surveyed by BC volunteers, and there were BC field meetings at Bentley Wood and Pamber Forest. Savernake Forest was also surveyed.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - Rotational coppice management provides ideal breeding conditions. If coppicing is impractical, appropriate rideside management, including rotational cutting of box junctions can also provide adequate conditions (Waring, in prep.). If rotational management of woodland does not take place the Wood Spurge will slowly be out-competed by grasses. The Wessex/Hampshire Chalk is one of three areas nationally targeted under Forestry Commission's "Coppice for Butterflies Challenge" (Woodland Improvement Grant) scheme. Increasing the amount of traditionally managed woodland in this area should improve prospects for the Drab Looper.

ACTIONS AND TARGETS:

TARGET 1: Maintain the range of the Drab Looper.

TARGET 2: Enhance populations at all known sites by 2010.

ACTIONS:

Action	BC Targets	Possible Partners
1. Re-survey all sites with post-1980 records to establish which sites still support the species (and strength of each colony)	2005	BC volunteers, local moth groups, Biological Record Centres, County Wildlife Trusts, FC, LBAPs
2. Investigate the possibility of creating suitable habitat in woodland adjacent to known colonies using WIG schemes etc.	2007	FC, site owners/managers
3. Liaise with landowners and managers about the presence of the moth and the importance of beneficial management for its conservation.	Ongoing	BC volunteers, local moth groups, Biological Record Centres, County Wildlife Trusts, FC, LBAPs
4. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.4.9 (1880) Barred Tooth-striped *Trichopteryx polycommata* ([Denis & Schiffermüller])

Nationally Scarce - Notable A (Na)

UK Biodiversity Action Plan: Priority Species

Distribution and status - In Britain the Barred Tooth-striped is a widespread but local species. Current strongholds are Sussex, the north Hampshire/Wiltshire area, Breckland on the Norfolk/Suffolk border, and south Cumbria. Scattered populations occur elsewhere, including post-1980 records from Gloucestershire, Warwickshire, Oxfordshire, Northamptonshire and Staffordshire. In Scotland there have been post-1980 records from the Ardnamurchan peninsula. (UK Biodiversity Action Plan, 1999)

Known colonies - Dorset 1, Hampshire 2+, Isle of Wight 0, Wiltshire 4.

Habitat - The Barred Tooth-striped occurs in woodland clearings and rides on chalk, limestone or clay soils, and on chalk downland where wild privet *Ligustrum vulgare*, the larval foodplant grows in full sunlight. Ash *Fraxinus excelsior* may be an alternative foodplant. The adults fly between mid March and late April, and are occasionally seen flitting along hedgerows and around bushes at dusk. They come to light occasionally, but usually remain among the bushes and are best found by searching with a torch. Some populations are quite large but the majority are small. The larvae feed between May and June before pupating until the following March (UK Biodiversity Action Plan, 1999).

Threats - Loss of downland habitat. Inappropriate scrub control on downland. Inappropriate woodland management, including removal of foodplant during ride-widening associated with commercial extraction of timber and neglect leading to shading-out of the foodplant.

Survey - Limited survey work has taken place at a few sites in the region. In 2000, Dorset Moth Group surveyed potential Dorset sites, Wiltshire BC surveyed Picket Wood, and in Hampshire, HWT funded autoecological studies at Broughton Down.

Monitoring - There is currently no specific monitoring for the species in the region.

Management - At present, imperfectly understood, but excessive removal of privet and associated scrub elements should be avoided at sites where the moth is known to be present.

ACTIONS AND TARGETS:

TARGET 1: Define in more detail the status and distribution of the Barred Tooth-striped in the region.

TARGET 2: Maintain population size at all known sites.

ACTIONS:

Action	BC Targets	Possible Partners
1. Surveying all unimproved chalk grassland sites that have significant scrub elements and hedgerows containing privet and ash.	2008	BC volunteers, local moth groups, Biological Records Centres, County Wildlife Trusts
2. Initiate autoecological studies to inform management.	2005	BC volunteers, local moth groups, HWT
3. Liaise with landowners and managers about the presence of the moth and the importance of beneficial scrub management for its conservation.	Ongoing	BC volunteers, local moth groups, EN, FWAG, Biological Record Centres, County Wildlife Trusts
4. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.4.10 (1982) Narrow-bordered Bee Hawk *Hemaris tityus* (Linnaeus)

Nationally Scarce - Notable B (Nb)

UK Biodiversity Action Plan: Priority Species

Distribution and status - Formerly widespread in the UK, the Narrow-bordered Bee Hawk-moth has declined severely and now appears to have retreated to western Britain, especially south-west England from Cornwall to Wiltshire. There are also scattered records from west Wales, the west coast of Scotland, Northern Ireland, and a single colony on a nature reserve in Yorkshire (UK Biodiversity Action Plan, 1999). In South-Central England the species is extremely local.

Known colonies - Dorset 1+, Hampshire c.4, Isle of Wight 0, Wiltshire 4+.

Habitat - The Narrow-bordered Bee Hawk-moth occurs on a wide range of unimproved grasslands, including wet, acidic grassland and chalk downland, and is also found on acid bogs, peat cuttings and drier heathland. The larval foodplant is Devil's-bit Scabious *Succisa pratensis*. The adult moth requires a supply of nectar but visits various flower species. (UK Biodiversity Action Plan, 1999)

Threats - Agricultural "improvement" of unimproved grassland, heathland and bogs.

- Inappropriate management of grassland, heathland and bogs.
- Increased water abstraction and lowering of water-table may be a threat in some areas.

Survey - In 2000, Dorset Moth Group surveyed potential Dorset sites, and there was a preliminary BC/RSPB survey of Salisbury Plain (SPTA) sites.

Monitoring - There is currently no specific monitoring for the species in the region.

Management - Light grazing, preferably by cattle, and cutting and removal of hay are necessary to maintain many of the herb-rich pastures that this species occupies. These operations must take place during the growing season of the grasses if they are to prevent grass domination of the broad-leaved herbs, including the larval foodplant and the nectar sources visited by the adults. (Waring, in press)

ACTIONS AND TARGETS:

TARGET 1: Define in more detail the status and distribution of the Narrow-bordered Bee Hawk-moth within the region.

TARGET 2: Maintain population size at all known sites.

ACTIONS:

Action	BC Targets	Possible Partners
1. Re-survey all sites with post-1980 records to establish which sites still support the species and to assess the strength of colonies.	2008	BC volunteers, local moth groups, Biological Record Centres, County Wildlife Trusts, RSPB, MOD, LBAPs
2. Establish regular monitoring at sites where the species occurs.	Ongoing	BC volunteers, local moth groups, RSPB, MOD, LBAPs
3. Liaise with landowners and site-managers about the presence of the moth and the importance of beneficial management for its conservation.	Ongoing	BC volunteers, local moth groups, EN, FWAG, MOD, Biological Record Centres, County Wildlife Trusts
4. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.4.11 (2053) Speckled Footman *Coscinia cribraria bivittata* (South)

UK Red Data Book Category 1 (Endangered)

UK Biodiversity Action Plan: Priority Species

Distribution and status - In the UK, the Speckled Footman is confined to a few heaths in Dorset and possibly Hampshire. This species declined greatly in the early part of the twentieth century and no confirmed breeding localities are currently known. Recent records of probable resident moths are confined to a few heathland sites in the Wareham area of south-east Dorset. It may still occur in the New Forest, Hampshire, although a search in 1994 proved negative.

Known colonies: Dorset 1+?; Hampshire 0?, Isle of Wight 0, Wiltshire 0.

Habitat - This is a species associated with humid heathland. It is single-brooded, flying in July and August. The adult moth flies at dusk, but may be disturbed from the heath in the daytime. The foodplant in the wild appears to be largely unknown although various grasses, particularly Tufted Hair Grass *Deschampsia cespitosa*, have been proposed. In captivity the larvae will feed on dandelion *Taraxacum officinale* agg. and a variety of other low-growing herbaceous plants. It overwinters as a small larva and in captivity some larvae have overwintered twice.

Threats - Not unknown. Fires occasionally ravage the heaths but are not thought to be sufficient explanation for the decline. Large-scale development resulting in habitat destruction and fragmentation has removed much potentially suitable habitat.

Survey - Survey work initiated by P.H. Sterling and P. Davey is undertaken annually in Dorset as part of English Nature's Pre-Recovery Programme and the UK Biodiversity Action Plan. A former New Forest locality was visited during a BENHS field meeting in 1994. In 2000, EN/Wessex Water survey work and autoecological studies continued in Dorset.

Monitoring - Until a confirmed breeding site is identified, no specific monitoring for the species can take place in the region.

Management - Not known. In the absence of detailed ecological knowledge, management should aim to ensure that no further areas of heathland are lost to forestry or development.

ACTIONS AND TARGETS:

TARGET 1: Define in more detail the status and distribution of the Speckled Footman in the region.

TARGET 2: Maintain all known populations.

ACTIONS:

Action	BC Targets	Possible Partners
1. Undertake surveys at the former New Forest localities in order to determine if the Speckled Footman is still present.	2005	BC volunteers, local moth groups, EN, FC, LBAPs
2. Identify a locality at which the species is breeding in order to establish the precise autoecological requirements of the species.	Ongoing	BC volunteers, local moth groups, DERC, FC EN, Wessex Water
3. Undertake trials to assess the impact of particular types of heathland management for this species.	2010	BC volunteers, local moth groups, EN, FC
4. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.4.12 (2108) Lunar Yellow Underwing *Noctua orbona* (Hufnagel)

Nationally Scarce - Notable B (Nb)

UK Biodiversity Action Plan: Priority Species

Distribution and status - The Lunar Yellow Underwing was once widespread in Britain, but has been steadily declining such that since 1980 most records have been from the Brecklands of East Anglia. There are post-1980 records from about 40 10km squares. Outside Breckland these are mainly from sandy sites (Lincolnshire, north Wales, north Northumberland and Fife), mudstone sites (Somerset and Leicestershire), clay sites (Essex), and calcareous sites (Dorset, south Wiltshire, north Hampshire, Bedfordshire, Pembrokeshire). (UK Biodiversity Action Plan, 1999)

Known colonies - Dorset 1, Hampshire 2, Isle of Wight 0, Wiltshire 4+.

Habitat - The Lunar Yellow Underwing is a scarce moth which is now mainly associated with open, sandy, heathy or calcareous sites and open grassy areas within woodland. Most former sites were in open woodland. The larvae feed on a range of grasses and small herbaceous plants, including Cock's-foot *Dactylis glomerata*, Common Couch *Elymus repens*, Reed Canary-grass *Phalaris arundinacea*, Meadow Buttercup *Ranunculus acris*, Creeping Cinquefoil *Potentilla reptans*, Cowslip *Primula veris* and Common Chickweed *Stellaria media*. They feed mainly at night in mild weather throughout the winter, but in humid conditions can be swept by day from grass stems. Pupation occurs below ground in a flimsy cocoon. The adults are nocturnal, coming to light in late June to September and are occasionally seen at flowers of Heather *Calluna vulgaris*. (UK Biodiversity Action Plan, 1999)

Threats - Not known.

Survey - Survey work in 2000 included a BENHS field meeting in Bentley Wood, a Wiltshire BC survey of Middleton Down and a preliminary visit to Porton Down to assess status.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - Not known. Conserving open spaces where the species still occurs, and avoiding scrub encroachment and dominance by rank grasses are probably all crucial to successful management for the species (Waring, in prep.)

ACTIONS AND TARGETS:

TARGET 1: Maintain population size of Lunar Yellow Underwing at all known sites.

ACTIONS:

Action	BC Targets	Possible Partners
1. Identify potentially suitable sites and undertake surveys for the species.	2005	BC volunteers, BENHS, local moth groups, Biological Record Centres, MOD, LBAPs
2. Liaise with land-owners and site-managers about the presence of the moth. Encourage beneficial management for its conservation when known.	Ongoing	BC volunteers, local moth groups, EN, FWAG, Biological Record Centres, County Wildlife Trusts
3. Initiate autoecological studies to inform management	2005	BC volunteers, local moth groups, County Wildlife Trusts, LBAPs
4. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan	Ongoing	BC volunteers, local moth groups

3.4.13 (2131) Square-spotted Clay *Xestia rhomboidea* (Esper)

Nationally Scarce - Notable B (Nb)

UK Biodiversity Action Plan: Priority Species

Distribution and status - In Britain the Square-spotted Clay is a widespread but local species, extending throughout England, into western Wales, and north to the Southern Uplands and as far north as Morayshire. Since 1980 the main areas for this moth have been the Chiltern beechwoods of Oxfordshire, Buckinghamshire and Berkshire, and acidic-, thin-soiled areas around Guildford and Reading, the Brecklands of Norfolk and Suffolk, and the North Yorkshire Moors. Although the species has been recorded from widely scattered locations throughout its former range, it has been lost from the west of England, including Hampshire, Dorset, Devon and Cornwall. The moth is not hard to find and the decline is thought to be real. (UK Biodiversity Action Plan, 1999)

Known colonies - Dorset 0, Hampshire 0, Isle of Wight 0, Wiltshire 0.

Habitat - The Square-spotted Clay occurs in broadleaved and mixed woodland where the undergrowth is sparse and contains patches of scrub and bare ground. The larval foodplant is unclear but several species have been suggested, usually after captive rearing, including Common Chickweed *Stellaria media*, Dock *Rumex* spp., willows (eg *Salix caprea*), Primrose *Primula vulgaris*, Birch *Betula* spp., bramble *Rubus fruticosus* agg., and Ribwort Plantain *Plantago lanceolata*. The moth overwinters as a small larva. When fully grown, the larva burrows into the earth where it remains for several weeks before pupating. The nocturnal adults fly in August and have been recorded visiting the flowers of Burdock *Arctium* spp., Rosebay Willowherb *Epilobium angustifolium*, Wood Sage *Teucrium scorodonia* and ragwort *Senecio* spp.

Threats - Threats are difficult to assess in view of the scant knowledge of the ecological requirements of this species. In woodland the decline may be due to the cessation of coppicing and neglect of broad-leaved woodlands generally and the consequent loss of open areas with sparse undergrowth.

Survey - No specific surveys have been undertaken for this species in the region.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - Not fully understood. Traditional coppice management of woodlands is likely to be beneficial.

ACTIONS AND TARGETS:

TARGET 1: Determine whether the Square-spotted Clay is still present within the region.

TARGET 2: If re-discovered, maintain all populations.

ACTIONS:

Action	BC Targets	Possible Partners
1. Identify potentially suitable sites and undertake surveys for the species.	2005	BC volunteers, local moth groups, Biological Record Centres, MOD
2. If re-found, investigate the possibility of creating suitable habitat in woodland adjacent to known colonies using WIG schemes etc.	2006	FC
3. If re-found, liaise with landowners and managers about the presence of the moth. Encourage beneficial management for its conservation, when known.	2005	BC volunteers, local moth groups, EN, FWAG, Biological Record Centres, County Wildlife Trusts
4. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.4.14 (2148) Pale Shining Brown *Polia bombycina* (Hufnagel)

Nationally Scarce - Notable B (Nb)

UK Biodiversity Action Plan: Priority Species

Distribution and status - In the UK, the Pale Shining Brown formerly occurred widely in England, mainly south of a line between the Severn and the Humber, but it has declined substantially with records from about twenty scattered sites since 1980, only a few of which have strong colonies. (UK Biodiversity Action Plan, 1999)

Known colonies - Dorset 0, Hampshire 1, Isle of Wight 0, Wiltshire 3-4.

Habitat - The main habitat of this moth is scrubby grassland on light calcareous soils. The larval foodplant in the wild is unknown, but it has been reared in captivity on various herbaceous plants and may eat buds of low woody growth in spring.

Threats - Cause(s) of the sharp decline in status and distribution are not fully understood. Waring (in prep.) considers that climatic factors may play a significant role.

Survey - In 2000 there was a preliminary visit to Porton Down to assess status.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - Not known

ACTIONS AND TARGETS:

TARGET 1: Maintain population size at all known sites.

TARGET 2: Enhance the population size at all known sites by 2010.

ACTIONS:

Action	BC Targets	Possible Partners
1. Identify potentially suitable sites and undertake surveys for the species.	2005	BC volunteers, LBAPs local moth groups, Biological Record Centres,
2. Liaise with landowners and managers about the presence of the moth. Encourage beneficial management for its conservation, when known.	Ongoing	BC volunteers local moth groups, EN, FWAG, MOD, County Wildlife Trusts
3. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.4.15 (2153) Bordered Gothic *Heliophobus reticulata marginosa* (Goeze)

Nationally Scarce - Notable A (Na)

UK Biodiversity Action Plan: Priority Species

Distribution and status - This moth was widely distributed, but always local, in England and Wales from Yorkshire southwards, but its range has declined substantially since the 1960s. It is now reported mainly from Portland (Dorset), from Breckland, East Anglia (where it has become scarce in the last decade), and from south Wales. (UK Biodiversity Action Plan, 1999). In Dorset, the moth is considered to be in decline. It was not recorded at Portland during 1999 for the first time in many years.

Known colonies - Dorset 1, Hampshire 1?, Isle of Wight 0, Wiltshire 0.

Habitat - The Bordered Gothic is associated with open, mainly calcareous, grassland sites, but the larval ecology in the wild is unknown. The seedpods of *Silene* spp., such as Bladder Campion *S. vulgaris*, and possibly Soapwort *Saponaria officinalis*, are suggested based on observations in captivity. (UK Biodiversity Action Plan, 1999)

Threats - Not fully understood. Agricultural improvement and inappropriate management of calcareous grasslands, may account for some of the losses. Waring (in prep.) considers that climatic factors may also be involved.

Survey - In 2000 EN-funded autoecological studies were initiated in Dorset, and Wiltshire BC surveyed Smallbrook Meadows.

Monitoring - The Portland site is regularly visited, but otherwise there is no specific monitoring for this species in the region.

Management - Not known.

ACTIONS AND TARGETS:

TARGET 1: Maintain the population size at all known sites.

TARGET 2: Enhance the population size at all known sites.

ACTIONS:

Action	BC Targets	Possible Partners
1. Undertake a comprehensive survey of the status and distribution of the Bordered Gothic in the Portland area.	2005	BC volunteers, local moth groups, Biological Record Centres
2. Initiate autoecological studies to inform habitat management.	2007	BC volunteers, EN, local moth groups
3. Liaise with landowners/managers about the presence of the moth. Encourage beneficial management for its conservation when known.	Ongoing	BC volunteers, local moth groups, EN, DERC, County Wildlife Trusts
4. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers local moth groups

3.4.16 (2172) White Spot *Hadena albimacula* (Borkhausen)

UK Red Data Book Category 2 (Vulnerable)

UK Biodiversity Action Plan: Priority Species

Distribution and status - Single populations of the White Spot are known at Dungeness (Kent), near Gosport (Hampshire) and at one site on the south coast of Devon. In 1996, the species was additionally found to be breeding along calcareous cliffs in Dorset. There have been occasional records of the White Spot from the Isle of Wight over the years and it seems probable that there may be an as yet undetected population occurring somewhere along the southern cliffs.

Known colonies - Dorset c.3+, Hampshire 1, Isle of Wight 0?, Wiltshire 0.

Habitat - The White Spot is a moth of vegetated shingle or calcareous cliffs. The larvae feed on the seed capsules of Nottingham Catchfly *Silene nutans*. (UK Biodiversity Action Plan, 1999)

Threats - There appears to be no major threat to the single south Hampshire coastal site and the larval foodplant, Nottingham Catchfly (*Silene nutans*) appears to be doing well. Sale leading to development of the MOD land on which it occurs is a potential threat, as is accidental damage during training exercises. There are currently no apparent threats to the Dorset cliff-top colonies.

Survey - In 2000 there was a National Trust survey of Isle of Wight coastal grasslands. The Dorset moth group has surveyed coastal grassland sites in Dorset.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - Largely unknown, but maintaining strong populations of the larval foodplant Nottingham Catchfly (*Silene nutans*) is obviously crucial. Both the vegetated shingle and calcareous cliff populations are largely self-managing.

ACTIONS AND TARGETS:

TARGET 1: Collate data on the distribution of Nottingham Catchfly (*Silene nutans*) along the Dorset, Hampshire & Isle of Wight coasts, and survey all sites to establish the precise distribution of the White Spot moth.

ACTIONS:

Action	BC Targets	Possible Partners
1. Initiate annual monitoring at Browdown, Hampshire.	2003	BC volunteers, MOD, LBAPs
2. Survey suitable areas along the south coast of the Isle of Wight.	2005	BC volunteers, local moth groups, Biological Record Centres, IWC, NT
3. Survey suitable areas in the Portsmouth area to determine if the moth is present.	2004	BC volunteers, local moth groups, local authorities
4. Continue to survey suitable calcareous cliffs in Dorset.	Ongoing	BC volunteers, Dorset moth groups, Biological Record Centres, NT, MOD, DERC
5. Liaise with landowners and managers about the presence of the moth and the importance of beneficial management for its conservation.	Ongoing	BC volunteers, local moth groups, Biological Record Centres, EN, NT, MOD, County Wildlife Trusts
6. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.4.17 (2191) Double Line *Mythimna turca* (Linnaeus)

Nationally Scarce - Notable B (Nb)

UK Biodiversity Action Plan: Priority Species

Distribution and status - In the UK, the Double Line is now virtually confined to west Wales and south-west England, where it is chiefly associated with wet grasslands. It has been recorded from south-east England in open woodland, but it seems largely to have disappeared from this habitat. It is still locally recorded in the London area and from Berkshire (UK Biodiversity Action Plan, 1999). Formerly well-known from the New Forest, the most recent Hampshire record is of a singleton from Emer Bog, nr. Chandler's Ford in 1978 (Goater, 1992). The lack of recent records from Wiltshire, suggests that the Melbury Park area of west Dorset is the only place in the region where the species currently occurs.

Known colonies - Dorset 1, Hampshire 0, Isle of Wight 0, Wiltshire 0.

Habitat - This moth occurs in wet grasslands and in woodland clearings and rides. In south-west England, the Double Line is able to survive in exposed situations such as open moorland and coastal grassland. Little is known about its ecology, although the larvae feed at night on grasses such as Common Bent *Agrostis capillaris*, Creeping Soft-grass *Holcus mollis* and Cock's-foot *Dactylis glomerata*. (UK Biodiversity Action Plan, 1999)

Threats - Agricultural improvement of wet grasslands. Changes in woodland management resulting in shading out of woodland rides and glades. Over-grazing.

Survey - There has been a recent Dorset Moth Group survey in west Dorset, but other than this, there has been no specific survey work for this species in the region.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - Not known. Most surviving populations of this moth occur in lightly cattle grazed wet meadows.

ACTIONS AND TARGETS:

TARGET 1: Maintain population size at all known sites.

TARGET 2: Enhance the population size at all known sites.

ACTIONS:

Action	BC Targets	Possible Partners
1. Undertake a comprehensive survey in west Dorset to understand the status and distribution of the species.	2005	BC volunteers, local moth groups, Biological Record Centres
2. Liaise with landowners and managers about the presence of the Double Line moth and the importance of beneficial management for its conservation.	Ongoing	BC volunteers, local moth groups, EN, Biological Record Centres, County Wildlife Trusts
3. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.4.18 (2219) Striped Lychnis *Shargacucculia lychnitis* (Rambur)

Nationally Scarce - Notable A (Na)

UK Biodiversity Action Plan: Priority Species

Distribution and status - This moth was found in scattered sites in 23 10-km squares between 1980 and 1996, in the counties of Buckinghamshire, Oxfordshire, Berkshire, north Hampshire and West Sussex. Its range has declined greatly, and within the last 25 years or so it has been lost from half its range, including all of Wiltshire, Dorset, Surrey, East Anglia and Gloucestershire. (UK Biodiversity Action Plan, 1999). Hampshire is an important national stronghold for the species. It is well established on roadside verge habitat throughout much of the Chalk outcrop of central Hampshire, extending from the South Downs of West Sussex virtually to the border with Wiltshire.

Known colonies - Dorset 0, Hampshire 17+, Isle of Wight 0, Wiltshire 0.

Habitat - The larvae of the Striped Lychnis feed on the flowers of dark mullein *Verbascum nigrum* (which occurs on calcareous soils), and occasionally other *Verbascum* and *Scrophularia* species, preferring sunny open (but relatively sheltered) sites. Roadside verges are particularly important habitat for this species in the region. The moth also occurs on plants growing on unimproved calcareous grassland, set-a-side fields, field margins and gardens.

Threats - Inappropriately timed cutting of the larval foodplant on roadside verges and open grassland. Fly-tipping and insensitive dumping and storage of tarmac, gravel and other road materials. Grassing over and scrub invasion are potential threats at some sites.

Survey - As the larvae feed by day on flowering parts of the plant, they can easily be recorded. In recent years there has been some limited, but highly successful, survey work by BC volunteers in Hampshire. The Dorset Moth Group have also undertaken survey work.

Monitoring - There is currently no specific monitoring for the species within the region.

Management - Ground disturbance from mowing and other activities is essential for the establishment of new foodplants, but should be planned so that the whole colony is not affected in a given year. Cutting in late September or October is the preferred option, and where possible, mowing of verges should not take place between early June and the end of August. If this is impractical, because road safety requires the vegetation of the near edge to be kept low, ensure that an uncut strip is retained at the back of broad verges, rather than mowing right up to the hedge.

ACTIONS AND TARGETS:

TARGET 1: Maintain population size at all known sites.

TARGET 2: Enhance the population size at all known sites.

ACTIONS:

Action	BC Targets	Possible Partners
1. Continue with surveys of suitable roadside verges throughout the region.	Ongoing	BC volunteers, local moth groups, HCC, HWT, LBAPs
2. Liaise with landowners and managers about the presence of the moth and the importance of appropriate roadside management for its conservation.	2005	BC volunteers, local moth groups HCC, Highways Agency, EHDC
3. Initiate a regular programme of larval monitoring at a number of representative sites.	2003	BC volunteers, local moth groups, LBAPs
4. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.4.19 (2226) Beautiful Gothic *Leuchoclaena oditis* (Hübner)

UK Red Data Book Category 3 (Rare)

UK Biodiversity Action Plan: Species of Conservation Concern

Distribution and status - The Beautiful Gothic is confined to localised coastal areas of Cornwall, Dorset and the Isle of Wight. Although the number of Isle of Wight colonies is small, the moth is firmly established on south and west Wight, and the outlook appears good.

Known colonies - Dorset 2 (very large, ie Portland and St. Aldhelm's Head to Durlleston Head, and probably elsewhere between), Hampshire 0, Isle of Wight 4, Wiltshire 0.

Habitat - The species is associated with grassy slopes and cliffs by the sea. The larvae feed on various grasses from October to March.

Threats - Coastal development is always a potential threat for this species. Low threat to remaining colonies in Dorset, although a previous colony at Sandbanks, near Poole, was seemingly lost due to building development (Waring, in prep.). There are considered to be currently no threats to the Isle of Wight population, where it is considered locally common on southern cliffs.

Survey - No specific surveys have been undertaken for this species in the region.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - The effects of different intensities of grazing on this moth and the sward characteristics that it prefers are not sufficiently well known for precise recommendations but it is considered that intense grazing could be detrimental.

ACTIONS AND TARGETS:

TARGET 1: Maintain all known populations.

ACTIONS:

Action	BC Targets	Possible Partners
1. Undertake periodic monitoring in Dorset and the Isle of Wight.	2005	BC volunteers, local moth groups, IWNHAS, DERC
2. Liaise with landowners and managers about the presence of the moth and the importance of beneficial management for its conservation.	2005	BC volunteers, EN, NT, County Wildlife Trusts

3.4.20 (2257) Orange Upperwing *Jodia croceago* ([Denis & Schiffermüller])

UK Red Data Book Category 1 (Endangered)

UK Biodiversity Action Plan: Priority Species

Distribution and status - The Orange Upperwing has been recorded from central, southern and south-western England, with occasional records from Wales, but by about 1980 it was apparently restricted to Cornwall, Devon, Sussex, Shropshire and South Wales. The last definite record was from Sussex in 1984, although there is a recent unconfirmed record from Hampshire. (UK Biodiversity Action Plan, 1999)

Known colonies - Dorset 0, Hampshire 1?, Isle of Wight 0, Wiltshire 0.

Habitat - The Orange Upperwing is an open woodland or woodland edge species, the larvae feeding on the leaves of oaks *Quercus* spp. The moth is particularly associated with small or coppiced oak trees that retain their leaves over winter (the adult moths overwinter in withered leaves).

Threats - Threats to this species are presently unknown due to the poor knowledge of its ecological requirements. Some former sites have been lost due to felling of trees and in others the broadleaves have been largely replaced by conifers. The decline of oak woodland coppice management and inappropriate ride management are also likely to be significant factors.

Survey - A recent (2000) Wiltshire BC survey of potential Wiltshire sites, but other than this no specific surveys have been undertaken for this species elsewhere in the region.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - In the absence of detailed ecological knowledge, management should aim to maintain stands of mature broadleaved trees and ensure a continuity of age classes.

ACTIONS AND TARGETS:**TARGET 1: Determine true status in the region.****TARGET 2: If re-found, maintain all known populations.****ACTIONS:**

Action	BC Targets	Possible Partners
1. Identify suitable sites where the species has been recorded in the past that would benefit from introduction of active oak coppice management.	2004	BC volunteers, local moth groups, FC, Biological Record Centres, County Wildlife Trusts, LBAPs
2. Survey Harewood Forest (Hants) and Parkhurst Forest (IoW) and larger ancient semi-natural oak woodlands in Dorset to determine whether the species is present.	2004	BC volunteers, local moth groups, DERC, FC, LBAPs
3. If re-found, investigate the possibility of creating suitable habitat in woodland adjacent to known colonies using WIG schemes etc.	2005	FC
4. If re-found, liaise with landowners and managers about the presence of the moth and the importance of beneficial management for its conservation.	2005	BC volunteers, EN, HCC, County Wildlife Trusts
5. Offer assistance and actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.4.21 (2264a) Southern Chestnut *Agrochola haematidea* (Duponchel)

UK Red Data Book Category 2 (Vulnerable)

UK Biodiversity Action Plan: Species of Conservation Concern

Distribution and status - This moth was not discovered in Britain until 1990 and was only known from one site in West Sussex until 1996 when it was found to also occur in heaths in the north-west of the New Forest, Hampshire. In 1998, the species was additionally discovered to occur at Matley Heath (New Forest) and some of the east Dorset heaths. Additional survey work in 1999 also located the moth at two new localities in the extreme south of the New Forest. The New Forest can be considered to be the key area for the Southern Chestnut in the UK although, as the species was only discovered in the area in 1996, the precise distribution is not yet fully established. Initial impressions appear to indicate that it may be widespread on heathlands wherever suitable growths of the foodplants occur.

Known colonies - Dorset 1, Hampshire c.5+, Isle of Wight 4, Wiltshire 0.

Habitat - The Southern Chestnut is single-brooded, flying from early October to mid November, inhabiting dry acid heathland. The larvae feed from April to early July on the flowers of bell heather *Erica cinerea* and cross-leaved heath *Erica tetralix*, and in captivity on the flowers of other species of heather. In keeping with other closely related species it remains dormant for several weeks before pupating. It overwinters as an egg. (Skinner, 1998)

Threats - Loss of heathland to development or forestry. Succession to woodland (often from self-sown pine) on unmanaged heathland. Extensive unplanned heathland fires. Inappropriate grazing levels may potentially be a threat.

Survey - A limited amount of survey work has been undertaken for this species in the region.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - The effects of different intensities of grazing on this moth and the sward characteristics that it prefers are not sufficiently well known for precise recommendations. In the absence of detailed ecological knowledge, management should aim to maintain a mosaic of heathland successional stages and a continuity of age classes including mature and over-mature heathers.

ACTIONS AND TARGETS:

TARGET 1: Maintain all known breeding populations.

ACTIONS:

Action	BC Targets	Possible Partners
1. Undertake periodic monitoring in the New Forest and selected sites in Dorset and the Isle of Wight.	2005	BC volunteers, local moth groups, FC, EN, DERC
2. Liaise with landowners and managers about the presence of the moth and the importance of beneficial management for its conservation.	2005	BC volunteers, EN, County Wildlife Trusts, FC, NT

3.4.22 (2277) Scarce Merveille du Jour *Moma alpium* (Osbeck)

UK Red Data Book Category 3 (Rare)

UK Biodiversity Action Plan: Priority Species

Distribution and status - This moth is found only in semi-natural ancient woodland with mature oaks within 80 km of the south coast. Current strongholds are in Wiltshire, Hampshire and West Sussex, with colonies in East Sussex, Kent, Cornwall and Devon. Current population trends may be static, and there may be undiscovered populations in Devon and Cornwall (UK Biodiversity Species Action Plan, Species Statement, 1999). The sites in the New Forest oakwoods offer good prospects in the medium term.

Known colonies - Dorset 0, Hampshire c.7+, Isle of Wight 0, Wiltshire c.2.

Habitat - The Scarce Merveille du Jour is associated with large pedunculate and sessile oak trees (*Quercus robur* and *Q. petraea*). It is thought that the egg is laid and the larvae feed in the tree canopy. Emergence from the pupa may be delayed for several years, giving rise to apparent large fluctuations in population size. The ecology of this species is poorly known and the link with large oak trees not fully understood. (UK Biodiversity Action Plan, Species Statement, 1999)

Threats - Other than large-scale clearance of the trees on which it breeds, any threats to this species are presently unknown due to our poor knowledge of its ecology. Some former sites have been lost due to felling of trees and in others the broadleaves have been largely replaced by conifers (Waring, in press).

Survey - A limited amount of BENHS/BC survey work for this species has taken place in the New Forest.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - In the absence of detailed ecological knowledge, management should aim to maintain stands of mature broadleaved trees and ensure a continuity of age classes.

ACTIONS AND TARGETS:

TARGET 1: Maintain all known populations.

ACTIONS:

Action	BC Targets	Possible Partners
1. Conduct a comprehensive survey of known and potentially suitable sites in the New Forest.	2005	BC volunteers, local moth groups, FC, BENHS
2. Survey all other larger ancient semi-natural oak woodlands in the region to determine if the species is present.	2010	BC volunteers, local moth groups, DERC, HCC, HWT, BENHS, LBAPs
3. Establish regular monitoring at a key site where the species occurs.	Ongoing	BC volunteers, local moth groups, LBAPs
4. Initiate autoecological studies to inform management.	2005	BC volunteers, local moth groups, LBAPs, FC
5. Liaise with landowners and managers about the presence of the moth and the importance of beneficial management for its conservation.	2005	BC volunteers, local moth groups, LBAPs, FC, EN, County Wildlife Trusts, Biological Record Centres
6. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.4.23 (2315) Heart moth *Dicycla oo* (Linnaeus)

Distribution and status - The Heart Moth is now only reliably found at one site in Surrey, but it also survives at low density in north-west Kent, Berkshire and Northamptonshire. It has been lost from Buckinghamshire, Essex, Middlesex and Hertfordshire in recent decades. The moth is also known to survive at low density in parts of north-east Hampshire.

Known colonies - Dorset 0, Hampshire c.2-3, Isle of Wight 0, Wiltshire 0.

Habitat - The Heart moth is found in parkland and open woodland, where the larvae feed on the foliage of pedunculate oak *Quercus robur* and seem to prefer over-mature trees (UK Biodiversity Action Plan, Species Statement, 1999). The Heart Moth is noted for its greatly fluctuating populations. It comes to sugar before dusk, but does not usually come to light until after midnight, although any mature open wood or parkland oaks will be worth investigating. The ecology of the species remains poorly known.

Threats - Other than the felling of over-mature oak trees, the threats to this species are not fully understood.

Survey - Recent survey work in Wiltshire has included a survey of Savernake Forest, and a BENHS field meeting in Pamber Forest.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - In the absence of detailed ecological knowledge, management should aim to maintain stands of mature and over-mature broadleaved trees. Long-term management should aim to ensure a continuity of age classes.

ACTIONS AND TARGETS:**TARGET 1: Identify the true status of the Heart Moth in the region.****TARGET 2: Maintain at all known populations.****ACTIONS:**

Action	BC Targets	Possible Partners
1. Conduct a comprehensive survey of known and potentially suitable sites in the New Forest and in north Hampshire.	2005	BC volunteers, local moth groups, FC, HWT, BENHS, LBAPs
2. Survey Savernake Forest (Wiltshire) to determine if the moth is present.	2005	BC volunteers, local moth groups, FC, LBAPs
3. Survey all other larger ancient semi-natural oak woodlands to determine if the species is present.	2010	BC volunteers, FC, local moth groups, County Wildlife Trusts, BENHS, LBAPs
4. Establish regular monitoring at a key site where the species occurs.	Ongoing	BC volunteers, local moth groups, LBAPs
5. Liaise with landowners and managers about the presence of the moth and the importance of beneficial management for its conservation.	2006	BC volunteers, EN, FC, Biological Record Centres, County Wildlife Trusts
6. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.4.24 (2317) White-spotted Pinion *Cosmia diffinis* (Linnaeus)

Nationally Scarce - Notable A (Na)

UK Biodiversity Action Plan: Priority Species

Distribution and status - This species was widespread and well represented in central and southern England and parts of Wales until the 1970s, since when there has been a massive decline. Huntingdonshire is the only area where it is now reported frequently and in numbers. Occasional records elsewhere indicate that the moth survives at low density in a few other places within its former range (UK Biodiversity Action Plan, 1999). It may now be extinct in South-Central England, although a record from west Wiltshire in 1992 may be worth following up.

Known colonies - Dorset 0, Hampshire 0, Isle of Wight 0, Wiltshire 0?.

Habitat - The larvae feed on the foliage of English elm *Ulmus procera* and wych elm *Ulmus glabra*, possibly preferring the side shoots (epicormics) of mature trees growing on damp ground (UK Biodiversity Action Plan, 1999)

Threats - White-spotted Pinion is believed to have declined due to the death of mature elms as a result of Dutch Elm Disease.

Survey - No specific surveys have been undertaken for this species in the region.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - Conserve and protect all mature stands of English elm *Ulmus procera* and wych elm *Ulmus glabra*.

ACTIONS AND TARGETS:

TARGET 1: Determine whether the species is still present within the region.

TARGET 2: If re-found, maintain all populations.

ACTIONS:

Action	BC Targets	Possible Partners
1. Identify potentially suitable sites and undertake surveys for the species.	2005	BC volunteers, local moth groups, Woodland Trust
2. If re-found, liaise with landowners and managers about the presence of the moth and the importance of beneficial management for its conservation.	Ongoing	BC volunteers, FWAG, local moth groups, EN, County Wildlife Trusts
3. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.4.25 (2346) Morris's Wainscot *Photedes morrisii morrisii* (Dale)

UK Red Data Book Category 2 (Vulnerable)

UK Biodiversity Action Plan: Species of Conservation Concern

Distribution and status - The sub-species *P. morrisii morrisii* has only been recorded from the coast of Dorset and south Devon, and recently only from three sites in W. Dorset. This species is believed to be very local in continental Europe, and the UK population is believed to be of international importance.

Known colonies - Dorset 3, Hampshire 0, Isle of Wight 0, Wiltshire 0.

Habitat - Morris's Wainscot is associated with coastal grassy slopes and undercliffs. The species is single brooded with the adult moths flying from late June to mid July. The larvae feed in the stems of Tall Fescue *Festuca arundinacea*.

Threats - Some of the breeding grounds are prone to landslips and mud-slides. Both cliff erosion and the pressure of tourism were considered threats in Shirt (1987), but the dynamic nature of these sites is probably beneficial in the long-term in providing continuity of early successional habitat and microclimate (Waring, in press).

Survey - No detailed surveys have been undertaken for this species in the region.

Monitoring - There is no overall monitoring programme for this species in the region.

Management - The Charmouth locality (a proposed SSSI), is owned by the National Trust and is managed by the Dorset Trust for Nature Conservation. The current status of this internationally important moth should continue to be monitored and breeding sites should be conserved over as large an area as possible in view of the dynamics of the habitat, which is probably self-managing (Waring, in press).

ACTIONS AND TARGETS:

TARGET 1: Maintain all current breeding sites.

ACTIONS:

Action	BC Targets	Possible Partners
1. Establish regular monitoring at a key site where the species occurs.	Ongoing	BC volunteers, local moth groups, DERC
2. Conduct a comprehensive survey of known and potentially suitable sites along the Dorset coast.	2005	BC volunteers, DERC, local moth groups, NT
3. Liaise with landowners and managers about the presence of the moth and the importance of beneficial management for its conservation.	2005	BC volunteers, County Wildlife Trusts, NT, EN, DERC

3.4.26 (2376) Blair's Wainscot *Sedina buettneri* (Hering)

UK Red Data Book Category 1 (Endangered)

Distribution and status - Resident and suspected immigrant. The species was discovered in 1945 at Freshwater Marsh (IoW), and noted there annually in varying numbers until 1951 when the marsh was drained and the surface burnt. In 1996 a few specimens were taken in south-east Dorset, leading to the discovery of several resident populations (Skinner, 1998).

Known colonies - Dorset 8, Hampshire 0, Isle of Wight 0, Wiltshire 0.

Habitat - Blair's Wainscot is associated with fen areas in chalk river valleys. It is single-brooded, flying from late September to mid-October. The larvae feed from spring to August in the stems of lesser pond-sedge *Carex acutiformis*. It overwinters as an egg.

Threats - Drainage and improvement of fens. Scrub encroachment. Development.

Survey - Limited survey work has been undertaken for this species in the region.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - Not fully understood, but stop further draining of fens and lowering of water table.

ACTIONS AND TARGETS:

TARGET 1: Maintain and enhance all known breeding sites.

ACTIONS:

Action	BC Targets	Possible Partners
1. Establish regular monitoring at a key site where the species occurs.	Ongoing	BC volunteers, local moth groups, NT
2. Liaise with landowners and managers about the presence of the moth and the importance of beneficial management for its conservation.	2005	BC volunteers, EN, DERC, NT, County Wildlife Trusts

3.4.27 (2378) Brighton Wainscot *Oria musculosa* (Hübner)

Nationally Scarce - Notable A (Na)

UK Biodiversity Action Plan: Priority Species

Distribution and status - The first British specimens were taken near Brighton in the 1850's, but in the twentieth century it was the corn-growing areas of Wiltshire, north Hampshire and Berkshire that became the centre of this species' UK distribution. It has always been confined to central southern England, and since 1980 it has been reported from less than 25% of the 10-km squares with previous records (UK Biodiversity Action Plan, 1999). Salisbury Plain is probably the only area where the species now occurs.

Known colonies - Dorset 0, Hampshire 0, Isle of Wight 0, Wiltshire 1+ (Salisbury Plain)

Habitat - The moth is now primarily associated with cereal field margins. Its eggs, which overwinter, are laid on or near various grasses and cereals. The larvae feed between April and June on winter wheat, summer rye, oats or barley (UK Biodiversity Action Plan, 1999).

Threats - Changes in farming practices, including choice of crops and time of sowing. Use of pesticides.

Survey - In 2000 there was a BENHS field meeting at Tilshead to assess status.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - Not known.

ACTIONS AND TARGETS:

TARGET 1: Maintain the population size at all known sites.

ACTIONS:

Action	BC Targets	Possible Partners
1. Survey potentially suitable areas of habitat on Salisbury Plain, Wiltshire, to assess status and distribution.	2008	BC volunteers, local moth groups, Biological Record Centres, MOD, RSPB, BENHS, LBAPs, County Wildlife Trusts
2. Continue to survey possible sites for the moth in north Dorset.	2008	BC volunteers, local moth groups, DERC
3. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.4.28 (2393) Reddish Buff Moth *Acosmetia caliginosa* (Hübner)

UK Red Data Book Category 1 (Endangered)

UK Biodiversity Action: Priority Species

Wildlife and Countryside Act 1981, Schedule 5 Protected Species

Distribution and status - This moth has been recorded from several sites in Hampshire and on the Isle of Wight. In Hampshire it had been lost from the New Forest by the 1930s, and from the county as a whole in the 1960s. On the Isle of Wight three sites had been lost by 1980, another was lost in the 1980s, and now a single native population remains (UK Biodiversity Action Plan, 1999). The Reddish Buff is the subject of an English Nature Species Recovery Programme (since 1995), and captive larvae are being introduced and re-introduced to additional localities.

Known colonies - Dorset 0, Hampshire 1, Isle of Wight 3, Wiltshire 0.

Habitat - Larvae of the Reddish Buff moth feed solely on saw-wort *Serratula tinctoria*. Its preferred breeding habitat is open grassy, often heathy swards rich in saw-wort, but neither strongly acidic nor strongly alkaline. Most larvae have been found in sward heights 5-15cm.

Threats - Habitat fragmentation. Establishment of conifer plantations on open heathland. Scrub encroachment due to insufficient browsing, grazing and clearance.

Survey - Survey work is undertaken annually in Hampshire and the Isle of Wight as part of English Nature's Recovery Programme and the UK Biodiversity Action Plan.

Monitoring - All known sites are monitored annually.

Management - All known sites are currently managed for the species.

ACTIONS AND TARGETS:

TARGET 1: Maintain the sole natural population and any newly discovered or re-established populations.

ACTIONS:

Action	BC Targets	Possible Partners
1. Identify any unsurveyed potentially suitable areas of habitat and inform Species Recovery Programme.	2006	BC volunteers, IWC, local moth groups, HCC, County Wildlife Trusts
2. Offer assistance with surveys and regular monitoring programmes carried out as part of the Species Recovery Programme.	Ongoing	BC volunteers, local moth groups, HWT, IWC, IWNHAS

3.4.29 (2401) Marbled Clover *Heliothis viriplaca* (Hufnagel)

UK Red Data Book Category 3 (Rare)

UK Biodiversity Action Plan: Species of Conservation Concern

Distribution and status - As a long-term breeding resident the main area for this species is the Breckland of Norfolk and Suffolk. The species also breeds in Wiltshire, and at least intermittently in north Hampshire (no colonies known in 1995), and formerly and possibly still in Gloucestershire (no post-1980 records).

Known colonies - Dorset 0, Hampshire 0?, Isle of Wight 0, Wiltshire 2+?.

Habitat - The moth has occurred in a wide range of open habitats and in numbers in breckland, marginal farmland, chalk downland, clover and lucerne fields, shingle and sandy beaches. The larvae feed on the flowers and unripe seed-heads of various plants (Waring, in press).

Threats - Not fully understood. Losses of unimproved chalk downland to agricultural intensification. Habitat fragmentation and isolation.

Survey - No specific surveys have been undertaken for this species in the region.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - Requires further investigation. "Set-aside" and "conservation headlands" could provide important habitat for this moth.

ACTIONS AND TARGETS:

TARGET 1: Establish true status of the species in the region.

TARGET 2: Maintain any breeding populations.

ACTIONS:

Action	BC Targets	Possible Partners
1. Survey all possible sites in Wiltshire and Hampshire where breeding populations may occur.	Ongoing	BC volunteers, local moth groups, NT, LBAPs
2. If breeding populations are found, liaise with landowners and managers about the presence of the moth and the importance of beneficial management for its conservation.	2005	BC volunteers, EN, NT, MOD, Biological Record Centres, County Wildlife Trusts

3.4.30 (2402) Shoulder-striped Clover *Heliothis maritima warnecki* (Boursin)

UK Red Data Book Category 3 (Rare)

UK Biodiversity Action Plan: Species of Conservation Concern

Distribution and status - The Shoulder-striped Clover is a long-term resident of the heathlands of Dorset (Wareham and Studland Heaths), Hampshire (some of the New Forest heaths) and Surrey. The species has seemingly become scarce in the New Forest, Hampshire. Graham Collins (pers. comm. to D.Green) reports a recent decline in Surrey from seven known localities to just one. Studies are urgently required to investigate whether this apparent decline is genuine.

Known colonies - Dorset 2, Hampshire c.2?, Isle of Wight 0, Wiltshire 0.

Habitat - The Shoulder-striped Clover is associated with areas of damp heathland. It flies actively in late June and July in hot sunshine, visiting the flowers of bell heather and cross-leaved heath. The larvae feed during August and September on the flowers of heather and heaths *Calluna* and *Erica* spp., and sometimes the seedheads of bog-asphodel *Narthecium ossifragrum*. It overwinters as a pupa.

Threats - Major heath fires are the main threat. Destruction of heathland for other forms of land use, including roads and building work continue to reduce available habitat even though many sites are SSSIs (Waring, in press).

Survey - In 2000 there was an EN-funded Pre-Species Recovery Project survey in Dorset and the New Forest (Hampshire).

Monitoring - There is currently no specific monitoring for this species in the region.

Management - Requires further investigation. Probably a short heather sward with patches of bare ground are preferred to rank heather, but rotational burning should only be used as a last resort, and only when precise details of breeding sites are sufficiently known that they can be avoided in the early years of the rotation so that the moths have a chance to colonise new ground. Use of grazing and browsing animals for management is much more preferable, but a clearer idea of the precise breeding requirements and the extent to which the moth is confined to south-facing slopes is needed to direct management (Waring, in press).

ACTIONS AND TARGETS:**TARGET 1: Establish true status of Shoulder-striped Clover in the region.****TARGET 2: Maintain all known populations.****ACTIONS:**

Action	BC Targets	Possible Partners
1. Survey all possible sites in the New Forest and Dorset where breeding populations could occur.	Ongoing	BC volunteers, local moth groups, FC, EN
2. Establish whether the species is present on the heaths of north-east Hampshire.	2006	BC volunteers, local moth groups, EN, NT, MOD, HWT
3. Establish regular monitoring at a key site where the species occurs.	2005	BC volunteers, local moth groups, FC, EN
4. Liaise with landowners and managers about the presence of the moth and the importance of beneficial management for its conservation.	Ongoing	BC volunteers, local moth groups, EN, County Councils, County Wildlife Trusts, DERC

3.4.31 (2454) Light Crimson Underwing *Catocala promissa* ([Denis & Schiffermüller])

UK Red Data Book Category 3 (Rare)

UK Biodiversity Action Plan: Priority Species

Distribution and status - The Light Crimson Underwing is now confined to the New Forest and two large woodlands in south Wiltshire. Formerly there were populations northwards to Buckinghamshire and eastwards to Huntingdonshire and Sussex, some surviving into the 1950s or later (UK Biodiversity Action Plan, 1999)

Known colonies - Dorset 0, Hampshire 6-8, Isle of Wight 0, Wiltshire 1

Habitat - This is a species strictly associated with large areas of ancient mature oak woodland, the larvae feeding on the leaves of oaks *Quercus* spp.

Threats - The known threats are the felling of large stands of mature oaks and the fragmentation of large blocks of woodland by roads, grubbing and most commonly by replanting with species other than oak (Waring, in press). Long-term threats include lack of woodland regeneration in the New Forest to replace the current generation of old trees.

Survey - An increasing amount of survey work has taken place in the New Forest. In 2000 this comprised HWT-funded tree canopy studies at Roydon Woods, a BENHS & BC field meeting, and preliminary mark-recapture studies.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - Large stands (in excess of 10 Ha) of mature oaks with extensive canopy must be maintained for this species. The integrity of all existing large blocks of woodland in southern England should be preserved for this moth, where present, and for canopy dependent invertebrates and other wildlife generally. Mature high forest oak woodland should not be sacrificed, and wherever possible should be allowed to run to over-maturity, with natural regeneration. The existing breeding grounds and many former sites have SSSI status but this has not prevented many from being extensively replanted with species other than oak (Waring, in press). Long-term management should aim to ensure a continuity of age classes.

ACTIONS AND TARGETS:

TARGET 1: Maintain all known populations of Light Crimson Underwing.

ACTIONS:

Action	BC Targets	Possible Partners
1. Conduct a comprehensive survey of known and potentially suitable sites in the New Forest to determine its current status.	2010	BC volunteers, local moth groups, FC
2. Survey all other larger ancient semi-natural oak woodlands in the region, including Whiteparish Common (Wilts), Savernake Forest (Wilts), Harewood Forest (Hants), and Pamber Forest (Hants), to determine if the species is present.	2010	BC volunteers, local moth groups, FC, LBAPs, County Wildlife Trusts
3. Establish regular monitoring at a key site where the species occurs.	Ongoing	BC volunteers, local moth groups, FC
4. Liaise with landowners and managers about the presence of the moth and the importance of beneficial management for its conservation.	2005	BC volunteers, County Councils, County Wildlife Trusts, FC, EN
5. Continue survey of possible sites in east Dorset.	Ongoing	BC volunteers, local moth groups, DERC
6. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.4.32 (2455) Dark Crimson Underwing *Catocala sponsa* (Linnaeus)

UK Red Data Book Category 2 (Vulnerable)

UK Biodiversity Action Plan: Priority Species

Distribution and status - The Dark Crimson Underwing is confined as a breeding species to the New Forest (Hampshire). Formerly there were colonies in south Wiltshire (until at least 1949) and the London area (in the 19th Century). This species declined in the New Forest on the 1970s, but there was some resurgence in the mid 1980s and in 1995. Long-term fluctuations in the abundance of this species have been noted in the past (UK Biodiversity Action Plan, 1999). Occasional specimens reported from elsewhere in southern England are believed to be migrating or dispersing individuals.

Known colonies - Dorset 0, Hampshire 5, Isle of Wight 0, Wiltshire 0?

Habitat - This is a species strictly associated with large areas of ancient mature oak woodland, the larvae feeding on the leaves of oaks *Quercus* spp.

Threats - The known threats are the felling of large stands of mature oaks and the fragmentation of large blocks of woodland by roads, grubbing and most commonly by replanting with species other than oak (Waring, in press). Long-term threats include lack of woodland regeneration in the New Forest to replace the current generation of old trees.

Survey - A growing amount of recent survey work has been undertaken in the New Forest. A survey by sugaring in 1995 found the Dark Crimson Underwing to be widespread in suitable mature Oak (*Quercus* spp.) woods south of Lyndhurst. In 2000, survey work included HWT-funded tree canopy studies at Roydon Woods, a BENHS & BC field meeting, and preliminary mark-recapture studies.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - Large stands (in excess of 10 Ha) of mature oaks with extensive canopy must be maintained for this species. The integrity of all existing large blocks of woodland in southern England should be preserved for this moth, where present, and for canopy dependent invertebrates and other wildlife generally. Mature high forest oak woodland should not be sacrificed, and wherever possible should be allowed to run to over-maturity, with natural regeneration. The existing breeding grounds and many former sites have SSSI status but this has not prevented many from being extensively replanted with species other than oak (Waring, in press). Long-term management should aim to ensure a continuity of age classes.

ACTIONS AND TARGETS:

TARGET 1: Maintain all known populations of Dark Crimson Underwing.

ACTIONS:

Action	BC Targets	Possible Partners
1. Conduct a comprehensive survey of known and potentially suitable sites in the New Forest to establish current status.	2010	BC volunteers, local moth groups, FC
2. Survey all other larger ancient semi-natural oak woodlands in the region, including Whiteparish Common (Wilts), Savernake Forest (Wilts), to determine if the species is present.	2010	BC volunteers, local moth groups, FC, LBAPs, County Wildlife Trusts
3. Establish regular monitoring at a key site where the species occurs.	Ongoing	BC volunteers, local moth groups, FC
4. Liaise with landowners and managers about the presence of the moth and the importance of beneficial management for its conservation.	2005	BC volunteers, County Councils, County Wildlife Trusts, FC, EN
5. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.4.33 (2465) The Four-spotted *Tyta luctuosa* [Denis & Schiffermüller]

UK Red Data Book Category 3 (Rare)

UK Biodiversity Action Plan: Priority Species

Distribution and status - This moth was formerly widespread and fairly common in England south of a line from Norfolk to Somerset. There has been a massive decline since the 1930s and recently it has been reported from only eleven counties in southern England, chiefly on calcareous grassland or in the Breckland (UK Biodiversity Action Plan, 1999). With the exception of Portland, this largely diurnal species is all but lost from South-Central England.

Known colonies - Dorset 1, Hampshire 0, Isle of Wight 1?, Wiltshire 0.

Habitat - The Four-spotted is typically found on south-facing banks on well-drained soils with sparse vegetation and bare earth. It flies in sunshine, and also after dark, when it comes to light. The larvae feed on Field Bindweed *Convolvulus arvensis* and prefer the hottest, driest situations.

Threats - Loss of habitat due to agricultural intensification and development. Inappropriate grassland management. The effects on vegetation of deposition of atmospheric nitrates may be a current factor causing decline.

Survey - In 2000, EN-funded survey work and autoecological studies took place in Dorset, and the Dorset Moth Group surveyed potential sites.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - Maintain areas with the larval foodplant, Field Bindweed *Convolvulus arvensis* trailing amongst bare ground in warm/hot sunny habitat. The larvae prefer the hottest, driest situations (Waring, in prep.)

ACTIONS AND TARGETS:**TARGET 1: Establish whether the Four-spotted is still resident within areas of the region outside Portland.****TARGET 2: Maintain all known breeding populations.****ACTIONS:**

Action	BC Targets	Possible Partners
1. Conduct a comprehensive survey of known and potentially suitable sites within the region.	2005	BC volunteers, local moth groups, FC, LBAPs, Biological Record Centres, County Wildlife Trusts
2. Establish regular monitoring at Portland.	Ongoing	BC volunteers, local moth groups
3. Investigate possible Isle of Wight colony and establish true status on the island.	2004	BC volunteers, local moth groups, IWNHAS, IWC
4. Continue surveying for possible east Dorset sites.	Ongoing	BC volunteers, local moth groups
5. Liaise with landowners and managers about the presence of the moth and the importance of beneficial management for its conservation.	2005	BC volunteers, EN, County Councils, County Wildlife Trusts
6. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.4.34 (2480) Buttoned Snout *Hypena rostralis* (Linnaeus)

Nationally Scarce - Notable B (Nb)

UK Biodiversity Action Plan: Priority Species

Distribution and status - This moth was formerly widespread throughout southern Britain, north to Lincolnshire and south Wales. It has declined significantly and now occurs mainly in river valleys in south-east England, particularly the Thames basin, and on estuaries and other scattered sites around the coast of England (UK Biodiversity Action Plan, 1999).

Known colonies - Dorset 3, Hampshire 4, Isle of Wight 2, Wiltshire 2.

Habitat - Buttoned Snout larvae feed on Hop *Humulus lupulus*, particularly plants sprawling across the ground. The adults hibernate in man-made shelters, outbuildings, etc. and in caves (UK Biodiversity Action Plan, 1999).

Threats - Redevelopment of derelict urban sites. Waring (in prep.) considers that climatic factors may be a more significant influence on the present distribution.

Survey - In 2000, Dorset Moth Group undertook larval surveys in Dorset.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - In areas such as suburban gardens, railway lines, churchyards and allotments, growth of Hop (*Humulus lupulus*), should be encouraged, and not stripped out.

ACTIONS AND TARGETS:

TARGET 1: Maintain the population size at all known sites.

TARGET 2: Enhance the population size at all known sites by 2010.

ACTIONS:

Action	BC Targets	Possible Partners
1. Survey potentially suitable habitat in key areas to fully establish status and distribution.	2008	BC volunteers, moth groups, County Wildlife Trusts, District Councils, LBAPs
2. Promote the appreciation of this moth to householders and landowners in key areas. Stress the importance of beneficial management.	2005	BC volunteers, Biological Record Centres, County Wildlife Trusts, LBAPs
3. Increase available habitat at known localities and attempt to link up existing fragments of habitat.	2010	BC volunteers, County Wildlife Trusts, District Councils
4. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan	Ongoing	BC volunteers, local moth groups

3.4.35 (2482) White-line Snout *Schrankia taenialis* (Hübner)

Nationally Scarce - Notable B (Nb)

UK Biodiversity Action Plan: Priority Species

Distribution and status - Prior to 1980 this species was recorded locally in southern England from Cornwall to Kent, and as far north as Cambridgeshire in the east and Gloucestershire in the west, and from south Wales. Since 1980 the moth has been recorded at further sites in south Wales, but only from a scattering of about 30 sites throughout the rest of its former range. It is not known if this reflects a genuine decline or simply a lack of systematic recording of this obscure species (UK Biodiversity Action Plan, 1999).

Known colonies - Dorset 1, Hampshire 6, Isle of Wight 7, Wiltshire 1.

Habitat - The White-line Snout has been recorded from a wide range of habitats, including open moorland, conifer plantations, sunken lanes within shady, wet woodlands and shady calcareous woodlands. The larval foodplant is unknown, but several suggestions have been made, including the flowers of heathers, thyme, cow parsley *Anthriscus sylvestris* or hogweed *Heracleum sphondylium* depending on the habitat the species was recorded in. The adults fly in July and early August (flying at dusk and coming to light), but little is known about any stage of this moth (UK Biodiversity Action Plan, 1999). In South-Central England it has a preference for ancient damp woodland with abundant leaf litter.

Threats - Not known.

Survey - In 2000 Wiltshire BC surveyed Blackmoor Copse for this species, but apart from this there has been no targeted survey work for this species in the region.

Monitoring - There is currently no specific monitoring for this species in the region, although the species is likely to be monitored during the course of general moth recording.

Management - Not known.

ACTIONS AND TARGETS:**TARGET 1: Determine the true status of this species in the region.****TARGET 2: Maintain all known populations****ACTIONS:**

Action	BC Targets	Possible Partners
1. Survey potentially suitable areas of habitat in key areas to fully establish status and distribution.	2008	BC volunteers, local moth groups, Biological Record Centres, County Wildlife Trusts
2. Initiate autoecological studies to inform management.	2005	BC volunteers, local moth groups, LBAPs
3. Liaise with landowners and managers about the presence of the moth. Encourage beneficial management for its conservation when known.	2005	BC volunteers, EN, County Councils, County Wildlife Trusts
4. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.4.36 (2488) Common Fan-foot *Pechipogo strigilata* (Linnaeus)

Nationally Scarce - Notable A (Na)

UK Biodiversity Action Plan: Priority Species

Distribution and status - The Common Fan-foot formerly occurred throughout most of southern England and Wales, but it has declined greatly in recent decades, and now survives in only a small number of oakwoods on heavy clay soils in the Midlands and South-Central England (UK Biodiversity Action Plan, 1999).

Known colonies - Dorset 0, Hampshire 3, Isle of Wight 0, Wiltshire 2.

Habitat - The Common Fan-foot is a moth of broad-leaved woodland. The larvae begin development on fresh or wilting foliage of oak, *Quercus* spp., and probably other trees and shrubs. They later prefer withered and decaying leaves on the tree or on the ground (UK Biodiversity Action Plan, 1999).

Threats - Changes (or neglect) in management of broad-leaved (oak) woodland.
- Felling of broad-leaved woodland and replanting with conifers.

Survey - No specific surveys have been undertaken for this species in the region.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - Not fully understood. Waring (in prep.) suggests that the best form of management is probably that which recreates the features of rotationally managed coppiced woodlands. Waring (1998) notes that the species seems to avoid grassy rides, suggesting that leaf litter is vital to the life-cycle.

ACTIONS AND TARGETS:

TARGET 1: Determine the true status and distribution of this species in the region.

TARGET 2: Maintain all known populations.

ACTIONS:

Action	BC Targets	Possible Partners
1. Survey potentially suitable areas of habitat in key areas, to fully establish status and distribution.	2005	BC volunteers, local moth groups, LBAPs, Biological Record Centres, County Wildlife Trusts,
2. Liaise with landowners and managers about the presence of the moth. Encourage beneficial management for its conservation.	2005	BC volunteers, EN, FC, County Wildlife Trusts
3. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.4.37 (2495) Olive Crescent *Trisateles emortualis* ([Denis & Schiffermüller, 1775])

Nationally Scarce - Notable A (Na)

UK Biodiversity Action Plan: Priority Species

Distribution and status - The moth has been known as a resident in the UK from only a small wooded area of the Chilterns in Buckinghamshire, where it has declined in recent years, and from two woods near the coast in north Essex (UK Biodiversity Action Plan, 1999). There are a number of recent south coast records (including Hampshire). These probably represent migrants from continental Europe, but the possibility of undiscovered resident populations cannot be ruled out.

Known colonies - Dorset 0, Hampshire 1?, Isle of Wight 0, Wiltshire 0.

Habitat - The larvae of the Olive Crescent feed initially in bunches of withering leaves of oak *Quercus* spp. and beech *Fagus sylvatica* still attached to boughs, and later on recently fallen leaves on the ground (UK Biodiversity Action Plan, 1999).

Threats - Changes in management in broadleaved woodland. Replanting of broadleaved woodland with conifer plantations.

Survey - No specific surveys have been undertaken for this species in the region.

Monitoring - There is currently no specific monitoring for this species in the region.

Management - Not known.

ACTIONS AND TARGETS:

TARGET 1: Determine the true status of this species in the region.

TARGET 2: Maintain all known populations

ACTIONS:

Action	BC Targets	Possible Partners
1. Survey potentially suitable areas of habitat in coastal areas of south Hampshire.	2005	BC volunteers, local moth groups, HCC, local Councils
2. Survey potentially suitable beech woodlands in the Meon Valley (Hants).	2005	BC volunteers, local moth groups, EHDC
3. If found, liaise with landowners and managers about the presence of the moth and encourage beneficial management for its conservation.	2005	BC volunteers, EN, HCC, EHDC, FC, HWT
4. Offer assistance with actions carried out as part of the UK Biodiversity Action Plan.	Ongoing	BC volunteers, local moth groups

3.5 Medium Priority Macro-Moths (n = 96)

The table below lists all medium priority moths, and indicates the counties and "key areas" where they are still known to occur. All species are Nationally Scarce (Na or Nb) species (**Na in bold**). Note: Na = 15-30 10-km squares nationally post-1980; Nb = 31-100 10-km squares nationally post-1980. For full details of "key areas" within the region see Section 4.

Key to counties and key areas

D = Dorset; **H** = Hampshire; **I** = Isle of Wight; **W** = Wiltshire.

Numbers refer to key areas, as described in Section 4, and indicated on Maps 1-4.

(Map 1: Dorset pg.119; Map 2: Hants pg.136; Map 3: IoW pg. 152; Map 4 Wilts pg.158)

No.	Common name	Latin name	Distribution
162	Goat Moth	<i>Cossus cossus</i>	D (21,24,35); H (9,26,28,31)
163	Forester	<i>Adscita staites</i>	D (1,3,6,28,31); H (1,10,21); W (20)
164	Cistus Forester	<i>Adscita geryon</i>	D (3,12,14,25,26); H (1,18,20,21,25); W (20)
165	Scarce Forester	<i>Adscita globulariae</i>	H (1); W (10,11,20)
173	Festoon	<i>Apoda limacodes</i>	D (19,21,22,25,26,31); H (1,11,20,26,32); I (36,46); W (20)
370	Hornet moth	<i>Sesia apiformis</i>	H (21)
373	Currant Clearwing	<i>Synanthedon tipuliformis</i>	D (13); H (31)
374	Yellow-legged Clearwing	<i>Synanthedon vespiformis</i>	D (18,31); H (10,11,22,26); I (37,46); W
375	Whited-barred Clearwing	<i>Synanthedon spheciformis</i>	H (9)
377	Sallow Clearwing	<i>Synanthedon flaviventris</i>	D (18,21,22); H (21,32,34,35); W
378	Orange-tailed Clearwing	<i>Synanthedon andreaeformis</i>	D (1,6,8,9,13,15,23,31); H (1,15,18,20,21,25,34); W (20)
379	Red-belted Clearwing	<i>Synanthedon myopaeformis</i>	D (25); H (1,31); W (20)
380	Red-tipped Clearwing	<i>Synanthedon formicaeformis</i>	D (18,21); H , W
381	Large Red-belted Clearwing	<i>Synanthedon culiciformis</i>	D (5,18); H (9,11,20,26,29)
382	Six-belted Clearwing	<i>Bembecia scopigera</i>	D (2,35,36); H (9,15,21,33); W
1633	Small Eggar	<i>Eriogaster lanestris</i>	D (1,23,28,29,32); H (25); W
1636	Grass Eggar	<i>Lasiocampa trifolii</i>	D (23,24,26); H (31)

1656	Satin Lutestring	<i>Tetheella fluctuosa</i>	D ; H (9,12,14,15,19,20,28,32)
1662	Light Orange Underwing	<i>Archieris notha</i>	D ; H (8,20,22,26,32); W
1670	Small Grass Emerald	<i>Chlorissa viridata</i>	D (18,21,22,23,24); H (19,26); W
1676	Mocha	<i>Cyclophora annulata</i>	D (1,9,26,34); I (36,37,38,44); H (15,19,20,23,25,26,30,31,32,34,35) W
1687	Lace Border	<i>Scopula ornata</i>	H (?)
1691	Rosy Wave	<i>Scopula emutaria</i>	D (18,21,24); I (36,44); H (26,27,28,29,31)
1698	Purple-bordered Gold	<i>Idaea muricata</i>	D (18,21,23,24); H (26); W
1699	Least Carpet	<i>Idaea vulpinaria</i> <i>atrosignaria</i>	D (36); H (14,27,29); I (38,45); W (Swindon area)
1701	Dotted Border Wave	<i>Idaea sylvestraria</i>	D (18,21,22,23,24,25); H (26,27,31); I (36,46); W
1718	Oblique Striped	<i>Phibalapteryx virgata</i>	D ; H (1,31); I (44,45); W (20)
1721	Balsam Carpet	<i>Xanthorhoe biriviata</i>	H (21)
1735	Ruddy Carpet	<i>Catarhoe rubidata</i>	D (3,36); H (18,23,26,31); I (37,38,44)
1751	Devon Carpet	<i>Lampropteryx otregiata</i>	D (23); H (19,21,26); W (Redlynch)
1793	Cloaked Carpet	<i>Euphyia biangulata</i>	D (19,21,22); H (12,14,26,27,28); I (38,46); W
1814	Lead-coloured Pug	<i>Eupithecia plumbeolata</i>	D (5,19,29); H (8,15,26); W (Swindon area)
1818	Marbled Pug	<i>Eupithecia irriguata</i>	D (22,24,28,32); H (26,31); W
1820	Pinion-spotted Pug	<i>Eupithecia insigniata</i>	D (21); H (?); W
1821	Valerian Pug	<i>Eupithecia valerianata</i>	D (3,36); H (1,20,26); W
1833	Bleached Pug	<i>Eupithecia expallidata</i>	H (5,12,26,29,30,31); I (44,45)
1836	Campanula Pug	<i>Eupithecia denotata</i> <i>denotata</i>	H (19,20); W
1841	Yarrow Pug	<i>Eupithecia millefoliata</i>	H (30,31); I (44)
1843	Thyme Pug	<i>Eupithecia distinctaria</i> <i>constricta</i>	D (25,36); H (1,31); W (17,20)
1845	Pimpinell Pug	<i>Eupithecia pimpinellata</i>	H (1,18,21,33); W (10,11,12)
1861	Bilberry Pug	<i>Chloroclystis debiliata</i>	H (26)
1863	Dentated Pug	<i>Anticollix sparsata</i>	D (18,21); H (9,19,21,26); I (44); W (8)
1865	Broom-tip	<i>Chesias rufata</i>	H (26)

1872	Blomer's Rivulet	<i>Discoloxia blomeri</i>	H (26) <i>vagrant</i> ?
1877	Waved Carpet	<i>Hydrelia sylvata</i>	D (32)
1901	Little Thorn	<i>Cepphis advenaria</i>	D (4,19,20,22); I (36,37,38,44); H (8,14,15,26,27,28,29); W
1905	Horse Chestnut	<i>Pachycnemia hippocastanaria</i>	D (18,21,23,24); H (9,14,26,28); I (44); W (S.E. Wilts)
1911	Large Thorn	<i>Ennomos autumnaria</i>	H (30,31); W
1938	Bordered Grey	<i>Selidosema brunnearia scandinaviaria</i>	D (18,21,23); H (9,26,31); W
1939	Ringed Carpet	<i>Cleora c. cinctaria</i>	D (21,22,24); H (26)
1942	Dotted Carpet	<i>Alcis jubata</i>	D (33); W
1943	Great Oak Beauty	<i>Boarmia roboraria</i>	D (19); H (8,16,20,22,23,25,26); I (37,46); W
1959	Sloe Carpet	<i>Aleucis distinctata</i>	H (26)
1970	Grass Wave	<i>Perconia strigillaria</i>	D (18,24,28); H (9,26)
1983	Broad-bordered Bee Hawk	<i>Hemaris fuciformis</i>	D (18,21,22,23,24); H (9,14,22,23,26); W
1996	Alder Kitten	<i>Furcula bicuspis</i>	D (32,33); W
2013	Plumed Prominent	<i>Ptilophora plumigera</i>	D (3); H (21); W (SW Wilts)
2017	Small Chocolate-tip	<i>Clostera pigra</i>	D (18,23,24); H (26); W
2036	Dew Moth	<i>Setina irrorella</i>	H (27); I (45)
2039	Red-necked Footman	<i>Atolmis rubricollis</i>	D (3,19,21,22); H (19,23,26); I (37); W
2043	Orange Footman	<i>Eilema sororcula</i>	D (3,19); H (2,19,20,21,23,26,29,35); W
2045	Hoary Footman	<i>Eilema caniola</i>	D (36); I (44)
2062	Water Ermine	<i>Spilosoma urticae</i>	H (26)
2067	Jersey Tiger	<i>Euplagia quadripunctaria</i>	D (35,36); I (); W (Swindon area)
2075	Small Black Arches	<i>Meganola strigula</i>	D (19,31); H (8,22,26); I (38); W
2076	Kent Black Arches	<i>Meganola albula</i>	D (20,21,24,25,26,36); I (36,38,43,44,46); H (16,23,25,26,28,30,31,35); W
2080	Square-spot Dart	<i>Euxoa obelisca grisea</i>	D (21,25,26); W (7)
2084	Light Feathered Rustic	<i>Agrotis cinerea</i>	D (1,2,17,25); H (1,21); W (20)
2090	Crescent Dart	<i>Agrotis trux</i>	D (25,26,35,36); H (27); I (36,44,45,46)
2093	Sand Dart	<i>Agrotis ripae</i>	D (20,24); H (26,28,31); I (43)

2099	Portland Moth	<i>Actebia praecox</i>	D (24)
2140	White-marked	<i>Cerastis leucographa</i>	D (32); H (15,16); W
2149	Silvery Arches	<i>Polia hepatica</i>	H (9)
2152	White Colon	<i>Sideridis albicolon</i>	H (26,30,31)
2184	Northern Drab	<i>Orthosia opima</i>	D (1)
2200	Matthew's Wainscot	<i>Mythimna favicolor</i>	D (21,24); H (26,27,28,29,31); I (44)
2201	Shore Wainscot	<i>Mythimna litoralis</i>	D (20,24); H (27,28,30,31)
2202	L-album Wainscot	<i>Mythimna l-album</i>	D (24,25,26,36); H (26,27,28,29,31); I (44,45,46) <i>migrant ?</i>
2209	Flame Wainscot	<i>Senta flammea</i>	D (21,24)
2211	Wormwood	<i>Cucullia absinthii</i>	D (36); H (31)
2217	Star-wort	<i>Cucullia asteris</i>	H (23,26,27,29,31,33); I (45)
2230	Feathered Brindle	<i>Aporophyla australis pascuea</i>	D (26,36)
2242	Swordgrass	<i>Xylena exsoleta</i>	H (26) <i>migrant ?</i>
2260	Dotted Chestnut	<i>Conistra rubiginea</i>	D (19,21,22,25); H (9,13,26); W (Salisbury area)
2290	Reed Dagger	<i>Simyra albovenosa</i>	H (26)
2295	Marbled Green	<i>Cryphia muralis</i>	D (26); H (26,27,29,30,31); I (44,45)
2325	Crescent Striped	<i>Apamea oblonga</i>	D (21,24); H (26,28,29,31,32); I (36,44)
2349	Mere Wainscot	<i>Photedes fluxa</i>	D (22,28,32,34); H (30)
2373	Webb's Wainscot	<i>Archanara sparganii</i>	D (21,24); H (19,21,26,28,29,30); I (38,39,44); W
2375	Waved Black	<i>Parascotia fuliginaria</i>	H (8,9,26);
2396	Rosy Marbled	<i>Elaphria venustula</i>	D (18,21); H (12,16,19,20,23,26,32,35); I (44); W
2418	Cream-bordered Green Pea	<i>Earias clorana</i>	D (21,22,23,24,25,26); H (26,27,28,31); I (44,45)
2435	Scarce Burnished Brass	<i>Diachrysia chryson</i>	H (5,16,17,21,22,35)
2485	Marsh Oblique-barred	<i>Hypenodes humidialis</i>	D (18,19,20,21,22,24); H (9,26); W (SE Wilts)
2493	Dotted Fan-foot	<i>Macrochilo cribrumalis</i>	H (19)
2494	Clay Fan-foot	<i>Paracolax derivalis</i>	H (15,20,23); W (26)

4. KEY AREAS AND KEY SITES FOR BUTTERFLIES AND MOTHS

This section gives details of the key areas for Lepidoptera within the region. The maps (Maps 1-4) are separated on a county basis, but the key areas have been defined to straddle county boundaries as appropriate.

KEY AREAS are defined as those containing high concentrations of high and medium priority species and are listed in Section 4.1. The locations of each of the key areas are shown on Maps 1-4. To be consistent with the the **Natural Areas** defined by English Nature and the Countryside Commission, the **Key Areas are grouped by Natural Areas on a county by county basis**. A brief description of each Natural Area and Key Area is given, followed by details of **priority butterfly and moth species for each area**.

The summary statements for Key Areas list all medium and high priority butterfly species recorded or considered present in these key areas for the period 1995-1999. For macro-moths the information is less complete, but where known a list of all high and medium priority macro-moths recorded during the period 1980-1999 is given. If a species (butterfly or moth) has a question mark (?) against it, it means that the particular species is possibly/probably present.

As the landscape throughout most of the region became very fragmented during the twentieth century, it should be recognised that the key areas do not represent continuous areas of breeding habitat for priority butterfly and moth species, but rather they represent those areas with greatest Lepidoptera richness and diversity. These key areas should be the focus of conservation effort in order to retain this richness and diversity. It should be a primary objective to arrest any further fragmentation of these key areas, since ultimately site isolation tends to lead to extinctions with little or no chance of natural recolonisation. Where possible, attempts should be made to enhance and enlarge key habitat blocks within each of the key areas, and where feasible, attempt to consolidate and reconstruct linkage between isolated habitat fragments and key sites within each of the key areas. On the Dorset "Key Areas" map the county recorders prefer to distinguish between "Lepidoptera flight areas" and "Possible linkage areas/routes", and have shown these with different ornament on the map. This distinction was recognised when defining the "Key Areas" for other counties, but it was not considered essential to make the distinction on the maps.

KEY SITES that do not fall within defined key areas are listed in Section 4.2 and contain a variable number of high and medium priority species.

SENSITIVE INFORMATION

Because of site and/or species sensitivity, details relating to the following moth species are omitted from some or all of the "Key Area" and "Key Site" descriptions:

Reed Leopard, The Triangle, Barberry Carpet, Speckled Footman, White Spot, Southern Chestnut, White-spotted Pinion, Blair's Wainscot, Reddish Buff, Shoulder-striped Clover.

4.1 Key Areas

4.1.1 DORSET

Natural Area: Dorset Downs & Cranborne Chase (134)

- 1-2. Northern Chalk
 - (1) *North Dorset Downs*
 - (2) *Hambledon & Hod Hills*
3. Cranborne Chase Woods
4. Shaftesbury Estate Woods
5. Edmondsham Estate & neighbouring woods
6. Gussage Down, Ackling Dyke & Sovell Down
7. Blandford Camp
8. Badbury Rings
- 9-14. Central Chalk
 - (9) *Bulbarrow*
 - (10) *Lyscombe & Highdon & Hog Hill*
 - (12) *Cerne Abbas Downs*
 - (13) *Batcombe Hill*
 - (14) *Sydling Valley, Hogcliffe & Grimstone Downs*
- 15-17 West Chalk
 - (15) *South-East Dorset Downs*
 - (16) *Maiden Castle*
 - (17) *South-West Dorset Downs*

Natural Area: Dorset Heaths (135)

18. Heaths north of River Stour
19. Holt Forest
20. Avon and Mude valleys
21. Heaths between R.Stour & R. Frome
22. Oaker's Wood
23. Heaths south of River Frome
24. Purbeck Heathlands

Natural Area: South Purbeck (136)

25. Purbeck Ridge (Lulworth Cove to Ballard Down)
26. Purbeck Coast (White Nothe to Peverill Point)

Natural Area: Blackmoor Vale (133)

- 28-29 South Blackmoor Vale
 - (28) *Lydlinch, Rooksmoor, Deadmoor*
 - (29) *Longburton Common & Rywater Farm*
30. Duncliffe & Fifehead Woods
31. Piddleswood & Girdler's Coppice

Natural Area: Marshwood & Powerstock Vales (139)

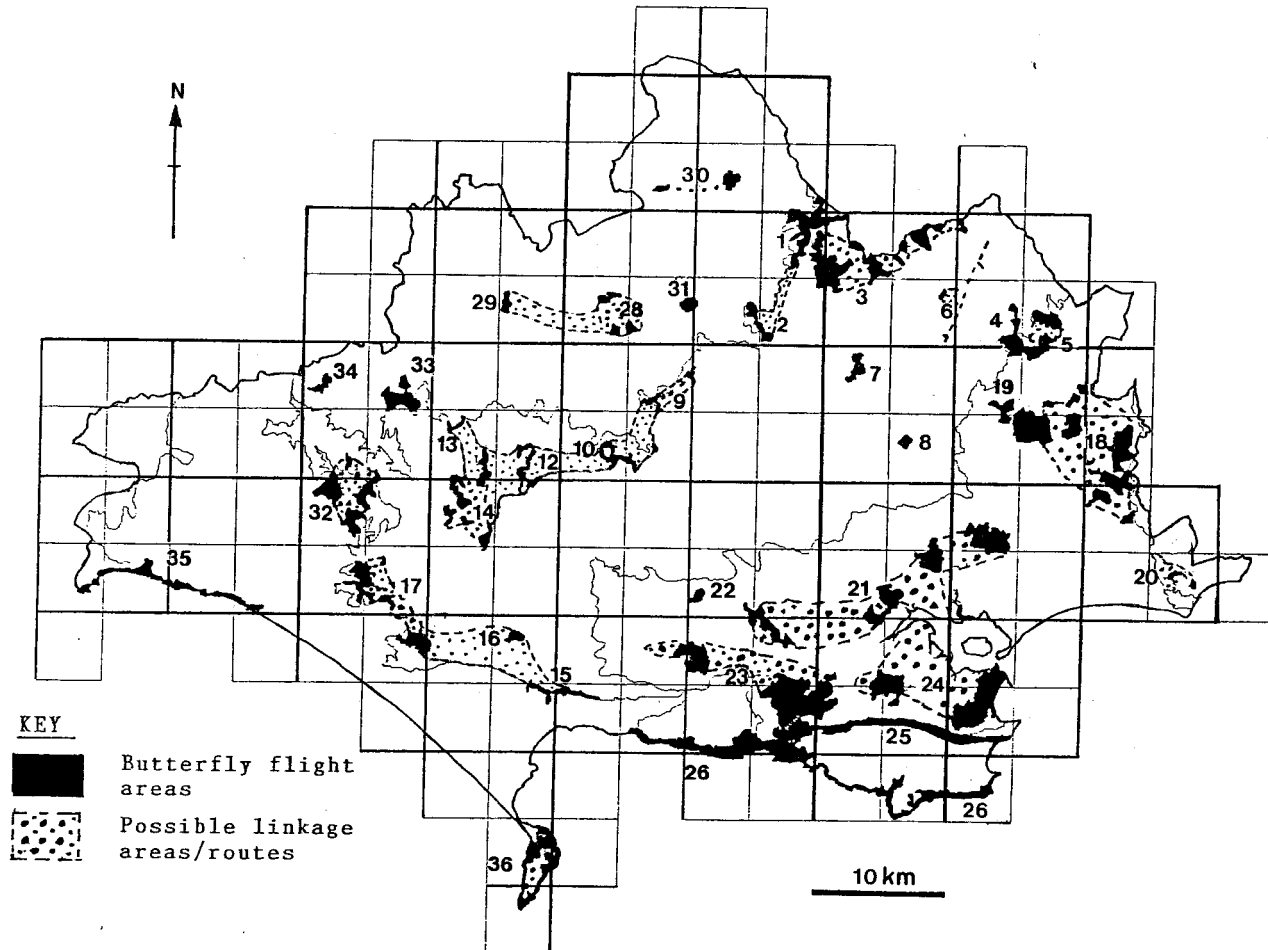
32. Powerstock, Kingcombe & Hooke Park
33. Melbury Park
34. Brackett's Coppice
35. West Dorset Coast

Natural Area: Isle of Portland (137)

36. Portland Coast & Quarries

Map 1: Locations of Key Areas for Lepidoptera within Dorset.

Boundaries between Natural Areas of Chalk, Heathland & Wessex Vales are shown.



Individual areas: DORSET

NATURAL AREA: DORSET DOWNS & CRANBORNE CHASE (134)

Dorset is dominated by this NE-SW trending central outcrop of Chalk. Unfortunately less than 3.5% of the area has avoided "improvement". This consists mostly of fragments along the steeper escarpments.

1-2. NORTHERN CHALK

(1) NORTH DORSET DOWNS

A string of high priority chalk downland sites located on the steep north, west and south-facing escarpments that have survived "improvements". Under the direction of English Nature, projects are on hand to improve site linkage by clearing secondary beech and conifer woodland and by introducing Countryside Stewardship schemes.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Silver-spotted Skipper (H)	Duke of Burgundy (H)
Marsh Fritillary (H)	Dingy Skipper (M)
Grizzled Skipper (H)	Chalkhill Blue (M)
Small Blue (H)	Wall (M)
Adonis Blue (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Chalk Carpet (H)	Mocha (M)
Forester (M)	Ruddy Carpet (M)
Orange-tailed Clearwing (M)	Light Feathered Rustic (M)
Small Eggar (M)	Northern Rustic (M)

(2) HAMBLEDON & HOD HILLS

The nucleus for this area of unimproved chalk downland is provided by the two prehistoric hill forts. Unfortunately they are isolated from other unimproved areas to the north-east and south-west by intensive agriculture and the R. Stour. Hambledon Hill was chosen by English Nature as the site for introduction of Silver-spotted Skipper from its only remaining Dorset location at Fontmell Down (Key Area 1).

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Silver-spotted Skipper (H)	Dingy Skipper (M)
Marsh Fritillary (H)	Chalkhill Blue (M)
Grizzled Skipper (H)	Wall (M)
Small Blue (H)	
Adonis Blue (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Chalk Carpet (H)	Six-belted Clearwing (M)
	Light Feathered Rustic (M)

3. CRANBORNE CHASE WOODS

Deciduous woodland patches, the relics of the once extensive hazel coppice with oak standards of the forest of Cranborne Chase, survive amongst modern plantations. The DBC and Forestry Commission project to conserve the Pearl-bordered Fritillary on its only surviving Dorset site is being used as the springboard by the Dorset Conservation Forum to promote coppicing, via the Dorset Coppice Group, and establish links between the woods.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Pearl-bordered Fritillary (H)	White Admiral (M)
Duke of Burgundy (H)	Dingy Skipper (M)
Grizzled Skipper (H)	White-letter Hairstreak (M)
	Chalkhill Blue (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Lunar Yellow Underwing (H)	Cistus Forester (M)
Chalk Carpet (H)	Ruddy Carpet (M)
Argent & Sable (H)	Valerian Pug (M)
Drab Looper (H)	Plumed Prominent (M)
Forester (M)	Red Necked Footman (M)

4. SHAFTESBURY ESTATE WOODS

Deciduous wood, parkland, scrub and small patches of unimproved grassland. Within the area is one of the biggest metapopulations of the Duke of Burgundy left in Dorset.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Duke of Burgundy (H)	White Admiral? (M)
Grizzled Skipper (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

5. EDMONDSHAM ESTATE & NEIGHBOURING WOODS

Surviving areas of deciduous wood among modern plantations situated at the junction of the Chalk with Reading Beds and London Clay. Although most of the rarer butterflies seem to have been lost, plans are ongoing for the creation of more rides and clearings. The area supports one of the few remaining sizeable White-letter Hairstreak colonies in the County.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Purple Emperor ? (H)	White Admiral (M)
	White-letter Hairstreak (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Large Red-belted Clearwing (M)	Lead-coloured Pug (M)
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6. GUSSAGE DOWN, ACKLING DYKE & SOVELL DOWN

Tiny fragments of the once extensive tracts of unimproved chalk grassland that covered parts of Cranborne Chase. The only way of halting the rapid decline of the higher priority species on these isolated sites would be to link them via areas of Countryside Stewardship, and improved management of the Ackling Dyke routeway.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Adonis Blue (H)	Chalkhill Blue (M)
Small Blue (H)	Dingy Skipper (M)
Grizzled Skipper (H)	Wall ? (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Orange-tailed Clearwing (M)
Forester (M)

7. BLANDFORD CAMP

An area of grassland, woodland and scrub, containing isolated fragments of unimproved calcareous grassland. It is one of the few sites surviving in the midst of the intensively farmed eastern side of Dorset's chalk outcrop. It has an unusually large concentration of Small Blue colonies.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Adonis Blue (H)	Chalkhill Blue (M)
Small Blue (H)	Dingy Skipper (M)
Grizzled Skipper (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

8. BADBURY RINGS

The prehistoric fort forms the nucleus of an area of unimproved calcareous grassland, scrub and some light woodland. This is one of the rare refuges for chalk downland species in the flatter eastern chalk block, where intensive farming methods have prevailed.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Adonis Blue (H)	Chalkhill Blue (M)
Grizzled Skipper (H)	Dingy Skipper (M)
	Wall ? (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

9-14. CENTRAL CHALK

(9) *BULBARROW*

A spasmodic line of unimproved chalk downland with scrub along the steep scarp from Rawlsbury Camp to Okeford Hill. Calcareous grassland species survive as very small populations.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Marsh Fritillary ? (H)	Chalkhill Blue (M)
Small Pearl-bordered Frit. (H)	Dingy Skipper (M)
Adonis Blue (H)	Wall ? (M)
Grizzled Skipper (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Orange-tailed Clearwing (M)	Mocha (M)
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(10) *LYSCOMBE & HIGHDON & HOG HILL*

Linear patches of unimproved chalk downland on the scarp slopes retain small colonies of key species. Unfortunately areas of improved grassland cut these off from Bulbarrow to the north-east and Cerne Downs to the south-west.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Marsh Fritillary (H)	Chalkhill Blue (M)
Adonis Blue (H)	Dingy Skipper (M)
Grizzled Skipper (H)	Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

[11. *WEATHERBY CASTLE*] - see "Sites" pg.168

Isolated prehistoric fort which against all the odds retains a relict population of chalk downland species.

(12) CERNE ABBAS DOWNS

Comparatively extensive scarp strips of unimproved chalk downland extending from Giant Hill to Black Hill and Bramble Bottom. Good colonies of calcareous species.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Marsh Fritillary (H)	Chalkhill Blue (M)
Duke of Burgundy (H)	Dingy Skipper (M)
Adonis Blue (H)	Wall (M)
Small Blue (H)	
Grizzled Skipper (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Cistus Forester (M)

(13) BATCOMBE HILL

Long linear remnant of unimproved chalk downland on the north-west facing scarp. One of the few substantial Duke of Burgundy colonies in Dorset.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Marsh Fritillary ? (H)	Chalkhill Blue (M)
Duke of Burgundy (H)	Dingy Skipper (M)
Grizzled Skipper (H)	Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Currant Clearwing (M)

(14) SYDLING VALLEY, HOGCLIFFE & GRIMSTONE DOWNS

Almost interlinking segments of unimproved chalk downland on both sides of the Sydling Water and A37. The area has retained a good range of calcareous species and a sizeable Marsh Fritillary colony.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Marsh Fritillary (H)	Chalkhill Blue (M)
Duke of Burgundy (H)	Dingy Skipper (M)
Adonis Blue (H)	Wall (M)
Small Blue (H)	
Grizzled Skipper (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Narrow-bordered Bee Hawk ? (H) Cistus Forester (M)

15-17 WEST CHALK

(15) SOUTH-EAST DORSET DOWNS

Line of almost interlinking unimproved calcareous grassland along the scarp from Bincombe via the White Horse Hill to Five Marys.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Lulworth Skipper (H)	Dingy Skipper (M)
Adonis Blue (H)	Chalkhill Blue (M)
Small Blue (H)	Wall (M)
Grizzled Skipper (H)	Grayling (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Orange-tailed Clearwing (M)

(16) MAIDEN CASTLE

The steep banks and deep ditches of this prehistoric fort have both ensured the survival of unimproved calcareous grassland and a good range of key chalk downland butterflies. Unfortunately it is effectively isolated from the downland to the west and east, and only very drastic planning can restore linkages.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

? Marsh Fritillary (H)	Dingy Skipper (M)
Adonis Blue (H)	Chalkhill Blue (M)
Small Blue (H)	Wall (M)
Grizzled Skipper (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

(17) SOUTH-WEST DORSET DOWNS

Very loosely linked stretches of unimproved chalk grassland on the scarp slopes from Eggardon Hill to the Valley of the Stones. This area still retains many key species of chalk downland butterflies.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Marsh Fritillary (H)	Dingy Skipper (M)
Adonis Blue (H)	Chalkhill Blue (M)
Small Blue (H)	Wall (M)
Grizzled Skipper (H)	

MACRO-MOTH H/M priority moth species 1980-99 (High Priority in bold):

Light Feathered Rustic (M)

NATURAL AREA: DORSET HEATHS (135)

Dorset's most famous landscape feature, overlying the Bagshot Beds, it once occupied the whole of south-east Dorset around Poole Harbour, and linked up with the lowland heath of the New Forest. Unfortunately, farming, afforestation and the Poole-Bournemouth conurbation have reduced it to just 15% of its former extent. Worse still, the surviving patches of unimproved heathland after abandoning their traditional grazing, burning and bracken cutting, have become isolated and lost their key species. In attempting to halt the habitat loss and restore afforested areas to heathland, Butterfly Conservation needs to work with the other interested parties under the umbrella of the Dorset Heathland forum.

18. HEATHS NORTH OF THE RIVER STOUR

Surviving blocks of unimproved heathland including Avon & Holt Heaths, Parley & Sopley Commons, and the West Moors RAOC depot. Links between them are only very tenuous.

In addition to several priority butterfly species, this collection of heaths still retain an exceptionally rich moth fauna.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Marsh Fritillary ? (H)	White Admiral (M)
Silver-studded Blue (H)	Grayling (M)
Grizzled Skipper (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Dingy Mocha (H)	Dotted Border Wave (M)
Sallow Clearwing (M)	Horse Chestnut (M)
Red-tipped Clearwing (M)	Bordered Grey (M)
Large Red-belted Clearwing (M)	Grass Wave (M)
Small Grass Emerald (M)	Broad-bordered Bee Hawk (M)
Rosy Wave (M)	Marsh Oblique-barred (M)
Small Chocolate-tip (M)	Rosy Marbled (M)
Yellow-legged Clearwing (M)	Dentated Pug (M)

19. HOLT FOREST

Mature oak and overgrown wood pasture remaining from the medieval forest. Although there have been no recent Purple Emperor records, the area still retains a rich moth fauna.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Purple Emperor (H) ??	White Admiral (M)
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MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

White-line Snout (H)	Red-necked Footman (M)
Festoon (M)	Small Black Arches (M)
Cloaked Carpet (M)	Dotted Chestnut (M)
Lead-coloured Pug (M)	
Little Thorn (M)	
Great Oak Beauty (M)	

22. OAKER'S WOOD

Deciduous coppiced woodland, famous from the late nineteenth century for its range of butterfly species. Unfortunately lack of appropriate management has resulted in the loss of most key species. It remains, however, of great importance for its moths.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

White Admiral (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Festoon (M)	Ringed Carpet (M)
Sallow Clearwing (M)	Broad-bordered Bee Hawk (M)
Small Grass Emerald (M)	Red-necked Footman (M)
Dotted Border Wave (M)	Dotted Chestnut (M)
Cloaked Carpet (M)	Mere Wainscot (M)
Marbled Pug (M)	Cream-bordered Green Pea (M)
Little Thorn (M)	Marsh Oblique-barred (M)

23. HEATHS SOUTH OF RIVER FROME

Blocks of surviving heathland including Winfrith, Tadnoll, Coombe & Povington & Warmwell Heaths. The links between these heaths range from tenuous to non-existent.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Marsh Fritillary (H)	White Admiral (M)
Small Pearl-bordered Frit. (H)	Grayling (M)
Silver-studded Blue (H)	Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Dingy Mocha (H)	Devon Carpet (M)
Orange-tailed Clearwing (M)	Horse Chestnut (M)
Small Eggar (M)	Bordered Grey (M)
Grass Eggar (M)	Broad-bordered Bee Hawk (M)
Purple-bordered Gold (M)	Small Chocolate Tip (M)
Dotted Border Wave (M)	Cream-bordered Green Pea (M)
Small Grass Emerald (M)	

24. PURBECK HEATHLANDS

Blocks of heathland including Stoborough, Creech, Arne, Middlebere, Hartland Moor, Godlingston & Studland. Linkage between these various sites is hampered by considerable afforestation.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Silver-studded Blue (H)	White Admiral (M)
Small Pearl-bordered Frit. ? (H)	Grayling (M)
	Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Dingy Mocha (H)	Grass Wave (M)
Narrow-bordered Bee Hawk (H)	Small Chocolate Tip (M)
Goat Moth (M)	Kent Black Arches (M)
Grass Eggar (M)	Sand Dart (M)
Small Grass Emerald (M)	Portland Moth (M)
Rosy Wave (M)	Shore Wainscot (M)
Purple-bordered Gold (M)	L-album Wainscot (M)
Marbled Pug (M)	Flame Wainscot (M)
Horse Chestnut (M)	Cream-bordered Green Pea (M)
Ringed Carpet (M)	Marsh Oblique-barred (M)
Broad-bordered Bee Hawk (M)	Matthew's Wainscot (M)
Dotted Border Wave (M)	Webb's Wainscot (M)
	Crescent Striped (M)

NATURAL AREA: SOUTH PURBECK (136)

The Isle of Purbeck, south of the heathlands, has some of the finest unimproved calcareous (chalk and limestone) grassland in the county. It has also produced its own Biodiversity Action Plan, which should be the basic guideline for conservation of Lepidoptera within the area.

25. PURBECK RIDGE (LULWORTH COVE TO BALLARD DOWN)

This narrow east-west trending chalk ridge extends from Old Harry Rocks to Lulworth Cove. It supports a diverse range of high and medium priority butterfly and moth species. In some parts of the area, a shortage of grazing has led to a proliferation of gorse and scrub which poses a threat to those species dependent on short-turf conditions.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Lulworth Skipper (H)	Chalkhill Blue (M)
Adonis Blue (H)	Dingy Skipper (M)
Small Blue (H)	Wall (M)
Grizzled Skipper (H)	Grayling (M)
Small Pearl-bordered Frit. ? (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Chalk Carpet (H)	Kent Black Arches (M)
Cistus Forester (M)	Square-spot Dart (M)
Red-belted Clearwing (M)	Light Feathered Rustic (M)
Six-belted Clearwing (M)	Dotted Chestnut (M)
Dotted Border Wave (M)	Cream-bordered Green Pea (M)
Thyme Pug (M)	Crescent Dart (M)
Festoon (M)	L-album Wainscot (M)

26. PURBECK COAST (WHITE NOTHE TO PEVERILL POINT)

With limestone coastline from Durlleston Head to St. Aldhelm's Head, and chalk from Lulworth to Melcombe Regis, with only a short break from calcicolous landscape between, this area is exceptionally rich in coastal and calcareous grassland butterflies and moths.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Lulworth Skipper (H)	White-letter Hairstreak (M)
Adonis Blue (H)	Dingy Skipper (M)
Small Blue (H)	Chalkhill Blue (M)
Grizzled Skipper (H)	Wall (M)
	Grayling (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Portland Ribbon Wave (H)	Square-spot Dart (M)
Chalk Carpet (H)	Crescent Dart (M)
Beautiful Gothic (H)	White Colon (M)
Cistus Forester (M)	Matthew's Wainscot (M)
Festoon (M)	L-album Wainscot (M)
Grass Eggar (M)	Feathered Brindle (M)
Satin Lutestring (M)	Cream-bordered Green Pea (M)
Mocha (M)	Marbled Green (M)

[27. LANGTON WEST WOOD & WILDERNESS] - see "Sites" pg.168

One of the few remaining fragments of deciduous woodland in Purbeck, providing a last refuge for woodland species.

NATURAL AREA: BLACKMORE VALE (139)

This area, comprising the heavy Kimmeridge, Oxford and Gault Clays, once contained the Forests of Blackmore and Gillingham, and was characterised by species-rich meadows of neutral grassland supporting numerous dairy farms. Unfortunately the woodlands have dwindled to a handful of isolated remnants, and agricultural 'improvements' have made neutral grassland Dorset's most threatened habitat. English Nature and FWAG have set up the Blackmore Vale Habitat Restoration Project, and it is through their involvement with this scheme that Butterfly Conservation can hope to restore the fortunes of the Vale's butterflies and moths.

28-29 SOUTH BLACKMOOR VALE

(28) LYDLINCH, ROOKSMOOR & DEADMOOR

The area comprises three sites which retain unimproved neutral grassland, scrub and light woodland. Dorset's only Brown Hairstreak metapopulation occurs within this geographically restricted area. All three of the key sites have English Nature supervised management plans, and the whole area has been especially targeted by the Blackmore Vale Habitat Restoration Project.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Marsh Fritillary (H)	White-letter Hairstreak ? (M)
Small Pearl-bordered Frit. (H)	White Admiral (M)
Brown Hairstreak (H)	Dingy Skipper (M)
Grizzled Skipper (H)	Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Dingy Mocha (H)	Grass Wave (M)
Forester (M)	Mere Wainscot (M)
Small Eggar (M)	
Marbled Pug (M)	

(29) LONGBURTON COMMON & RYWATER FARM

The common has neutral/acid grassland and scrub, while to the south at Rywater, an experimental conservation area is devoted to restoring blackthorn hedgerows, flower meadows and coppice.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	White-letter Hairstreak (M)
Brown Hairstreak (H) -introd.	Dingy Skipper (M)
	White Admiral (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Small Eggar (M)

30. DUNCLIFFE & FIFEHEAD WOODS

Typical of the Blackmore Vale woods, which are losing species because of their small size and isolation. Perhaps such woods could be regenerated by restoring species-rich grassland around them, and by planning non-cultivated buffer strips along hedgerows to act as corridors between woodland sites.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

White Admiral (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

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31. PIDDLERWOOD & GIRDLER'S COPPICE

Deciduous woodland where coppicing with standards has been re-introduced, complete with charcoal burning. Pearl-bordered Fritillary was introduced in 1994.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Pearl-bordered Fritillary (H)

White-letter Hairstreak (M)

White Admiral (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Forester (M)

Orange-tailed Clearwing (M)

Festoon (M)

Lead-coloured Pug (M)

Yellow-legged Clearwing (M)

Small Black Arches (M)

NATURAL AREA: MARSHWOOD & POWERSTOCK VALES (139), YEOVIL SCARPLANDS (140)

An area referred to as the "Wessex Vales" in the DERC Biodiversity of Dorset report. It is characterised by deep valleys, meadows, species-rich hedgerows and small woods. Unfortunately much of the original neutral and acid grassland has been improved and as elsewhere in the County, areas of Lepidoptera value tend to be small and isolated.

32. POWERSTOCK, KINGCOMBE & HOOKE PARK

An area containing old wood pasture, species-rich grassland and an abandoned railway track. The area is now benefitting from the scrub-control, grazing in the meadows and gradual removal of some of the modern forest plantations. The area supports the only Wood White metapopulation to be found in Dorset (originating as an introduction). Indeed, with the exception of the population at the Devon border, this is the only remaining Wood White population in the South-Central England (ie Dorset, Wiltshire, Hampshire & Isle of Wight).

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Marsh Fritillary (H) Dingy Skipper (M)

Small Pearl-bordered Frit. (H) Wall (M)

Wood White (H)

Duke of Burgundy (H)

Grizzled Skipper (H)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Marbled Pug (M) Alder Kitten (M)

Waved Carpet (M) White Marked (M)

Mere Wainscot (M)

33. MELBURY PARK

This is the biggest surviving area of old Parkland in Dorset, and is of international importance. Although it has few priority butterflies it has some notable moths and other invertebrate interest.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Small Pearl-bordered Frit. ? (H) Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Double Line (H) Dotted Carpet (M)

Alder Kitten (M)

34. BRACKETT'S COPPICE

A deciduous wood with areas of coppice and old pasture, which despite being one of the sites used for Pearl-bordered Fritillary habitat research, has lost this species and the Wood White in recent years. The site is currently showing alarming declines in numbers of both the Small Pearl-bordered Fritillary and Marsh Fritillary.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Marsh Fritillary (H) Dingy Skipper (M)

Small Pearl-bordered Frit. (H) White Admiral (M)

Grizzled Skipper (H) Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Mocha (M)

Mere Wainscot (M)

35. WEST DORSET COAST

This area extends from Burton Bradstock to Lyme Regis, and although not as species-rich as the Purbeck Coast, the area nevertheless retains a diverse range of species that have been lost to agricultural change further inland. Notable habitats are the Undercliffs from Lyme Regis to Charmouth, the acid grasslands at Stonebarrow, and the cliffs at Burton Bradstock.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Small Pearl-bordered Frit. (H)	Grizzled Skipper (H)
Wood White (H)	Dingy Skipper (M)
Small Blue ? (H)	Wall (M)
Lulworth Skipper (H)	Grayling (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Morris's Wainscot (H)	Six-belted Clearwing (M)
Goat Moth (M)	Jersey Tiger (M)

NATURAL AREA: PORTLAND (137)

The disused limestone quarries support large quantities of foodplants such as Bird's-foot Trefoil, Kidney Vetch and Horse-shoe Vetch, and provide ideal habitat for many butterfly species. In addition to the usual range of calcicolous butterfly species, the area contains the only surviving Dorset metapopulation of Silver-studded Blue on limestone. In partnership with other conservation bodies, Dorset Branch of Butterfly Conservation has been working hard to counter the two main threats to the continuation of Portland's high status for endangered Lepidoptera, namely the creation of new quarries and the infilling of old ones.

36. PORTLAND COAST & QUARRIES

Surveys have located 11 sites on the coast and inland that have major concentrations of high and medium priority species. Two of these (Broadcroft Quarry & Perryfields) are now under lease to Butterfly Conservation. Recently, the Lulworth Skipper has been discovered at several sites.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Lulworth Skipper (H)	Dingy Skipper (M)
Silver-studded Blue (H)	Chalkhill Blue (M)
Adonis Blue (H)	Grayling (M)
Small Blue (H)	Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Portland Ribbon Wave (H)	Valerian Pug (M)
Chalk Carpet (H)	Thyme Pug (M)
Bordered Gothic (H)	Jersey Tiger (M)
Beautiful Gothic (H)	Kent Black Arches (M)
Four-spotted (H)	Crescent Dart (M)
Six-belted Clearwing (M)	L-album Wainscot (M)
Least Carpet (M)	Wormwood (M)
Ruddy Carpet (M)	Feathered Brindle (M)
Hoary Footman (M)	

4.1.2 HAMPSHIRE

Natural Area: Salisbury Plain & West Wiltshire Downs (132)

1. Porton Down
2. Cholderton
24. Dean Hill

Natural Area: Hampshire Downs (130)

3. Conholt
4. Bradley
5. Ladle Hill
6. Wootton
17. Bramdean Common
18. Winchester downlands
20. Farley Mount
21. Stockbridge
22. Harewood Forest

Natural Area: South Hampshire Lowlands (128)

19. Hursley Forest
23. Tytherley
34. Southwick
35. Botley Wood

Natural Area: South Coast Plain (126)

29. Southampton Water (east)
30. Gosport
31. Langstone & Hayling
33. Portsdown Hill

Natural Area: South Downs (125)

16. South Downs (Hants)
32. Rowland's Castle

Natural Area: Thames Basin Heaths (129)

7. Ashford Hill
8. Pamber Forest
9. Bramshill-Fleet
- 10-11 North Warnborough
(10) *Odiham Common*
(11) *Bartley Heath*

Natural Area: Wealden Greensand (120)

12. Alice Holt Forest
13. Grayshott-Hindhead
14. Woolmer Forest
15. East Hampshire Hangers

Natural Area: New Forest (131)

26. New Forest
27. Milford Coast

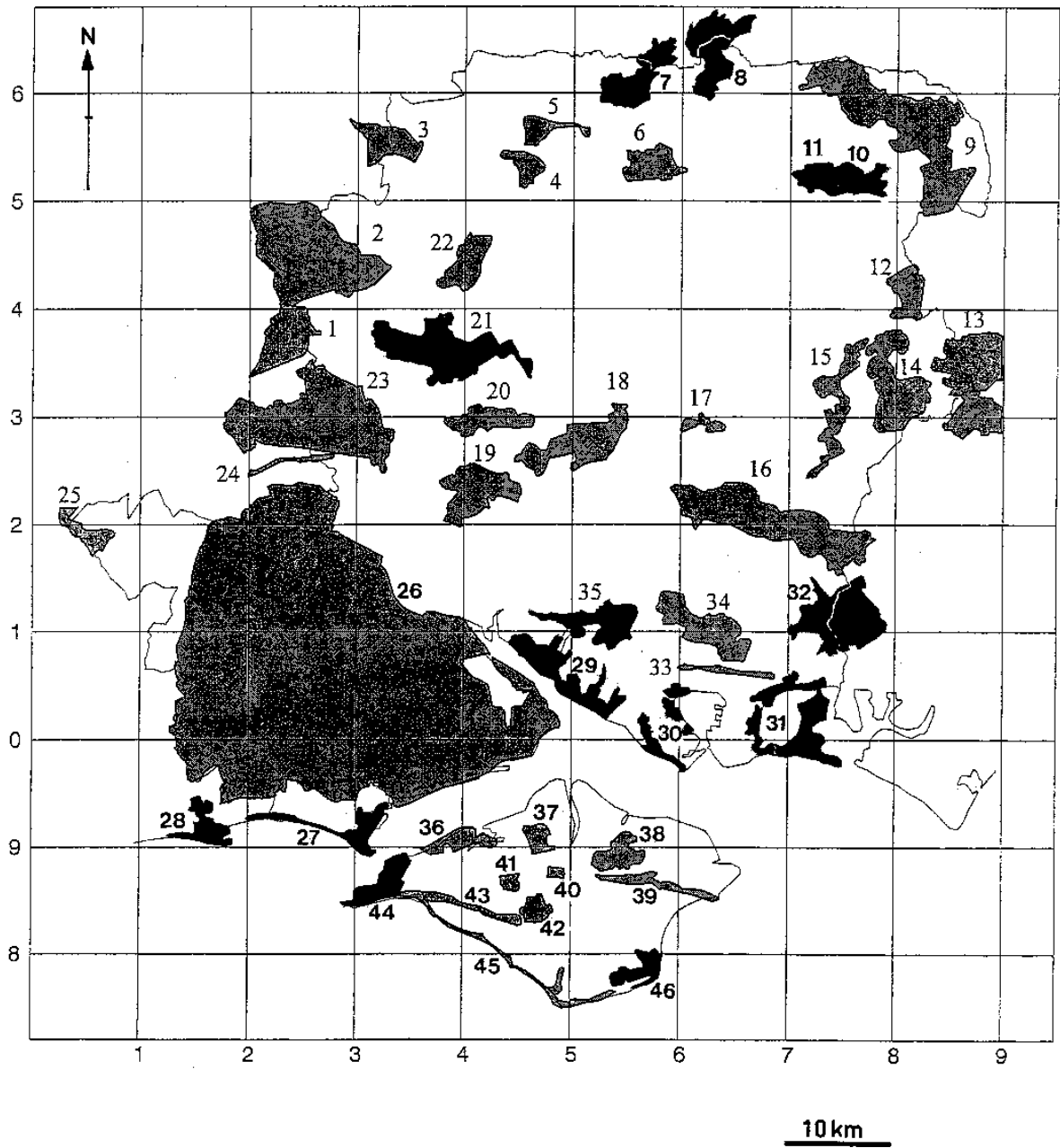
Natural Area: Dorset Downs & Cranborne Chase (134)

25. Martin Down

Natural Area: Dorset Heaths (135)

28. Christchurch-Hengistbury
(see pg.152 for list of Isle of Wight "Key Areas")

Map 2: Locations of Key Areas for Lepidoptera within Hampshire & Isle of Wight.



Individual areas: HAMPSHIRE

NATURAL AREA: SALISBURY PLAIN & WEST WILTSHIRE DOWNS (132)

1. PORTON DOWN

A vast area of exceptional chalk grasslands (largely MOD land) straddling the Hants/Wilts border (also see Wiltshire key area "Porton Down & Figsbury Ring" (20)). It has as many as 8 high priority and 6 medium priority butterfly species. The area is also important for moths, including at least three high priority species.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Silver-spotted Skipper (H)	White-letter Hairstreak (M)
Pearl-bordered Fritillary (H)	Dingy Skipper (M)
Marsh Fritillary (H)	Chalkhill Blue (M)
Grizzled Skipper (H)	White Admiral (M)
Brown Hairstreak (H)	Wall (M)
Small Blue (H)	Grayling (M)
Adonis Blue (H)	
Duke of Burgundy (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Narrow-bordered Bee Hawk (H)	Red-belted Clearwing (M)
Lunar Yellow Underwing (H)	Orange-tailed Clearwing (M)
Pale Shining Brown (H)	Oblique-striped (M)
Forester (M)	Thyme Pug (M)
Cistus Forester (M)	Valerian Pug (M)
Scarce Forester (M)	Pimpinel Pug (M)
Festoon (M)	Light Feathered Rustic (M)

2. CHOLDERTON

This area straddles the Hants-Wilts border (also see Wiltshire key areas "Cholderton Estate" (13) and "SPTA(E)" (12)). As well as high quality unimproved chalk grasslands, this area has an important network of trackways and blackthorn hedgerows providing regionally important breeding habitat for the Brown Hairstreak.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Pearl-bordered Fritillary (H)	White-letter Hairstreak (M)
Grizzled Skipper (H)	Dingy Skipper (M)
Brown Hairstreak (H)	Chalkhill Blue (M)
Small Blue (H)	White Admiral (M)
Duke of Burgundy (H)	Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Lunar Yellow Underwing (H)	Orange Footman (M)
	Light Feathered Rustic (M)

24. DEAN HILL

An isolated east-west trending, north-facing, chalk ridge, straddling the Hants/Wilts border. It showed major decline in habitat quality in the second half of the twentieth century, yet still supports a number of medium and high priority butterfly and moth species. Most of the notable species are on the Wiltshire side.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Marsh Fritillary (H)	Duke of Burgundy (H)
Silver-spotted Skipper (H)	Dingy Skipper (M)
Grizzled Skipper (H)	Chalkhill Blue (M)
Small Blue (H)	Wall (M)
Adonis Blue (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

NATURAL AREA: HAMPSHIRE DOWNS (130)

3. CONHOLT

Part of the North Wessex Downs, comprising several unimproved chalk downs coupled with woodland and hedgerow habitat supporting several key butterfly and moth species.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	White-letter Hairstreak (M)
Small Blue (H) ?	Dingy Skipper (M)
Duke of Burgundy (H)	Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

....

4. BRADLEY

A significant concentration of ancient/semi-natural estate woodlands, country lanes and tracks at the eastern end of the North Wessex Downs supporting significant populations of several medium and high priority butterfly and moth species.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	White-letter Hairstreak (M)
Duke of Burgundy (H)	Dingy Skipper (M)
	White Admiral (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

....

5. LADLE HILL

The northernmost of the notable chalk downland areas of Hampshire; centred on Ladle Hill and Beacon Hill, Burghclere. Rather impoverished compared to some chalk downland areas of the region, but nevertheless supporting a significant range of medium and high priority butterflies and moths.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	Dingy Skipper (M)
Small Blue (H)	Chalkhill Blue (M)
Duke of Burgundy (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Scarce Burnished Brass (M)	Orange-tailed Clearwing (M)
	Bleached Pug (M)

6. WOOTTON

A significant concentration of estate woodlands around Wootton St. Lawrence supports a diverse Lepidoptera fauna including several high and medium priority species.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	? Dingy Skipper (M)
? Purple Emperor (H)	White Admiral (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

....

17. BRAMDEAN COMMON

A relatively small area of woodlands and scrub centred around Bramdean Common supports a diverse lepidoptera fauna.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	Dingy Skipper (M)
? Purple Emperor (H)	White Admiral (M)

MOTH H/M priority species 1995-99 (High Priority in bold):

Striped Lychnis (H)	Scarce Burnished Brass (M)
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18. WINCHESTER DOWNLANDS

This key area holds significant fragments of formerly continuous downlands of the Winchester area, including the Butterfly Conservation reserves at Magdalen Hill Down and Yew Hill. The Striped Lychnis and White-line Snout are two of several key moth species that breed in the area.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	White-letter Hairstreak (M)
Small Blue (H)	Dingy Skipper (M)
Duke of Burgundy (H)	Chalkhill Blue (M)
	White Admiral (M)
	Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Striped Lychnis (H)	Cistus Forester (M)
White-line Snout (H)	Orange-tailed Clearwing (M)
Pimpinel Pug (M)	Ruddy Carpet (M)

20. FARLEY MOUNT

Centred around the area of Farley Mount Country Park, this largely wooded area contains important chalk grassland habitat as well as noteworthy mixed and coppiced woodlands.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	White-letter Hairstreak (M)
Small Blue (H)	Chalkhill Blue (M)
? Duke of Burgundy (H)	White Admiral (M)
Purple Emperor (H)	Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Striped Lychnis (H)	Festoon (M)
White-line Snout (H)	Large Red-belted Clearwing (M)
Drab Looper (H)	Light Orange Underwing (M)
Cistus Forester (M)	Valerian Pug (M)
Orange-tailed Clearwing (M)	Orange Footman (M)
Satin Lutestring (M)	Rosy Marbled (M)
Mocha (M)	Clay Fan-foot(M)
Campanula Pug (M)	
Great Oak Beauty (M)	

21. STOCKBRIDGE

Some excellent estate-managed coppiced and mixed woodlands coupled with some important chalk downland nature reserves makes this one of the richest areas for lepidoptera in Hampshire.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Pearl-bordered Fritillary (H)	White-letter Hairstreak (M)
Marsh Fritillary (H)	Dingy Skipper (M)
Grizzled Skipper (H)	Chalkhill Blue (M)
Small Blue (H)	White Admiral (M)
Duke of Burgundy (H)	? Wall (M)
? Purple Emperor (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Chalk Carpet (H)	Scarce Burnished Brass (M)
Striped Lychnis (H)	Hornet Moth (M)
White-line Snout (H)	Orange-tailed Clearwing (M)
Cistus Forester (M)	Balsam Carpet (M)
Sallow Clearwing (M)	Devon Carpet (M)
Six-belted Clearwing (M)	Drab Looper (H)
Dentated Pug (M)	Plumed Prominent (M)
Barred Tooth-striped (H)	Light Feathered Rustic (M)
Orange Footman (M)	Webb's Wainscot (M)
Pimpinel Pug (M)	

22. HAREWOOD FOREST

A major ancient woodland complex that still retains an important Lepidoptera fauna.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Pearl-bordered Fritillary (H)	White-letter Hairstreak (M)
Grizzled Skipper (H)	Dingy Skipper (M)
Duke of Burgundy (H)	White Admiral (M)
Purple Emperor (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Argent and Sable (H)	Drab Looper (H)
Striped Lychnis (H)	Small Black Arches (M)
Common Fan-foot (H)	Scarce Burnished Brass (M)
Yellow-legged Clearwing (M)	Great Oak Beauty (M)
Light Orange Underwing (M)	Broad-bordered Bee Hawk (M)

NATURAL AREA: SOUTH HAMPSHIRE LOWLANDS (128)

19. HURSLEY FOREST

Remnant woodlands of a once vast forest still retain vestiges of a very rich Lepidoptera fauna. Most remaining woodlands of note are in private ownership.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Pearl-bordered Fritillary (H)	White-letter Hairstreak (M)
Grizzled Skipper (H)	Dingy Skipper (M)
Duke of Burgundy (H)	White Admiral (M)
Purple Emperor (H)	Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Satin Lutestring (M)	Small Grass Emerald (M)
Devon Carpet (M)	Campanula Pug (M)
Dentated Pug (M)	Red-necked Footman (M)
Orange Footman (M)	Webb's Wainscot (M)
Rosy Marbled (M)	Dotted Fan-foot (M)
Mocha (M)	

23. TYTHERLEY

Straddling the Hampshire-Wiltshire border, this area comprises some of the most important woodlands in the region, with an exceptionally rich Lepidoptera fauna.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Pearl-bordered Fritillary (H)	White-letter Hairstreak (M)
? High Brown Fritillary (H)	Dingy Skipper (M)
Marsh Fritillary (H)	White Admiral (M)
Grizzled Skipper (H)	Wall (M)
Duke of Burgundy (H)	
Purple Emperor (H)	
Small Pearl-bordered Fritillary (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Chalk Carpet (H)	Mocha (M)
Narrow-bordered Bee Hawk (H)	Ruddy Carpet (M)
Scarce Merveille du Jour (H)	Great Oak Beauty (M)
Common Fan-foot (H)	Broad-bordered Bee Hawk (M)
Pale-shining Brown (H)	Red-necked Footman (M)
Lunar Yellow Underwing (H)	Orange Footman (M)
Barred Tooth-striped (H)	Kent Black Arches (M)
Star-wort (M)	Rosy Marbled (M)
	Clay Fan-foot (M)

34. SOUTHWICK

The area centred around the Southwick Estate contains important remnant woodlands of the formerly vast "Forest of Bere".

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	White-letter Hairstreak (M)
Purple Emperor (H)	Dingy Skipper (M)
	White Admiral (M)
	? Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Sallow Clearwing (M)	Orange-tailed Clearwing (M)
Mocha (M)	

35. BOTLEY WOOD

Having lost both Pearl-bordered Fritillary and Small Pearl-bordered Fritillary in the 1990's, and still with the major threat of encroaching development at its southern edge, this key area supports important populations of several key butterfly and moth species.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	White-letter Hairstreak (M)
Purple Emperor (H)	Dingy Skipper (M)
	White Admiral (M)
	? Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Sallow Clearwing (M)	Mocha (M)
Orange Footman (M)	Kent Black Arches (M)
? Bordered Gothic (H)	Rosy Marbled (M)
Scarce Burnished Brass (M)	

NATURAL AREA: SOUTH COAST PLAIN (126)

29. SOUTHAMPTON WATER (EAST)

An important area of maritime grasslands, shingle & dry heath, together with some ancient/semi-natural woodlands.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	White-letter Hairstreak (M)
	Dingy Skipper (M)
	White Admiral (M)
	Wall (M)
	Grayling (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Large Red-belted Clearwing (M)	Rosy Wave (M)
Little Thorn (M)	Orange Footman (M)
Matthew's Wainscot (M)	L-album Wainscot (M)
Crescent Striped (M)	Webb's Wainscot (M)
White-line Snout (H)	Bleached Pug (M)
	Star-wort (M)
	Marbled Green (M)

30. GOSPORT

Various coastal habitats in the vicinity of Gosport, including dry heath and shingle (Browndown) supporting a colony of Grayling, but most noted for its medium and high priority moth species. Acid grasslands and woodlands of the Alver Valley, and various good quality grasslands and woodlands on the west side of Portsmouth Harbour.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	White Admiral (M)
White-letter Hairstreak (M)	Grayling (M)
	Wall ? (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

White Spot (H)	Kent Black Arches (M)
Olive Crescent (H)	Shore Wainscot (M)
Large Thorn (M)	Webb's Wainscot (M)
White Colon (M)	Bleached Pug (M)
Mere Wainscot (M)	Yarrow Pug (M)
Mocha (M)	Marbled Green (M)

31. LANGSTONE & HAYLING

Coastal marshes, grasslands, hedgerows and scrub around Langstone Harbour, coupled with farmland, hedgerows, dry heath, grassland with important sand and shingle communities of Hayling Island. An exceptionally rich moth fauna, with many notable coastal species.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

White-letter Hairstreak (M)	Wall (M)
	Grayling (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Buttoned Snout (H)	Cream-bordered Green Pea (M)
Goat Moth (M)	Grass Eggar (M)
Currant Clearwing (M)	Rosy Wave (M)
Red-belted Clearwing (M)	Dotted Border Wave (M)
Mocha (M)	Ruddy Carpet (M)
Least Carpet (M)	Bleached Pug (M)
Oblique Striped (M)	Yarrow Pug (M)
Marbled Pug (M)	Thyme Pug (M)
Large Thorn (M)	Bordered Grey (M)
Kent Black Arches (M)	Sand Dart (M)
White Colon (M)	Matthew's Wainscot (M)
Shore Wainscot (M)	L-album Wainscot (M)
Wormwood (M)	Crescent Striped (M)
Marbled Green (M)	Star-wort (M)

33. PORTSDOWN HILL

An outlier of Chalk forming a prominent east-west (south-facing) ridge immediately north of Portsmouth. Extensive areas of scrub exist, but pockets of species-rich calcareous grassland remain and support colonies of a number of priority species. A major conservation effort is required to bring the area back to its former glory, but a number of recent management initiatives have given significant improvement to parts of this very large site.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Small Blue (H)	Dingy Skipper (M)
Wall (M)	Chalkhill Blue (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Six-belted Clearwing (M)	Pimpinel Pug (M)
	Star-wort (M)

NATURAL AREA: SOUTH DOWNS (125)

16. SOUTH DOWNS (HANTS)

Includes the exceptionally rich Meon Valley chalk downland sites as well as some notable woodlands.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Silver-spotted Skipper (H)	White-letter Hairstreak (M)
Grizzled Skipper (H)	Dingy Skipper (M)
Small Blue (H)	Chalkhill Blue (M)
Duke of Burgundy (H)	White Admiral (M)
Purple Emperor (H)	Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Great Oak Beauty (M)	Narrow-bordered Bee Hawk (H)
Kent Black Arches (M)	White-marked (M)
Striped Lychnis (H)	Rosy Marbled (M)
Scarce Burnished Brass (M)	

32. ROWLAND'S CASTLE

Mixed woodland, hedgerows and scrub. Detailed knowledge of butterflies in the woods on the Hampshire side of the Hants/W.Sussex border, is rather limited, but in Sussex some of the woodlands support or have supported Pearl-bordered Fritillary. In Hampshire, the area of Havant Thicket, Staunton C.P. & Southleigh Forest supports a diverse Lepidoptera fauna, including a number of notable species. Staunton Country Park has diverse and well-managed butterfly habitat, and coupled with the adjacent woodland estates of W.Sussex, this area may have a richer Lepidoptera than is currently realised.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

? Purple Emperor (H)	White Admiral (M)
Grizzled Skipper (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Scarce Merveille du Jour (H)	Sallow Clearwing (M)
Festoon (M)	Light Orange Underwing (M)
Satin Lutestring (M)	Crescent Striped (M)
Mocha (M)	
Rosy Marbled (M)	

NATURAL AREA: THAMES BASIN HEATHS (129)

7. ASHFORD HILL

A formerly important area for woodland butterflies, but still retains a diverse moth fauna. Very limited present knowledge of Lepidoptera in this rarely visited area, which includes Ashford Hill NNR.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

? **Grizzled Skipper (H)** White Admiral (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Drab Looper (H) ? **Heart Moth (H)**

8. PAMBER FOREST

Pamber Forest and adjacent Silchester Common is one of the richest areas for Lepidoptera in north Hampshire, with a significant concentration of medium and high priority species.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H) White-letter Hairstreak (M)

Silver-studded Blue (H) White Admiral (M)

Purple Emperor (H) Grayling (M)

Small Pearl-bordered Fritillary (H)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Argent and Sable (H) Great Oak Beauty (M)

Orange Upperwing (H) Small Black Arches (M)

White-line Snout (H) Light Orange Underwing (M)

Common Fan-foot (H) Lead-coloured Pug (M)

Heart Moth (H) Little Thorn (M)

Drab Looper (H) Orange Footman (M)

Waved Black (M)

9. BRAMSHILL-FLEET

Although notable species such as the Marsh Fritillary are currently considered lost from the area due to development, the remnant woodlands, marshes, unimproved damp meadows and heaths of former "Bramshill Forest" still support an important Lepidoptera fauna.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

? **Marsh Fritillary (H)** Dingy Skipper (M)

Grizzled Skipper (H) White Admiral (M)

Silver-studded Blue (H) ? Wall (M)

Purple Emperor (H) Grayling (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Goat Moth (M)	Six-belted Clearwing (M)
Satin Lutestring (M)	Grass Wave (M)
White-barred Clearwing (M)	Red-belted Clearwing (M)
Broad-bordered Bee Hawk (M)	Silvery Arches (M)
Dotted Chestnut (M)	Marsh Oblique-barred (M)
Waved Black (M)	Large Red-belted Clearwing (M)
Dentated Pug (M)	Horse Chestnut (M)
Bordered Grey (M)	

10-11 NORTH WARNBOROUGH

(10) ODIHAM COMMON

A small but biodiverse area of woodlands and unimproved grasslands. Especially noted for its diversity of moth species.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	White Admiral (M)
? Purple Emperor (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Forester (M)	Yellow-legged Clearwing (M)
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(11) BARTLEY HEATH

This area suffered greatly in the latter half of the twentieth century, when it was sliced through by the M3 (Jcn.5 is centred on the key habitat!). Associated development and lowering of the water-table resulted in the loss of species such as the Marsh Fritillary in the 1990's, but the area still supports a diverse Lepidoptera fauna.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

White-letter Hairstreak (M)
Dingy Skipper (M)
White Admiral (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Festoon (M)	Yellow-legged Clearwing (M)
Large Red-belted Clearwing (M)	

NATURAL AREA: WEALDEN GREENSAND (120)

12. ALICE HOLT FOREST

A major woodland complex retaining a diverse Lepidoptera fauna, but suffered major losses in the 1990's. Included in these recent losses were the Pearl-bordered Fritillary and Small Pearl-bordered Fritillary.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	Dingy Skipper (M)
Purple Emperor (H)	White Admiral (M)
? Small Pearl-bordered Frit. (H)	? Wall (M)
White-letter Hairstreak (M)	? Grayling (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Satin Lutestring (M)	Cloaked Carpet (M)
Rosy Marbled (M)	Red-belted Clearwing (M)
Satin Lutestring (M)	Broad-bordered Bee Hawk (M)
Dotted Chestnut (M)	Bleached Pug (M)

13. GRAYSHOTT-HINDHEAD

This richly diverse area of woodlands, heaths and unimproved meadows is centred on the triple-junction of boundaries between Hampshire, Surrey and West Sussex. Ludshott Common and Bramshott Common are notable sites in the Hampshire portion of the area.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

? Grizzled Skipper (H)	White Admiral (M)
Silver-studded Blue (H)	Grayling (M)
? Purple Emperor (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Dotted Chestnut (M)

14. WOOLMER FOREST

Situated between Liss and Bordon Camp, much of the area is MOD land comprising military camps and training areas. Even so, a diverse mix of woodland, grassland, heathland, meadow and marsh exists. Marsh Fritillary and Small Pearl-bordered Fritillary were lost in the 1990's, but a rich moth fauna remains.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Silver-studded Blue (H)	Grayling (M)
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MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Satin Lutestring (M)	Least Carpet (M)
Cloaked Carpet (M)	Little Thorn (M)
Horse Chestnut (M)	Broad-bordered Bee Hawk (M)

15. EAST HAMPSHIRE HANGERS

The Chalk and Upper Greensand ("Wealden Edge") Hangers of east Hampshire are renowned for their entomological richness. Much of this key area comprises steep, wooded, east or south-east facing slopes, but also includes some important pockets of chalk downland.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	White-letter Hairstreak (M)
Brown Hairstreak (H)	Dingy Skipper (M)
Duke of Burgundy (H)	? Chalkhill Blue (M)
Purple Emperor (H)	White Admiral (M)
	? Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Orange-tailed Clearwing (M)	Six-belted Clearwing (M)
Satin Lutestring (M)	Mocha (M)
Lead-coloured Pug (M)	Little Thorn (M)
White-marked (M)	Striped Lychnis (H)
Clay Fan-foot (M)	Dotted Chestnut (M)

NATURAL AREA: NEW FOREST (131)

27. MILFORD COAST

Coastal grasslands, land-slipped undercliffs, marshes and meadows. The area is most noted for the Glanville Fritillary colony established at Hordle Cliffs in the 1990's.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Glanville Fritillary (H)	Dingy Skipper (M)
	Wall (M)
	? Grayling (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Rosy Wave (M)	Least Carpet (M)
Dotted Border Wave (M)	Cloaked Carpet (M)
Little Thorn (M)	Dew Moth (M)
Crescent Dart (M)	Matthew's Wainscot (M)
Shore Wainscot (M)	L-album Wainscot (M)
Cream-bordered Green Pea (M)	White-line Snout (H)

26. NEW FOREST

Diversity and absolute numbers of butterflies declined greatly in the second half of the twentieth century, but the New Forest heathlands, deciduous woodlands and coastline remain exceptionally rich for moths. There are post-1980 records for 10 high priority macro-moths, and no less than 50 medium priority macro-moths!

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Pearl-bordered Fritillary (H)	White-letter Hairstreak (M)
Grizzled Skipper (H)	Dingy Skipper (M)
? Small Blue (H)	White Admiral (M)
Silver-studded Blue (H)	Wall (M)
? Purple Emperor (H)	Grayling (M)
Small Pearl-bordered Frit. (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

The Triangle (H)	Goat Moth (M)
Dingy Mocha (H)	Festoon (M)
? Speckled Footman (H)	Large Red-belted Clearwing (M)
Southern Chestnut (H)	Small Grass Emerald (M)
Scarce Merveille du Jour (H)	Mocha (M)
Shoulder-striped Clover (H)	Rosy Wave (M)
Light Crimson Underwing (H)	Purple-bordered Gold (M)
Dark Crimson Underwing (H)	Dotted Border Wave (M)
White-line Snout (H)	Ruddy Carpet (M)
Buttoned Snout (H)	Devon Carpet (M)
Cloaked Carpet (M)	Marbled Pug (M)
Valerian Pug (M)	Dentated Pug (M)
Little Thorn (M)	Horse Chestnut (M)
Bordered Grey (M)	Ringed Carpet (M)
Great Oak Beauty (M)	Grass Wave (M)
Broad-bordered Bee Hawk (M)	Small Chocolate Tip (M)
Red-necked Footman (M)	Orange Footman (M)
Small Black Arches (M)	Kent Black Arches (M)
Sand Dart (M)	White Colon (M)
Matthew's Wainscot (M)	L-album Wainscot (M)
Swordgrass (M) <i>migrant</i> ?	Crescent Striped (M)
Webb's Wainscot (M)	Rosy Marbled (M)
Cream-bordered Green Pea (M)	Light Orange Underwing (M)
Lead-coloured Pug (M)	Bleached Pug (M)
Bilberry Pug (M)	Broom-tip (M)
Sloe Carpet (M)	Water Ermine (M)
Waved Black (M)	Blomer's Rivulet (M) <i>vagrant</i> ?
Star-wort (M)	Reed Dagger (M)
Marbled Green (M)	Yellow-legged Clearwing (M)
Dotted Chestnut (M)	Marsh Oblique-barred (M)

NATURAL AREA: DORSET DOWNS & CRANBORNE CHASE (134)

25. MARTIN DOWN

A major area of chalk grassland (+ some woodland) at the triple-junction boundary between Hampshire, Dorset and Wiltshire. In addition to the NNR, this key area also includes Tidpit Quarry and Vernditch Chase. In addition to its botanical interest, the area has an exceptionally rich butterfly and moth fauna.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Silver-spotted Skipper (H)	Dingy Skipper (M)
Pearl-bordered Fritillary (H)	Chalkhill Blue (M)
Marsh Fritillary (H)	White Admiral (M)
Grizzled Skipper (H)	Wall (M)
Small Blue (H)	? Grayling (M)
Adonis Blue (H)	
Duke of Burgundy (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Barred Tooth-striped (H)	Orange-tailed Clearwing (M)
Narrow-bordered Bee Hawk (H)	Small Eggar (M)
	Mocha (M)
	Great Oak Beauty (M)
	Kent Black Arches (M)

NATURAL AREA: DORSET HEATHS (135)

28. CHRISTCHURCH-HENGISTBURY

A mixture of coastal habitats including maritime grasslands, marshes, woodlands and heaths. Perhaps most noted for migrant species recorded from the area, but it also has a diverse range of resident breeding butterfly and moth species. (also see Dorset Key Area 20 "Avon & Mude Valleys", pg. 127).

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Marsh Fritillary (H)	? Wall (M)
	Grayling (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

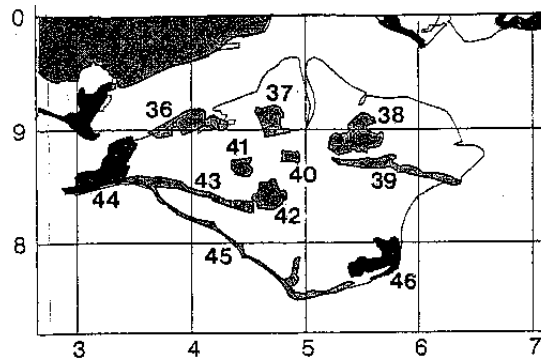
Goat Moth (M)	Satin Lutestring (M)
Rosy Wave (M)	Cloaked Carpet (M)
Little Thorn (M)	Horse Chestnut (M)
Kent Black Arches (M)	Sand Dart (M)
Matthew's Wainscot (M)	Shore Wainscot (M)
L-album Wainscot (M)	Crescent Striped (M)
Webb's Wainscot (M)	Cream-bordered Green Pea (M)
Buttoned Snout (H)	Star-wort (M)
	Marbled Green (M)

4.1c ISLE OF WIGHT

NATURAL AREA: ISLE OF WIGHT (127)

Map 3:

- 36. Cranmore
- 37. Parkhurst Forest
- 38. Havenstreet
- 39. East Wight downs
- 40. Carisbrooke
- 41. Rowridge
- 42. Chillerton
- 43. Afton-Brighstone
- 44. West Wight
- 45. South Wight coast
- 46. Ventnor



36. CRANMORE

An important area of Lepidoptera biodiversity comprising a mix of coastal habitat, meadows and woodland. This area probably has the last remaining colony of Small Pearl-bordered Fritillary on the Isle of Wight.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

- | | |
|---------------------------------------|---------------------|
| ? Grizzled Skipper (H) | ? Dingy Skipper (M) |
| Small Pearl-bordered Frit. (H) | ? White Admiral (M) |
| | Wall (M) |

MOTH H/M priority species 1980-99 (High Priority in bold):

- | | |
|----------------------------|------------------------|
| Festoon (M) | Mocha (M) |
| Rosy Wave (M) | Dotted Border Wave (M) |
| Little Thorn (M) | Kent Black Arches (M) |
| Crescent Dart (M) | Crescent Striped (M) |
| Common Fan-foot (H) | |

37. PARKHURST FOREST

Although impoverished from its former glory, this mixed woodland complex still retains a highly significant and diverse Lepidoptera fauna; perhaps the richest woodland on the Isle of Wight.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

- | | |
|---------------------------------------|-------------------------------|
| Pearl-bordered Fritillary (H) | ? White-letter Hairstreak (M) |
| Grizzled Skipper (H) | Dingy Skipper (M) |
| Small Pearl-bordered Frit. (H) | White Admiral (M) |
| | Wall (M) |
| | ? Grayling (M) |

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Yellow-legged Clearwing (M)	Mocha (M)
Ruddy Carpet (M)	Little Thorn (M)
Great Oak Beauty (M)	Red-necked Footman (M)

38. HAVENSTREET

A significant concentration of deciduous, mixed and coniferous woodlands extending from Combley Great Wood to Rowlands Wood and Firestone Copse.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

? Grizzled Skipper (H)	? White-letter Hairstreak (M)
	Dingy Skipper (M)
	White Admiral (M)
	Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Mocha (M)	Least Carpet (M)
Ruddy Carpet (M)	Cloaked Carpet (M)
Little Thorn (M)	Small Black Arches (M)
Kent Black Arches (M)	Webb's Wainscot (M)
White-line Snout (H)	

39. EAST WIGHT DOWNS

A ridge of chalk downland, extending from Arreton Down to Culver Down. Although probably not as rich as the western and southern chalk downs of Wight, this area nevertheless supports a highly diverse Lepidoptera fauna, with several notable species. It appears to have lost the Adonis Blue in the early 1990s.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	Dingy Skipper (M)
	Chalkhill Blue (M)
	Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Chalk Carpet (H)	Webb's Wainscot (M)
-------------------------	---------------------

40. CARISBROOKE

Centred on the area around Carisbrooke Castle and Mount Joy Cemetery, this area in the centre of the Isle of Wight supports some important chalk grassland communities. The Adonis Blue was seemingly lost from the area in the late 1980s.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	Dingy Skipper (M)
Small Blue (H)	Chalkhill Blue (M)
	Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

41. ROWRIDGE

A mix of woodlands and unimproved chalk grassland. This is one of only two areas on the Isle of Wight that supports Duke of Burgundy.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	Dingy Skipper (M)
Duke of Burgundy (H)	? Chalkhill Blue (M)
	? Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

42. CHILLERTON

A mix of woodlands and unimproved chalk grassland. This is one of only two areas on the Isle of Wight that supports Duke of Burgundy.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	Dingy Skipper (M)
Duke of Burgundy (H)	Chalkhill Blue (M)
	Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

43. AFTON-BRIGHSTONE

This east-west trending chalk ridge has some exceptionally rich, largely south-facing, chalk downland habitat with disused quarries/chalk pits, as well as some woodland of note. It is probably the richest area for butterflies on the Isle of Wight.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	Dingy Skipper (M)
Small Blue (H)	Chalkhill Blue (M)
Adonis Blue (H)	? White Admiral (M)
Glanville Fritillary (H)	Wall (M)
	Grayling (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Chalk Carpet (H)	Kent Black Arches (M)
White-line Snout (H)	Sand Dart (M)

44. WEST WIGHT

This area, west of Freshwater Bay and the River Yar, comprises a varied mix of habitats. This includes chalk downland and cliffs from Tennyson Down to The Needles, mixed coastal habitat from Alum Bay to Fort Victoria Country Park, a small amount of woodland, and some notable wetland habitat such as Afton Marsh. Although supporting some notable butterfly species, the area is perhaps most important for its rare moths.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	White-letter Hairstreak (M)
Small Blue (H)	Dingy Skipper (M)
Adonis Blue (H)	Chalkhill Blue (M)
	? White Admiral (M)
	Wall (M)
	Grayling (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Beautiful Gothic (H)	Mocha (M)
? White-spotted Pinion (H)	Rosy Wave (M)
Oblique Striped (M)	Ruddy Carpet (M)
Dentated Pug (M)	Little Thorn (M)
Horse Chestnut (M)	Kent Black Arches (M)
Crescent Dart (M)	Matthew's Wainscot (M)
L-album Wainscot (M)	Crescent Striped (M)
Webb's Wainscot (M)	Rosy Marbled (M)
Cream-bordered Green Pea (M)	Buttoned Snout (H)
White-line Snout (H)	Bleached Pug (M)
	Yarrow Pug (M)
	Hoary Footman (M)
	Marbled Green (M)

45. SOUTH WIGHT COAST

The primary importance of this area with regard to Lepidoptera is the slumped undercliffs and "chines" that provide the necessary breeding habitat for the Glanville Fritillary. This is the national stronghold for the species with 90%+ of the UK population confined to these undercliffs. Because of their close proximity, the chalk downlands of St. Catherine's Hill and Niton Down are also included in the South Wight Coast key area.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

? Grizzled Skipper (H)	Dingy Skipper (M)
Small Blue (H)	? Chalkhill Blue (M)
Glanville Fritillary (H)	Wall (M)

MACRO-MOTH H/M priority species 1995-99 (High Priority in bold):

Beautiful Gothic (H)	Least Carpet (M)
Oblique Striped (M)	Chalk Carpet (H)
Dew Moth (M)	Crescent Dart (M)
L-album Wainscot (M)	Cream-bordered Green Pea (M)
	Bleached Pug (M)
	Star-wort (M)
	Marbled Green (M)

46. VENTNOR

The primary importance of this area is the exceptionally rich chalk downlands. Scrub and woodland also provides the required habitat for several notable moths. The landslipped coast

and cliff habitats from Wheeler's Bay to "The Landslip" provide important habitat for a number of key species including the Glanville Fritillary.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

? Grizzled Skipper (H)	Dingy Skipper (M)
? Small Blue (H)	? Chalkhill Blue (M)
Adonis Blue (H)	Wall (M)
Glanville Fritillary (H)	Grayling (M)

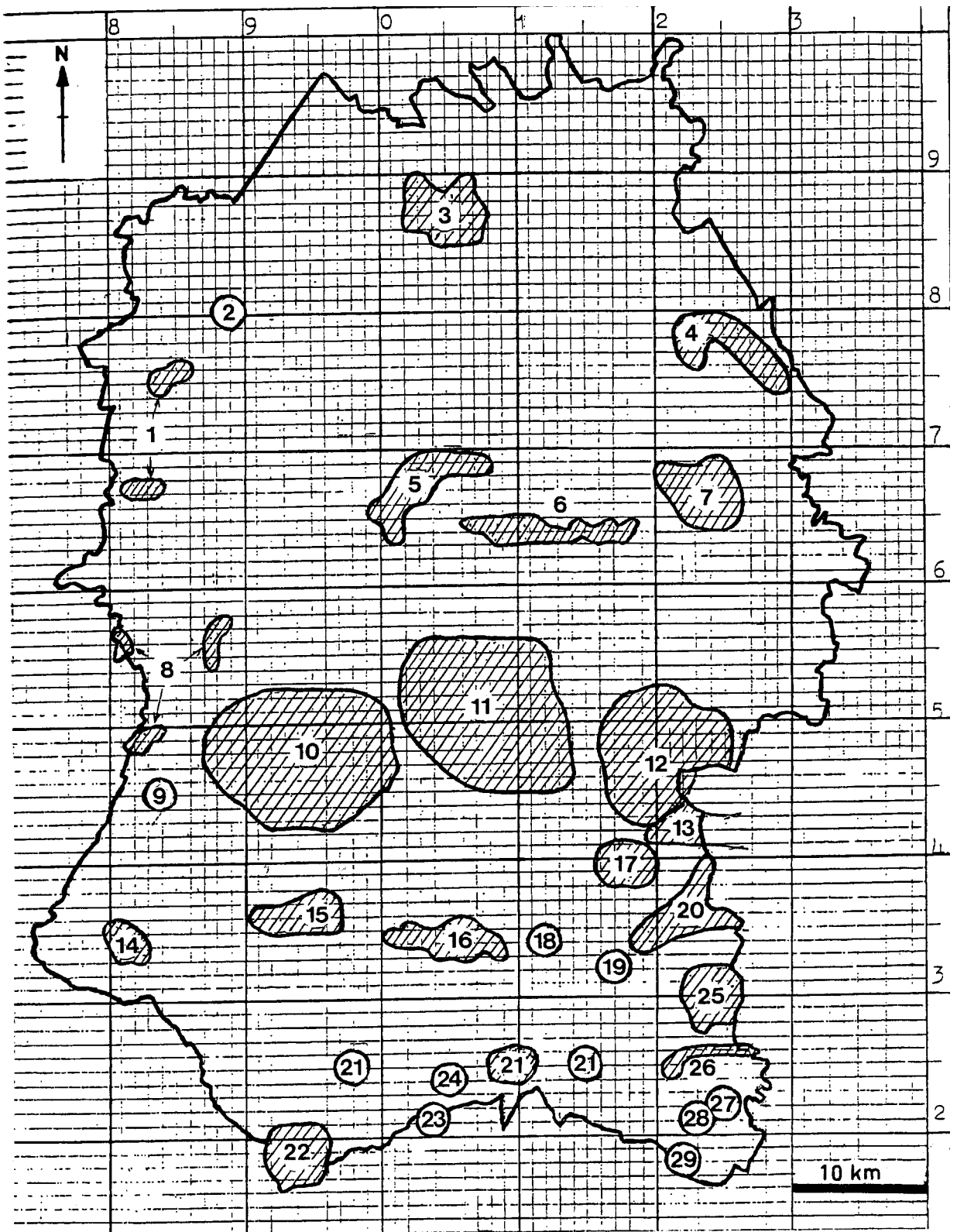
MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Festoon (M)	Yellow-legged Clearwing (M)
Dotted Border Wave (M)	Cloaked Carpet (M)
Great Oak Beauty (M)	Kent Black Arches (M)
Crescent Dart (M)	L-album Wainscot (M)

4.1.4 WILTSHIRE

1. Cotswold Limestone
(*West Yatton Down, Danks Down, Kingsdown, Hazelbury Common*)
2. Stanton Park Wood
3. Braydon Forest
(*Somerford Common, Webb's Wood, Echo Lodge Meadow, Red Lodge Plantation, Ravensroost Wood, Distillery Farm Meadows*)
4. Aldbourne Downs
(*High Clear Down, Sugar Hill, White Hill, Hodd's Hill*)
5. North Wilts Downs
(*Calstone & Cherhill Downs, Morgan's Hill, King's Play Hill, Roundway Hill, Beacon Hill, Knoll Down*)
6. Pewsey Downs NNR & Martinsell Hill
7. Savernake Forest
8. Selwood Forest (West Wilts woods)
(*Picket/Clanger Wood, Biss Wood, Green Lane Wood, Norridge Wood, Black Dog Woods*)
9. Cley Hill
10. Salisbury Plain Training Area: SPTA(W) (& NW Escarpment)
(*Tenantry Down, Imber Firs, 1300 Down, Bratton Castle Earthworks, Upton Cow Down, Great Cheverell Hill, Scratchbury/Cotley Hills*)
11. SPTA(C) (*Impact area, Rushall Down, Enford Down, Thornham Down*)
12. SPTA(E) (*Sidbury Hill, Beacon Hill, Shipton Bellinger*)
13. Cholderton Estate
14. White Sheet Downs & Mere Strip Lynchets
15. Great Ridge Wood & adjacent grasslands including Park Bottom
16. Grovely
17. Boscombe Down
18. Little Durnford Down
19. Cockey Down
20. Porton Down & Figsbury Ring
21. South Wilts Downlands
22. Cranborne Chase Woods & Grassland Coombes (Bottoms)
(*Quarry & Ashcombe Bottoms; Berwick & Rotherley Downs*)
23. Vernditch Chase Woods & Chickengrove Bottom
24. Middleton Down
25. Penchet Forest (*Bentley Wood, Blackmoor Copse, Hound Wood*)
26. Dean & Pepperbox Hills
27. Whiteparish Common (*Lowdens Copse, Glazier's Copse*)
28. Langley Wood NNR
29. Pound Bottom

Map 4: Locations of Key Areas for Lepidoptera within Wiltshire.



Individual areas: WILTSHIRE

1. COTSWOLD LIMESTONE

Comprises several, mainly small areas of unimproved limestone grassland coupled with woodland and hedgerow habitat, supporting several key butterfly and moth species.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

? Marsh Fritillary (H)	Dingy Skipper (M)
Grizzled Skipper (H)	White-letter Hairstreak (M)
Small Blue (H)	Chalkhill Blue (M)
Adonis Blue (H)	
? Duke of Burgundy (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

2. STANTON PARK WOOD

A small isolated oak on clay woodland, largely converted to conifers several years ago, but still supporting tiny populations of some key species.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	Dingy Skipper (M)
Duke of Burgundy (H)	White Admiral (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

3. BRAYDON FOREST

A large area of relict, mainly abandoned oak, ash and hazel coppice woodlands, some converted to conifers, many overgrown until recently. A patchwork of mainly small meadows (several unimproved) and hedgerows forming links between woodlands.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Pearl-bordered Fritillary (H)	Dingy Skipper (M)
Marsh Fritillary (H)	White-letter Hairstreak (M)
? Small Pearl-bordered Frit. (H)	White Admiral (M)
Grizzled Skipper (H)	
Brown Hairstreak (H)	
Duke of Burgundy (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

4. ALDBOURNE DOWNS

Generally small areas of isolated unimproved chalk grassland in an agricultural landscape with little woodland or tree cover.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	Dingy Skipper (M)
Small Blue (H)	Chalkhill Blue (M)
Duke of Burgundy (H)	Wall (M)

MACRO-MOTH H/M priority species 1995-99 (High Priority in bold):

.....

5. NORTH WILTS DOWNS

Some large areas of unimproved chalk grasslands, generally steep-sloping on the NW escarpment of the downs with some ash/scrub woodland.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Marsh Fritillary (H)	Dingy Skipper (M)
Grizzled Skipper (H)	White-letter Hairstreak (M)
Small Blue (H)	Chalkhill Blue (M)
Adonis Blue (H)	Wall (M)
Duke of Burgundy (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

6. PEWSEY DOWNS NNR and MARTINSELL HILL

A large east-west trending, south-facing ridge of grazed chalk grassland. Tan Hill is the highest point in Wiltshire. Only singleton Duke of Burgundy and Grayling recorded.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Marsh Fritillary (H)	Dingy Skipper (M)
Grizzled Skipper (H)	Chalkhill Blue (M)
Small Blue (H)	Wall (M)
Adonis Blue (H)	Grayling (M)
Duke of Burgundy (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

7. SAVERNAKE FOREST

Historically a rich Lepidoptera fauna in this large area of oak/beechn woodlands. Several key butterfly species lost in the 1960's, especially the fritillaries. Considerable areas have been replanted with conifers. Adjacent disused railway lines support some key species.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	Dingy Skipper (M)
Purple Emperor (H)	White-letter Hairstreak (M)
	White Admiral (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

8. SELWOOD FOREST (West Wilts woods)

A group of now, mainly small, fragmented and isolated ancient woodlands, some replanted with conifers, surrounded by dairy farming and spreading urbanisation. Were once rich Lepidoptera habitats but have lost several key butterfly species in the last twenty years.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Grizzled Skipper (H)	? Dingy Skipper (M)
Duke of Burgundy (H)	White-letter Hairstreak (M)
? Small Pearl-bordered Frit. (H)	White Admiral (M)
	? Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

9. CLEY HILL

An isolated and exposed outcrop of unimproved grazed chalk grassland containing an abandoned quarry, owned and managed by the National Trust.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

? Grizzled Skipper (H)	Dingy Skipper (M)
Small Blue (H)	Chalkhill Blue (M)
Adonis Blue (H)	Wall (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

10.-12. SALISBURY PLAIN TRAINING AREA - SPTA (W), (C), (E)

(10.= SPTA(W); 11.=SPTA(C); 12.=SPTA(E))

SPTA comprises approximately 36,400 Ha of mainly gently undulating unimproved chalk grassland together with steep, mainly north and west-facing escarpments. It is the largest expanse in north-west Europe and, in 1993, 20,000 Ha was notified as an SSSI.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Marsh Fritillary (H)	Dingy Skipper (M)
Grizzled Skipper (H)	? White-letter Hairstreak (M)
Brown Hairstreak (H)	Chalkhill Blue (M)
Small Blue (H)	Wall (M)
Adonis Blue (H)	Grayling (M)
Duke of Burgundy (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

Scarce Forester (M) - 10,11

Pimpinel Pug (M) - 10,11,12

(Note: SPTA supports several other priority macro-moths, but details not available)

13. CHOLDERTON ESTATE

(See Hampshire "Key Area" 2. pg. 137)

14. WHITE SHEET DOWNS and MERE STRIP-LYNCHETS

An escarpment of generally steep, south-facing, mainly lightly grazed unimproved chalk grassland and small disused quarry. Owned and managed by The National Trust and The Duchy of Cornwall respectively.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Marsh Fritillary (H)	Dingy Skipper (M)
Grizzled Skipper (H)	Chalkhill Blue (M)
Small Blue (H)	Wall (M)
Adonis Blue (H)	
? Duke of Burgundy (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

15. GREAT RIDGE WOOD & adjacent grasslands including PARK BOTTOM

A large, elevated, privately owned oak woodland, now largely replanted with conifers and with scrubby unimproved chalk grassland valleys with some grazing on its north-eastern edge. Historically an excellent Lepidoptera habitat but has lost some key butterfly species in recent years. The High Brown Fritillary is almost certainly extinct and was last recorded in 1993 (2), as is also probably so for the Marsh Fritillary (last recorded in 1997).

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

? High Brown Fritillary (H)	Dingy Skipper (M)
? Marsh Fritillary (H)	? White-letter Hairstreak (M)
Grizzled Skipper (H)	Chalkhill Blue (M)
Small Blue (H)	White Admiral (M)
Adonis Blue (H)	Wall (M)
Duke of Burgundy (H)	
Purple Emperor (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

16. GROVELY

This area comprises Grovely Wood and adjacent grasslands, including Little Langford and Grovely Downs. It is essentially a large, elevated oak woodland, mainly replanted with conifers at the western end (FC), but still semi-natural at the eastern end. Adjacent unimproved chalk grasslands to the east and north are rich butterfly habitats, some being Wiltshire Wildlife Trust reserves. Four Silver-spotted Skippers in 1995 only, Pearl-bordered Fritillary last reported in 1998 and Small Pearl-bordered Fritillary in 1995 (both singletons).

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

? Silver-spotted Skipper (H)	Dingy Skipper (M)
? Pearl-bordered Fritillary (H)	Chalkhill Blue (M)
Grizzled Skipper (H)	White Admiral (M)
Small Blue (H)	? Wall (M)
Adonis Blue (H)	Grayling (M)
Duke of Burgundy (H)	
Purple Emperor (H)	
? Small Pearl-bordered Frit. (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

17. BOSCOMBE DOWN

The main area of Lepidopteral interest is the disused railway line on the northern edge of the airfield which passes through the chalk cutting outside the airfield and along a chalk embankment inside. Both areas have been monitored for their butterfly populations for several years. A Grayling colony was present until 1989.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Marsh Fritillary (H)	Dingy Skipper (M)
Grizzled Skipper (H)	Chalkhill Blue (M)
Small Blue (H)	Wall (M)
Adonis Blue (H)	
Duke of Burgundy (H)	

MACRO-MOTH H/N priority species 1980-99 (High Priority in bold):

.....

18. LITTLE DURNFORD DOWN

A Wiltshire Wildlife Trust reserve in the Avon Valley comprised of west-facing woodland and steep, unimproved chalk grassland. The Silver-spotted Skipper was reported for the first time in 1999 (max. of 3 seen).

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Silver-spotted Skipper (H)	Dingy Skipper (M)
Marsh Fritillary (H)	Chalkhill Blue (M)
Grizzled Skipper (H)	
Adonis Blue (H)	
Duke of Burgundy (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

19. COCKEY DOWN

A mainly west-facing escarpment of unimproved chalk grassland. Part owned and managed by the Wiltshire Wildlife Trust.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Silver-spotted Skipper (H)	Dingy Skipper (M)
Marsh Fritillary (H)	Chalkhill Blue (M)
Grizzled Skipper (H)	Wall (M)
Small Blue (H)	
Adonis Blue (H)	

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

20. PORTON DOWN and FIGSBURY RING

(see Hampshire "Key Area" 1. pg.137)

21. SOUTH WILTS DOWNLAND

A scattering of substantial areas of usually steep, unimproved chalk grassland, with various aspects and a mixture of grazing regimes. Includes Prescombe NNR, Stratford Tony, Throope, Coombe Bissett, Clearbury and others. Nearly all are SSSIs and some are nature reserves. The Silver-spotted Skipper was first recorded in 1999 (singleton).

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

- Silver-spotted Skipper (H)** Dingy Skipper (M)
- Marsh Fritillary (H)** Chalkhill Blue (M)
- Grizzled Skipper (H)** Wall (M)
- Small Blue (H)** Grayling (M)
- Adonis Blue (H)**

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

22. CRANBORNE CHASE WOODS and Grassland Coombes (Bottoms)

An ancient Royal Hunting Forest straddling the Wilts/Dorset border with large areas of steep, mainly south-facing, unimproved chalk grassland coombes. Several are tightly grazed. Generally under-recorded and no post-1995 records for most species. The Marsh Fritillary was last recorded in 1988 (3). (Also see Dorset "Key Area" 3. pg.121)

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

- ? Marsh Fritillary (H)** Dingy Skipper (M)
- Grizzled Skipper (H)** Chalkhill Blue (M)
- Adonis Blue (H)** White Admiral (M)
- Duke of Burgundy (H)** Wall (M)
- ? Purple Emperor (H)**

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

23. VERNDITCH CHASE WOODS & CHICKENGROVE BOTTOM

(Also see Hampshire "Key Area" 25. Martin Down, pg.151)

A Forestry Commission mixed woodland with a narrow strip of sheltered unimproved chalk grassland on the northern edge. The Marsh Fritillary is believed to have been an introduction. The Pearl-bordered Fritillary was last recorded in 1992.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

? **Pearl-bordered Fritillary (H)** Dingy Skipper (M)
Marsh Fritillary (H)
Grizzled Skipper (H)
Small Blue (H)
Duke of Burgundy (H)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

24. MIDDLETON DOWN

A Wiltshire Wildlife Trust reserve of unimproved chalk grassland.

BUTTERFLY H/M priority species 1995-99 (High priority in bold):

Grizzled Skipper (H) Dingy Skipper (M)
Small Blue (H) Chalkhill Blue (M)
Adonis Blue (H)

MACRO-MOTH H/M priority species 1980-99 (High priority in bold):

.....

25. PENCHET FOREST (Bentley Wood, Blackmoor Copse, Hound Wood)

(see Hampshire "Key Area" 23. Tytherley, pg. 142)

26. DEAN & PEPPERBOX HILLS

(see Hampshire "Key Area" 24. Dean Hill, pg.138)

Grayling first recorded in 1999 (singleton)

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

Silver-spotted Skipper (H) Chalkhill Blue (M)
Small Blue (H) Grayling (M)
Adonis Blue (H)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

27. WHITEPARISH COMMON WOODS

Overgrown ancient woodland, now partially replanted with conifers and has lost most of its key butterfly species. Very few records received since 1990 and no post-1995 Pearl-bordered Fritillary records.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

- ? Pearl-bordered Fritillary (H) White Admiral (M)
- Purple Emperor (H) Wall (M)
- ? Small Pearl-bordered Frit. (H)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

28. LANGLEY WOOD NNR & HAMPTWORTH ESTATE

Ancient woodlands with some coniferisation and a few small open heathy areas. Very few records received since 1990. There are no post-1995 records of Pearl-bordered Fritillary.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

- ? Pearl-bordered Fritillary (H) ? Dingy Skipper (M)
- ? Grizzled Skipper (H) White Admiral (M)
- ? Silver-studded Blue (H)
- ? Duke of Burgundy (H)
- Purple Emperor (H)
- ? Small Pearl-bordered Fritillary (H)

MACRO-MOTH H/M priority species 1995-99 (High Priority in bold):

.....

29. POUND BOTTOM

(also see Hampshire "Key Area" 26. New Forest, pg.150)

A small piece of the extensive New Forest heathland just inside Wiltshire beside the OS trig-point on the Hamptworth Estate. The only significant Silver-studded Blue population in Wilts.

BUTTERFLY H/M priority species 1995-99 (High Priority in bold):

- Silver-studded Blue (H) Grayling (M)

MACRO-MOTH H/M priority species 1980-99 (High Priority in bold):

.....

4.2 KEY SITES (isolated from "Key Areas")

4.2.1 DORSET

Site	Natural Area	H/M	Priority Species
King's Court Wood	(133)		White Admiral (M)
Weatherby Castle	(134)		Adonis Blue (H) Chalkhill Blue (M) Dingy Skipper (M) Wall (M)
Moortown Coppice, Canford	(135)		White-letter Hairstreak (M)
Jumpers, Christchurch	(135)		White-letter Hairstreak (M)
Langton West Wood & Wilderness	(136)		White-letter Hairstreak (M) White Admiral (M)
Fleet Coast	(138)		Lulworth Skipper (H)
Hardy Monument	(138)		Silver-studded Blue (H) Grayling ? (M)
Lambert Castle	(139)		Marsh Fritillary (H)
Prime Coppice	(139)		Wood White ? (H)

4.2.2 HAMPSHIRE

Site Natural Area H/M Priority Species

DETAILS OF ADDITIONAL KEY SITES NOT PRESENTED IN THIS DOCUMENT.

4.2.3 ISLE OF WIGHT

Site Natural Area H/M Priority Species

DETAILS OF ADDITIONAL KEY SITES NOT PRESENTED IN THIS DOCUMENT.

4.2.4 WILTSHIRE

Site Natural Area H/M Priority Species

DETAILS OF ADDITIONAL KEY SITES NOT PRESENTED IN THIS DOCUMENT.

5. SURVEYS

5.1 General coverage/mapping

DORSET

Data for Dorset have been collected at km-square level on a regular basis since 1970:

1970-84	90% coverage	Thomas & Webb (1984)
1980-94	98% coverage	Thomas <i>et al.</i> (1998)
1995-99	91% coverage	Millennium Atlas Project 2000

During the 1995-99 survey the following methods were used:

- (a) Home base surveys in which members tried to visit their home km-square and the eight surrounding it at least once a month.
- (b) Garden surveys.
- (c) Special action square-bashing days directed at under-recorded parts of the county.
- (d) Surveying km-squares with previously recorded High and Medium priority species.

DBC verifies all records, enters them on to the Levana database, and validates them. The records are ultimately transferred to DERC's Recorder database.

HAMPSHIRE & ISLE OF WIGHT

For the period **1976-1994** butterfly records were obtained for **88% of all tetrads** in Hants & Isle of Wight. Maximum coverage in any one year was approximately 35-40%. By allocating particular 10km squares to "Area Groups" and by systematic tetrad-bashing, surveying for the Millennium Atlas (**1995-1999**) achieved **99.9% tetrad coverage** for Hampshire & Isle of Wight. The data is fully computerised using LEVANA. Several Branch members are involved in computer entry of data. Hampshire & Isle of Wight moth data is also computerised (RECORDER) and input annually by several Branch members. Conversion of butterfly data to RECORDER is under consideration in order to facilitate exchange of data with other organisations.

WILTSHIRE

For the period of the Wiltshire Butterfly Mapping Scheme (WBMS), **1982-1994**, all but one of the 952 tetrads or part tetrads covering Wiltshire were visited (ie **99.9% tetrad coverage**). Several of the tetrads were visited only by Mike Fuller on one or two occasions to try to achieve as high a percentage coverage as possible (this was rarely done during the Butterflies for the New Millennium (BNM) project). During the BNM mapping period, **1995-1999**, **77% of all tetrads** were visited, and for many, a visit in each of the five years was made.

5.2 Habitat surveys

After liaising with various organisations in the four counties to determine data already in existence (eg survey of coppiced woodlands), the habitat recording scheme would aim to:

- (a) Undertake woodland survey update, re-evaluating those that have at sometime been coppiced, and those which still remain.
- (b) Completely re-survey unimproved calcareous grasslands.
- (c) Complete survey of heathland.
- (d) Survey all remaining unimproved neutral and acid meadow sites.

Named individuals would take responsibility for coordinating each of these projects plus any other habitat surveys that may be required.

5.3 Butterfly priority species surveys

DORSET

In addition to Atlas-based surveying, Dorset has also had well-organised surveys relating to the following **High Priority Species**: **Silver-spotted Skipper** (1978, 1982); **Lulworth Skipper** (1978, 1998); **Small Blue** (1978); **Adonis Blue** (1978, 1998, 1999); **Duke of Burgundy** (1984); **Purple Emperor** (1978); **Marsh Fritillary** (1978, 1983).

A system of named co-ordinators for each natural region (eg Purbeck, Portland, Cranborne Chase) is being developed so that the High Priority species in each region are regularly surveyed.

HAMPSHIRE & ISLE OF WIGHT

Named individuals ("**Species Co-ordinators**") take responsibility for arranging detailed surveys (on an annual or biennial basis), of all known sites for each of the high priority butterfly species listed in 1.3.1 (pg. 5), as well as searching for other potential sites for the given species. This ensures that **all** known sites for the high priority species are visited on a regular basis during the flight period, rather than relying on records being sent in on an *ad hoc* basis. Because many sites for rare species are on privately owned land it is anticipated that individual Species Coordinators would actively seek permission to visit all sites where a particular species occurs or is thought to occur. Having a Species Coordinator responsible for a particular butterfly species ensures that someone is keeping a watchful eye on all rare species of the region. The remit of individual Species Coordinators will be defined through discussions with the Head of Conservation. No action should be initiated without prior approval. Species Coordinators write a brief annual report to advise on the status of each species and any notable trends. This scheme was launched in 1994 and by 1999 all High Priority species had a Co-ordinator. An Annual Report is compiled comprising a single A4 sheet pro-forma for each of the species. This is circulated to Hampshire County Council, Hampshire Wildlife Trust, Isle of Wight Council, and relevant people within Butterfly Conservation. The scheme has been very successful and will be continued in future years. Through Hampshire Wildlife Trust (as part of the Hampshire BAP), a "**Network of Invertebrate Recorders**" has been set up for exchange of information and ideas. Representatives from a wide range of invertebrate Orders are involved and a regular newsletter is produced.

WILTSHIRE

Apart from the WBMS (1982-94) and BNM (1995-99) monitoring schemes mentioned above, data has been sent to BC Conservation Office to assist in national studies on Silver-spotted Skipper, Adonis Blue, Pearl-bordered Fritillary and Marsh Fritillary. Detailed **Marsh Fritillary larval web searches** by volunteers, mainly on SPTA, were carried out during 1997-99 and a report produced by Dominic Ash, employed by the MOD and working with Paul Toynton, Conservation Officer. This is an ongoing exercise. **Brown Hairstreak egg searches** have been undertaken periodically on an *ad hoc* basis in Braydon Forest, north Wiltshire.

Avis Lloyd carries out an assessment of butterfly numbers on SPTA(C) on a selection of sites, mainly towards the northern part of the Plain at Rushall Down, Wilsford Down and Enford Down (where a Grayling colony occurs on the Chalk). She also co-ordinates the

monitoring of the Marsh Fritillary populations on the whole of SPTA and, in particular, the counting and mapping of larval webs.

5.4 Moth surveys and monitoring

1. Review status and distribution of all micro-moths, with a view to developing a detailed Action Plan for Micro-moths by 2005.

2. Improve general coverage for all macro-moths, especially in parts of the region (eg Wiltshire) where detailed knowledge is less complete.

DORSET

Since 1994 the Dorset Moth Group has been surveying the present status of both macro- and micro-moths in the County. Around 50 regular recorders have been involved in the project, and the results have been communicated via regular newsletters. The data collected is stored on the DERC database. Work has been facilitated by a mobile generator purchased by DBC. Day-flying moths have been surveyed with the aid of the regular butterfly transect walkers.

HAMPSHIRE & ISLE OF WIGHT

Targeted moth survey work in a range of key habitat types with emphasis on High Priority species has been initiated. For example, in August 1999 successful larval surveys were undertaken for the Striped Lychnis (*Shargacucullia lychnitis*) and greatly improved our understanding of the status and distribution of this species. In future years it is intended to survey for and improve our approach to conservation of high and medium priority moths and their habitats (especially Red Data Book species). We aim to gain a much better understanding of the status and distribution of all high and medium priority species. To encourage more Butterfly Conservation members to get involved with moth survey work we plan to launch a scheme aimed at monitoring and recording day-flying moths.

WILTSHIRE

In recent years, Wiltshire moth recorders have undertaken targeted moth surveys for particular species as well as carrying out surveys at under-recorded sites. Wiltshire Branch of Butterfly Conservation have held several field meetings specifically for moths.

5.5 Future survey work

DORSET

- (a) To continue the mapping survey in liaison with DERC, and set up a code of practice as requested by the National Biodiversity Network Project.
- (b) Put in place a regular survey system for the High and Medium Priority species under the guidance of the co-ordinators for each of Dorset's Natural Regions.
- (c) In view of the apparent decline in Small Blue, Small Pearl-bordered Fritillary and White Admiral km-squares, take steps to organise special surveys.

HAMPSHIRE

- (a) Aim for 100% tetrad coverage on a decadal basis. Having obtained 99.9% tetrad coverage during the BNM recording period (1995-99), the intention is to repeat the detailed tetrad mapping and achieve 100% coverage for the period 2000-2009.
- (b) Aim for 50% tetrad coverage each year.
- (c) Maintain and enhance 10km grid square "monitoring officer"/"Area Group" scheme.
- (d) 'Fill the hole' days, where as part of the field programme members of the Branch assemble on a particular day(s) to undertake basic surveying of under-recorded areas.

ISLE OF WIGHT

Recording for the BNM (1995-99) atlas project was much less complete compared to Hampshire. An important aspect of recording effort in the period up to 2005 will be to rejuvenate Lepidoptera recording on the Isle of Wight. The current number of active recorders seems to have declined slightly over recent years. In view of its richness for butterflies, moths and other wildlife, it is vital to establish a strong network of Lepidoptera recorders on the Isle of Wight.

WILTSHIRE

A species co-ordinator approach has been developed for priority butterfly species. Atlas survey work will continue, as well as targeted survey work for under-recorded species and less well covered parts of the county. Moth survey work is increasing, primarily for priority species and key habitats/areas.

5.6 Site register

In addition to designation of "Key Areas", a register of priority sites for Lepidoptera within the region is in the process of being compiled. The intention is that the list should be drawn up on the basis of criteria comparable to those used to define Sites of Special Scientific Interest (SSSI's) or Sites of Importance for Nature Conservation (SINC's). The main criteria used for defining the top Lepidoptera sites would be species diversity, number of rare species present, rarity of particular habitat type and/or continuity of large tract of key habitat type. The Site Register should be reviewed annually. The principal aim is to safeguard all priority sites by providing up to date information and advice to managers/wardens, particularly with respect to rare or local species. For sites that are not nature reserves contact owners and encourage them to take a positive and sympathetic approach to management for butterflies and moths. Help and advise as much as possible. Identify in advance any threats to key sites and take appropriate action to avert.

6. MONITORING

6.1 Butterfly Transects

Butterfly transect monitoring (conforming to national Butterfly Monitoring Scheme (BMS) guidelines) has increased steadily during the last 15 years. There are now nearly 80 butterfly transects known to be operating in Hampshire & Isle of Wight, 55 in Dorset and 31 in Wiltshire. This makes a massive **total of 160+ transects for the region**. The majority of these are on chalk downland sites, but more recently transects have been initiated to give better coverage of particular habitat or under-represented species (see **Appendix 4 for maps of transect sites for each county**). The detail of 1999 transects by habitat and county are as follows:

<u>Habitat</u>	Dorset	Hampshire	I. of Wight	Wiltshire	Total
Calcareous grassland	15	24	4	11	54
Neutral/acid grassland	6	9	-	2	17
Heathland	11	5	-	-	16
Woodland	13	18	4	13	48
Farmland/Parkland	5	6	1	1	13
Quarries/Industrial	5	1	-	3	9
Coastal (grass/dunes/ marsh)	-	5	-	-	5
Other (eg garden, canal- towpath)		2	-	1	3
TOTAL	55	70	9	31	165

Transect data is entered on to a computerised database, and each county produces an annual summary of transect trends. This includes an annual tabulated summary for each county with a cumulative tally indicating the overall pattern of change for each species (ie >20% increase; >20% decrease; or no significant change). These summary sheets are exchanged between transect co-ordinators for each county, and county-based feedback is provided to individual transect walkers, site managers and County Councils. Most counties have annual or biennial meetings for discussion and analysis of results. In Hampshire, "Transect Training Days" have been run on a regular basis for Hampshire Wildlife Trust, attracting about 30-40 people per session.

6.2 Other recording methods

Other regular monitoring methods employed by one or all of the counties in the region include:

Ova surveys: Brown Hairstreak, White-letter Hairstreak, Purple Hairstreak (e.g. after October 1987 storm), Silver-spotted Skipper, Brown Argus.

Larvae/webs: Marsh Fritillary (webs), Glanville Fritillary (webs), Striped Lychnis (larvae), Small Eggar (webs).

Larval eating damage: Duke of Burgundy, White-letter Hairstreak.

Timed counts: Silver-spotted Skipper, Pearl-bordered Fritillary.

Early evening surveys: Purple Hairstreak.

6.3 Future aims

6.3.1 Enter all early transect data on to computer and provide a more efficient service for supplying site-managers with section data.

6.3.2 Improve the range of information on the habitats covered by transect walks by using Corine biotopes and collecting more information on management.

6.3.3 Improve the regional distribution of walks by ensuring that there is at least one transect walk in each "Key Area" (eg West Dorset coast and more southerly Dorset Downs key areas are of particular concern).

- 6.3.4 Respond where feasible to requests for walks from other conservation bodies who wish to monitor particular new management policies.
- 6.3.5 Increase the number of ova/larval surveys and/or timed counts for key areas with no transects.
- 6.3.6 Maintain strong level of cross-border collaboration between Dorset, Wiltshire, Hampshire & Isle of Wight to produce annual summary sheets and report(s) for transect data.
- 6.3.7 Expand the Branch system of weather monitoring (Dorset), so that all parts of the county have long runs of temperature, sunshine and rainfall data. Consider integrating weather/climate data for all counties of the region.

7. MANAGEMENT

7.1 Site Management

Representatives of the three Branches in the region are involved in aspects of management of many key sites for Lepidoptera throughout the region. This involvement with site management takes place at various levels:

- (a) Management of Butterfly Conservation owned/leased reserves. Currently these are: Dorset (**Broadcroft Quarry, Perryfields Quarry**) and Hampshire (**Bentley Station Meadow, Magdalen Hill Down, Yew Hill**).
- (b) Organising and being involved in practical conservation management at nature reserves managed by other organisations (eg County Wildlife Trusts, National Trust, Woodland Trust etc.).
- (c) Contributing in the management decision-making processes through representation on conservation/reserve management committees of organisations such as county wildlife trusts, English Nature, Woodland Trust. Management and monitoring advice is also given to County Councils, District Councils, Local Councils, Forest Enterprise and the MOD. Hampshire Branch of Butterfly Conservation has a Service-Level Agreement with Hampshire County Council, and Wiltshire Branch has a formal management agreement with the MOD and WCC (owners) for the Boscombe Down disused railway line cutting.
- (d) Giving feedback and advice to a whole range of conservation organisations and local authorities based on data obtained from transect walks (eg ranges from individual site advice to analysis of county and regional patterns of change).
- (e) Contributing to the development of Biodiversity Action Plans (BAPs) at district, county and regional level, plus representation on committees and working groups of biodiversity planning organisations (eg Dorset Conservation Forum, Blackmore Vale Habitat Restoration Project).

7.2 Habitat Management

Many aspects of site management detailed in 7.1 are linked with overall habitat management, but in addition to that the Branches have involvement in developing strategies for habitat management as part of the BAP process. In developing the Hampshire BAP, representatives from Butterfly Conservation have sat on working groups developing Habitat Action Plans (HAPs) for *Lowland Calcareous Grasslands* and *Ancient & Semi-natural Woodlands*.

8. LIAISON AND CO-OPERATION

8.1 Enhance liaison/co-operation with other organisations

Hampshire & IOW Wildlife Trust,	Hampshire County Council,
Wight Wildlife,	RSPB,
English Nature,	National Trust,
Woodland Trust,	Ministry of Defence,
Forestry Commission,	Hampshire Ornithological Society (HOS)
Dorset County Council,	Dorset Wildlife Trust
British Entomological & Nat.Hist.Society	Dorset Environmental Records Centre
Environment Agency	Farming and Wildlife Advisory Service
Isle of Wight Council	Isle of Wight Nat.Hist.& Arch.Soc.
Local authorities	Wiltshire County Council
Wiltshire Wildlife Trust	Wiltshire Biological Records Centre

and, other organisations involved with conservation/biological recording or managing the countryside of South-Central England.

Co-operation will be to the advantage of all concerned and will ensure:

- (a) the best possible database
- (b) avoidance of unnecessary duplication of effort
- (c) conservation of key habitat in the region
- (d) design of appropriate management for large tracts of land or closely linked sites with varied ownership/management.

8.2 Liaison/cooperation with landowners

Make particular effort to develop and foster links with landowners, especially those owners of major woodland estates or, other sites of major wildlife interest.

9. OTHER ACTIVITIES

9.1 Education

Increase general public awareness with regard to butterflies, moths and 'Butterfly Conservation' using a number of approaches:

- eg
- (a) leaflet dispensers at BC reserves
 - (b) production of Newsletters and annual Butterfly & Moth Reports.
 - (c) press releases and other media coverage of our activities
 - (d) joint meetings with other Groups
 - (e) display boards at various centres in the region (eg Country Parks)
 - (f) providing advice and information packs to schools
 - (g) provide advice and information to landowners
 - (h) provide information on 'Conservation Gardening', and advise on the value of gardens as refuge areas for many butterfly and moth species.

9.2 Membership

Increase efforts to recruit more members to Butterfly Conservation, and enhance the number of active members within all Branches. Maintaining succession of new and active members with enthusiasm and fresh ideas is vital to maintaining vigorous and vibrant Branches, and essential to the long term success of the Society as a whole.

9.3 Training and development

Provide opportunities for new and existing members to raise their levels of

expertise in a variety of areas via training days (eg transect monitoring, identification skills, data entry, marketing and publicity) and other events. Events aimed both at county and regional level are seen as highly desirable.

9.4 Publicity and fund-raising

Raise the level of publicity and fund-raising at county and regional level.

9.5 Area Groups & Key Areas for Lepidoptera

Area Groups have already been initiated in some parts of Hampshire to provide a focus for activities within parts of the county, and giving members in a particular area more of an identity. This also provides local knowledge, expertise and contacts thus enabling many key elements of the Regional Action Plan to be implemented by members in the area concerned (often in partnership with other organisations). In a similar way, Dorset aims to identify groups of volunteers to help in implementing priority actions in the various "Key Areas".

10. PAID STAFF (Regional/Branch level)

10.1 Regional Conservation Officer

Implementing the various actions outlined in this, the "South-Central England" Regional action plan presents many major challenges for the Branches and their volunteers. A professional full-time Regional Conservation Officer would undoubtedly do a great deal to assist in this mission.

10.2 Branch Conservationist (Branch Ecologist)

Recognising that the many actions outlined in this regional action plan cannot be achieved by volunteers alone, Hampshire & Isle of Wight Branch of Butterfly Conservation have recently (May 2000) appointed a Branch Conservationist (Branch Ecologist). The work of this person is intended to be wide-ranging, and will include: (a) liaising with organisations such as County Councils, HWT and others involved with recording, or managing the Hampshire and Isle of Wight countryside; (b) advising landowners on conservation of particular Lepidoptera species and habitats, (c) finding, harnessing and co-ordinating enthusiastic volunteers to undertake survey work, monitoring and other tasks. By undertaking such work it is anticipated that the various actions outlined in this document will be progressively achieved.

10.3 Reserves Officer(s)

In December 1997, Hampshire & Isle of Wight Branch of Butterfly Conservation appointed a Reserves Officer to oversee the running of its three reserves. This has been highly successful, and has allowed the Branch to undertake a range of projects relating to reserve management and habitat/landscape conservation that would have been difficult to achieve with volunteers alone.

11. REVIEW:

This plan will be reviewed annually. This review will take the form of a short annual progress report which will comment on the implementation of the main aims and will be discussed at regional level by representatives of the four counties. There will be a more comprehensive review every five years, where species priority ratings will be re-assessed and the plan updated. Because of the magnitude of the Action Plan, it may be desirable to form regional working groups focusing on (a) *butterflies*, (b) *moths*, (c) *habitats*, and (d) *other activities*. However, it is fully appreciated that an integrated approach is required such that there must be close collaboration and liaison between the various groups if such sub-divisions are made.

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APPENDIX 1:

TABLE 2 - Rate(s) of change and current status of butterfly species in South-Central England.

Note: Dorset (D), Hampshire (H), Isle of Wight (I), Wiltshire (W)
(Dorset data is No. of km squares, whereas for other counties it is No. of tetrads)

Rate of change over last 12 years is calculated in the manner outlined in Bourn *et al* (1996), by relating the rate of change from the first recording period, 1980-94, (1982-94 for Wilts) to the second recording period (1995-99). The calculation has used the mid point of the first recording period (= 1987) to the end of the second recording period (= 1999) to give a representative 12 year period for which data is available. The first recording period is three times longer than the second, which will introduce error, as will variable recorder effort between counties and between recording periods. Despite variations from one county to the next, the calculations made, though imprecise, do provide a semi-quantitative interpretation of rate of change for each species. The figures obtained tie in well with qualitative observations and judgement, so however determined, there is little doubt which species have experienced most decline and give greatest cause for concern. Dorset 1995-99 and Wiltshire 1995-99 data for species in >200 tetrads (or 200 km squares) have been scaled (x 1.3 and x 1.6 respectively) as less complete coverage, in part due to the shorter recording period, was distorting the true picture. For Hampshire the '95-'99 was much more comprehensive and for parity data for the 1980-'94 recording period for all species in >200 tetrads has been scaled x1.4. The scaled figure given in brackets was used for calculations of change, and with this adjustment the patterns of change are more consistent between counties.

For example, a rate of change for **Small Skipper** in **Dorset** is given by:

(No. of km sq. in second recording period, *scaled 1995-1999 figure*, minus No. of km sq. in first recording period, *1980-1994* / No. of km sq. in first recording period *1980-94*) x 12/12 x 100

i.e. (852-909)/909 x 100 (= -57/909 x100) = -6% in 12 years.

Note: In the **Regional Change (%)** column of Table 2, the top figure is derived for the 12-year period 1987-1999, based on data in the first two columns of the table. The lower figure (in square brackets) is the value derived for the 25-year period based on the approach of Bourn *et al.* (1996). In essence, the calculation is of the form detailed above (but for region rather than county), with a multiplier of 25/12 (= 2.08) to extrapolate to 25-year period from data for 12-year period.

SPECIES	D (km 1980-94) H (tet. 1980-94) I (tet. 1980-94) W (tet.1982-94)	D (km '95-99) H (tet. '95-99) I (tet. '95-99) W (tet. '95-99)	Rate of change (%) by county	Region change (%) [25 yr]	No. of remaining colonies (1999)
Small Skipper	D = 909 H = 371 (519) I = 50 W = 584	D = 655 (852) H = 533 I = 43 W = 270 (432)	D = -6 H = +3 I = -14 W = -26	- 10 [-20]	D = >100 H = >100 I = <40 W = >100
Essex Skipper	D = 20 H = 198 I = 0 W = 187	D = 63 H = 394 I = 7? W = 161	D = +215 H = +99 I = ? W = -14	+ 54 [+112]	D = 15 ? H = >100 I = 0 W = >100
Lulworth Skipper	D = 110 H = 0 I = 0 W = 0	D = 100 H = 0 I = 0 W = 0	D = -9 H = n/a I = n/a W = n/a	-9 [-19]	D = C. 80 H = 0 I = 0 W = 0
Silver-spotted Skipper	D = 8 H = 16 I = 0 W = 12	D = 8 H = 12 I = 0 W = 15	D = 0 H = -25 I = n/a W = +25	-3 [-6]	D = 1 H = 8 I = 0 W = 4-5
Large Skipper	D = 1022 H = 384 (538) I = 42 W = 542	D = 670 (871) H = 505 I = 56 W = 228 (365)	D = - 15 H = - 6 I = + 33 W = - 33	-16 [-34]	D = >100 H = >100 I = >100 W = >100
Dingy Skipper	D = 292 H = 131 I = 40 W = 190	D = 184 H = 90 I = 25 W = 97	D = - 37 H = - 31 I = - 38 W = - 49	-39 [-82]	D = >100 H = >50 ? I = <50 W = c. 205
Grizzled Skipper	D = 186 H = 145 I = 31 W = 153	D = 147 H = 102 I = 19 W = 88	D = - 21 H = - 30 I = - 39 W = - 42	-31 [-64]	D = >100 H = > 50 ? I = < 30 W = c. 150
Wood White	D = 9 H = 0 E c.1940 I = 0 W = 4 E c.1992	D = 7 H = 0 I = 0 W = 0	D = -22 H = n/a I = n/a W = -100	-46 [-96]	D = 2 H = 0 I = 0 W = 0
Clouded Yellow	D = 690 H = 159 I = 53 W = 207	D = 444 (577) H = 179 I = 54 W = 76 (122)	D = -16 H = +13 I = + 2 W = -41	-16 [-33]	D = M H = M I = M W = M
Brimstone	D = 1256 H = 516 (722) I = 41 W = 687	D=1103(1434) H = 832 I = 43 W = 334 (534)	D = + 14 H = + 15 I = + 5 W = - 22	+ 5 [+11]	D = >100 H = >100 I = c.50 W = >100

SPECIES	D (km 1980-94) H (tet. 1980-94) I (tet. 1980-94) W (tet.1982-94)	D (km '95-99) H (tet. '95-99) I (tet. '95-99) W (tet. '95-99)	Rate of change (%) by county	Region change (%) [25 yr]	No. of remaining colonies (1999)
Large White	D = 2029 H = 523 (732) I = 75 W = 785	D=1612(2096) H = 844 I = 101 W =318 (509)	D = +3 H = +15 I = +35 W = -35	- 2 [-4]	D = >100 H = >100 I = >100 W = >100
Small White	D = 2139 H = 543 (760) I = 72 W = 846	D=1687(2193) H = 829 I = 90 W =354 (566)	D = +3 H = +9 I = +25 W = -33	- 4 [-8]	D = >100 H = >100 I = >100 W = >100
Green-veined White	D = 1459 H = 458 (641) I = 64 W = 700	D=1327(1725) H = 769 I = 74 W =327 (523)	D = +18 H = +20 I = +16 W = -25	+ 8 [+16]	D = >100 H = >100 I = >50 W = >100
Orange Tip	D = 1161 H = 432 (605) I = 55 W = 636	D = 836(1087) H = 746 I = 57 W =270 (432)	D = -6 H = +23 I = +4 W = -32	- 5 [-11]	D = >100 H = >100 I = >50 W = >100
Green Hairstreak	D = 284 H = 153 I = 33 W = 177	D = 160 (208) H = 132 I = 17 W = 76	D = -27 H = -14 I = -48 W = -57	-33 [-69]	D = >100 H = >50 I = <40 W = c.200
Brown Hairstreak	D = 21 H = 14 I = 0 W = 39	D = 12 H = 17 I = 2 W = 17	D = -43 H = +21 I = ? W = -56	-35 [-73]	D = 1-2 ? H = 3-4 I = 1 ? W = 3
Purple Hairstreak	D = 357 H = 223 (312) I = 17 W = 229	D = 143 (186) H = 226 I = 22 W =170 (272)	D = -48 H = -28 I = +29 W = +19	-23 [-48]	D = >100 H = >100 I = c.50 W = >100
White-letter Hairstreak	D = 28 H = 101 I = 12 W = 46	D = 18 H = 65 I = 13 W = 35	D = -36 H = -36 I = +8 W = -24	-30 [-62]	D = c. 20 ? H = c.30-50 I = c.25 W = c. 60 ?
Small Copper	D = 967 H = 358 (501) I = 62 W = 488	D = 618 (803) H = 374 I = 61 W =222 (355)	D = -17 H = -25 I = -2 W = -27	-21 [-44]	D = >100 H = >100 I = c.50-60 W = >100

SPECIES	D (km 1980-94) H (tet. 1980-94) I (tet. 1980-94) W (tet.1982-94)	D (km'95-99) H (tet.'95-99) I (tet.'95-99) W (tet.'95-99)	Rate of change (%) by county	Region change % [25 yr]	No. of remaining colonies (1999)
Small Blue	D = 100 H = 64 I = 19 W = 156	D = 63 H = 56 I = 13 W = 72	D = -37 H = -13 I = -32 W = -54	-40 [-83]	D = > 50 H = c. 25 I = c. 5 W = c.170
Silver-studded Blue	D = 192 H = 105 I = E c.1947 W = 7	D = 120 H = 97 I = 0 W = 2	D = -38 H = -8 I = n/a W = -71	-28 [-58]	D = >100 H = 40-50 I = 0 W = 1-2
Brown Argus	D = 299 H = 102 I = 37 W = 281	D = 256 (333) H = 126 I = 26 W =151 (242)	D =+11 H =+24 I = -30 W = -14	+ 1 [+2]	D = >100 H = c. 40 I = c. 20 W =>300
Common Blue	D = 1205 H = 375 (525) I = 69 W = 618	D = 763 (992) H = 454 I = 78 W =323 (517)	D = -18 H = -14 I = +13 W = -16	-16 [-32]	D = >100 H = >100 I = >50 W =>100
Chalkhill Blue	D = 154 H = 76 I = 32 W = 165	D = 121 H = 69 I = 26 W = 112	D = -21 H = -9 I = -19 W = -32	-23 [-48]	D = c.100 H = 30-50 I = c. 25 W = c.180
Adonis Blue	D = 138 H = 10 I = 19 W = 90	D = 137 H = 7 I = 13 W = 83	D = -1 H = -30 I = -32 W = -8	-7 [-14]	D =50-100 H = 1 I = 6 W = c.100
Holly Blue	D = 723 H = 372 (521) I = 53 W = 444	D=1055(1372) H = 696 I = 58 W=238 (381)	D =+90 H =+34 I = +9 W =-14	+44 [+92]	D = >100 H = >100 I =c.50-60 W =>100
Duke of Burgundy	D = 37 H = 84 I = 6 W = 124	D = 28 H = 37 I = 4 W = 57	D = -24 H = -56 I = -33 W =-54	-50 [-104]	D = 10-20 H = 15-20 I = 3-4 W = c.90
White Admiral	D = 191 H = 170 I = 29 W = 81	D = 57 H = 142 I = 22 W = 43	D = -70 H = -16 I = -24 W= -47	-44 [-91]	D=50-100 H =50-100 I = 25-30 W = c.60

SPECIES	D (km 1980-94) H (tet. 1980-94) I (tet. 1980-94) W (tet.1982-94)	D (km '95-'99) H (tet.'95-'99) I (tet. '95-'99) W (tet.'95-'99)	Rate of change (%) by county	Region change (%) [25 yr]	No. of remaining colonies (1999)
Purple Emperor	D = 5 H = 61 I = E c.1890 W = 27	D = 1 H = 29 I = 0 W = 16	D = -80 H = -52 I = n/a W = -41	-51 [-105]	D = 1 H = 20-25 I = 0 W = c.6
Red Admiral	D = 1420 H = 444 (623) I = 71 W = 606	D=1498(1947) H = 731 I = 97 W =329(526)	D =+37 H=+17 I =+37 W =-13	+21 [+44]	D = M H = M I = M W = M
Painted Lady	D = 864 H = 293 (410) I = 53 W = 442	D = 863(1122) H = 511 I = 78 W =200 (320)	D =+30 H=+25 I =+47 W = -28	+15 [+31]	D = M H = M I = M W = M
Small Tortoiseshell	D = 1849 H = 485 (679) I = 63 W = 819	D=1482(1927) H = 803 I = 81 W =413 (661)	D = +4 H=+18 I =+29 W =-19	+ 2 [+4]	D = >100 H = >100 I = 50-60 W =>100
Large Tortoiseshell	D = E c.1969 H = 5 E c.1985 I = E c.1962 W = 7 E c.1987	D = H = 1 I = 0 W =	D = H=-80 I = 0 W =	E	D = M H = M I = M W = M
Peacock	D = 1473 H = 489 (685) I = 64 W = 713	D=1318(1713) H = 737 I = 76 W =370(592)	D =+16 H =+8 I =+19 W =-17	+ 6 [+13]	D = >100 H = >100 I = 50-100 W =>100
Comma	D = 816 H = 395 (553) I = 48 W = 397	D = 670(871) H = 554 I = 60 W =211 (338)	D = +7 H = 0 I = +25 W = -15	0 [+1]	D = >100 H = >100 I = <50 W =>100
Small Pearl- bordered Fritillary	D = 86 H = 44 I = 4 W = 25	D = 27 H = 13 I = 4 W = 10	D = -67 H = -70 I = 0 W = -60	-66 [-137]	D = c.20 H = c.3-5 I = c.2 W = < 5
Pearl-bordered Fritillary	D = 44 H = 70 I = 12 W = 32	D = 13 H = 29 I = 3 W = 12	D = -70 H = -59 I = -75 W = -63	-64 [-133]	D = 2-3 H = c.10 I = c. 2 W = < 5

SPECIES	D (km 1980-94) H (tet. 1980-94) I (tet. 1980-94) W (tet.1982-94)	D (km '95-'99) H (tet. '95-'99) I (tet. '95-'99) W (tet.'95-'99)	Rate of change (%) by county	Region change (%) [25 yr]	No. of remaining colonies (1999)
High Brown Fritillary	D = E c.1970's H = 10 I = E c.1955 W = 12	D = 0 H = 1 E.1985 I = 0 W =E? c.1995	D =n/a H=-100 I = n/a W=-100	-100 E	D = 0 H = 0 I = 0 W = 0
Dark Green Fritillary	D = 156 H = 83 I = 21 W = 175	D = 133 H = 104 I = 14 W = 105	D =-15 H =+25 I =-33 W =-40	-18 [-38]	D = 20-50 H = 15-20 I = c.5 W =c.35
Silver-washed Fritillary	D = 400 H = 162 I = 10 W = 100	D = 238 (309) H = 190 I = 11 W = 58	D = -23 H =+17 I =+10 W =-42	-15 [-32]	D = >100 H =30-50 I = c. 7 W = c. 52
Marsh Fritillary	D = 86 H = 39 I = E c. 1956 W = 130	D = 58 H = 12 I = 1 W = 74	D = -33 H = -69 I = ? W = -43	-43 [-90]	D = 30+ H = 1-3 I = 0 W = c.40
Glanville Fritillary	D = A H = 2 I = 26 W = A	D = A H = 3 I = 22 W = A	D = n/a H= +50 I = -15 W = n/a	-11 [-22]	D = 0 H = 1 I = c.15 W = 0
Speckled Wood	D = 1558 H = 535 (749) I = 80 W = 674	D=1281(1665) H = 667 I = 88 W=308 (493)	D = +7 H = -11 I = +10 W = -27	- 5 [-10]	D = >100 H = >100 I =c.50-60 W =>100
Wall	D = 769 H = 183 I = 72 W = 284	D = 401 (521) H = 52 I = 78 W = 74 (118)	D =-32 H =-72 I = +8 W =-58	-41 [-86]	D = >100 H =30+ ? I = <40 W =>100
Marbled White	D = 972 H = 296 (414) I = 47 W = 564	D = 716 (931) H = 437 I = 65 W =302 (483)	D = -4 H =+6 I =+38 W =-14	-4 [-8]	D = >100 H= 50-100 I = 25-30 W =>100
Grayling	D = 437 H = 151 I = 17 W = 16	D = 261 (339) H = 113 I = 14 W = 15	D = -22 H = -25 I = -18 W = -6	-23 [-47]	D => 100 H = 30-40 I = c. 10 W = < 5
Gatekeeper	D = 1820 H = 526 (736) I = 65 W = 719	D=1551(2016) H = 841 I = 80 W =341(546)	D =+11 H=+14 I =+23 W =-24	+ 4 [+9]	D = >100 H = >100 I = 50-100 W =>100

SPECIES	D (km 1980-94) H (tet. 1980-94) I (tet. 1980-94) W (tet.1980-94)	D (km '95-'99) H (tet. '95-99) I (tet. '95-99) W (tet. '95-99)	Rate of change (%) by county	Region change (%) [25 yr]	No. of remaining colonies (1999)
Meadow Brown	D = 1847 H = 577 (808) I = 68 W = 838	D=1734(2254) H = 867 I = 100 W=421 (674)	D =+22 H =+7 I =+47 W =-20	+ 9 [+20]	D = >100 H = >100 I = 50-100 W =>100
Small Heath	D = 808 H = 295 (413) I = 56 W = 478	D = 508(660) H = 264 I = 49 W =214(342)	D = -18 H = -36 I = -13 W =-28	-25 [-52]	D = >100 H = >100 I = < 50 W =>100
Ringlet	D = 720 H = 333 (466) I = 23 W = 657	D = 477(620) H = 496 I = 22 W = 277(443)	D = -14 H = +6 I = -4 W =-33	-15 [-32]	D = >100 H = >100 I = c. 25 W =>100

Note 1: M (in final column) refers to migrant species.

Note 2: E c.1992 indicates species extinct, with the estimated date of extinction.

Species EXTINCT in the region (in chronological order):

Heath Fritillary	<i>Mellicta athalia</i>	c.1850
Large Blue	<i>Maculinea arion</i>	c.1860
Mazarine Blue	<i>Cyaniris semiargus</i>	c.1865
Black-veined White	<i>Aporia crataegi</i>	c.1900
Large Tortoiseshell	<i>Nymphalis polychloros</i>	c.1987
High Brown Fritillary	<i>Argynnis adippe</i>	c.1995 ?

APPENDIX 2: Rarity of Butterfly Species in South-Central Region

Note: Dorset (D), Hampshire (H), Isle of Wight (I), Wiltshire (W)

(Dorset data is No. of km squares, whereas for other counties it is No. of tetrads)

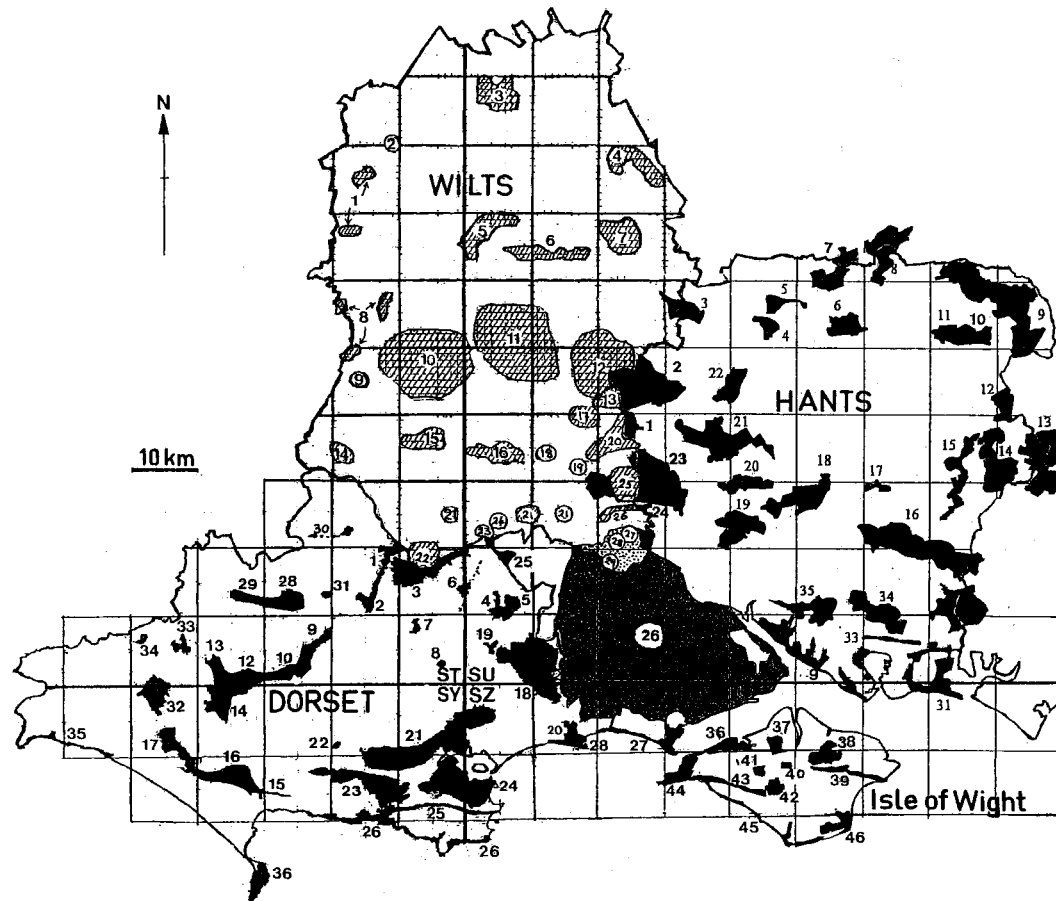
Following the criteria set out by Bourn *et al.* (1996), if the region has < 30 colonies of a particular species, and/or < 0.6 of the tetrads in a region are occupied by a particular species then the priority of the species should be raised above its national rating.

As outlined in Section 1.4, South-Central England comprises approximately 2746 tetrads (Dorset = 653, Hampshire = 1027, Isle of Wight = 114, Wiltshire = 952), so **≤ 0.6 of all tetrads in the region is ≤ 16.48 tetrads.**

TABLE 3: Species occurring in < 60 tetrads within the region.

SPECIES	Total number of tetrad records (1995-1999) by county				TOTAL	Occupies < 0.6% of area (≤ 16 tet.)	Less than 30 remaining colonies
	D	H	I	W			
Lulworth Skipper	57	0	0	0	57		
Silver-spotted Skipper	5	12	0	15	32		YES (12)
Wood White	5	0	0	1	6	YES	YES (2)
Brown Hairstreak	5	17	2	17	41		YES (c.9)
Purple Emperor	1	29	0	16	46		YES
Small Pearl-bordered Fritillary	16	13	4	10	43		YES
Pearl-bordered Fritillary	8	29	3	12	52		YES
Glanville Fritillary	0	3	22	0	25		YES

**APPENDIX 3: Map of "Key Areas" for Lepidoptera in South-Central England
(see Section 4: pp 117-168 for further detail)**



APPENDIX 3: Key Areas for Lepidoptera in South-Central England

DORSET

- 1-2. Northern Chalk
(1) *North Dorset Downs*
(2) *Hambledon & Hod Hills*
3. Cranborne Chase Woods
4. Shaftesbury Estate Woods
5. Edmondsham Estate & neighbouring woods
6. Gussage Down, Ackling Dyke & Sovell Down
7. Blandford Camp
8. Badbury Rings
- 9-14. Central Chalk
(9) *Bulbarrow*
(10) *Lyscombe/Highdon & Hog Hill*
(12) *Cerne Abbas Downs*
(13) *Batcombe Hill*
(14) *Sydling Valley, Hogcliffe & Grimstone*
- 15-17 West Chalk
(15) *South-East Dorset Downs*
(16) *Maiden Castle*
(17) *South-West Dorset Downs*
18. Heaths north of River Stour
19. Holt Forest
20. Avon and Mude valleys
21. Heaths between R. Stour & R. Frome
22. Oaker's Wood
23. Heaths south of River Frome
24. Purbeck Heathlands
25. Purbeck Ridge (Lulworth Cove to Ballard Down)
26. Purbeck Coast (White Nothe to Peverill Point)
- 28-29 South Blackmoor Vale
(28) *Lydlinch, Rooksmoor, Deadmoor*
(29) *Longburton Common & Rywater Farm*
30. Duncliffe & Fifehead Woods
31. Piddleswood & Girdler's Coppice
32. Powerstock, Kingcombe & Hooke Park
33. Melbury Park
34. Brackett's Coppice
35. West Dorset Coast
36. Portland Coast & Quarries

HAMPSHIRE

1. Porton Down
2. Cholderton
3. Conholt
4. Bradley
5. Ladle Hill
6. Wootton
7. Ashford Hill
8. Pamber Forest
9. Bramshill-Fleet
- 10-11 North Warnborough
(10) *Odiham Common* (11) *Bartley Heath*
12. Alice Holt Forest
13. Grayshott-Hindhead
14. Woolmer Forest
15. East Hampshire Hangers
16. South Downs (Hants)
17. Bramdean Common
18. Winchester downlands
19. Hursley Forest
20. Farley Mount
21. Stockbridge
22. Harewood Forest
23. Tytherley
24. Dean Hill
25. Martin Down
26. New Forest
27. Milford Coast
28. Christchurch-Hengistbury
29. Southampton Water (east)
30. Gosport
31. Langstone & Hayling
32. Rowland's Castle
33. Portsdown Hill
34. Southwick
35. Botley Wood

APPENDIX 3: Key Areas for Lepidoptera in South-Central England (contd.)

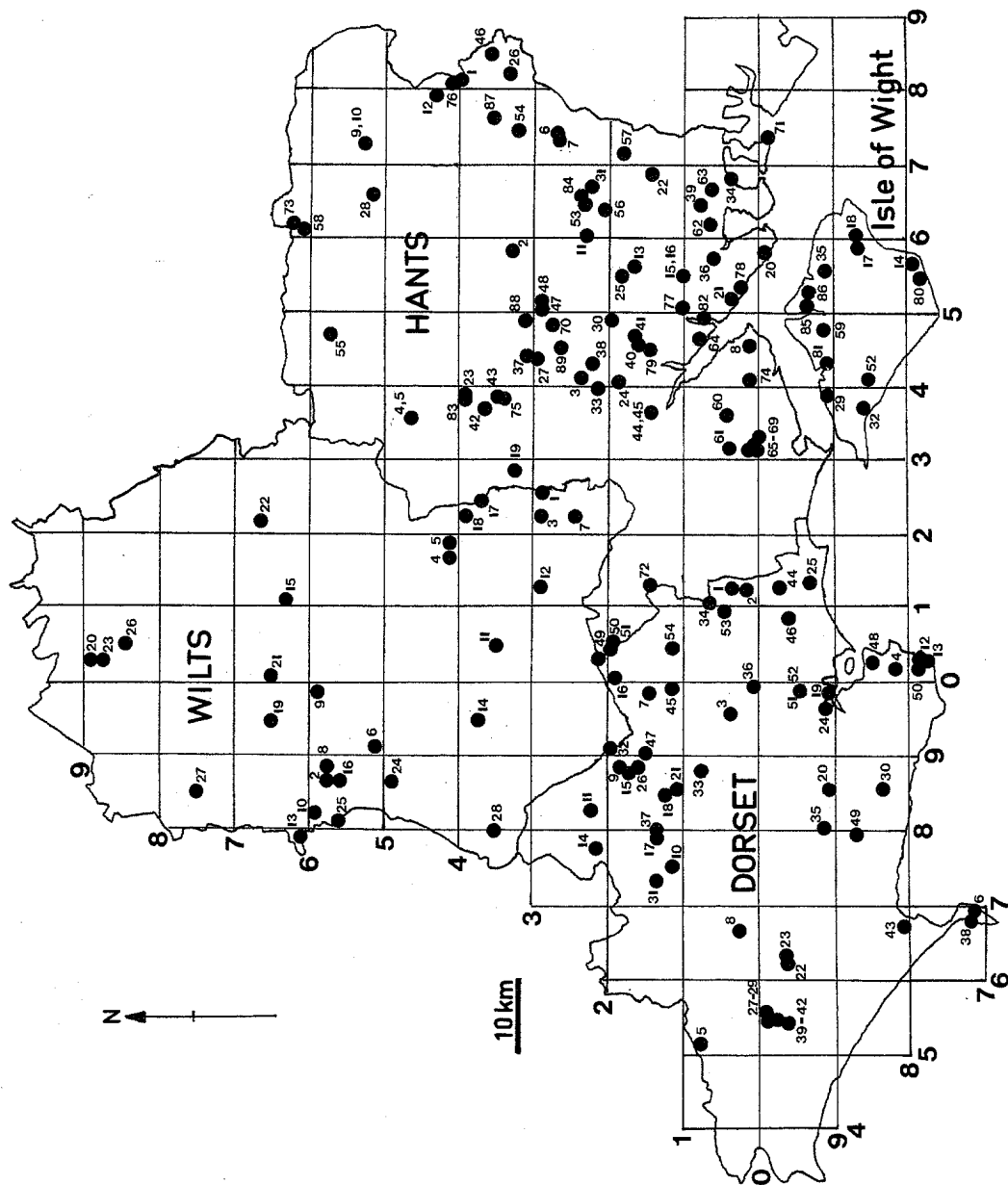
ISLE OF WIGHT

36. Cranmore
37. Parkhurst Forest
38. Havenstreet
39. East Wight downs
40. Carisbrooke
41. Rowridge
42. Chillerton
43. Afton-Brighstone
44. West Wight
45. South Wight
46. Ventnor

WILTSHIRE

1. Cotswold Limestone
2. Stanton Park Wood
3. Braydon Forest
4. Aldbourne Downs
5. North Wilts Downs
6. Pewsey Downs NNR & Martinsell Hill
7. Savernake Forest
8. Selwood Forest (West Wilts woods)
9. Cley Hill
10. SPTA(W)
11. SPTA(C)
12. SPTA(E)
13. Cholderton Estate
14. White Sheet Downs & Mere Strip Lynchets
15. Great Ridge Wood & adjacent grasslands
16. Grovely
17. Boscombe Down
18. Little Durnford Down
19. Cockey Down
20. Porton Down & Figsbury Ring
21. South Wilts Downlands
22. Cranborne Chase Woods & Grassland Coombes (Bottoms)
23. Vernditch Chase Woods & Chickengrove Bottom
24. Middleton Down
25. Penchet Forest
26. Dean & Pepperbox Hills
27. Whiteparish Common
28. Langley Wood NNR
29. Pound Bottom

APPENDIX 4: Butterfly Transect Sites in South-Central England



APPENDIX 4: Butterfly transect sites in South-Central England

(see Map, page 190, for location)

HAMPSHIRE & ISLE OF WIGHT

1. ALRESFORD FARM (SU580335)
2. ABBOTTS WOOD (SU 814397)
3. AMPFIELD WOOD (SU 410235)
4. ANTON LAKES 1 (SU 358467)
5. ANTON LAKES 2 (SU 360469)
6. ASHFORD HANGERS 1 (SU 743269)
7. ASHFORD HANGERS 2 (SU 735264)
8. BADMINTON COMMON (SU460020)
9. BARTLEY HEATH 1 (SU 726534)
10. BARTLEY HEATH 2 (SU 723523)
11. BEACON HILL (SU 600227)
12. BENTLEY STATION MEADOWS (SU 794429)
13. BISHOPS WALTHAM MOORS (SU 560170)
14. BONCHURCH DOWN (SZ 575784)
15. BOTLEY WOOD 1 (SU 545100)
16. BOTLEY WOOD 2 (SU 545100)
17. BRADING DOWN (SZ 595869)
18. BRADING QUARRIES (SZ 603865)
19. BROUGHTON DOWN (SU 291329)
20. BROWNDOWN NORTH (SZ 582997)
21. BROWNWICH & CHILLING (SU 516040)
22. CATHERINGTON DOWN (SU 692144)
23. CHILBOLTON ('Waverley') (SU 390393)
24. CHILWORTH (SU 404185)
25. CLAYLANDS (SU 547181)
26. CONFORD MOOR (SU 823330)
27. CRAB WOOD (SU 438295)
28. CRABTREE PLANTATION (SU 660519)
29. CRANMORE (SZ 3990)
30. CROWDHILL COPSE (SU 488198)
31. DRAYTON DOWN (SU 672223)
32. EAST AFTON DOWN (SZ 365858)
33. EMER BOG (SU 397215)
34. FARLINGTON MARSHES (SU 682044)
35. FIRESTONE COPSE (SZ 558910)
36. (THE) GILLIES (SU 572059)
37. HAM GREEN COMMON (SU 439307)
38. HOCOMBE MEAD (SU 430227)
39. HOOKHEATH MEADOWS (SU 646079)
40. ITCHEN VALLEY C.P. 1 (SU 458162)
41. ITCHEN VALLEY C.P. 2 (SU 469167)
42. LECKFORD - A (Golf course) (SU 3737)
43. LECKFORD - J (Woolbury) (SU 3935)
44. LOWER TEST MARSHES (SU 364149)
45. LOWER TEST (TESTWOOD Pk. Ho.) (SU 360145)
46. LUSHOT COMMON (SU 853358)
47. MAGDALEN HILL DOWN 1 (SU 505292)
48. MAGDALEN HILL DOWN 2 (SU 510291)
49. MARTIN DOWN (KITTS) (SU 035204)
50. MARTIN DOWN (NORTH) (SU 0481880)
51. MARTIN DOWN (SOUTH) (SU 055188)
52. MOTTISTONE DOWN (SZ 415847)
53. (THE) MOUNTAIN) (SU 649228)
54. NOAR HILL (SU 741320)
55. OLD BURGHCLERE QY. (SU 472574)
56. OLD WINCHESTER HILL (SU 640205)
57. OXENBOURNE DOWN (SU 713185)
58. PAMBER FOREST (SU 615610)
59. PARKHURST FOREST (SZ 477903)
60. PIG BUSH (SU 358045)
61. PIGNAL INCLOSURE (SU 315040)
62. PORTSDOWN HILL – W (SU 621067)
63. PORTSDOWN HILL – E (SU 675063)
64. ROYAL VICTORIA CP. (SU 468076)
65. ROYDON WOODS (Bakers) (SU 317015)
66. ROYDON (Calveslease) (SU 322022)
67. ROYDON (Newlands) (SU 322009)
68. ROYDON (Sheffield) (SU 332997)
69. ROYDON (Woodhouse) (SU 310002)
70. ST CATHERINES HILL (SU 485275)
71. SANDY POINT (SZ 748983)
72. SANDY TOP (SU 133146)
73. SILCHESTER COMMON (SU 620620)
74. SIMS WOOD (SU 410013)
75. STOCKBRIDGE DOWN (SU 380348)
76. STRAITS INCLOSURE (SU 804404)
77. SWANWICK N.R. (SU 508100)
78. TITCHFIELD HAVEN (SU 533024)
79. TOWNHILL PARK Ho. (SU 450151)
80. VENTNOR (Coombe Bottom) (SZ 564783)
81. WALTERS COPSE (SZ 430905)
82. WENDLEHOLME (SU 494073)
83. WEST DOWN (CHILBOLTON) (SU 384390)
84. WESTBURY HOUSE Pk. (SU 660235)
85. WHPPINHAM 1 (SZ 510935)
86. WHPPINHAM 2 (SZ 530930)
87. WICK WOOD (SU 758358)
88. WINNAL MOORS (SU 488305)
89. YEW HILL (SU 455264)

DORSET

1. AVON HEATH C.P. – N (SU 127037)
2. AVON HEATH C.P. – S (SU 1201)
3. BADBURY RINGS (ST 963030)
4. BALLARD DOWN (SZ 020811)
5. BRACKETTS COPPICE (ST 516071)
6. BROADCROFT QUARRY (SY 696720)
7. CASHMOOR (ST 988143)
8. CERNE ABBAS GIANT (ST 670021)
9. CLUBMEN'S DOWN (ST 884187)
10. DEADMOOR COMMON (ST753113)
11. DUNCLIFF WOOD (ST 820223)
12. DURLSTON C.P. – E (SZ 029772)
13. DURLSTON C.P. – W (SZ 027770)
14. FIFEHEAD WOOD (ST 773216)
15. FONTMELL DOWN (ST 881180)
16. GARSTON WOOD (SU 004195)
17. GIRDLERS COPPICE (799133)
18. HAMBLEDON HILL (ST 847123)
19. HAM COMMON (SY 980905)
20. HIGHER HYDE HEATH (SY 855904)
21. HOD HILL (ST 853109)
22. HOG CLIFF – N (SY 615970)
23. HOG CLIFF – S (SY 631967)
24. HOLTON LEE (SY 960917)
25. IFORD MEADOW/LANDFILL (SZ 1393)
26. JERRY'S HOLE (ST 874164)
27. KINGCOMBE Pound (SY 554992)
28. KINGCOMBE Redholm (SY 544989)
29. KINGCOMBE Stones (SY 549979)
30. LULWORTH LAKE (SY 860835)
31. LYLINCH COMMON (ST 734133)
32. MELBURY DOWN & WOOD (ST 910195)
33. MILLDOWN (ST 882073)
34. MOORS VALLEY C.P. (SU 107056)
35. OAKER'S WOOD (SY 8091)
36. PAMPHILL (ST 994002)
37. PIDDLERS WOOD (ST 796130)
38. PORTLAND TOUT (SY 685725)
39. POWERSTOCK Bridleway (SY 540973)
40. POWERSTOCK –N (SY 543974)
41. POWERSTOCK Poorwood (SY 535966)
42. POWERSTOCK Railway (SY 540974)
43. RADIPOLE (SY 676801)
44. SOPLEY COMMON (SZ 129971)
45. SOVELL DOWN (ST 992117)
46. STOUR VALLEY (SZ 084695)
47. STUBHAMPTON BOTTOM (ST 900157)
48. STUDLAND NNR (SZ 025850)
49. TADNOLL (SY 792875)
50. TOWNSEND QUARRY (SZ 025783)
51. UPTON HEATH – N (SY 987950)

52. UPTON HEATH – S (SY 900942)
53. WEST MOORS (SU 090045)
54. WIMBORNE ST. GILES (SU 045118)

WILTSHIRE

1. BENTLEY WOOD (SU 250290)
2. BISS WOOD (ST 876576)
3. BLACKMOOR COPSE (SU 234294)
4. BOSCOMBE DOWN – A (SU 170410)
5. BOSCOMBE DOWN – O (SU 190410)
6. BRATTON CASTLE (ST 905517)
7. DEAN HILL – W (SU 225258)
8. GREEN LANE WOOD (ST 883578)
9. HARTMOOR (ST 9959)
10. KENNET & AVON CANAL TOWPATH (SU 830598)
11. LITTLE LANGFORD DOWN (SU 0535)
12. MIDDLE STREET MEADOW (SU 1329)
13. MURHILL BANK (ST 791608)
14. PARK BOTTOM (ST 954375)
15. PEWSEY DOWNS NNR (SU 1163)
16. PICKET/CLANGER WOOD (ST 875543)
17. PORTON DOWN 1 (SU 250370)
18. PORTON DOWN 2 (SU 232387)
19. PRICKMOOR WOOD (ST 949659)
20. RAVENSROOST WOOD (SU 022881)
21. ROUNDWAY HILL COVERT (SU 005640)
22. SAVERNAKE FOREST (SU 2267)
23. SOMERFORD COMMON (SU 023868)
24. UPTON COW DOWN (ST 877492)
25. VAGG'S HILL (ST 810555)
26. WEBB'S WOOD (SU 045858)
27. WEST YATTON DOWN (ST 853760)
28. WHITE SHEET HILL QUARRY (ST 805348)

Note 1: Whilst many of the listed sites are open access, others are on private land with no public access, and others are permit-only nature reserves. Visiting any site should only be done with the owner's consent.

Note 2: Several of the transect sites listed for Hampshire & Isle of Wight are not currently in operation, but all sites shown have data for several years, and many have data for 10-20 years.

- 55.

APPENDIX 5: A Provisional List of High and Medium Priority Micro-moths

Log no.	Latin Name	Status	Hants	Dorset	Wilts	IoW
7	<i>Eriocrania chrysolepidella</i>	Notable/Nb	Y		Y	
21	<i>Etainia sericopeza</i>	Notable/Na	Y			
33	<i>Bohemannia auriciliella</i>	pRDB1	<1980			
36	<i>Ectodemia quinquella</i>	Notable/Nb	Y	Y		
41	<i>Ectodemia atrifrontella</i>	Notable/Na	Y	<1980	<1980	
44	<i>Fedalmia headleyella</i>	Notable/Nb	Y	<1980	<1980	Y
45	<i>Trifurcula griseella</i>	Notable/Nb		<1980		
47	<i>Trifurcula pallidella</i>	pRDB1	<1980	<1980		
49	<i>Trifurcula eurema</i>	Notable/Nb	<1980	<1980		<1980
54	<i>Stigmella auromarginella</i>	pRDB1		Y		
57	<i>Stigmella filipendulae</i>	Notable/Nb	Y	<1980	<1980	
58	<i>Stigmella ulmariae</i>	Notable/Nb	<1980			Y
88	<i>Stigmella samiatella</i>	pRDB3	Y			
91	<i>Stigmella minusculella</i>	pRDB2	<1980			
101	<i>Stigmella pyri</i>	pRDB2	Y			
102	<i>Stigmella aceris</i>	pRDB2	Y			
109	<i>Stigmella prunetorum</i>	pRDB3	<1980	Y	<1980	
118	<i>Stigmella acetosae</i>	Notable/Nb	<1980	Y		<1980
133	<i>Lampronia capitella</i>	Notable/Nb	Y			
134	<i>Lampronia flavimitrella</i>	pRDB1	<1980			
138	<i>Lampronia fuscataella</i>	pRDB3	Y	<1980		
144	<i>Nemophora fasciella</i>	Notable/Nb		<1980		
145	<i>Nemophora minimella</i>	Notable/Nb	Y	<1980		<1980
146	<i>Nemophora cupriacella</i>	Notable/Nb	Y	Y	<1980	<1980
177	<i>Dahlica inconspicuellla</i>	Notable/Nb	<1980	Y		
178	<i>Bankesia douglasii</i>	pRDB3	Y			
179	<i>Dahlica lichenella</i>	Notable/Nb	Y			
183	<i>Bacotia sepium</i>	Notable/Nb	Y			
188	<i>Proutia betulina</i>	Notable/Nb	<1980			
189	<i>Epichnopteryx plumella</i>	Notable/Na	<1980	<1980		
190	<i>Whittleia retiella</i>	Notable/Nb	Y			<1980
191	<i>Acanthopsyche atra</i>	Notable/Nb	<1980	<1980		
192	<i>Pachythelia villosella</i>	RDB2	Y	Y		
195	<i>Sterrhopterix fusca</i>	Notable/Nb		<1980		
200	<i>Psychoides filcivora</i>	Notable/Nb	Y	<1980		Y
201	<i>Tenaga nigripunctella</i>	Notable/Nb		<1980		
202	<i>Eudarcia richardsoni</i>	pRDB3		Y		
205	<i>Ischnoscia borreonella</i>	Notable/Nb		<1980		
206	<i>Celestica angustipennis</i>	Notable/Nb	<1980			
207	<i>Myrmecozela ochraceella</i>	Notable/Nb	[<1980]			
211	<i>Haplotinea ditella</i>	Notable/Nb	<1980	<1980		
212	<i>Haplotinea insectella</i>	Notable/Nb	Y	<1980	<1980	
217	<i>Nemapogon wolfiella</i>	Notable/Nb	Y	Y	<1980	
219	<i>Nemapogon ruricolella</i>	Notable/Nb	Y	Y	<1980	<1980
220	<i>Nemapogon clematella</i>	Notable/Nb	Y	<1980	<1980	<1980
231	<i>Monopis imella</i>	Notable/Nb	Y	Y		<1980
234	<i>Trichophaga tapetzella</i>	Notable/Nb	<1980	<1980	<1980	<1980
239	<i>Tinea columbariella</i>	Notable/Nb	Y		<1980	
253	<i>Ochsenheimeria vacculella</i>	Notable/Nb	Y	Y	<1980	
258	<i>Leucoptera lathyriifoliella</i>	Notable/Nb	<1980			<1980
277	<i>Oinophila v-flava</i>	pRDB3		<1980		
289	<i>Caloptilia falconipenella</i>	pRDB3	Y			<1980

Log no.	Latin Name	Status	Hants	Dorset	Wilts	IoW
295	<i>Calybites hauderi</i>	pRDB1				Y
311	<i>Acrocercops imperialella</i>	Notable/Nb	<1980	<1980		<1980
319	<i>Phyllonorycter saportella</i>	pRDB1	<1980			
321a	<i>Phyllonorycter platani</i>		Y			
336	<i>Phyllonorycter dubitella</i>	Notable/Nb	Y			<1980
344	<i>Phyllonorycter strigulatella</i>	Notable/Nb	<1980			<1980
363	<i>Phyllonorycter platanoidella</i>	Notable/Nb	Y			
365	<i>Phyllonorycter comparella</i>	Notable/Nb		<1980		
387	<i>Choreutis sehestediana</i>	Notable/Nb	Y	Y	<1980	
392	<i>Glyphipteryx schoenicolella</i>	Notable/Nb	<1980	Y		<1980
393	<i>Glyphipteryx minorella</i>	Notable/Nb		<1980	<1980	<1980
394	<i>Glyphipterix forsterella</i>	Notable/Nb	Y	Y	<1980	<1980
404	<i>Argyresthia praecocella</i>	Notable/Na	<1980		Y	
406	<i>Argyresthia abdominalis</i>	Notable/Na	Y		<1980	
428	<i>Yponomeuta rorella</i>	pRDB3	Y	Y		
429	<i>Yponomeuta irrorella</i>	pRDB2	Y			
431	<i>Yponomeuta sedella</i>	Notable/Nb	Y	Y	<1980	<1980
439	<i>Swammerdamia compunctella</i>	Notable/Nb	<1980	<1980	<1980	
454	<i>Ypsolopha asperella</i>	pRDB1		<1980		
457	<i>Ypsolopha lucella</i>	Notable/Nb	<1980	<1980	<1980	
471	<i>Digitivalva perlepidella</i>	Notable/Na	Y			
473	<i>Acrolepiosis assectella</i>	pRDB3	Y	Y		<1980
475	<i>Acrolepiosis marcidella</i>	pRDB1	Y	<1980		
482	<i>Epermenia insecurella</i>	Notable/Nb		Y	<1980	<1980
486	<i>Augasma aeratella</i>	pRDB1		<1980		<1980
487	<i>Metriotes lutarea</i>	Notable/Nb	Y	<1980	<1980	<1980
498	<i>Coleophora alnifoliae</i>	Notable/Nb	Y			
502	<i>Coleophora trigeminella</i>	Notable/Nb	Y			
511	<i>Coleophora orbitella</i>	Notable/Nb	Y	<1980	<1980	
514	<i>Coleophora ahenella</i>	Notable/Nb	Y	Y	Y	
517	<i>Coleophora frischella</i>	Notable/Nb	Y	<1980		
521	<i>Coleophora conyzae</i>	Notable/Nb	Y	Y	<1980	<1980
523	<i>Coleophora hemerobiella</i>	Notable/Nb	<1980	<1980		
524	<i>Coleophora lithargyrinella</i>	Notable/Nb	<1980		<1980	
527	<i>Coleophora wockeella</i>	pRDB2		<1980		<1980
531	<i>Coleophora ochrea</i>	pRDB3		Y		<1980
534	<i>Coleophora currucipennella</i>	pRDB3				<1980
538	<i>Coleophora vibicella</i>	Notable/Nb	Y	<1980		<1980
543	<i>Coleophora vulnerariae</i>	Extinct				[<1980]
550	<i>Coleophora silenella</i>	Notable/Nb	Y			
552	<i>Coleophora lassella</i>	Notable/Nb	Y	Y		Y
554	<i>Coleophora inulae</i>	Notable/Nb	Y	<1980		<1980
558	<i>Coleophora ramosella</i>	Notable/Nb	<1980			
561	<i>Coleophora therinella.</i>	Notable/Nb	Y			
572	<i>Coleophora vestianella</i>	Notable/Nb	<1980			
574	<i>Coleophora suaedivora</i>	Notable/Nb	Y			
574a	<i>Coleophora aestuariella</i>	Notable/Nb	Y			
580	<i>Coleophora sylvaticella</i>	Notable/Nb			<1980	
589	<i>Coleophora clypeiferella</i>	Notable/Nb		Y	<1980	
593	<i>Elachista regficella</i>	Notable/Nb	<1980	<1980	<1980	
612	<i>Elachista collitella</i>	Notable/Nb		Y		
614	<i>Elachista triseriatella.</i>	Notable/Nb	<1980	<1980	<1980	
616a	<i>Elachista littoricola</i>	pRDB1	Y			
615	<i>Elachista dispunctella</i>	Notable/Nb	<1980	<1980	<1980	
619	<i>Elachista unifasciella</i>	Notable/Nb	Y	<1980	<1980	

Log no.	Latin Name	Status	Hants	Dorset	Wilts	IoW
622	<i>Elachista revinctella</i>	Notable/Nb	Y			
624	<i>Biselachista trapeziella</i>	pRDB3	Y	<1980	<1980	
626	<i>Biselachista serricornis</i>	Notable/Nb	Y	<1980		
628	<i>Biselachista eleochariella</i>	Notable/Nb	Y	<1980		
633	<i>Cosmiotes stabilella</i>	pRDB3		<1980	<1980	<1980
634	<i>Schiffermuelleria grandis</i>	pRDB1	<1980	<1980		
638	<i>Chambersia augustella</i>	pRDB1	[<1980]			
645	<i>Borkhausenia minutella</i>	pRDB1	<1980	<1980		
650	<i>Esperia oliviella</i>	Notable/Nb	Y			
651	<i>Oecophora bractella</i>	pRDB3	Y			
653	<i>Aplota palpella</i>	pRDB1	<1980	<1980	Y	
656	<i>Parocystola acroxantha</i>	pRDB3	Y	Y		
668	<i>Enicostoma lobella</i>	Notable/Nb	Y	Y		
669	<i>Depressaria disicipunctella</i>	pRDB1		<1980		
673	<i>Depressaria pimpinellae</i>	Notable/Nb	<1980			
680	<i>Depressaria albipunctella</i>	Notable/Nb	<1980	<1980		
681	<i>Depressaria olerella</i>	pRDB3	Y			
683	<i>Depressaria depressana</i>	pRDB1	<1980			
690	<i>Agonopterix cnicella</i>	Notable/Nb	<1980	<1980		
694	<i>Agonopterix nanatella</i>	Notable/Nb		Y		
699	<i>Agonopterix bipunctosa</i>	Notable/Nb	Y			
700	<i>Agonopterix pallorella</i>	Notable/Nb	Y	Y	Y	
703	<i>Agonopterix atomella</i>	Notable/Nb		Y		
715	<i>Agonopterix capreolella</i>	pRDB1	<1980	<1980		
718	<i>Ethmia dodecea</i>	Notable/Nb	Y	Y	Y	
720	<i>Ethmia bipunctella</i>	pRDB2	Y	Y	<1980	Y
721	<i>Ethmia pusiella</i>	Extinct	<1980			
723	<i>Metzneria littorella</i>	pRDB3	Y			Y
727	<i>Metzneria neuropterella</i>	pRDB1		<1980		
733	<i>Eulamprotes wilkella</i>	Notable/Nb	Y	<1980		<1980
734	<i>Argolamprotes micella</i>	Notable	Y	Y		
737	<i>Monochroa palustrella</i>	Notable/Nb	Y			
738	<i>Monochroa tetragonella</i>	pRDBK		<1980		
740	<i>Monochroa hornigi</i>	pRDBK	Y			
741	<i>Monochroa suffusella</i>	Notable	Y	Y		
742	<i>Monochroa lutulentella</i>	pRDBK	<1980	<1980		
743	<i>Monochroa elongella</i>	pRDB1	[<1980]			
744	<i>Monochroa arundinetella</i>	pRDB1	[<1980]		<1980	
745a	<i>Monochroa moyses</i>	Notable	Y			
750	<i>Psamathocrita osseella</i>	pRDB1		<1980		
750a	<i>Psamathocrita argentella</i>	pRDB2	Y			Y
753	<i>Aristotelia brizella</i>	Notable/Nb	Y	Y		<1980
757	<i>Recurvaria nanella</i>	Notable/Nb	Y	<1980		
761	<i>Athrips tetrapunctella</i>	pRDB1	<1980			
766	<i>Teleiodes scriptella</i>	Notable/Nb	<1980	<1980		
769	<i>Teleiodes wagae</i>	pRDBK	Y			
777	<i>Bryotropha basaltinella</i>	Notable	[<1980]	Y	<1980	
791	<i>Chionodes distinctella</i>	Notable/Nb	<1980	<1980		
793	<i>Mirificarma lentiginosella</i>	Notable	Y	Y		
799	<i>Neofriseria singula</i>	pRDBK	<1980			
806	<i>Gelechia nigra</i>	Notable/Nb	Y	<1980		Y
807	<i>Gelechia turpella</i>	pRDBK	<1980			
808	<i>Platyedra subcinerea</i>	Notable	Y			<1980
809	<i>Pexicopia malvella</i>	Notable/Nb	Y	<1980		<1980
810	<i>Scrobipalpa suaedella</i>	Notable		Y		<1980

Log no.	Latin Name	Status	Hants	Dorset	Wilts	IoW
811a	<i>Scrobipalpa stangei</i>	Extinct				<1980
813	<i>Scrobipalpa salinella</i>	Notable	Y	Y		Y
814	<i>Scrobipalpa ocellatella</i>	Notable	Y	Y		<1980
823a	<i>Scrobipalpa tussilaginis</i>	pRDBI	Y	Y		
826	<i>Caryocolum vicinella</i>	Notable/Nb	Y	Y		
827	<i>Caryocolum alsinella</i>	Notable	<1980	<1980		
835	<i>Caryocolum blandulella</i>	pRDB1	<1980			
836	<i>Caryocolum kroesmanniella</i>	pRDBI	[<1980]			
837	<i>Caryocolum huebneri</i>	Extinct	[<1980]			
845	<i>Syncopacma sangiella</i>	Notable/Nb			<1980	
848	<i>Syncopacma albipalpella</i>	pRDB1	<1980			
849	<i>Syncopacma cinctella</i>	Notable/Nb	[<1980]			
851	<i>Acanthophila alacella</i>	Notable	<1980			
861	<i>Telephila schmidtiiellus</i>	Notable/Nb	Y	Y		<1980
865	<i>Dichomeris fasciella</i>	pRDB1	<1980			
869	<i>Brachmia lutatella</i>	pRDB1		Y		
871a	<i>Oecodonia caradjai</i>	Notable/Nb		Y		
877	<i>Stathmopoda pedella</i>	Notable/Nb	Y	Y		
879	<i>Batrachedra pinicolella</i>	Notable/Nb	Y	Y		
880	<i>Mompha langiella</i>	Notable/Nb	Y	Y		
881	<i>Mompha terminella</i>	Notable/Nb	Y	<1980		
887	<i>Mompha lacteella</i>	pRDB3	Y	<1980		
889	<i>Mompha divisella</i>	Notable/Na	<1980	<1980		<1980
890	<i>Mompha subdivisella</i>	pRDBK	Y			
891	<i>Mompha nodicolella</i>	Notable/Nb	Y			
895	<i>Cosmopterix shmidiella</i>	pRDB1		<1980		
896	<i>Cosmopterix orichalcea</i>	pRDB3	Y	Y		
896a	<i>Cosmopterix scribaiella</i>	pRDBK	Y	Y		
899	<i>Pancalia leuwenhoekella</i>	Notable/Nb	Y	Y		
900	<i>Pancalia latrelliella</i>	pRDB2	[<1980]	<1980		
902	<i>Glyphipteryx lathamella</i>	pRDB1	<1980	<1980		
903	<i>Glyphipteryx linneella</i>	Notable/Na	Y	Y		
906	<i>Blastodacna atra</i>	Notable/Nb	Y			
907	<i>Dystebenna stephensi</i>	pRDB3	Y	<1980		
908	<i>Sorhagenia rhamniella</i>	Notable/Na	Y	Y		
909	<i>Sorhagenia lophyrella</i>	Notable/Na	Y			
910	<i>Sorhagenia janiszewskae</i>	Notable/Na	Y			
915	<i>Scythris picaepennis</i>	pRDB3	Y			<1980
916	<i>Scythris siccella</i>	pRDB1		<1980		
917	<i>Scythris empetrella</i>	pRDB1	Y	Y		
923	<i>Trachysmia sodaliana</i>	Notable/Nb	Y			
926	<i>Phalonidia manniana</i>	Notable/Nb	Y	Y		
927	<i>Phalonidia minimana</i>	Notable/Nb		<1980		
930	<i>Pierca alismana</i>	Notable/Nb	<1980	Y		
931	<i>Pierca luridana</i>	Notable/Nb	Y	Y	<1980	
934	<i>Phalonidia curvistrigana</i>	Notable/Nb		<1980		
940	<i>Aethes rutilana</i>	pRDB2	[<1980]			
942	<i>Aethes piercei</i>	Notable/Nb		<1980		
948	<i>Aethes margaritana</i>	Notable/Nb	<1980	<1980		
952	<i>Commophila aeneana</i>	Notable/Nb	<1980			<1980
955	<i>Eupocilia ambiguella</i>	Notable/Nb	Y	Y		
957	<i>Cochylidia heydeniana</i>	Notable/Nb	<1980			<1980
958	<i>Cochylidia subroseana</i>	Notable/Nb	[<1980]			
963	<i>Cochylis flaviciliana</i>	Notable/Nb	Y	<1980		<1980
965a	<i>Cochylis molliculana</i>	pRDBK	Y	Y		

Log no.	Latin Name	Status	Hants	Dorset	Wilts	IoW
967	<i>Cochylis pallidana</i>	Notable/Nb		<1980		
976	<i>Archips oporana</i>	pRDB1	Y	<1980		
992	<i>Clepsis rurinana</i>	pRDB3	[<1980]			
999	<i>Adoxophyes orana</i>	Notable/Nb	Y			
1012	<i>Sparganothis pilleriana</i>	Notable/Nb	Y	Y		Y
1023	<i>Cnephasia genitalana</i>	pRDB2	Y			
1034	<i>Spatalistis bifasciana</i>	Notable/Nb	Y	<1980		<1980
1052	<i>Acleris umbrana</i>	pRDB1	<1980	<1980		
1058	<i>Acleris lorquiniana</i>	pRDB3	Y			<1980
1069	<i>Olethreutes aurofasciana</i>	Notable/Nb	<1980	<1980		<1980
1075	<i>Olethreutes olivana</i>	Notable/Nb	Y		<1980	
1080	<i>Olethreutes arcuella</i>	Notable/Nb	Y	Y	<1980	
1091	<i>Apotomis lineana</i>	Notable/Nb	Y		<1980	
1100	<i>Endothenia pullana</i>	pRDB3	Y	<1980		
1101	<i>Endothenia ustulana</i>	pRDB3	Y	<1980		
1112	<i>Bactra robustana</i>	Notable	Y	<1980		
1114	<i>Eudemis porphyrana</i>	Notable/Nb	Y			<1980
1121	<i>Ancylis upupana</i>	pRDB3	Y	<1980	<1980	
1135	<i>Epinotia demarniana</i>	Notable/Nb	Y	Y	<1980	
1149	<i>Epinotia crenana</i>	pRDB3	<1980			
1157	<i>Crociosema plebejana</i>	Notable	Y	Y		
1160	<i>Acroclita subsequana</i>	Notable	<1980	Y		
1164	<i>Zeiraphera rufimitrana</i>	Notable/Nb	<1980	<1980		
1171	<i>Gypsonoma minutana</i>	Notable/Nb	Y			
1180	<i>Epiblema tetragonana</i>	Notable/Nb	<1980	Y		
1185	<i>Epiblema cnicicolana</i>	Notable	<1980	Y		<1980
1188	<i>Pelochrista caecimaculana</i>	Notable/Nb	Y	Y		<1980
1189	<i>Eriopsela quadrana.</i>	Notable/Nb	<1980	<1980		
1192	<i>Eucosma conterminana</i>	Notable/Nb	Y	Y		
1194	<i>Eucosma aemulana</i>	Notable/Nb	<1980			
1199	<i>Eucosma pupillana.</i>	Notable/Nb	<1980	Y		<1980
1206	<i>Clavigesta sylvestrana</i>	Notable/Nb	Y	Y		
1217	<i>Eucosmomorpha albersana</i>	Notable/Nb	Y	Y	Y	
1218	<i>Selania leplastriana</i>	pRDB1		Y		
1220	<i>Collicularia microgrammana</i>	Notable/Nb		Y		
1221	<i>Strophedra weirana</i>	Unknown	Y			
1222	<i>Strophedra nitidana</i>	Notable/Nb	Y	<1980		
1225	<i>Pammene obscurana</i>	pRDB3	Y			
1229	<i>Pammene albuginana</i>	Notable/Nb	Y	Y		
1235	<i>Pammene trauniana</i>	pRDB3	Y	<1980		
1236	<i>Pammene fasciana</i>	Notable/Nb	Y			
1237	<i>Pammene germmana</i>	Notable/Nb	Y	<1980		
1238	<i>Pammene ochsenheimeriana.</i>	Notable/Nb	Y			
1240	<i>Cydia caecana</i>	pRDB3			<1980	
1243	<i>Cydia pallifrontana.</i>	Notable/Na			<1980	
1244	<i>Cydia gemmiferana</i>	pRDB1	<1980			<1980
1250	<i>Cydia lathyrena</i>	pRDB3	[<1980]	<1980		
1253	<i>Cydia orobana</i>	pRDB3		<1980		
1266	<i>Cydia pactolana</i>	pRDB2	Y			
1268	<i>Cydia coniferana</i>	Notable/Nb	Y	Y		
1277	<i>Dichrorampha senectana</i>	Notable/Nb		<1980	<1980	<1980
1280	<i>Dichrorampha consortana</i>	Notable/Nb	Y	<1980		<1980
1282	<i>Dichrorampha sylvicolana</i>	Notable/Nb	Y			<1980
1292	<i>Calamotropha paludella</i>	Notable/Nb	Y	Y		<1980
1296	<i>Crambus silvella</i>	pRDB3	Y	Y		

Log no.	Latin Name	Status	Hants	Dorset	Wilts	IoW
1297	<i>Crambus uliginosellus</i>	Notable/Nb	Y	Y		
1299	<i>Crambus hamella</i>	Notable/Nb	Y	Y	<1980	
1300	<i>Crambus pratella</i>	Notable/Nb	<1980	<1980		
1321	<i>Thisanotia chrysonuchella</i>	Notable/Nb	<1980	<1980	<1980	Y
1322	<i>Pediasia fascelinella</i>	pRDB2	[<1980]			[<1980]
1323	<i>Pediasia contaminella</i>	Notable/Nb	Y	Y	<1980	<1980
1324	<i>Pediasia aridella</i>	Notable/Nb	Y	Y		<1980
1325	<i>Platytes alpinella</i>	pRDB3	Y	Y		Y
1328	<i>Schoenobius gigantella</i>	Notable/Nb	Y	<1980		<1980
1335	<i>Scoparia ancipitella</i>	Notable/Nb	<1980	Y	<1980	
1341	<i>Eudonia lineola</i>	Notable/Nb	<1980	Y		Y
1343	<i>Eudonia delunella</i>	Notable/Nb	Y	Y	<1980	<1980
1357	<i>Evergestis extimalis</i>	Notable/Nb	Y	Y		Y
1359	<i>Cynaeda dentalis</i>	pRDB3	Y	Y		Y
1368	<i>Margaritita sticticalis</i>	Extinct	Y	Y		Y
1370	<i>Sitochroa palealis</i>	Notable/Nb	Y	Y	<1980	Y
1373	<i>Microstega pandalis</i>	Notable/Na	Y	<1980	<1980	
1374	<i>Microstega hyalinalis</i>	Notable/Nb	Y	<1980		Y
1374a	<i>Sclerocona acutellus</i>	pRDBK	Y			
1381	<i>Anania funebris</i>	Notable/Na	<1980		<1980	
1382	<i>Anania verbascalis</i>	Notable/Nb	Y	Y		<1980
1384	<i>Anania stachydalis</i>	pRDBK	Y	Y		
1387	<i>Nascia ciliaris</i>	Notable/Na	Y	<1980		
1389	<i>Udea fulvalis</i>	pRDBK	Y	Y		Y
1396	<i>Mecyna flavalis</i>	pRDB2	Y	Y	Y	Y
1397	<i>Mecyna asinalis</i>	Notable/Nb	Y	Y		Y
1399	<i>Dolicharthria punctalis</i>	Notable/Nb	Y	Y		Y
1410	<i>Agrotera nemoralis</i>	pRDB1	<1980		<1980	
1414	<i>Synaphe punctalis</i>	Notable/Nb	Y	Y	<1980	Y
1429	<i>Melissoblapies zelleri</i>	pRDB3				<1980
1441	<i>Oncocera semirubella</i>	Notable/Nb	Y	Y		<1980
1443	<i>Pempelia genistella</i>	Notable/Na	Y	Y	[<1980]	
1449	<i>Microthrix similella</i>	Notable/Nb	Y	Y		Y
1456	<i>Epischnia banksiella</i>	Notable/Na	<1980	Y		
1459	<i>Eurhodope cirrigerella</i>	Extinct	<1980		<1980	
1463	<i>Pempeliella ornatella</i>	pRDB3		<1980		
1464	<i>Gymnancyla canella</i>	Notable/Na	Y	Y		Y
1465	<i>Nephopteryx angustella</i>	Notable/Nb	Y	Y	<1980	Y
1467	<i>Ancylois oblitella</i>	Notable/Nb	<1980	Y		<1980
1469	<i>Euzophera cinerosella</i>	Notable/Nb	<1980	Y		<1980
1480	<i>Homoeosoma nebulella</i>	Notable/Nb	Y	Y	<1980	<1980
1482	<i>Homoeosoma nimbella</i>	pRDBK	<1980	<1980		<1980
1486	<i>Apomyelois bistriatella</i>	Notable/Nb	Y	Y		
1487	<i>Agdistis stactices</i>	pRDB3	<1980	Y		<1980
1491	<i>Oxyptilus distans</i>	Notable/Nb	Y	Y		
1493	<i>Buckleria paludum</i>	pRDB3	Y	Y		
1494	<i>Capperia britanniodactyla</i>	Notable/Nb	Y	Y		<1980
1496	<i>Cnaemidophorus rhododactyla</i>	pRDB2	<1980			
1503	<i>Platyptilia ochrodactyla</i>	Notable	<1980	<1980		
1505	<i>Stenoptilia graphodactyla</i>	RDB2	<1980	Y		
1515	<i>Pterophorus spilodactylus</i>	pRDB2		<1980		Y
1516	<i>Pselnophorus heterodactyla</i>	pRDB1	<1980			
1519	<i>Leioptilus carphodactyla</i>	Notable/Nb	Y	Y	Y	Y

APPENDIX 6: Key to abbreviations

BAP	Biodiversity Action Plan
BC	Butterfly Conservation
BENHS	British Entomological and Natural History Society
BTCV	British Trust for Conservation Volunteers
BVHRP	Blackmoor Vale Habitat Restoration Project
CCW	Countryside Commission for Wales
C.P.	Country Park
DBC	Dorset Branch of Butterfly Conservation
DCC	Dorset County Council
DERC	Dorset Environmental Records Centre
DWT	Dorset Wildlife Trust
EA	Environment Agency
EHDC	East Hants District Council
EMS	Environmental Monitoring Scheme
EN	English Nature
ESA	Environmentally Sensitive Area
FC	Forestry Commission
FE	Forest Enterprise
FWAG	Farming and Wildlife Advisory Service
(H)	High Priority Species
Ha	Hectare
HCC	Hampshire County Council
HWT	Hampshire & Isle of Wight Wildlife Trust
ITE	Institute of Terrestrial Ecology
IWC	Isle of Wight Council
IWNHAS	Isle of Wight Natural History and Archaeological Society
JNCC	Joint Nature Conservation Committee
km sq.	kilometre square
(L)	Low Priority Species
LAs	Local authorities
LBAPs	Local Biodiversity Action Plan Partnership
(M)	Medium Priority Species
MAFF	Ministry of Agriculture, Food & Fisheries
MOD	Ministry of Defence
NFDC	New Forest District Council
NT	National Trust
NVC	National Vegetation Classification
PBSG	Purbeck Biodiversity Steering Group
RAOC	Royal Army Ordnance Corps
RAP	Regional Action Plan
RDB	Red Data Book
RNAD	Royal Naval Armaments Depot
RSPB	Royal Society for the Protection of Birds
SNH	Scottish Natural Heritage
SPEC	Species of European Conservation Concern
SPTA	Salisbury Plain Training Area
SSSI	Site of Special Scientific Interest
WCC	Wiltshire County Council
WIG	Woodland Improvement Grant
WT	Woodland Trust
WWF	World Wide Fund For Nature