

BORDERED GOTHIC MOTH *HELIOPHOBUS RETICULATA* SPECIES ACTION PLAN

1. INTRODUCTION

The bordered gothic moth is classified as *Nationally Scarce* and is a UKBAP priority species³⁸.

2. CURRENT STATUS

2.1 UK, Wales and Caerphilly County Borough

The bordered gothic moth is associated with open, mainly calcareous (or possibly with underlying calcareous rock) grassland sites, but the larval ecology in the wild is unknown. The seedpods of *Silene* species, such as the bladder campion (*Silene vulgaris*) and possibly soapwort (*Saponaria officinalis*) are suggested food plants, based on observations in captivity.

This moth was widely distributed, but always local, in England and Wales from Yorkshire southwards, but its range has declined substantially since the 1960s and it is now reported mainly from the Portland area of Dorset, from the Breckland of East Anglia (where it has become scarce in the last decade) and occasional specimens from South Wales.

Most known sites are open to full sun and comprise downland, limestone grassland, rough open ground, sea cliffs or quarries. However, a full countywide survey for this moth is required.

2.2 Links with other action plans

This action plan should be considered in conjunction with lowland calcareous grassland.

- **Species-rich Grasslands** (lowland calcareous grassland)
- *Post-Industrial Land* (quarries)

3. CURRENT FACTORS AFFECTING THE SPECIES

- Changes in the management of calcareous grasslands.
- The unimproved grassland sites this moth favours remain targets for development.

4. CURRENT ACTION

4.1 No current action apart from recording by the Glamorgan Moth Recording Group.

5. OBJECTIVES AND TARGETS

5.1 UK Objectives and Targets

5.1.1 Maintain the population size at all known sites (Target: ongoing).

5.1.2 Restore viable populations to 5 additional sites nationally, within the historic range, by 2010.

5.2 Caerphilly Objectives and Targets

5.1.2 I identify and maintain the current distribution and range. (Target: 2005 and ongoing)

- 5.2.2 Identify additional sites for species reintroductions by 2008, and seek to restore viable populations to suitable site(s) by 2011.

6. ACTION AND KEY PARTNERS

Action	Key Partners		Year to be complete or in place by:								
	Lead	Partners	2003	4	5	6	7	8	9	10	11
6.1 Policy and Legislation											
6.1.1 Include the requirements of the species, where possible, when preparing or revising prescriptions for relevant agri-environment schemes.	CCW	NAWAD	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.1.2 Ensure the habitat requirements of the bordered gothic are taken into account in relevant development policies, plans and proposals.	CCBC	CCW	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.1.3 Seek to designate local sites as SINC where there are significant populations of this moth.	CCBC	CCW									✓
6.2 Site Safeguard and Management											
6.2.1 Ensure all occupied and adjacent suitable habitat is appropriately managed (when requirements are known), e.g. through site management agreements or uptake of relevant agri-environment schemes.	CCW	NAWAD FC	✓	✓	✓						
6.2.2 Increase available habitat wherever possible, on known sites and adjacent sites, and attempt to link up fragments of habitat.	CCW	NAWAD FC CCBC		✓	✓	✓	✓	✓	✓	✓	✓
6.3 Species Management and Protection											
6.3.1 Reintroduce the bordered gothic to suitable sites within the historic range, if necessary, to restore a number of additional viable populations.	CCW	(BC)						✓			✓
6.4 Advisory											
6.4.1 Liaise with landowners and managers to raise awareness of the species and the importance of beneficial management for its conservation.	CCBC	BC CCW	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.5 Future Research and Monitoring											
6.5.1 Undertake surveys to determine the current distribution.	GMRG MBMG	BC CCW	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.5.2 Pass information gathered during survey work and monitoring of species to a central database for incorporation into national and international databases.	GMRG MBMG	BC	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.6 Communications and Publicity											
6.6.1 Promote opportunities for the appreciation of the bordered gothic and the conservation issues associated with its habitat.	CBP	-	✓	✓	✓	✓	✓	✓	✓	✓	✓

BUTTONED SNOOT MOTH *HYPENA ROSTRALIS* SPECIES ACTION PLAN

1. INTRODUCTION

The buttoned snout moth is a UKBAP priority species³⁸ and is classified as *Nationally Scarce*.

2. CURRENT STATUS

2.1 UK and Wales

This moth was formerly widespread throughout southern Britain, including South Wales, and northwards to Lincolnshire. It has declined significantly and now occurs mainly in river valleys in southeast England, such as the Thames Basin, and on estuaries and other scattered sites around the coastal counties of England and South Wales. In South Wales records are widely spread but at a low density.

2.2 Caerphilly County Borough

Buttoned snout larvae feed on hop (*Humulus lupulus*), particularly plants sprawling across the ground. The adults hibernate in man-made shelters, outbuildings and in caves. There is a need for beneficial management on existing sites and a full survey of the county borough to identify all undiscovered populations. It would also be beneficial to the species to restore a whole network of habitat, if necessary with introductions of the species.

2.3 Links with Habitats

- *Wetlands*
- **Urban Habitats** (old buildings, unused urban/industrial land)

3. CURRENT FACTORS AFFECTING THE SPECIES

- In parts of England a decline in commercial hop growing has affected the species.
- In South Wales the main factor is loss of habitat and hibernation sites due to the redevelopment of derelict urban sites.

4. CURRENT ACTION

4.1 No current action, apart from limited recording by light trapping.

5. OBJECTIVES AND TARGETS

5.1 UK Objectives and Targets

5.1.1 Maintain the population size at all known sites.

5.1.2 Enhance the population size at all known sites by 2010.

5.1.3 Restore self-sustaining populations to 5 additional sites within the historic range by 2010.

5.2 Caerphilly Objectives and Targets

- 5.2.1 Identify and maintain the current population distribution and size (Target: 2005 and ongoing).
- 5.2.2 Enhance the population size at all identified sites (Target: 2008).
- 5.2.3 Identify additional sites within the historic range and seek to restore populations to suitable sites (Target: 2011).

6. ACTION AND KEY PARTNERS

Action	Key Partners		Year to be complete or in place by:								
	Lead	Partners	2003	4	5	6	7	8	9	10	11
6.1 Policy and Legislation											
6.1.1 Where possible, include species requirements when preparing or revising prescriptions for agri-environment schemes.	CCW	NAWAD	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.1.2 Where possible, include species requirements when preparing or revising prescriptions for derelict land schemes.	WDA	CCBC	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.2 Site Safeguard and Management											
6.2.1 Ensure all occupied and nearby habitat is managed appropriately, e.g. through site management agreements or uptake of relevant agri-environment schemes.	CCW	NAWAD CCBC	✓		✓				✓		
6.2.2 Increase available habitat on known sites and adjacent sites in an attempt to link up existing fragments of habitat.	CCW	NAWAD CCBC	✓						✓		
6.3 Species Management and Protection											
6.3.1 Ensure habitat requirements are taken into account in relevant development policies, plans and proposals, including the redevelopment of derelict urban sites.	CCBC	WDA	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.3.2 Reintroduce the species to suitable sites to restore a number of additional populations, if necessary.	CCW	BC									✓
6.4 Advisory											
6.4.1 Liaise with landowners/managers to inform them about the species and beneficial management for its conservation.	CCW	CCBC	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.5 Future Research and Monitoring											
6.5.1 Surveys to identify current distribution.	GMRG MBMG	BC	✓	✓							
6.5.2 Survey to identify suitable habitats in the historic range.	BC	GMRG MBMG									
6.5.3 Pass information gathered during survey and monitoring to a central database for incorporation into national databases.	GMRG MBMG	CCW BC	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.6 Communications and Publicity											
6.6.1 Promote opportunities for the appreciation of the species and conservation issues associated with its habitat.	CBP	-	✓	✓	✓	✓	✓	✓	✓	✓	✓

DOUBLE LINE MOTH *MYTHIMNA TURCA* SPECIES ACTION PLAN

1. INTRODUCTION

The double line moth is a UKBAP priority species³⁸ and is classified as *Nationally Scarce*.

2. CURRENT STATUS

2.2 UK and Wales

The double line moth occurs in wet grasslands, woodland clearings and rides. It is able to survive in exposed situations such as open moorland and coastal grassland in southwest England, but in South Wales the species is often associated with rhos pasture. Little is known about its ecology, other than the larvae feed at night on grasses such as common bent, creeping soft-grass and cock's foot. In the UK it is now mainly confined to southern and western Wales, and southwest England (Somerset, Dorset and Cornwall), where it is chiefly associated with wet grassland. It has been recorded in open woodland in southeast England, but has now largely disappeared from this habitat, perhaps due to changes in management (see section 3).

2.2 Caerphilly County Borough

The county of Glamorgan appears to be a stronghold for the species, but to date only two Gwent records are known. In both counties, covering Caerphilly county borough it is probably under recorded, so a full survey is therefore required.

2.3 Links with Habitats

- *Species-rich Grasslands* (rhos pasture – wet grasslands)
- *Deciduous Woodlands* (woodland rides and glades)

2.4 Links with Other Plans

It is likely that the implementation of this action plan will have benefits for other species of wet grasslands, including the *marsh fritillary butterfly*.

3. CURRENT FACTORS AFFECTING THE SPECIES

- Changes in woodland management resulting in the shading out of woodland rides and glades.
- Agricultural improvement of wet grasslands (rhos pasture) and over-grazing.
- Abandonment of traditional cattle grazing.

4. CURRENT ACTION

4.1 No current action apart from recording by the Glamorgan Moth Recording Group.

5. OBJECTIVES AND TARGETS

5.1 UK Objectives and Targets

5.1.3 Maintain the population size at all known sites (ongoing).

5.1.2 Restore viable populations to 5 former woodland sites by 2010.

5.2 Caerphilly Objectives and Targets

5.2.1 Identify and maintain the current population distribution and range (Target: by 2004 and ongoing).

5.2.2 Identify possible woodland sites for species re-introduction schemes (Target: 2008).

6. ACTION AND KEY PARTNERS

Action	Key Partners		Year to be complete or in place by:								
	Lead	Partners	2003	4	5	6	7	8	9	10	11
6.1 Policy and Legislation											
6.1.1 Where possible, include species requirements when preparing or revising prescriptions for agri-environment schemes.	CCW	NAWAD	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.1.2 Incorporate the requirements of the species into relevant development policies, plans and proposals.	CCBC	WDA FC NAWAD	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.1.3 Seek to designate sites with significant populations as SIN C.	CCBC	CCW									✓
6.2 Site Safeguard and Management											
6.2.1 Ensure all occupied habitat is appropriately managed, e.g. through site management agreements or the uptake of relevant agri-environment schemes.	CCW	NAWAD FC	✓	✓	✓	✓	✓	✓			
6.3 Species Management and Protection											
6.3.1 Reintroduce the double line to a number of suitable former woodland sites.	CCW	FC Coed Cymru						✓			✓
6.3.2 Encourage appropriate management of all rhos pasture, including grazing schemes.	CCW	CCBC	✓	✓	✓	✓	✓	✓			
6.4 Advisory											
6.4.1 Raise the awareness of landowners/managers about the species' requirements and the importance of beneficial management for its conservation.	CCW	NAWAD FC Coed Cymru GWT GLWT	✓		✓						
6.5 Future Research and Monitoring											
6.5.1 Undertake surveys to determine the current status of the species.	GMRG MBMG	BC CCW	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.5.2 Conduct targeted autecological research to inform habitat management and reintroductions (for 6.3.1).	CCW	BC	✓	✓	✓						
6.5.3 Establish a regular monitoring programme for this species on key sites.	GMRG MBMG	BC CCW		✓	✓	✓					
6.5.4 Pass information gathered during survey/monitoring work to a central database for incorporation into national databases. Support a South Wales LRC.	GMRG MBMG	BC	✓	✓	✓	✓	✓	✓	✓	✓	✓

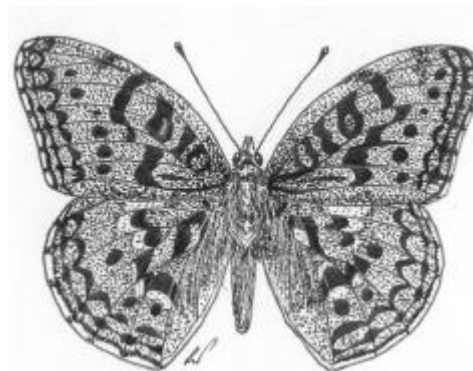
Action	Key Partners		Year to be complete or in place by:								
	Lead	Partners	2003	4	5	6	7	8	9	10	11
6.6 Communications and Publicity											
6.6.1 Promote opportunities for the appreciation of the species and conservation issues associated with its habitat. This may be achieved by articles within the appropriate journals and publicity leaflets, etc.	CBP	-	✓	✓	✓	✓	✓	✓	✓	✓	✓

HIGH BROWN FRITILLARY *ARGYNNIS ADIPPE* SPECIES ACTION PLAN

1. INTRODUCTION

The high brown fritillary butterfly is a UKBAP priority species in severe decline³⁹. It occurs in Glamorgan and may still exist in Caerphilly county borough as specialised habitat is still found in the area.

Relevant Legislation/Species Status	
priority (P) or species of conservation concern (S)	P
EC Habitats Directive	-
Conservation Regs 1994	-
Berne Convention 1982	-
Bonn Convention 1979	-
CI TES 1975	-
WCA 1981	Sch. 5
Other Species Status	RDB Insects - vulnerable



© CCBC 2002

2. CURRENT STATUS

2.1 UK and Wales

The high brown fritillary was formerly widespread and locally abundant across much of England and Wales. It has, however, declined rapidly in the last 50 years and is now extinct over 94% of its former range. In 1994 only 51 definite colonies were known, many of these were very small and possibly not viable in isolation. The remaining centres of distribution are the bracken slopes of Dartmoor, Exmoor, Herefordshire and Glamorgan. It also occupies the coppiced woodland limestone outcrops of Morecombe Bay. It is still widespread across Europe, although it may have suffered local declines.

2.2 Caerphilly County Borough

High brown fritillaries may still occur in Caerphilly county borough, although confirmed records have not been made since 1992. The coedcae/ffridd of the valley sides in the county borough are a favoured habitat. Violets thrive in the summer bracken canopy, particularly on those with a warm microclimate usually associated with a southerly aspect. In the late 1980s records regularly flowed from the Brynawel area, where extensive areas of bracken still occur. There are also unconfirmed records from other parts in the south and into neighbouring boroughs. Adults are strong fliers and are normally observed on nectar sources such as marsh thistles or buddleia, not necessarily adjacent to breeding locations. The breeding location of the adults previously observed in the Brynawel area has not been confirmed.

2.3 Links with Habitats

- *Coedcae/ffridd*

3. CURRENT FACTORS AFFECTING THE SPECIES

- Reduction of coppicing: In addition to bracken slopes, the species used to thrive in coppiced woodland generally, not just that on limestone outcrops. The decline in coppicing has left the species dependent in Wales and south-western Britain on bracken habitats.

- Agricultural improvement: Intensification of agriculture combined with a negative perception of bracken has led to considerable loss of this habitat type. Until just a few years ago FC were still actively encouraging removal of bracken in Wales.
- Cessation of grazing and traditional forms of bracken management: Bracken stands need to be extensively grazed, preferably by cattle, to prevent them becoming too dense thus shading out the violet food plants on which the breeding cycle depends. The shift in balance of stock to sheep and their overall huge increase in numbers in Wales in the last twenty years has tended to lead to two equally unfavourable extremes: either sparse and overgrazed bracken slopes lacking diversity of plant species (including violets) or dense impenetrable bracken stands where the violets are shaded out. Also bracken cutting for bedding has declined substantially, again leading to too dense stands.
- Climate Change: Since 1996 a series of unfavourable seasons of weather (warm, damp winter and spring, followed by wetter summers) has caused dramatic falls in the numbers of adults recorded from all monitored sites in the UK. In South Wales, over this period, the species appears to have declined in adult numbers by >90% and disappeared from some colonies discovered in the mid 1990s, leaving one known breeding colony near Bridgend.

4. CURRENT ACTION

- 4.1 Arrangements are being made to provide training in assessment of high brown fritillary habitat and its condition. This should enable more targeted survey work to begin.
- 4.2 Leaflets are now available from Butterfly Conservation (BC) to publicise the potential of bracken habitats for fritillary butterflies.
- 4.3 BC high brown fritillary training days; e.g. habitat requirements.

5. OBJECTIVES AND TARGETS

5.1 UK Objectives and Targets

- 5.1.1 Halt the current decline and maintain at least 50 self-sustaining populations.
- 5.1.2 Restore suitable habitat within its former range and encourage up to 10 additional sites by 2005, using re-introductions if necessary.
- 5.1.3 Ensure a minimum number of colonies are protected within SSSIs.

5.2 Caerphilly Objectives and Targets

- 5.2.1 Survey and assess condition of potential habitat, particularly the Brynawel area (Target: 2003).
- 5.2.2 Restore and manage potential habitat into good condition (Target: 2005 and ongoing).

6. ACTION AND KEY PARTNERS

Action	Key Partners		Year to be complete or in place by:								
	Lead	Partners	2003	4	5	6	7	8	9	10	11
6.1 Policy and Legislation											
6.1.1 Ensure Policies and Strategies do not adversely affect potential or known habitat.	CCW	CCBC WDA FC	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.1.2 Consider the requirements of high brown fritillaries when reviewing agri-environment schemes, with particular attention to the issue of bracken control.	CCW	NAWAD	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.1.3 Following further survey and research (at UK level) identify the ecological requirements of this species and encourage the uptake of incentives for favourable land management on existing and potential sites.	BC	CCW CCBC FC		✓							
6.2 Site Safeguard and Management											
6.2.1 Encourage favourable management of habitat for the species on all confirmed and potential sites.	CCW	CCBC FC		✓	✓	✓	✓	✓	✓	✓	✓
6.3 Species Management and Protection											
6.3.1 Determine suitable management of particular sites and habitats, depending on the results obtained after completion of necessary research (6.5.1 and 6.5.2).	CCBC	farmers and landowners			✓	✓	✓	✓	✓	✓	✓
6.3.2 Continue to implement wildlife legislation.	Gwent Police	CCW	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.4 Advisory											
6.4.1 Raise the awareness of landowners and managers to habitat and species requirements in order to promote management for high browns.	BC	CCW	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.5 Future Research and Monitoring											
6.5.1 Survey habitat condition of the significant areas of bracken in the county borough particularly those well-established areas with a warm (close to southerly) aspect below 150m.	BC	CCW CCBC BC	✓								
6.5.2 Survey the areas in 6.5.1 for adult fritillary butterflies including sites with historical records of any such species (licensed specialists).	BC	CCW		✓							
6.5.3 Encourage farmers, walkers and members of the public to report any fritillary butterfly sightings promptly.	CBP	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.6 Communications and Publicity											
6.6.1 Promote the importance and wildlife value of bracken slopes and coedcae/ffridd for this butterfly species.	CBP	-	✓	✓	✓	✓	✓	✓	✓	✓	✓

MARSH FRITILLARY *EURODRYAS AURINIA* SPECIES ACTION PLAN

1. INTRODUCTION

The marsh fritillary butterfly is a UKBAP priority species³⁹ still occurring in much of Wales, particularly the south and west. It is a typical butterfly of the classic Welsh landscape habitat of purple moor-grass and rush pasture (known in Wales and this LBAP as "rhos pasture").

Relevant Legislation/Species Status	
priority (P) or species of conservation concern (S)	P
EC Habitats Directive	Annex II a
Conservation Regs 1994	Sch. 2
Berne Convention 1982	App. II
Bonn Convention 1979	-
CITES 1975	-
WCA 1981	Sch. 5



© CCBC 2002

2. CURRENT STATUS

2.1 UK and Wales

The marsh fritillary butterfly is declining in almost every European country and is now extinct in northern Belgium. The UK is now believed to be one of the major European strongholds for the species, but even here it has declined substantially over the last 150 years. In Britain, its range has reduced by over 62%, and it has recently disappeared from most of eastern England and eastern Scotland. It is still quite widespread in parts of southwest England and Wales, but colonies are estimated to be disappearing at a rate of well over 10% per decade.

In the early 1990s there were thought to be 111 colonies in Wales, of which at least 35 were in Glamorgan and 3 in Gwent. More recent records show that there are 140 colonies extant in Wales, with 40 sites in Glamorgan but one appears to have been lost in Gwent. Recent work by CCW shows that, of the significant southeast Wales population, a very high proportion of sites are neither protected nor suitably managed.

The marsh fritillary breeds in two main habitats, damp neutral or acid grasslands (rhos pastures) and dry chalk and calcareous grasslands. The former type tends to be used regularly in Wales. Colonies are mostly small and prone to extinction; therefore extensive networks of habitat patches that permit re-colonisation are essential to their long-term survival.

2.1 Caerphilly County Borough

There are three known regular sites for the marsh fritillary in Caerphilly county borough, where it is at the eastern edge of its current Welsh range. One of these sites is one of only a handful in Wales that are classified as "very large" (more than 500 adults or more than 250 larval webs found in a season). CCBC is a significant landowner on all three sites.

2.2 Links with Habitats

This species predominantly utilises rhos pasture habitat in Wales. It does breed to some extent in other habitats that contain its food plant - devil's bit scabious (*Succisa pratense*).

- **Species-rich Grasslands (rhos pasture)**, neutral grassland; particularly MG5c)
- **Heathland** (wet heath (mainly M15 in Wales, although M16 does occur)
- Mosaics of mire (M25, etc) and acid grasslands (U4) with bracken.

3. CURRENT FACTORS AFFECTING THE SPECIES

- Agricultural improvement of marshy (and other) grasslands.
- Development on suitable habitats, including:
 - afforestation
 - coal open-cast extraction
 - landfill operations
 - land reclamation schemes
 - roads
 - residential housing
 - employment related development
- Changes in grazing stock and practice, including:
 - BSE crisis causing decline of extensive cattle grazing
 - Huge increase in sheep grazing (sheep selectively graze the foodplant)
 - Neglect or loss of grazing altogether causing scrub invasion
 - Promotion of foreign cattle breeds, less suited than hardy Welsh blacks to grazing purple moor grass dominated habitat
- Increasing fragmentation and isolation of habitat.
- Lack of full survey data on habitat suitability and condition.
- Lack of awareness of importance of habitat.

4. CURRENT ACTION

- 4.1 The three currently known sites are all identified as SINCs, but two of them are also SSSIs and one is also a candidate SAC.
- 4.2 Discussions are underway between CCW and CCBC to arrange appropriate grazing/other management at the one "large" site.
- 4.3 The "large" site has just been designated as a candidate (European) Special Area of Conservation (SAC) and is being monitored annually by CCW.
- 4.4 Some survey of other potential habitat has been carried out by CCW and is currently being evaluated.
- 4.5 There are plans to survey habitat in the extreme west and south of Caerphilly county borough.

5. OBJECTIVES AND TARGETS

5.1 UK Objectives and Targets

- 5.1.1 Halt current decline and maintain the present range of the species.
- 5.1.2 Maintain at least five large populations within 20 pre-determined key areas.

5.1.3 Ensure a minimum number of colonies are protected within SSSIs.

5.2 Caerphilly Objectives and Targets

5.2.1 Ensure favourable habitat management on all known sites (Target: 2004).

5.2.2 Survey all potential habitat, assess its condition and, where appropriate, implement or encourage measures to maintain in appropriate condition (Target: 2005).

5.2.3 Protect all suitable habitat including habitat which is not necessarily occupied by marsh fritillaries in order to provide additional sites (Target: ongoing).

6. ACTION AND KEY PARTNERS

Action	Key Partners		Year to be complete or in place by:								
	Lead	Partners	2003	4	5	6	7	8	9	10	11
6.1 Policy and Legislation											
6.1.1 Promote favourable land management on occupied grasslands and habitats of a suitable/potentially suitable condition within dispersal range of existing or recent populations, through management agreements and appropriate schemes (Tir Gofal).	CCW	CCBC NAWAD BC NFU FUW Coed Cymru	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.1.2 Discourage the afforestation of occupied sites, sites within dispersal distance of them and indeed other sites of >0.5 ha of potentially suitable habitat.	FC	CCW CCBC NAWAD Coed Cymru	✓	✓							
6.1.3 Set the criteria for and identify key areas within which large populations will be maintained.	CCW	CCBC BC	✓	✓							
6.2 Site Safeguard and Management											
6.2.1 Bring all known CCBC sites into favourable management by 2004.	CCBC	CCW	✓	✓							
6.2.2 Encourage favourable management of all known sites and potential sites, to encourage the formation of a network, a significant percentage of which are, at any one time, in good condition for the species.	CCBC	CCW BC NFU FUW Coed Cymru			✓						
6.3 Species Management and Protection											
6.3.1 Continue to implement wildlife legislation.	Gwent Police	CCW	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.4 Advisory											
6.4.1 Ensure information on species distribution and appropriate habitat management is available to all those who do or could play a role in its conservation and recovery.	CCW	CCBC BC Coed Cymru NFU FUW	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.5 Future Research and Monitoring											
6.5.1 Survey all potential habitat, assess its condition and make recommendations for maintenance measures.	BC	CCW CCBC			✓						

Action	Key Partners		Year to be complete or in place by:								
	Lead	Partners	2003	4	5	6	7	8	9	10	11
6.5 Future Research and Monitoring (continued)											
6.5.2 Encourage further research on habitat management and assess the impact of such management on other important species associated with the same habitats.	BC	CCW CCBC GWT GLWT				✓					
6.5.3 Carry out regular monitoring of a network of sites being actively managed.	BC	CCW CCBC				✓	✓	✓	✓	✓	✓
6.5.4 Pass information gathered during survey and monitoring of this species to JNCC or BRC via CCW so it can be incorporated into national databases, and support a South Wales LRC.	BC	CCW CCBC			✓	✓	✓	✓	✓	✓	✓
6.6 Communications and Publicity											
6.6.1 Promote opportunities for the appreciation and conservation of the marsh fritillary and its habitat, and use the butterfly to illustrate the problems of habitat fragmentation.	BC	CCBC CCW GWT GLWT NFU FUW FC Coed Cymru NAWAD	✓	✓	✓	✓	✓	✓	✓	✓	✓

OTHER MOTHS SPECIES ACTION PLAN

1. INTRODUCTION

This action plan covers 12 species which are not UKBAP priority species, but for which modern (post-1970) records exist and are felt to merit action, either because they are nationally notable (Na or Nb) or are important in a Welsh context (medium priority)²¹ (L). These are:

• Bleached Pug	<i>Eupithecia expallidata</i>	Nb
• Blomer's Rivulet	<i>Discoloxia blomeri</i>	Nb
• Broom-Tip	<i>Chesias rufata</i>	Nb
• Cloaked Carpet	<i>Euphyia biangulata</i>	Nb
• Devon Carpet	<i>Lampropteryx otregiata</i>	Nb
• Great Oak Beauty	<i>Boarmia roboaria</i>	Nb
• Lead-Coloured Pug	<i>Eupithecia plumbeolata</i>	Nb
• Little Thorn	<i>Cepphis advennaria</i>	Nb
• Northern Drab	<i>Orthosia opima</i>	L
• Satin Lutestring	<i>Tetheella fluctuosa</i>	L
• Thyme Pug	<i>Eupithecia distinctaria</i>	Nb
• White-Marked	<i>Cerastis leucographa</i>	L

2. CURRENT STATUS

The majority of these moth species are associated with mature, fairly open, semi-natural woodland, the rest vary between heathland, woodland and other habitats, including urban.

2.1 Bleached Pug

Woodland rides and clearings are an important habitat for this species, where it feeds on goldenrod flowers. It is under-recorded since it is a small, not easily identified moth.

2.2 Blomer's Rivulet

This is a Wych Elm feeder, hence found in woodlands with this tree species. South Wales and the Wye valley are well-known areas for this species. Although less numerous than it was prior to Dutch Elm Disease in the 1970s, it still appears to be well established.

2.3 Broom-tip

This moth is mainly found on rough grassland, heathland, and "waste ground", where broom (*Cytisus scoparius*) flourishes. It is declining due to loss of habitat.

2.4 Cloaked Carpet

The cloaked carpet moth is found in mature woodland, particularly edge habitats, and mature hedgerows, where it feeds on chickweed and stitchwort. After years of a significant decrease in numbers, there are recent signs of a slight recovery in South Wales.

2.5 Devon Carpet

This species is associated with damp woodland, where it feeds on common marsh bedstraw (*Galium palustre*) and possibly other *Galium* species. It is probably currently under-recorded because of its similarity to the water carpet moth.

2.6 Great Oak Beauty

This species is an oak feeder, often to be found in oak woodlands.

2.7 Lead-coloured Pug

This species is found in sheltered heathland and open woodland where its food plant the common cow-wheat (*Melampyrum pratense*) occurs. A flourishing colony used to occur at Penllwyn Grasslands SSSI in Caerphilly county borough.

2.8 Little Thorn

This species feeds on bilberry, and so occurs in open woodlands where it flourishes. However, where bilberry does not occur the alternative food plants are currently unknown. Its population is decreasing.

2.9 Northern Drab

The northern drab is found on downland and heathland, and on a variety of food plants such as willow, birch, ragwort and mugwort. However, it is particularly scarce in the Gwent area, at the edge of its range.

2.10 Satin Lutestring

This moth occurs mainly in woodland rides and open woods containing birches, on which it feeds. It is of very local occurrence, with South Wales representing the nation stronghold, and currently has a stable population in Caerphilly county borough.

2.11 Thyme Pug

Mainly found in rocky areas and on limestone hills where the larvae feed on the flowers of thyme. It may be able to subsist on garden plants.

2.12 White-marked

The white-marked moth is found in deciduous woodland, and has a mixed diet, for example of willow, dock and stitchwort. It is uncommon, with South Wales representing the national stronghold for this species.

2.13 Links with Habitats

- *Deciduous Woodlands* (wet woodland, upland oak woodland; woodland rides and glades)
- *Urban* (e.g. gardens, unused urban/industrial land ("brownfield sites"))
- *Wildlife Corridors* (hedgerows)
- *Heathland*
- *Post-Industrial Land* (quarries, "waste ground")

3. CURRENT FACTORS AFFECTING THESE SPECIES

- Open woodland is important for a number of these moths, eight of them have been affected by the disappearance of traditional coppicing and wide woodland rides.
- The planting of conifers has also reduced the suitability of habitats.
- Loss of rough areas where the food plants grow to agriculture, forestry and development (**broom-tip, lead-coloured pug**).

4. CURRENT ACTION

4.1 In South Wales, there has been limited survey work by light trapping.

5. OBJECTIVES AND TARGETS**5.1 UK Objectives and Targets**

Not applicable for these species.

5.2 Caerphilly Objectives and Targets

5.2.1 Enhance the overall population size of each species in the county borough by 2011.

6. ACTION AND KEY PARTNERS

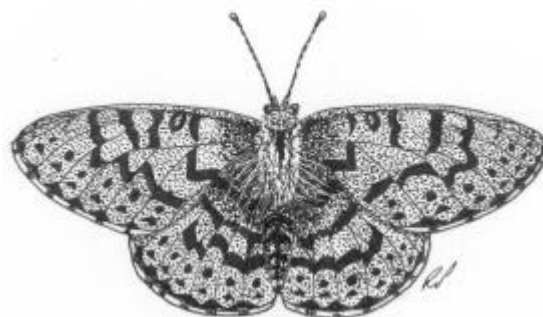
Action	Key Partners		Year to be complete or in place by:								
	Lead	Partners	2003	4	5	6	7	8	9	10	11
6.1 Policy and Legislation											
6.1.1 Encourage appropriate woodland management in occupied sites, for e.g. through the Woodland Grant Scheme.	FC	Coed Cymru	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.1.2 Where appropriate, include the requirements of the species when preparing or revising prescriptions for woodland grant schemes.	FC	Coed Cymru	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.2 Site Safeguard and Management											
6.2.1 Where possible, ensure all occupied habitats are appropriately managed, for example through site management agreements or uptake of relevant woodland grant schemes.	FC	Coed Cymru WDA CCBC	✓								✓
6.2.2 Where possible, enhance habitat at known sites, where most of the potentially suitable woodland is in the responsibility of Forest Enterprise.	FE	CCBC		✓	✓	✓	✓	✓	✓	✓	✓
6.3 Species Management and Protection											
6.3.1 Ensure the habitat requirements of the broom-tip and lead-coloured pug are considered in relevant development policies, plans and proposals for urban sites.	CCBC	WDA	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.4 Advisory											
None proposed at this time.	-	-									
6.5 Future Research and Monitoring											
6.5.1 Continue to monitor the populations and distribution of these species in the county borough.	GMRG MBMG	BC	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.6 Communications and Publicity											
None proposed at this time.	-	-									

PEARL-BORDERED FRITILLARY *BOLORIA EUPHROSYNE* SPECIES ACTION PLAN

1. INTRODUCTION

The pearl-bordered fritillary butterfly is a UKBAP priority species in rapid decline³⁹, and has not been recorded in Glamorgan since 1990 at its last known site in Caerphilly county borough. It has very specialised habitat requirements, and some suitable habitat may still occur in the area.

Relevant Legislation/Species Status	
priority (P) or species of conservation concern (S)	P
EC Habitats Directive	-
Conservation Regs 1994	-
Berne Convention 1982	-
Bonn Convention 1979	-
CITES 1975	-
WCA 1981	Sch. 5
Other Species Status	Nationally Notable



© CCBC 2002

2. CURRENT STATUS

2.1 UK and Wales

The pearl-bordered fritillary was formerly widespread and locally abundant across much of Britain, but it has declined very rapidly in the last 50 years in the south of England and Wales. It is still widespread and abundant in northwest England and in the Highlands of Scotland. In both southern England and Wales few large colonies are known, many are small and highly vulnerable to extinction with a loss rate typically of around 40% per decade.

In England, the species breeds both in coppiced woodland and on bracken slopes with violets. In Wales its remaining colonies are scattered, on bracken slopes and commons, with a small number in coastal Ceredigion, an apparently isolated site in Radnorshire and several colonies in Montgomeryshire. It does however still occur in Herefordshire and Gloucestershire.

2.2 Caerphilly County Borough

Pearl-bordered fritillaries may still occur in Caerphilly county borough, although given the loss in the last 15 years of most other sites in southeast Wales, it seems very unlikely. In the late 1980s records regularly flowed from Draethen Forest where it appeared to breed in a clearing with a northerly aspect with scattered bracken and unshaded rock strewn areas. This type of habitat is known to be suitable only for a temporary period for this species and it may be that it colonised from previously more suitable habitat in the area.

Potentially suitable extensive areas of bracken still occur in Caerphilly county borough, particularly on slopes with a warm microclimate usually associated with a somewhat southerly aspect. Areas with violets thriving in the summer bracken canopy are favoured. The ffridd/coedcae of the valley sides and other bracken stands may be particularly important for this species.

2.3 Links with habitat

- *Ffridd/Coedcae* (often on/adjacent to *Common Land*)

3. CURRENT FACTORS AFFECTING THE SPECIES

- Reduction of coppicing and other changes in woodland management practice leading to fewer clearings which are farther apart, consequently impeding colonisation. The decline in coppicing has left the species dependent on well-drained bracken habitats in Wales and southwest Britain.
- Cessation of grazing and traditional forms of bracken management: bracken stands need to be extensively grazed, preferably by cattle, to prevent them becoming too dense thus shading out the violet foodplants on which the breeding cycle depends. The shift in balance of stock to sheep and their overall huge increase in numbers in Wales in the last twenty years has tended to lead to two equally unfavourable extremes: either sparse and overgrazed bracken slopes lacking diversity of plant species (including violets) or dense impenetrable bracken stands where the violets are shaded out. Also bracken cutting for bedding has declined substantially, again leading to too dense stands.
- Agricultural improvement: intensification of agriculture combined with a negative perception of bracken has led to considerable loss of this habitat type. Until just a few years ago the FC were still actively encouraging removal of bracken in Wales.

4. CURRENT ACTION

- 4.1 Arrangements are being made to provide training in assessment of high brown fritillary habitat (which is similar to that for pearl-bordered fritillary) and its condition. This should enable more targeted survey work to begin, potentially of benefit for both species.
- 4.2 Leaflets are now available from BC to publicise the potential of bracken habitats for fritillary butterflies.
- 4.3 BC are currently surveying suitable habitat on behalf of Rhondda Cynon Taff County Borough Council. Some sites are located within Caerphilly county borough.

5. OBJECTIVES AND TARGETS

5.1 UK Objectives and Targets

- 5.1.1 Halt the current decline by the year 2005, through viable networks of populations in core areas of distribution.
- 5.1.2 Encourage restoration of suitable habitats throughout its former range with the long-term aim of re-introducing the species to at least 3 sites per previously occupied county.

5.2 Caerphilly Objectives and Targets

- 5.2.1 Survey and assess condition of potential habitat in Caerphilly county borough, particularly the Draethen area (Target: 2004).
- 5.2.2 Restore and manage potential habitat into good condition (Target: 2006).

- 5.2.3 Re-introduce the species to suitable sites where habitat in good condition has been identified and is actively maintained. (Target: 2011)*

6. ACTION AND KEY PARTNERS

Action	Key Partners		Year to be complete or in place by:								
	Lead	Partners	2003	4	5	6	7	8	9	10	11
6.1 Policy and Legislation											
6.1.1 Ensure Policies and Strategies do not adversely affect potential or known habitat.	CCBC	CCW WDA FC	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.1.2 Consider the requirements of pearl-bordered fritillaries when reviewing agri-environment schemes, with particular attention to the issue of bracken control.	CCW	NAWAD	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.2 Site Safeguard and Management											
6.2.1 Encourage favourable management of sites in recently occupied and potentially suitable areas, including appropriate woodland management, e.g. through the Woodland Grant Scheme.	BC	CCW CCBC Coed Cymru CMCS	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.3 Species Management and Protection											
6.3.1 Following feasibility assessments and habitat restoration, seek to restore populations to at least 3 sites in Caerphilly county borough. Discuss with BGCBC the opportunity for coordinated action in the neighbouring area where the species also formerly occurred in last 20 years.*	BC	BGCBC CCBC CCW			✓	✓	✓	✓	✓	✓	✓
6.3.2 Continue to implement wildlife legislation.	Gwent Police	CCW	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.4 Advisory											
6.4.1 Raise the awareness of landowners and managers of pearl-bordered fritillary conservation requirements in order to promote favourable habitat management.	BC	CCBC CCW NFU FUW NAWAD CMCS	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.5 Future Research and Monitoring											
6.5.1 Survey significant areas of bracken in the county borough for potential habitat, particularly those well-established and well-drained areas with a warm (close to southerly) aspect below 150m.	BC	-	✓	✓							
6.5.2 Encourage farmers, walkers and members of the public to report any fritillary butterfly sightings promptly.	CBP	-	✓	✓	✓	✓	✓	✓	✓	✓	✓

* This objective and subsequent action should be considered carefully in the light of survey and habitat condition assessment results, together with a realistic view of restoration and management success, in accordance with the current version of Butterfly Conservation's *Policy on Introductions and Re-introductions*⁵ and in consultation with the Glamorgan Biodiversity Advisory Group (GLBAG).

Action	Key Partners		Year to be complete or in place by:								
	Lead	Partners	2003	4	5	6	7	8	9	10	11
6.6 Communications and Publicity											
6.6.1 Promote the importance and wildlife value of bracken slopes and coedcae/ffridd for this butterfly species, e.g. through the production of a 'Biodiversity Briefing Note'.	CBP	-	✓	✓	✓	✓	✓	✓	✓	✓	✓

WAVED CARPET MOTH *HYDRELIA SYLVATA* SPECIES ACTION PLAN

1. INTRODUCTION

The waved carpet moth is classified as *Nationally Scarce* and is a UKBAP priority species³⁸.

2. CURRENT STATUS

2.1 UK, Wales, and Caerphilly County Borough

The waved carpet occurs in coppiced woods with a long history of active coppice, and in open sunny areas with younger growth of the larval food plants present. The food plants are alder, birch, willow and blackthorn, and, in Kent, sweet chestnut. The adult moths fly in June and July, resting by day among bushes and occasionally on tree-trunks. The larvae feed between July and August in most years and pupate in September to over-winter as a pupa in an earthen cell until emergence the following July. In Britain the waved carpet is a highly localised species with post-1980 records concentrated in five main areas: Devon, Cornwall and Dorset; the borders of Hampshire, Sussex and Surrey; East Sussex and Kent; Gloucestershire and south Wales.

Historically this species was recorded over much of England and Wales but the species has declined following the widespread cessation of active coppice management. The moth appears to exist at low density over much of its range and is likely to be under-recorded, for instance, it probably occurs more widely in Wales than records suggest.

2.2 Associated Habitats

- *Deciduous Woodlands* (lowland beech and yew woodland)

2.3 Links with Other Species

It is likely that implementation of this action plan will have benefits for other species of *lowland coppiced woodlands*, including the **drab looper** (*Minoa murinata*), the **orange upperwing** (*Jodia croceago*), the **clay fan-foot** (*Paracolax tristalis*), the **argent and sable** (*Rheumaptera hastate*), the **square-spotted clay** (*Xestia rhomboidea*) and the **common fan-foot** (*Pechipogo strigilata*).

3. CURRENT FACTORS AFFECTING THE SPECIES

- The loss of young re-growth due to the decline of coppicing in the lowlands.
- The loss of broadleaved woodland due to replanting with conifers.

4. CURRENT ACTION

- 4.1 Forestry Commission *Coppice for Butterflies* Challenge (Woodland Improvement Grant) scheme has targeted five areas; the Wye Valley, Sussex/Surrey/Hampshire, Western Greensand, Southern High Weald, Morecambe Bay Limestone and East Kent.
- 4.2 In South Wales there has been limited survey work by light trapping.

5. OBJECTIVES AND TARGETS

5.1 UK Objectives and Targets

5.1.1 Maintain the range of this species, concentrating particularly on strong populations within the core areas.

5.1.2 Enhance the overall population size in each occupied area by 2010.

5.2 Caerphilly Objectives and Targets

5.2.1 Identify and maintain the current population distribution and range (Target: ongoing).

5.2.2 Identify existing sites requiring protection and appropriate management to enhance the occupied area in the county borough (Target: 2011).

6. ACTION AND KEY PARTNERS

Action	Key Partners		Year to be complete or in place by:								
	Lead	Partners	2003	4	5	6	7	8	9	10	11
6.1 Policy and Legislation											
6.1.1 Encourage appropriate woodland management in occupied sites, for example through the Woodland Grant Scheme.	FC	Coed Cymru	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.1.2 Where appropriate, include the requirements of the species when preparing or revising prescriptions for woodland grant schemes.	FC	Coed Cymru	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.1.3 Seek to designate important waved carpet sites as SINc.	CCBC	CCW									✓
6.1.4 Consider notifying SSSIs on sites holding key populations of the species where this is necessary to secure their long term protection and appropriate management.	CCW	CCBC	✓								✓
6.2 Site Safeguard and Management											
6.2.1 Where possible ensure that occupied habitat is appropriately managed, for example through site management agreements or uptake of relevant woodland Grant Schemes.	FC	CCW Coed Cymru	✓								✓
6.2.2 Where possible, increase the available habitat at known sites and attempt to link up existing fragments of habitat. Most of the suitable habitat is the responsibility of FE, with whom particularly close liaison should be established.	CCW	FE FC Coed Cymru CCBC		✓	✓	✓	✓	✓	✓	✓	✓
6.3 Species Management and Protection											
None proposed at this time.											
6.4 Advisory											
6.4.1 Advise landowners and managers of the presence of this species and the importance of beneficial management for its conservation.	CCW	NAWAD FUW NFU	✓	✓	✓	✓	✓	✓	✓	✓	✓

Action	Key Partners		Year to be complete or in place by:								
	Lead	Partners	2003	4	5	6	7	8	9	10	11
6.5 Future Research and Monitoring											
6.5.1 Undertake surveys to determine current distribution.	BC	GMRG MBMG CCBC	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.5.2 Establish a regular monitoring programme for the species.	BC	GMRG MBMG		✓	✓	✓					
6.5.3 Assess the impact of the <i>Coppice for Butterflies Challenge</i> on this species.	BC	CCW			✓	✓	✓				
6.5.4 Conduct targeted autecological research to inform habitat management, including the age of coppice after cutting which is preferred by the moth, the length of time such cut areas remain suitable, mobility and population structure.	CCW	BC	✓	✓	✓						
6.5.5 Pass information gathered during survey and monitoring of this species to a central database for incorporation in national and international databases. Support an LRC for South Wales.	BC	GMRG MBMG	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.6 Communications and Publicity											
6.6.1 Promote opportunities for the appreciation of the species and the conservation issues associated with its habitat. This should be achieved via articles within appropriate journals as well as by a publicity leaflet.	CBP	-	✓	✓	✓	✓	✓	✓	✓	✓	✓