

# Analysis of UK BAP Priority Habitats within Agri-environment Schemes and SSSIs in South West England

Report for the South West Regional Biodiversity  
Partnership



BRERC  
Third Floor  
Bristol Central Library  
College Green  
Bristol  
BS1 5TL

August 2006



## Executive Summary

- **The following analysis of UKBAP Priority Habitat within Agri-environment Schemes and SSSIs in South West England is carried out using what is considered to be the most accurate and up to date tabulated, mapped habitat data. This data also formed the basis of the South West Biodiversity Targets submitted to the Regional Spatial Strategy in March 2006. It is recognised that there are other areas of UKBAP habitat known to exist that have not been mapped and will not be included within this analysis. As new habitat data is collected, updated and mapped it will be necessary to update this analysis accordingly.**
- **The resulting figures show that whilst there is variability amongst habitats a significant proportion of Priority Habitat in the South West currently falls within areas of land which has associated management agreements with DEFRA and English Nature.**
- **39% of South West UKBAP Priority Habitat currently falls within areas of land which has associated AES management agreements**
- **43% of South West UKBAP Priority Habitat currently falls within the boundaries of SSSIs**
- **26% of South West UKBAP Priority Habitat falls within 5km of the coast**
- **This has implications for the delivery and reporting of UKBAP Priority Habitat targets in the South West with DEFRA currently holding responsibility for a minimum of 39% of the regional maintenance targets and English Nature currently holding responsibility for a minimum of 43% of the regional maintenance targets.**
- **This could enable the targeting of further funding to areas of UKBAP Priority Habitat targets in the South West, which are not currently associated with management agreements.**

## Table of Contents

1.0	Introduction	Page 4
2.0	Regional summary figures methodology	
2.1	UK BAP Habitat within ESA, CSS and WES	Page 4
2.2	UK BAP Habitat within Agri-Environment Schemes	Page 5
2.3	UK BAP Habitat within Sites of Special Scientific Interest	Page 5
2.4	UK BAP Habitat within 2km, 5km and 10km of SSSI	Page 5
2.5	UK BAP Habitat within 5km buffer of coast	Page 5
3.0	County breakdown of regional figures methodology	
3.1	UK BAP Habitat within ESA, CSS and WES	Page 6
3.2	UK BAP Habitat within Agri-Environment Schemes	Page 6
3.3	UK BAP Habitat within Sites of Special Scientific Interest	Page 6
4.0	Regional data tables and maps	
4.1	UK BAP Habitat within Environmentally Sensitive Areas	Page 7
4.2	UK BAP Habitat within Countryside Stewardship Schemes	Page 8
4.3	UK BAP Habitat within Wildlife Enhancement Schemes	Page 9
4.4	UK BAP Habitat within Agri-Environment Schemes	Page 10
4.5	UK BAP Habitat within Sites of Special Scientific Interest	Page 11
4.6	UK BAP Habitat within 2km of SSSI	Page 12
4.7	UK BAP Habitat within 5km buffer of coast	Page 13
4.8	Regional Maps	Page 14
5.0	County data tables and maps	
5.1	Bath and North East Somerset	Page 21
5.2	Bournemouth	Page 30
5.3	City of Bristol	Page 39
5.4	Cornwall	Page 48
5.5	Devon	Page 57
5.6	Dorset	Page 66
5.7	Gloucestershire	Page 75
5.8	North Somerset	Page 84
5.9	Plymouth	Page 93
5.10	Poole	Page 102
5.11	Somerset	Page 111
5.12	South Gloucestershire	Page 119
5.13	Swindon	Page 127
5.14	Torbay	Page 136
5.15	Wiltshire	Page 145

## Introduction

The Bristol Regional Environmental Records Centre (BRERC) have been asked by the South West Regional Biodiversity Partnership (SWRBP) to analyse Biodiversity Action Plan (BAP) Priority Habitat summary figures produced for the Regional Spatial Strategy (RSS) in March 2006.

The aim of the analysis is to produce regional and county summary figures for the extent of UKBAP Priority Habitat within Agri-Environment Schemes (AES) and Sites of Special Scientific Interest (SSSIs). This will give an indication of the extent to which AES and management of SSSIs are contributing towards the UKBAP targets throughout the region and will guide the development of UKBAP reporting mechanisms in the South West.

Currently some of the most available, reliable and consistent data on monitoring and condition assessment collected, is collated on land under Agri-environment Schemes and within SSSIs. The monitoring information about biodiversity in these areas may be able to contribute towards the reporting of UKBAP habitats in the South West and provide a picture of UKBAP habitats across the whole region.

Data on the present known extent of BAP habitats has been collated for the purposes of reviewing the maintenance targets in the South West region, for inclusion in the RSS. This includes data from the South West National Biodiversity Network (SWNBN) habitat inventories, national inventories and data from local records centres. The dataset of extent of each BAP habitat was agreed by regional and local experts through the targets review process. This collated BAP habitat data has been used for the purpose of this analysis.

It should be noted that only habitats occurring within Agri-environment Schemes or SSSIs are shown in the results tables.

## 2.0 Regional summary figures methodology

Prior to conducting the analysis the CSS, ESA, WES and SSSI datasets were 'cleaned up' by removing duplicates and digital anomalies. Cleaning the CSS, ESA, WES and SSSI data proved to be difficult and time consuming as the unusually large electronic file sizes required separating into smaller units before being rebuilt into a dataset for use. It has also been necessary to empty the field information within these tables to enable amalgamation.

The UKBAP Priority Habitat datasets were used in their final condition prior to targets being submitted to the RSS and at the end of their review process. As a result of the review process some habitat target figures for the RSS were calculated using unmapped data and in these situations there will be differences between the regional mapped figures used for these calculations and the regional target figures found within the RSS. For example the maintenance target for Woodland was arrived at using unmapped, non-tabulated data, based on national figures which were unsuitable for this analysis. For this reason Criteria 1, 2 and 3 Woodland data from the SWNBN was amalgamated and included in this report for interest purposes only.

In calculating percentage figures of the regional UKBAP Priority Habitat resource a total regional habitat figure of 188,506ha was used, representing the total area of all the mapped UKBAP Priority Habitats that have been included in the RSS and in this analysis.

## **2.1 BAP Habitat within Environmentally Sensitive Areas (ESA), Countryside Stewardship Schemes (CSS) and Wildlife Enhancement Schemes (WES)**

ESA, CSS and WES data was provided by the Rural Development Service (RDS). For each BAP habitat, queries were carried out to calculate the total area of habitat resource found under ESA, CSS and WES. The percentage of regional resource under ESA, CSS and WES was calculated using the figures derived from the mapped data used to set the RSS targets. Where the targets include unmapped data it has not been possible to include them in this analysis.

## **2.2 BAP Habitat within Agri-environment Schemes**

To calculate the extent of habitat within AES, a new table was created amalgamating the three schemes to remove any existing overlaps. Each UKBAP habitat was queried to calculate the total area of habitat resource found within AES

## **2.3 BAP Habitat within Sites of Special Scientific Interest**

SSSI data was obtained through English Nature's website and the processes described in 2.1 repeated for Sites of Special Scientific Interest.

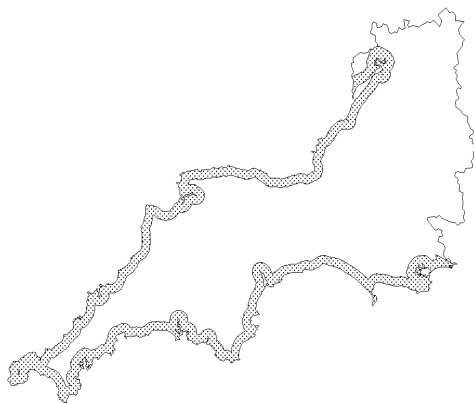
## **2.4 BAP Habitat within 2km of SSSI**

SSSI data was provided by English Nature and a 2km buffer was created by BRERC. The processes described in 2.1 were repeated for the 2km buffer to calculate habitat extent within the buffer area including that within SSSI boundaries.

## **2.5 BAP Habitat within 5km buffer of coast**

A 5km coastal buffer was created around the extent of the South West Region taking into account the Severn Estuary as illustrated below.

**Fig 1. 5km Coastal Buffer**



The processes described in 2.1 were repeated for the coastal buffer.

### **3.0 County breakdown of regional figures methodology**

The habitat data for ESA, CSS, WES and SSSI was queried for location within county. Where habitats intersect county boundaries the query design allocated the land parcel to the county within which the central point of the polygon was found. This introduces a degree of error which it is felt would be balanced by losses and gains along the boundary.

In calculating percentage figures of the county habitat resource a total figure was used which excluded Seagrass Bed and Woodland, as these figures were not available from the Targets Review. All other county habitat totals were derived from this document.

#### **3.1 UKBAP Habitat within ESA, CSS and WES**

Each habitat within each county within ESA, CSS and WES was queried for Criterion 1 and Criterion 2 polygons and new tables of these records were created. Habitat area was calculated for each of these tables using the minimum mappable area where appropriate. The large number of individual land parcels within the WES dataset affected the calculations for habitat MMU tables and it was necessary to remove duplicates where they occur within these tables in order to reasonably reflect the occurrence of mapped habitats.

#### **3.2 UKBAP Habitat within Agri-Environment Schemes**

To calculate the extent of habitat within AES within county, the newly created table containing the amalgamated schemes was queried for Criterion 1 and Criterion 2 polygons of each habitat within each county and the area of resulting tables calculated using the minimum mappable area where appropriate.

#### **3.3 UKBAP Habitat within Sites of Special Scientific Interest**

Each habitat within each county within SSSI was checked for Criterion 1 and Criterion 2 polygons and habitat area was calculated using the minimum mappable area where appropriate.

## 4.0 Regional Data Tables and Maps

### 4.1 UK BAP Habitat within Environmentally Sensitive Areas

Habitat	Habitat area within South West (ha)	Habitat area within ESA (ha)	% of South West habitat resource within ESA
Coastal Saltmarsh and Mudflat	15,062	3	0%
Coastal and Floodplain Grazing Marsh	29,335	13,480	46%
Maritime Cliff and Slope	14,218	949	7%
Fen	887	1	0%
Woodland (Crit 1, 2 and 3)	54,999	1,462	3%
Lowland Meadow	2,516	452	18%
Lowland Dry Acid Grassland	722	90	12%
Lowland Calcareous Grassland	21,835	3,072	14%
Purple Moor Grass and Rush Pasture	5,279	373	7%
Heathland within Upland Areas - Exmoor	3,303	2,375	72%
Heathland within Upland Areas - Dartmoor	13,991	11,963	86%
Heathland within Lowland Areas	19,251	1,518	8%

- A minimum of 35,738ha of UKBAP Priority Habitat is currently found on land with associated ESA agreements
- A minimum of 19% of South West UKBAP Priority Habitat is currently found on land with associated ESA agreements

#### 4.2 UK BAP Habitat within Countryside Stewardship Schemes

Habitat	Habitat area within South West (ha)	Habitat area within CSS (ha)	% of South West habitat resource Within CSS
Coastal Sand Dune	2,442	274	11%
Coastal Vegetated Shingle	197	2	1%
Coastal Saltmarsh and Mudflat	15,062	592	4%
Coastal and Floodplain Grazing Marsh	29,335	2,081	7%
Maritime Cliff and Slope	14,218	5,191	37%
Saline Lagoon	552	3	1%
Reedbed	1010	23	2%
Fen	887	127	14%
Woodland (Crit 1, 2 and 3)	54,999	6,698	12%
Lowland Meadow	2,516	340	14%
Lowland Dry Acid Grassland	722	232	32%
Lowland Calcareous Grassland	21,835	3,672	17%
Purple Moor Grass and Rush Pasture	5,279	1,862	35%
Heathland within Upland Areas – Bodmin	582	226	39%
Heathland within Upland Areas – Exmoor	3,303	18	1%
Heathland within Lowland Areas	19,251	5,111	27%

- A minimum of 26,452ha of South West UKBAP Priority Habitat is currently found on land with associated CSS agreements
- A minimum of 14% of South West UKBAP Priority Habitat is currently found on land with associated CSS agreements

## 4.3 UKBAP Habitat within Wildlife Enhancement Schemes

Habitat	Habitat area within South West (ha)	Habitat area within WES (ha)	% of South West habitat resource within WES
Coastal Sand Dune	2,442	374	15%
Coastal Vegetated Shingle	197	79	40%
Coastal Saltmarsh and Mudflat	15,062	379	3%
Coastal and Floodplain Grazing Marsh	29,335	1,448	5%
Maritime Cliff and Slope	14,218	4,064	29%
Saline Lagoon	552	447	81%
Reedbed	1010	0	0%
Fen	887	166	19%
Woodland	54,999	4,875	9%
Lowland Meadow	2,516	89	4%
Lowland Dry Acid Grassland	722	77	11%
Lowland Calcareous Grassland	21,835	1,671	8%
Purple Moor Grass and Rush Pasture	5,279	824	16%
Heathland within Upland Areas - Bodmin	582	1	<1%
Heathland within Upland Areas - Dartmoor	13,991	3,666	26%
Heathland within Upland Areas - Exmoor	3,303	2,368	72%
Heathland within Lowland Areas	19,251	3,864	20%

- A minimum of 24,392ha of South West UKBAP Priority Habitat is currently found on land with associated WES agreements
- A minimum of 13% of South West UKBAP Priority Habitat is currently found on land with associated WES agreements

## 4.4 UK BAP Habitat within Agri-Environment Schemes (ESA, CSS and WES)

Habitat	Habitat area within South West (ha)	Habitat area within AES (ha)	% of South West habitat resource within AES
Coastal Sand Dune	2,442	620	25%
Coastal Vegetated Shingle	197	80	41%
Coastal Saltmarsh and Mudflat	15,062	940	6%
Coastal and Floodplain Grazing Marsh	29,335	15,863	54%
Maritime Cliff and Slope	14,218	7,639	54%
Saline Lagoon	552	449	81%
Reedbed	1010	23	2%
Fen	887	435	49%
Woodland	54,999	12,124	22%
Lowland Meadow	2,516	833	33%
Lowland Dry Acid Grassland	722	352	49%
Lowland Calcareous Grassland	21,835	6,577	30%
Purple Moor Grass and Rush Pasture	5,279	2,815	53%
Heathland within Upland Areas - Bodmin	582	227	39%
Heathland within Upland Areas - Dartmoor	13,991	12,364	88%
Heathland within Upland Areas - Exmoor	3,303	3,074	93%
Heathland within Lowland Areas	19,251	9,234	48%

- A minimum of 73,649ha of South West UKBAP Priority Habitat is currently found on land with associated AES agreements (ESA +CSS+WES)
- A minimum of 39% of South West UKBAP Priority Habitat is currently found on land with associated AES agreements (ESA+CSS+WES)

## 4.5 UK BAP Habitat within Sites of Special Scientific Interest

Habitat	Habitat area within South West (ha)	Habitat area within SSSI (ha)	% of South West habitat resource within SSSI
Sabellaria Reef	20	9	45%
Coastal Sand Dune	2,442	2,128	87%
Coastal Vegetated Shingle	197	147	75%
Coastal Saltmarsh and Mudflat	15,062	1,829	12%
Coastal and Floodplain Grazing Marsh	29,335	6,825	23%
Maritime Cliff and Slope	14,218	10,801	76%
Seagrass Bed	1,170	394	34%
Saline Lagoon	552	538	97%
Reedbed	1010	128	13%
Fen	887	879	99%
Woodland (Crit 1, 2 and 3)	54,999	11,453	21%
Lowland Meadow	2,516	293	12%
Lowland Dry Acid Grassland	722	298	41%
Lowland Calcareous Grassland	21,835	15,446	71%
Purple Moor Grass and Rush Pasture	5,279	1,441	27%
Heathland within Upland Areas - Bodmin	582	52	9%
Heathland within Upland Areas - Dartmoor	13,991	8,975	64%
Heathland within Upland Areas - Exmoor	3,303	3,275	99%
Heathland within Lowland Areas	19,251	15,286	79%

- A minimum of 80,205ha of South West UKBAP Priority Habitat is currently found within SSSI boundaries
- A minimum of 43% of South West UKBAP Priority Habitat is currently found within SSSI boundaries

## 4.6 UK BAP Habitat within 2km of SSSI

Habitat	Habitat area within South West (ha)	Habitat area within 2km of SSSI (ha)	% of South West habitat resource within 2km of SSSI
Sabellaria Reef	20	19	95%
Coastal Sand Dune	2,442	2,434	99%
Coastal Vegetated Shingle	197	185	94%
Coastal Saltmarsh and Mudflat	15,062	13,396	89%
Coastal and Floodplain Grazing Marsh	29,335	21,008	72%
Maritime Cliff and Slope	14,218	13,598	96%
Seagrass Bed	1,170	879	75%
Maerl Bed	0.25	0.25	100%
Saline Lagoon	552	549	99%
Reedbed	1,010	297	29%
Fen	887	887	100%
Woodland (Crit 1, 2 and 3)	54,999	37,297	67%
Lowland Meadow	2,516	963	38%
Lowland Dry Acid Grassland	722	684	95%
Lowland Calcareous Grassland	21,835	20,353	93%
Purple Moor Grass and Rush Pasture	5,279	2,770	52%
Heathland within Upland Areas - Bodmin	582	454	78%
Heathland within Upland Areas - Dartmoor	13,991	13,553	97%
Heathland within Upland Areas - Exmoor	3,303	3,303	100%
Heathland within Lowland Areas	19,251	17,777	92%

- A minimum of 150,406ha of South West UKBAP Priority Habitat is currently found within a 2km buffer of a SSSI
- A minimum of 80% of South West UKBAP Priority Habitat is currently found within a 2km buffer of a SSSI

## 4.7 UK BAP Habitat within 5km buffer of coast

Habitat	Habitat area within South West (ha)	Habitat area within 5km buffer of coast (ha)	% of South West habitat resource within 5km buffer of coast
Sabellaria Reef	20	20	100%
Coastal Sand Dune	2,442	2,188	90%
Coastal Vegetated Shingle	197	116	59%
Coastal Saltmarsh and Mudflat	15,062	6,665	44%
Coastal and Floodplain Grazing Marsh	29,335	3,558	12%
Maritime Cliff and Slope	14,218	14,218	100%
Seagrass Bed	1,170	1,170	100%
Maerl Bed	0.25	0.25	100%
Saline Lagoon	552	552	100%
Reedbed	1010	0	0%
Fen	887	129	15%
Woodland (Crit 1, 2 and 3)	54,999	11,025	20%
Lowland Meadow	2,516	48	2%
Lowland Dry Acid Grassland	722	280	39%
Lowland Calcareous Grassland	21,835	1,156	5%
Purple Moor Grass and Rush Pasture	5,279	317	6%
Heathland within Upland Areas - Exmoor	3,303	940	28%
Heathland within Lowland Areas	19,251	10,458	54%

- A minimum of 52,840ha of South West UKBAP Priority Habitat is currently found within a 5km buffer of the coast
- A minimum of 28% of South West UKBAP Priority Habitat is currently found within a 5km buffer of the coast

