

Strategic Nature Area profiles - explanatory guidance

What are Strategic Nature Areas?

Strategic Nature Areas (SNAs) are identified on the Regional Nature Map. They are based on the Rebuilding Biodiversity methodology developed by the South West Wildlife Trusts. SNAs represent a number of areas around the region that are important both for the conservation and, importantly, the expansion of Biodiversity Action Plan habitats (see Annex 1).

SNAs represent a landscape-scale approach to nature conservation. They provide a framework for planning the conservation and expansion of semi-natural habitats, thus providing the connectivity within the landscape necessary to enable plants and animals to migrate and establish sustainable populations and communities.

Usually, each SNA focuses on a single UK BAP priority habitat. However, they are not intended to imply that all of the SNA should be restored to that habitat in the future. Depending on the habitat in question, the Rebuilding Biodiversity methodology sets theoretical targets for the cover of that habitat, of other semi-natural habitat and of other land uses within the SNA.

A summary of the methodology used to define SNAs can be found in Annex 2. Full details of the Regional Nature Map, which was produced by Biodiversity South West (BioSW) in association with local experts, can be found on BioSW's web site: www.biodiversitysouthwest.org.uk/nmap.html.

What are SNA profiles?

SNAs are essentially just boundaries on a map. The profiles add value by providing a basic but useful level of information on the SNA. This includes:

1. A summary of the nature conservation interest, including UK BAP habitats for which the SNA was primarily identified; other UK BAP habitats with a significant presence in the SNA; key species associated with the SNA, and an outline of the nature conservation designations within it.
2. Targets for the maintenance of the current BAP habitat in the SNA. Maintenance of this habitat includes ensuring that it continues in favourable condition or, if necessary, is enhanced to achieve favourable condition.

3. Targets for the expansion of the habitat. These are 50 year targets, based on the Rebuilding Biodiversity methodology. Depending on the habitat in question, this methodology recommends either:
 - 30% cover of that habitat, 30% cover of other semi-natural habitats and 40% cover of other land uses, or
 - 60% cover of that habitat and 40% cover of other land uses.
4. A map showing the current known extent of key UK BAP habitats in the SNA. This is based on National Biodiversity Network (NBN) Habitat Inventories, in some cases updated with more recent information held by the Devon Biodiversity Records centre (DBRC). Key designated sites (such as Local Nature Reserves, County Wildlife Sites and Sites of Special Scientific Interest) are also shown on this map (or sometimes on a separate map).
5. In many instances, the above information will be joined by guidance on the practical opportunities and constraints relevant to delivering biodiversity within specific SNAs. This will be produced by those with relevant local experience and knowledge and can include revised targets for habitat expansion which refine the theoretical targets described above.

Key to 'species status' used in the profiles

Code	Description
Amber List	Bird species of medium conservation concern, such as those whose population is in moderate decline, rare breeders, internationally important and localised species and those of unfavourable conservation status in Europe.
DA	Deer Act 1991 : deer protected under the Deer Act.
DBAP	Species with a distinct Action Plan in the Devon Biodiversity Action Plan
Decline	Species showing substantial local decline in Devon
Devon Notable Species:	Plant recorded from 2km squares in the Atlas of Devon Flora 1984 (R.B. Ivimey-Cook, Department of Biological Sciences, The University of Exeter):
DN1	1-25 2 km squares in Atlas of Devon Flora 1984
DN2	26-50 2 km squares in Atlas of Devon Flora 1984
DN3	Selected species recorded from over 50 2 km squares in Atlas of Devon Flora 1984
DR	Devon Rarity : native plant species recorded from 3 or fewer localities in Devon

Code	Description
Na	Nationally Notable A: invertebrate known from 30 or fewer 10km squares (from Invertebrate Site Register)
Nb	Nationally Notable B: invertebrate known from 100 or fewer 10km squares (from Invertebrate Site Register)
NR	Nationally Rare: plant recorded in 1-15 10km squares in the Atlas of British Flora 1962
NS	Nationally Scarce: plant recorded in 16 – 100 10km squares in the Atlas of British Flora 1962
Red List	Bird species of high conservation concern, such as those whose population or range is rapidly declining, recently or historically, and those of global conservation concern.
S.41	Species or habitat of principal importance in England (i.e. those UK BAP priority species / habitats present in England). These are listed under Section 41 of the Natural Environment and Rural Communities Act (2006)
WCA	Wildlife and Countryside Act (1981)

Calculating the priority BAP habitat maintenance targets

These targets are a reflection of the current known extent of BAP habitat within the SNA. They are based on the National Biodiversity Network (NBN) Habitat Inventories.

The Habitat Inventories map BAP habitat as individual polygons. These polygons fall into three categories of accuracy:

- Category 1 = polygon definitely is the priority habitat.
- Category 2 = habitat definitely present in polygon and meets a 'minimum mappable unit' area but the full extent within the polygon cannot be accurately mapped.
- Category 3 = probably the priority habitat but some uncertainty of interpretation.

Two methods were used to calculate the maintenance targets, resulting in minimum and maximum area figures.

Minimum area

In theory, the most accurate estimate of area for any individual habitat within a SNA is to:

- (a) add up all the areas of Category 1 polygons, and
- (b) multiply the total number of Category 2 polygons by the 'minimum mappable unit' for that habitat (thereby giving you the overall area of category 2 polygons that are definitely the habitat in question)
- (c) add together the outcomes of (a) and (b)

This was the method used to produce the 'minimum area' for the BAP habitat maintenance targets.

Maximum area

However, the above method excludes all Category 3 polygons. Within some SNAs, this exclusion results in the loss of valuable area data. For example, one reason for assigning a polygon as Category 3 was that the source data used to derive the Habitat Inventory was over 5 years old at the time the inventory was produced.

This may be a sensible approach when seeking accuracy within large regional and national datasets. It does, though, lead to situations where known concentrations of BAP habitat are excluded by the 'minimum area' methodology.

This is well illustrated by the Bovey Basin SNA. This area is known for its concentrations of lowland heath. The SNA contains two large Sites of Special Scientific Interest (SSSI) designated, in the main, for this habitat (Bovey Heathfield and Chudleigh Knighton Heath). However, whilst these SSSIs are known to still retain good quality heathland, the survey information available for them at the time the lowland heathland Habitat Inventory was being prepared was over 5 years old. Therefore, they are shown as Category 3 polygons and not picked up by the above methodology.

In order to address this situation, a separate 'maximum area' figure was prepared by simply adding together the areas of all the category 1, 2 and 3 polygons for each BAP habitat within the SNA.

In reality, the actual area of BAP habitats within a SNA may well lie somewhere between these two figures.

Use of best available information

The NBN Habitat Inventory data used to calculate the maintenance targets and to illustrate the habitat maps was created in 2003. Since then, additional

information has become available to the Devon Biodiversity Records Centre through, for example, survey work for County Wildlife Site designation.

Where this additional information was available it has been used in addition to the original NBN data.

Please note that lack of mention in a SNA profile of an area of habitat or certain species does not necessarily mean that they are absent from that SNA. These profiles are designed to give a flavour of the nature conservation interest and opportunities within a SNA; they are not comprehensive statements of that interest.

Consultation

The SNA profiles are currently in draft form. If you have any comments on the information they contain, please do pass them to Devon County Council's Biodiversity Officer using the following email address:

nature@devon.gov.uk

Also, if you are in a position to help complete the sections on opportunities for or constraints to nature conservation within a SNA, it would be very helpful if you could get in touch with the Biodiversity Officer.

If you have any interesting species records for a SNA (or, indeed, elsewhere in Devon) please consider passing them to the Devon Biodiversity Records Centre:

www.devonwildlifetrust.org/index.php?section=services:biodiversitycentre

The SNA profiles were commissioned by Devon County Council in support of the Devon Biodiversity and Geodiversity Action Plan (BAP).

They were produced by the Devon Biodiversity Records Centre.



Annex 1 – Biodiversity Action Plans

A Biodiversity Action Plan (BAP) identifies key habitats and species (and sometimes project areas), and provides a framework for action to achieve their conservation. BAPs exist at UK, national, regional and local levels.

They are the result of the famous ‘Earth Summit’ held in Rio de Janeiro in 1992, at which world leaders pledged to halt and reverse the loss of the planet’s biodiversity.

The UK and England level

The UK Government responded to this pledge with the production of the UK Biodiversity Action Plan (UK BAP). A comprehensive list of UK BAP priority habitats and species has been published to inform the UKBAP, with the latest iteration being approved by Ministers in August 2007. Those UK BAP habitats and species present in England are known as ‘species and habitats of principal importance in England’. They are listed under Section 41 of the Natural Environment and Rural Communities Act and there are 56 habitats and 943 species on this list.

- Details of the UK BAP can be found here: www.ukbap.org.uk.
- Details of England’s habitats and species of principal importance can be found on the web site of Natural England: www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx
- Details of UK and England level targets for priority BAP habitats and species can be found on the Biodiversity Action Reporting System (BARS) web site: www.ukbap-reporting.org.uk/outcomes/targets.asp
- England’s Biodiversity Strategy was published in 2002, with the aim of delivering the UK BAP in England. Known as ‘Working with the grain of nature’, it can be viewed on Defra’s web site: www.defra.gov.uk/environment/biodiversity/documents/biostrategy.pdf
- Current (2009) thinking on the by the England Biodiversity Group on how the UKBAP should be delivered in England can be found in ‘Securing Biodiversity: a new framework for delivering priority habitats and species in England’. There is a strong emphasis on a landscape-scale approach to nature conservation: <http://naturalengland.etraderstores.com/NaturalEnglandShop/NE127>

The regional level

A regional context to biodiversity action planning is provided by the South West Biodiversity Implementation Plan. This follows the England Biodiversity Strategy's approach of being based on broad sectors: Farming and food; Water and wetlands; Woodland and forestry; Towns, cities and development, and Coastal and marine environment.

It can be viewed on the web site of Biodiversity South West:

www.biodiversitysouthwest.org.uk/lib_our.html#n006

The local level

Devon (including Plymouth and Torbay) also has a county level BAP, which builds on national and regional work by identifying local priorities and providing targets and plans of action for the County. Many of the Devon BAP habitats and species, but not all, are also national priorities. Several districts and both National Parks also have BAPs.

The Devon BAP can be viewed here: www.devon.gov.uk/biodiversity

Annex 2 – an introduction to the Rebuilding Biodiversity habitat targets methodology

For a full and proper explanation of this methodology you should examine the Rebuilding Biodiversity in the South West Technical Manual:

www.biodiversitysouthwest.org.uk/docs/Rebuilding%20Biodiversity%20in%20the%20South%20West.pdf

1. It is not the intention that SNAs should, at some future time, consist entirely of the main priority habitat. Instead, the vision is for them to be a mosaic of this habitat type, other semi-natural habitats and other land uses. The target areas of these various habitats and land uses are suggested according to the habitat type.
2. The Rebuilding Biodiversity (RB) methodology regards some habitats as patch-forming (e.g. lowland meadows). These habitats occur as small patches in an enclosed landscape, in a mosaic with other small patches of habitats and other land uses.
3. Other habitats are regarded as matrix-forming (e.g. open heathland). Such habitats will define the local landscape and form the matrix within which other smaller areas of habitat and other land uses sit.
4. Broadly speaking, the size of the SNAs - and the amount of priority and other habitat that they should ideally contain - is based on (a) concepts of Minimum Dynamic Area, likely disturbance events, edge effects and so on which define the size of a habitat patch that is likely to support the range of conditions and niches required to be ecologically functional with respect to that habitat's typical species and (b) the number of patches that each SNA needs in order to guard against damage/significant disturbance to any one patch and accommodate the needs of metapopulations (and local extinctions and colonisation within SNAs).
5. This thinking will need to be applied differently between patch-forming and matrix-forming habitats.
6. In order to bridge isolation within SNAs the following targets for habitat restoration have been set (and these take into account the fact that the presence of other semi-natural habitats in addition to the primary habitat of the SNA also reduces isolation within the landscape):

Priority habitat	% cover of priority habitat	% cover of other semi-natural habitat	% cover of other land uses
Semi-natural broadleaved woodland	30	30	40
Coastal & floodplain grazing marsh	60	-	40
Lowland meadows	30	30	40
Lowland heath	60	-	40
Upland heath	60	-	40
Purple moor grass & rush pasture	30	30	40

Taken from Table 3, page 45 of the Technical Guidance.