Offsetting What? – The Adequacy of Biological Data Records

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Offsetting what?

- Is the intention to replace what is there directly?
- Is the intention to get as close as possible?
- Is the intention not to lose something of conservation value?
Obviously...

• There is a need to know what species and habitats exist in the area to be offset
• What is the abundance of those species and habitats
Not so obviously...

• What species have lived in the area to be offset in the recent past
• What species potentially could/should be living in the area to be offset
• What is the potential of the new area.
Data provision in the UK

• The UK has an unparalleled coverage of data covering the distribution of species past and present.
• These data have been available from the Biological Records Centre and specialist groups for decades.
• They are now becoming more available through the NBN gateway.
NBN – 24^{th} Sept 2010

• 505 datasets
• 55,445,462 species records
• [http://data.nbn.org.uk/](http://data.nbn.org.uk/)
• Data can be provided at a range of scales from the ‘old fashioned’ 10km squares to points linked to OS maps on screen.
• Go and explore it
Other data

• Landcover map 2007 for Broad Habitats (and some Priority Habitats)
• Natural England, SNH and CCW habitat maps (Phase I, NVC, AE schemes etc) but these are patchy.
• Local knowledge of naturalists.
Funding

• NBN is funded by many government sources – this provides security, but complacency could be a threat – all partners could/will be hit simultaneously, leading to a 25% cut in funding (if cuts occur proportionally).

• Local Records Centres, Wildlife Trusts and Local NE offices are potentially threatened by a shrinking State.

• Other potential data providers will come and go as they always have – there is a need to ensure that records are archived.
However...

- There is an assumption we know everything – do not believe that biodiversity maps are true representations, especially at larger scales.
- Because we have good records we can see there are issues with the data.
- We do not have adequate data on the coverage of habitats and especially BAP Priority Habitats.
- Although our knowledge of soil biota has increased, we still know little.
Temporal issues

• There is often a lag between records being collected and their appearance on the NBN.
• The abundance of species is seldom recorded and is inherently variable.
Temporal variation

Lizard Orchid in England

Not on NBN
Temporal Variation

Lizard Orchids at Sandwich

![Temporal Variation Graph]

- Number of Flowering Plants
- Year

[Graph showing temporal variation of lizard orchids from 1946 to 2006]
Record Validation

- Date of record is vital
- Quality of recorder is required
- Spatial accuracy of record is needed
- NBN are aware of this and moving ahead to improve the ‘quality stamp’ for records.
Suggested Approach

• EIA is vital.
• Use current biological records data as a guide to the potential of an area.
• Be aware of the spatial and temporal variation of the species of interest and take this into account.
• Validate the known data by a detailed survey (at least of habitats).
• Done properly the Farm Environment Plan for HLS agreements of Environmental Stewardship in England is an excellent format.
• Habitat mapping, vegetation, soil and freshwater sampling as carried out by Countryside Survey would be the ‘Gold Standard’.