Using Evaluation to Enhance the Rural Development Value of Agr-environmental Measures:
Pärnu, Estonia June 17-19 2008

Experiences of Developing HNV Indicators in England

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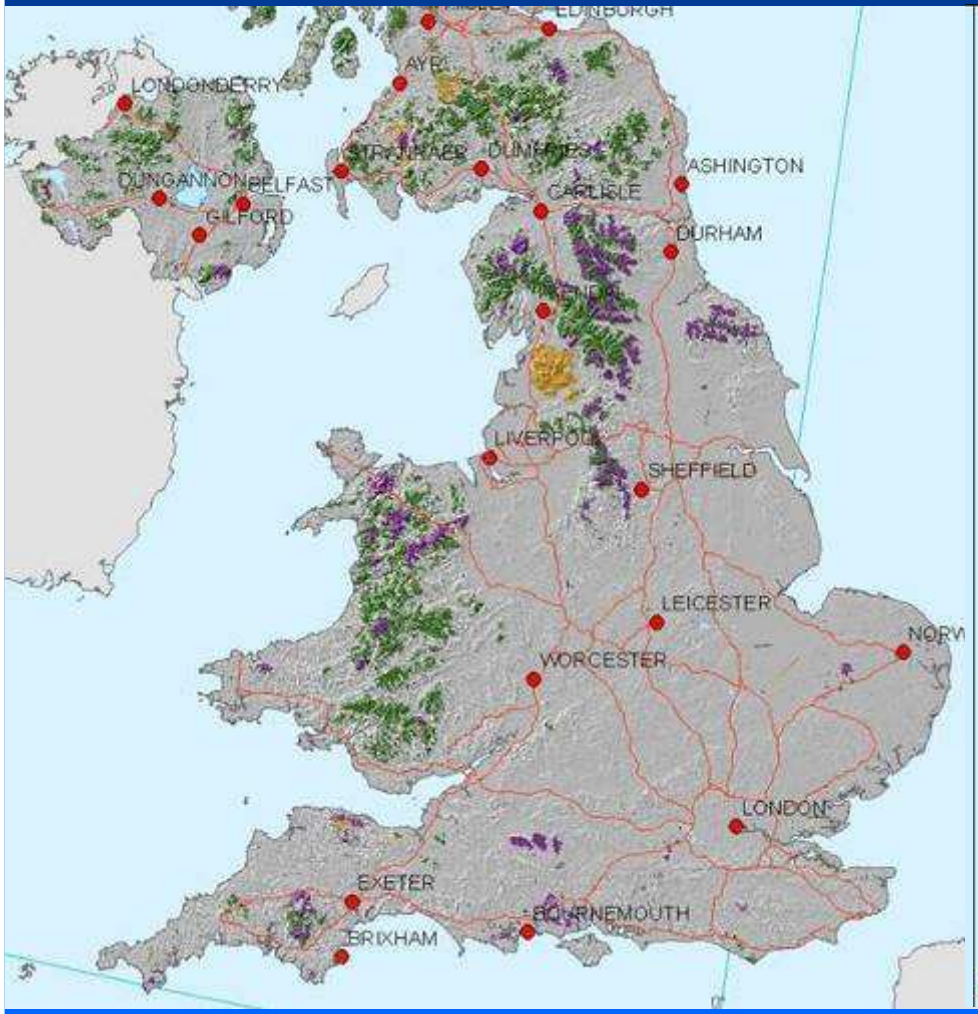
Workshop C2, 17 June 2008

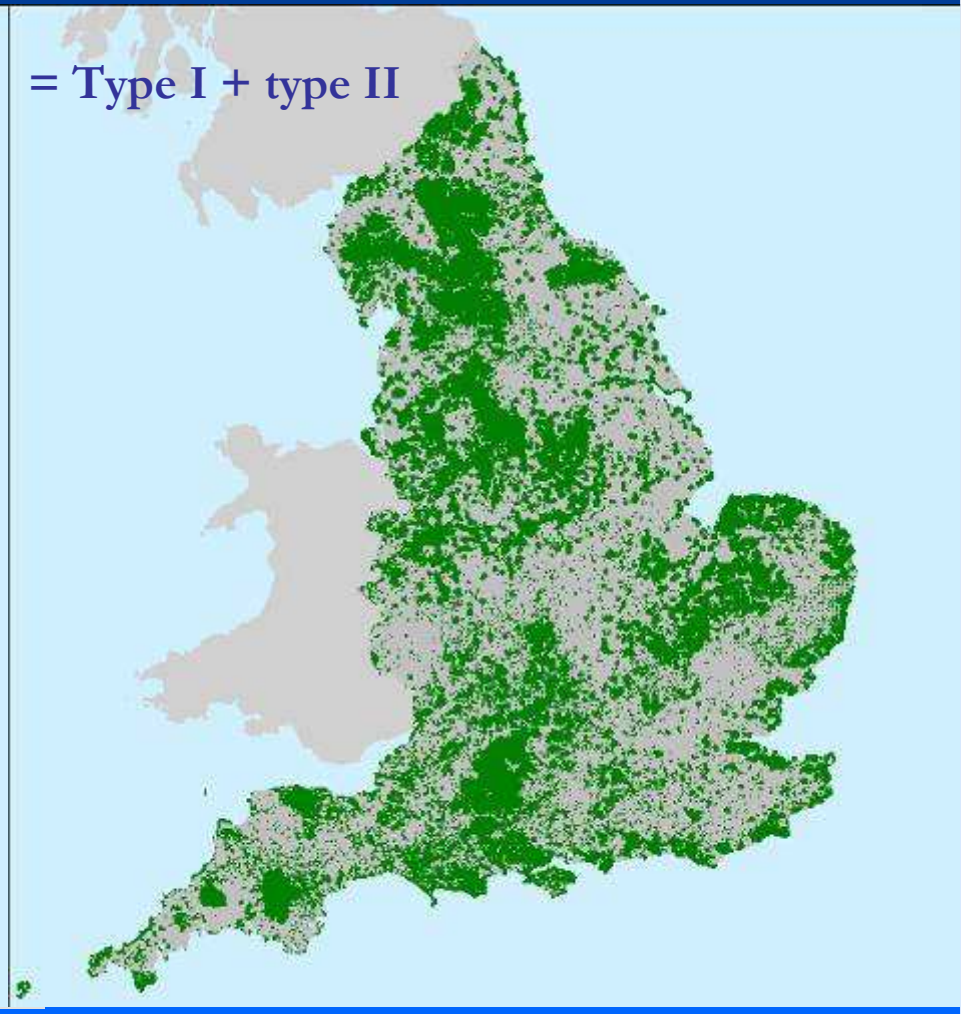
Outline:

- Approach used;
- Baseline data and indicators;
- Issues raised
- Further development to meet CMEF needs

Maps of initial and current draft

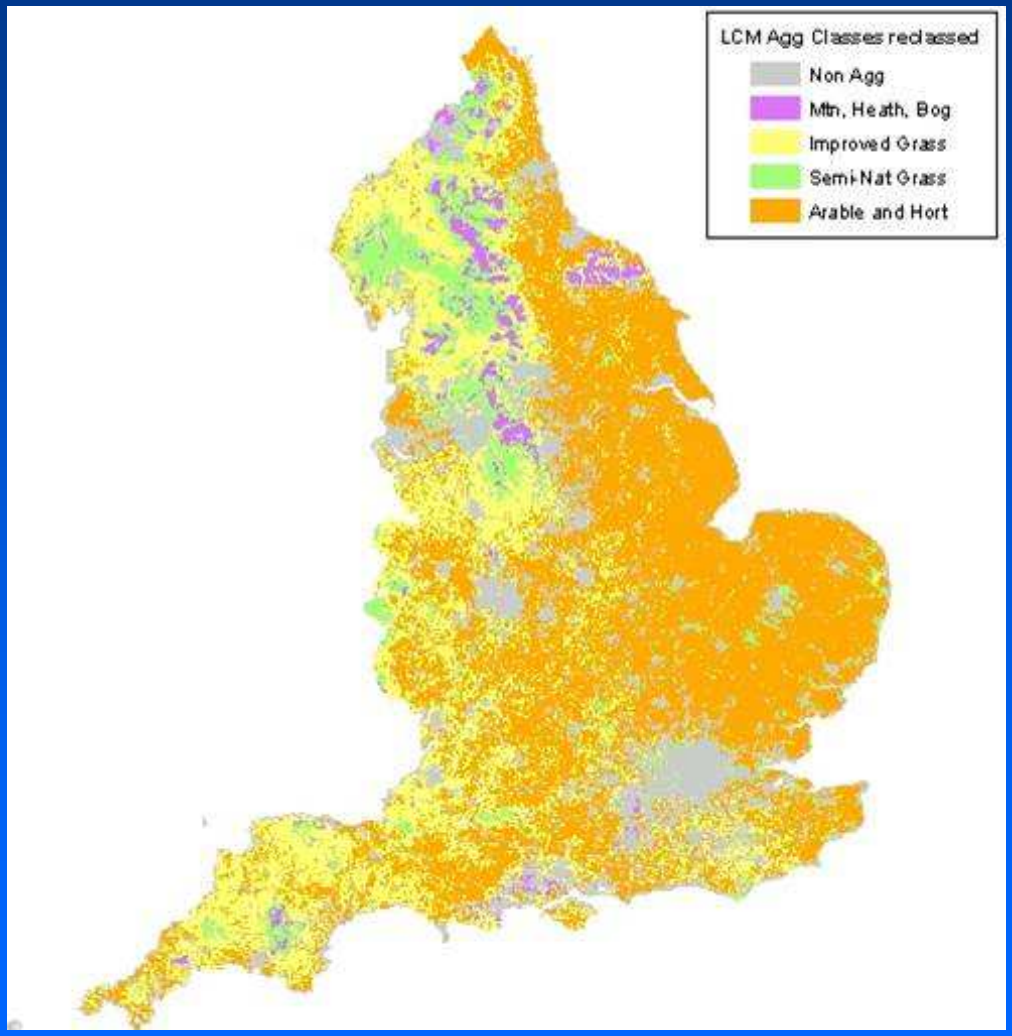


= Type I + type II

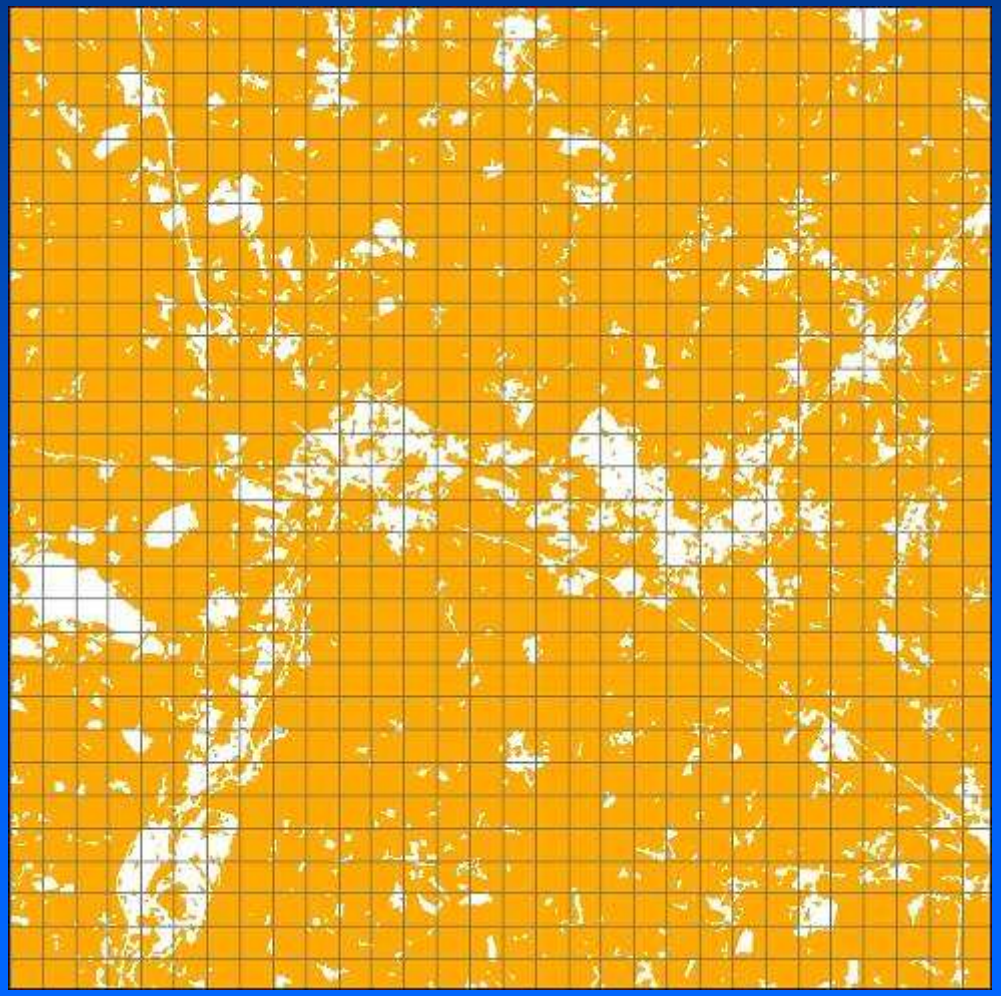


Utilisable Agricultural Area

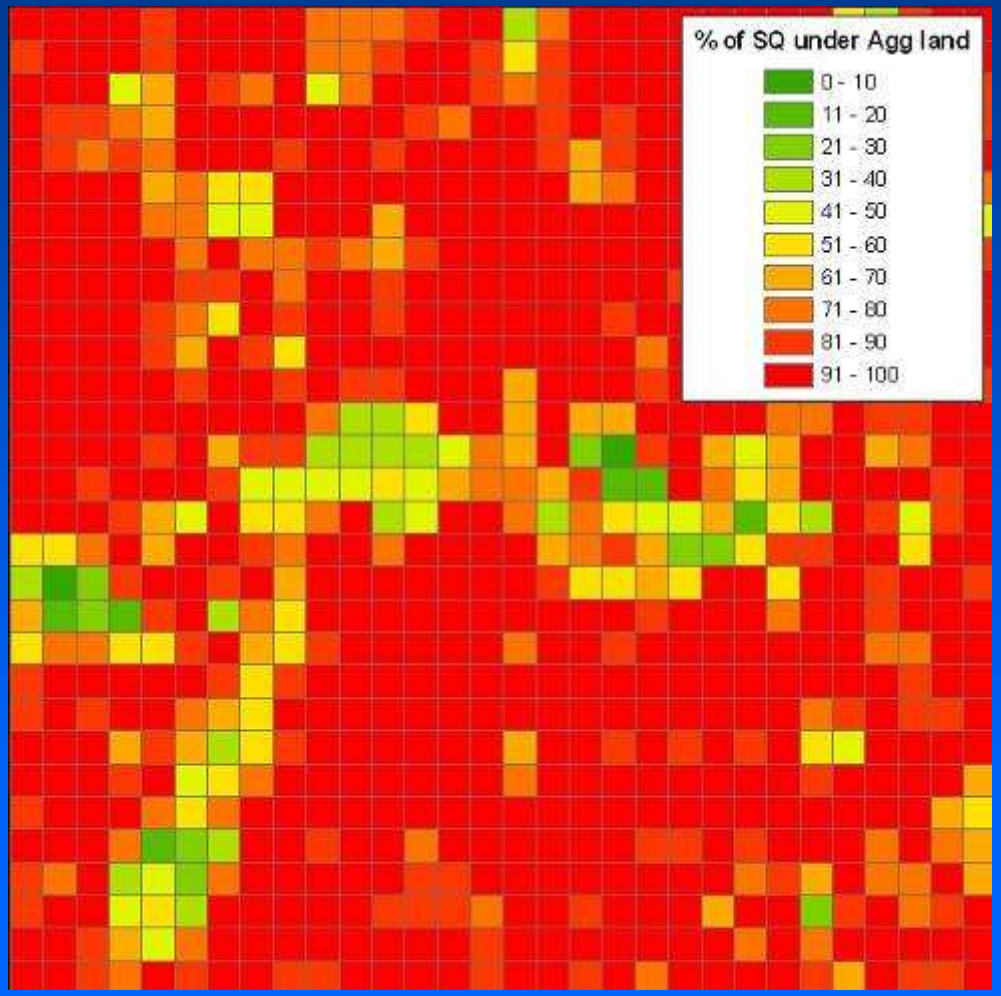
LandCover Map 2000 1Km aggregated classes



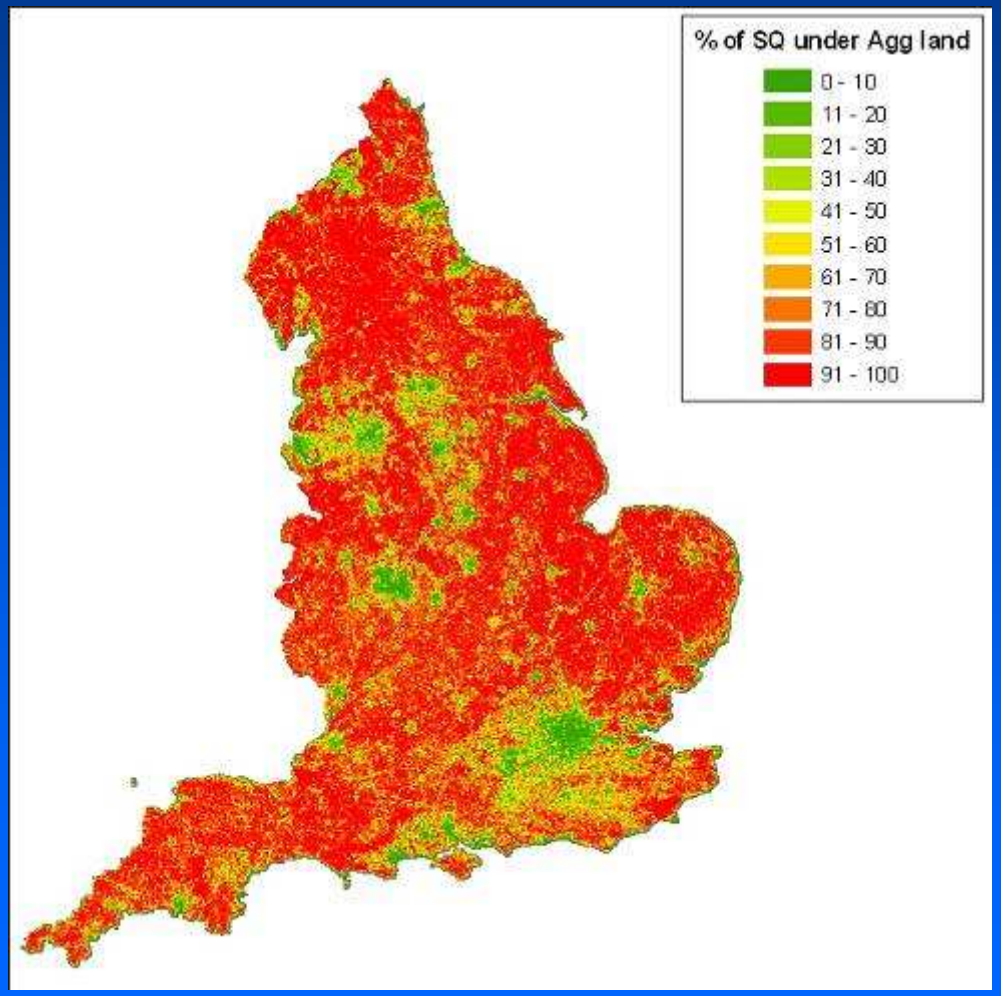
1km vector grid and LCM2000 raster Agg*



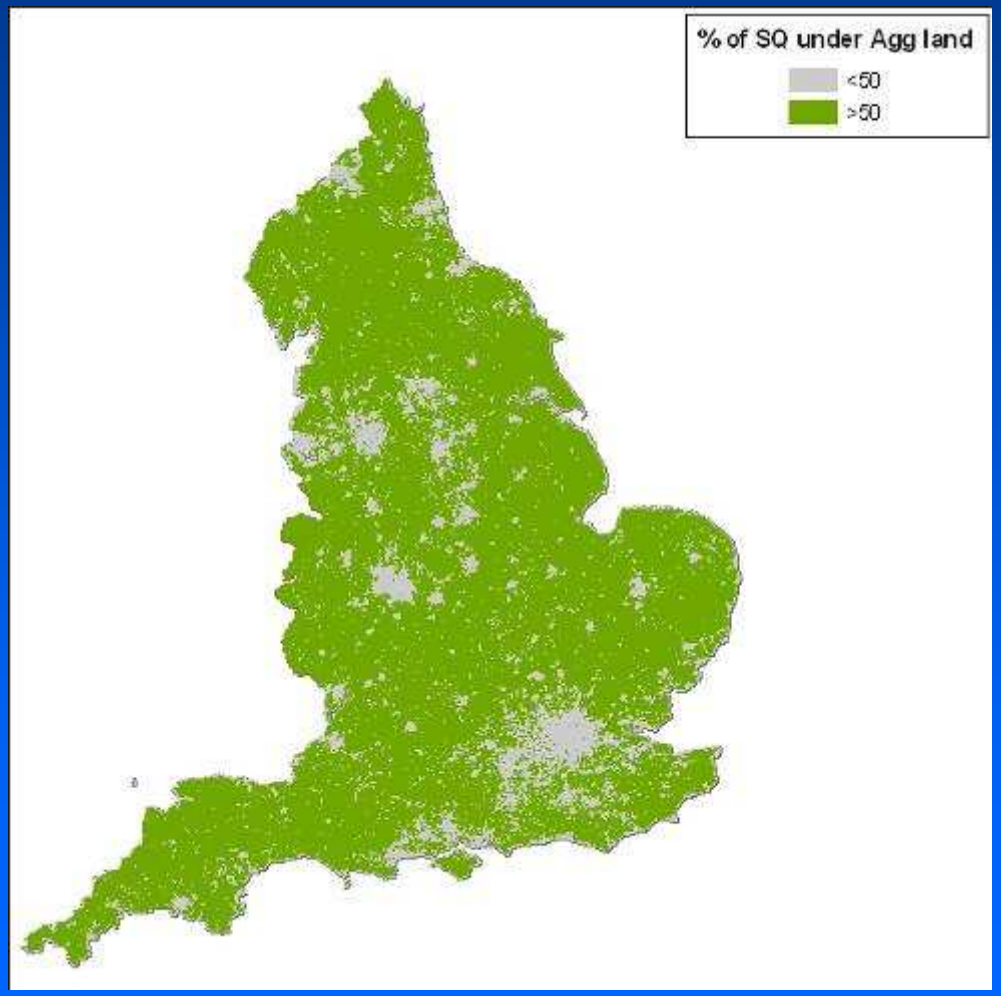
Vector attributes derived from Agg Land



National view

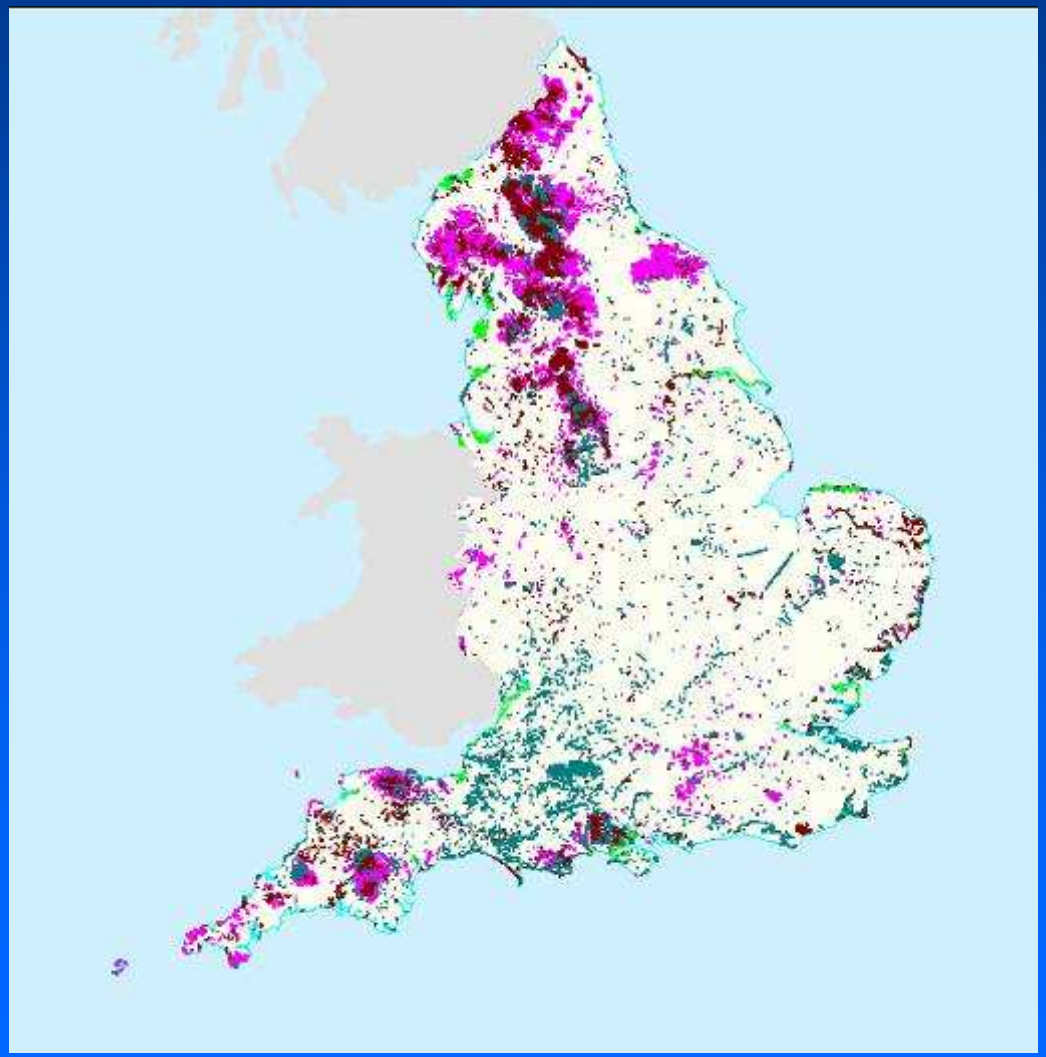


National view > sqs with more than 50%



Type I HNVF:

Composite map: semi natural habitats based on Inventory data plus national designated sites managed through agriculture



= Upland & Lowland Heath

= Mire, Fen and Bog

= Semi-natural grasslands

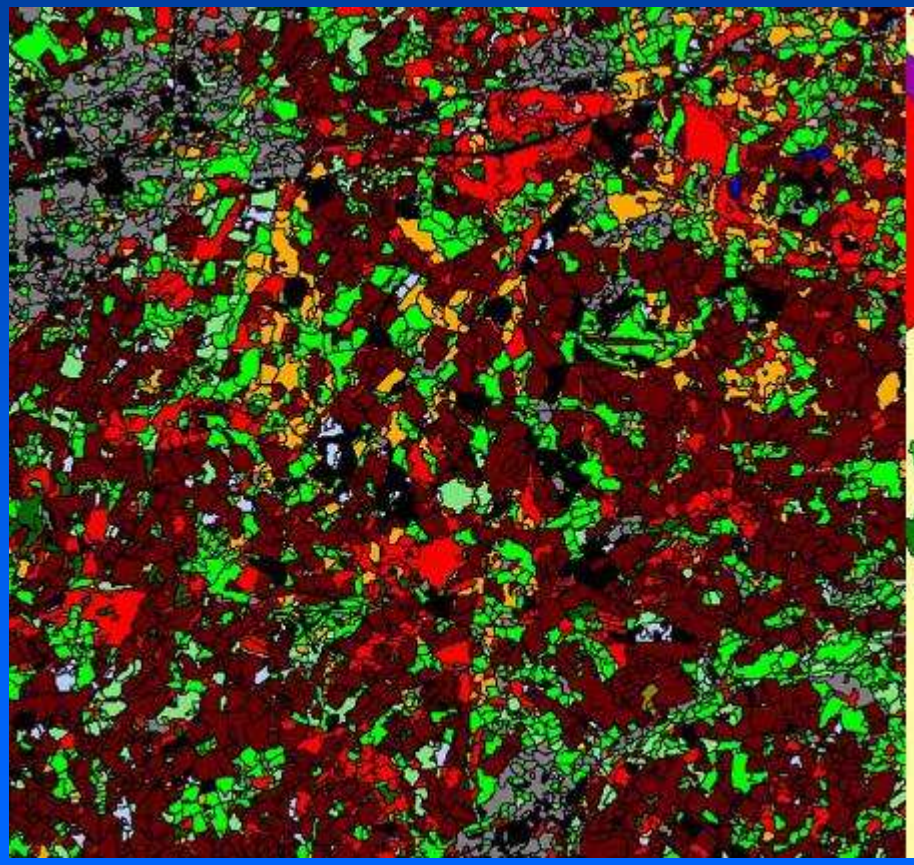
= Salt marsh

= Designated sites (excluding non-agric sites)

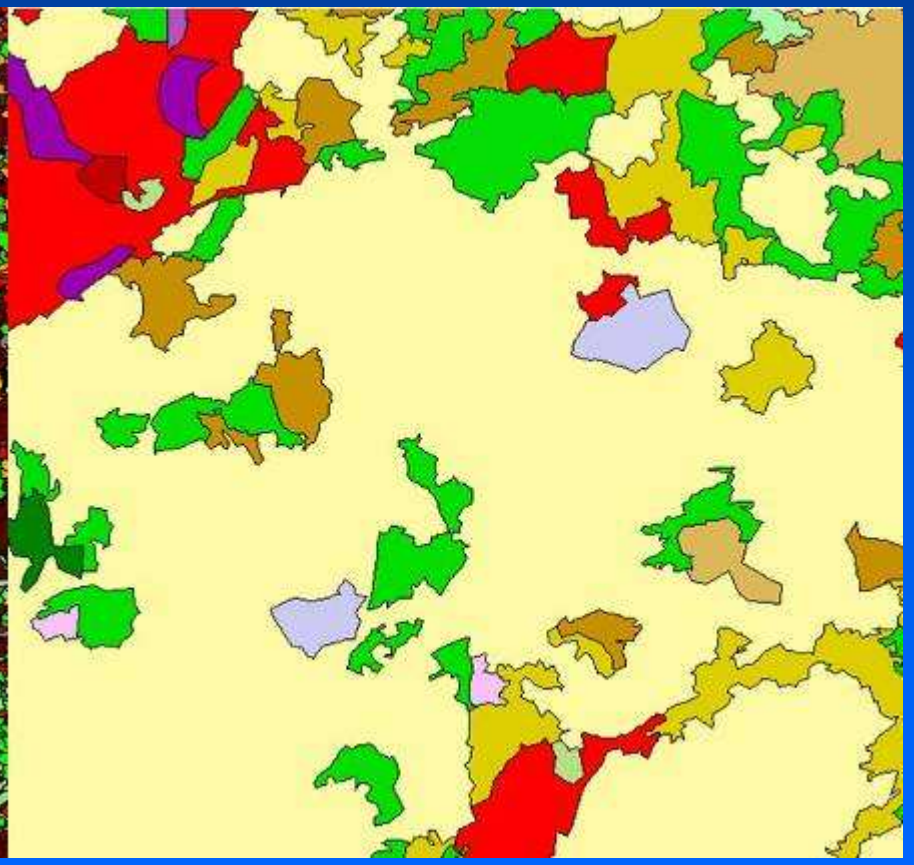
Type II HNVF issues:

- Under representation in England/lowland UK due to resolution of data;
- Difficulty of using fine scale landscape elements;
- Species with strong association with agricultural management practices used as surrogates;
- Additional finer scale information from habitat data in Type I approach.

Type II HNVF issues:
Data source and fine-scale elements



UK: 0.5 ha resolution LCM2000



Europe: 25ha resolution CLC2000

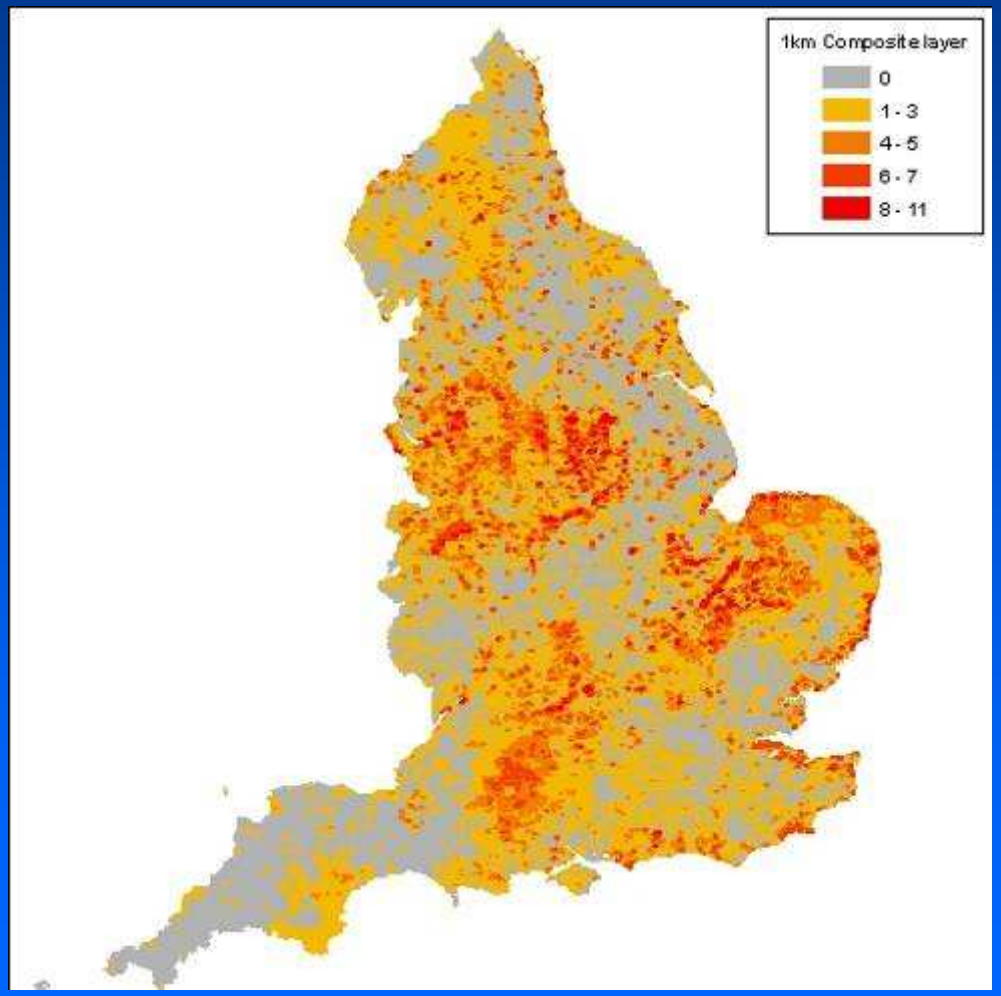
Type II HNVF definition:
Species surrogates

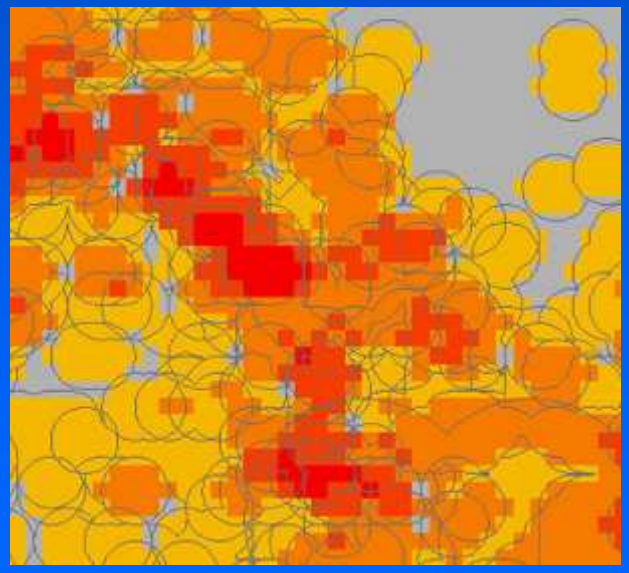
- Birds – traditional and well understood;
- Butterflies – increasingly valuable;
- Plants – obvious but little used;
- Others: .

Farmland Birds: UK list

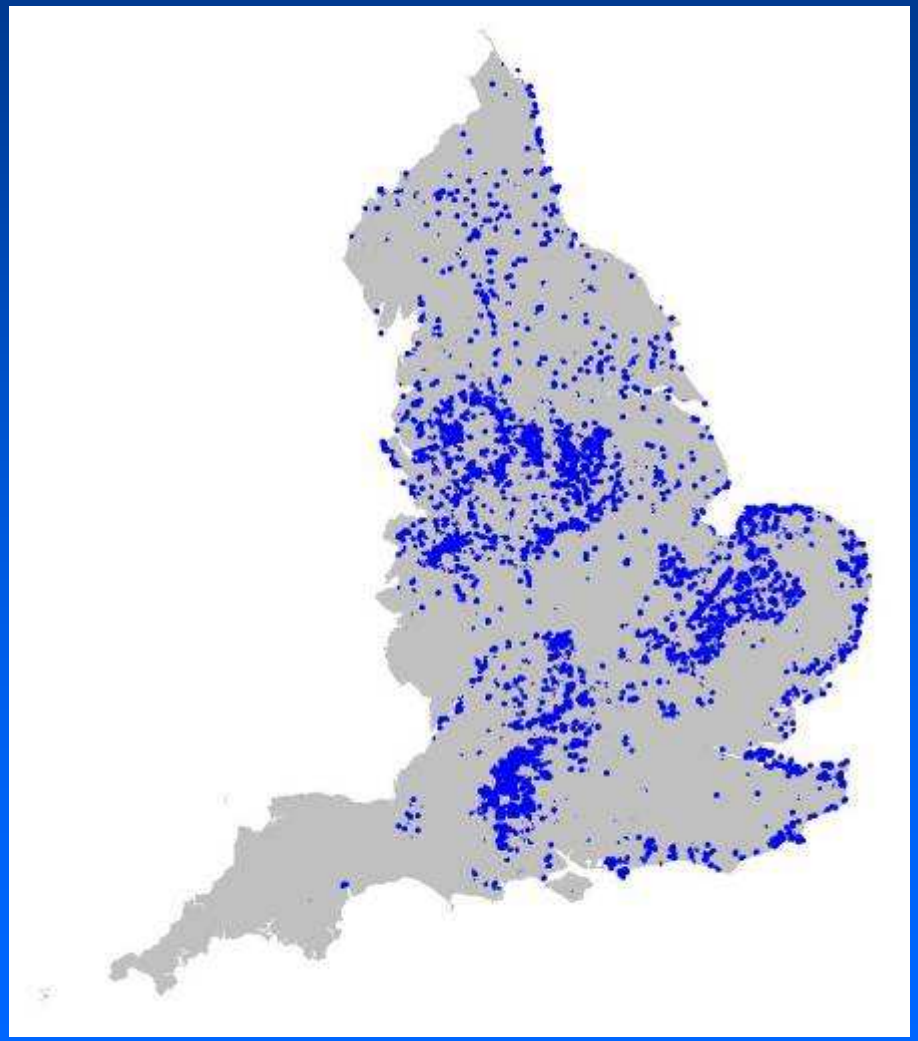
Black Grouse	*Lyrurus tetrix*
Cirl Bunting	*Emberiza cirlus*
Corn Bunting	*Emberiza calandra*
Curlew	*Numenius arquata*
Grey Partridge	*Perdix perdix*
Lapwing	*Vanellus vanellus*
Redshank	*Tringa totanus*
Ring Ouzel	*Turdus torquatus*
Snipe	*Gallinago gallinago*
Stone Curlew	*Burhinus oedicnemus*
Tree Sparrow	*Passer montanus*
Turtle Dove	*Streptopelia turtur*
Twite	*Acanthis flavirostris*
Woodlark	*Lullula arborea*
Yellow Wagtail	*Motacilla flava*

Farmland Birds: 'Composite' 1km grid





Farmland Birds: 1km grid for top 25% of squares



cumulative species count of 5 to 11 in a 1km^2

Bird data issues:

- Better approach through guilds – wet grassland species etc ?;
- Consider association with farmed land rather than decline;
- Differences between countries/regions? (corncrake/Black Grouse).

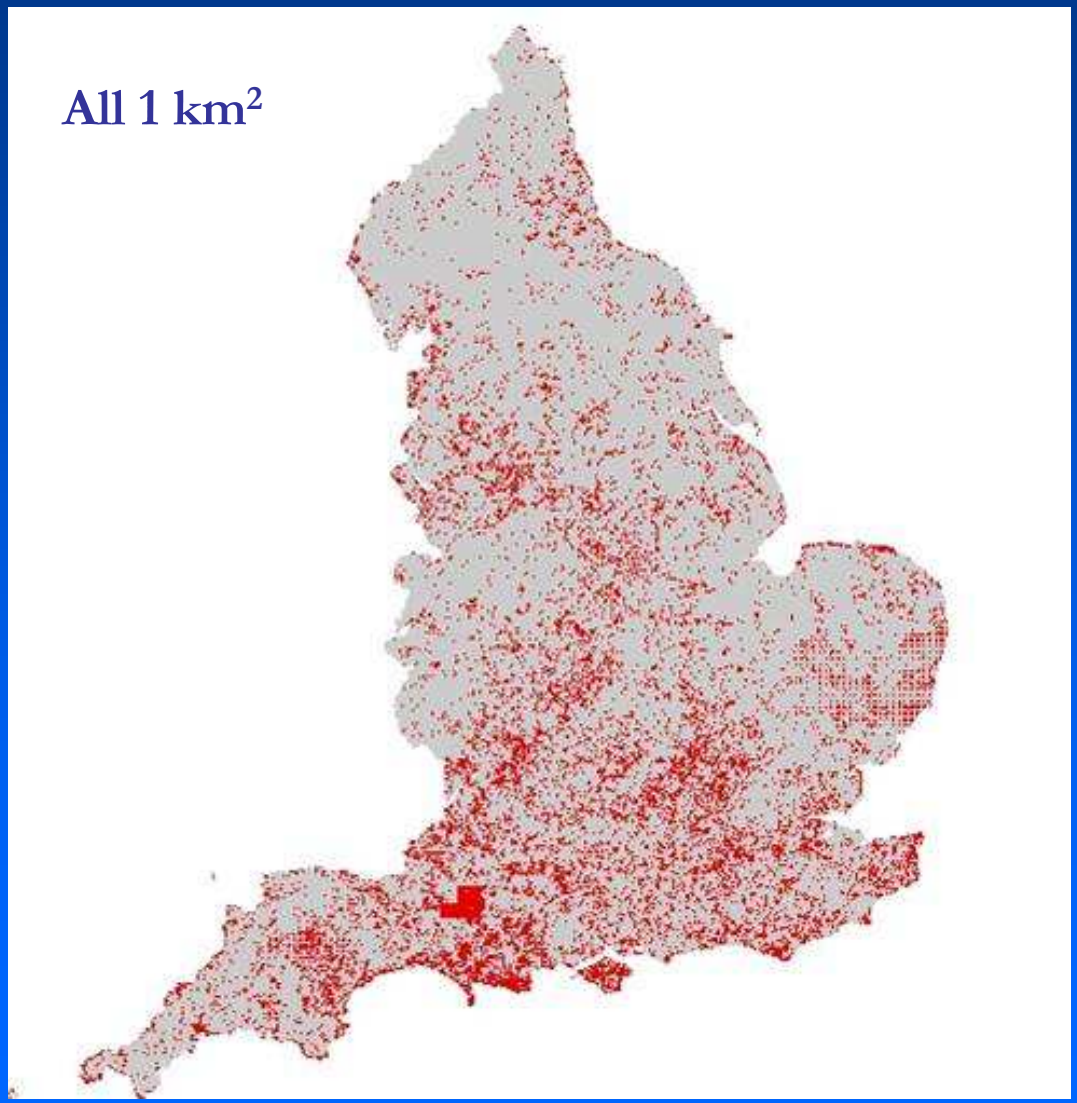
Farmland Butterflies:

Adonis blue	*Lysandra bellargus*
Brown Argus	*Aricia agestis*
Brown hairstreak	*Thecla betulae*
Chalkhill Blue	*Lysandra coridon*
Common blue	*Polyommatus icarus*
Dingy Skipper	*Erynnis tages*
Duke of Burgundy	Hamearis lucina
Green hairstreak	*Callophrys rubi*
Grizzled skipper	*Pyrgus malvae*
Marbled white	*Melanargia galathea*
Marsh fritillary	*Euphydryas aurinia*
Silver spotted skipper	*Hesperia comma*
Small blue	*Cupido minimus*
Wall brown	*Pararge megera*
White letter hairstreak	*Strymonidia w-album*

Farmland Vertebrates:

Dormouse	*Muscardinus avellanarius*
Greater Horseshoe Bat	*Rhinolophus ferrumequinum*
Brown Hare	*Lepus capensis*

Species layer (1km points for Dormouse, Brown hare, Gt horseshoe bat or butterfly species)



Butterfly and others data issues:

- Guild approach possible – grassland butterflies
- Consider association with farmed land rather than decline;
- Possible to use population data in UK.

Farmland plants:

Hedgerows and hedge banks:

5 spp shrub (Rosa spp and Sorbus)

Scrub/woodland edge/lightly grazed grasslands:

14 spp plant (eg. Vicia spp; Orobanche spp)

Lowland calcareous grassland:

(already covered by habitat inventory)

Wet Grassland:

8 spp plant (eg. Succisa, Oenanthe fistulosa)

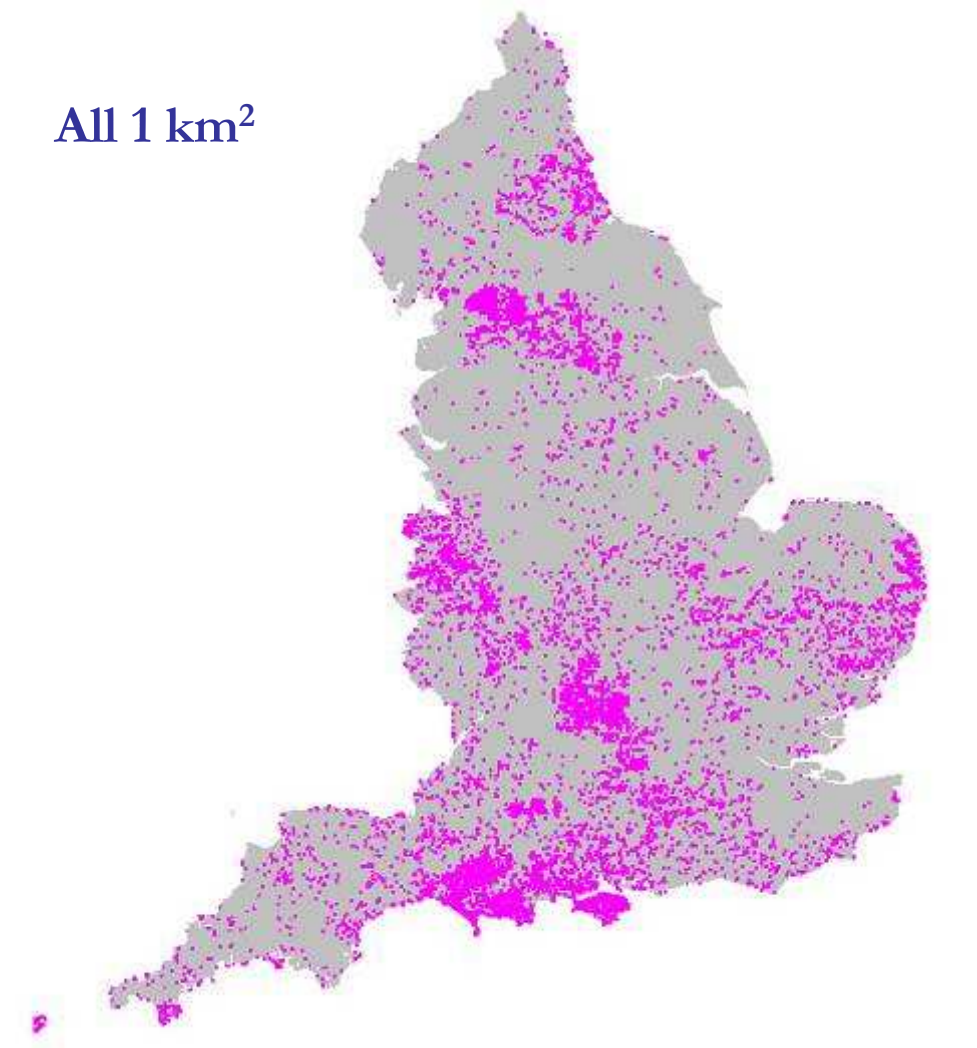
Neutral meadows and pastures:

9 spp plant (eg Genista, Sanguisorba)

Acid/dry grasslands:

4 spp plant (eg Ornithopus, Erodium)

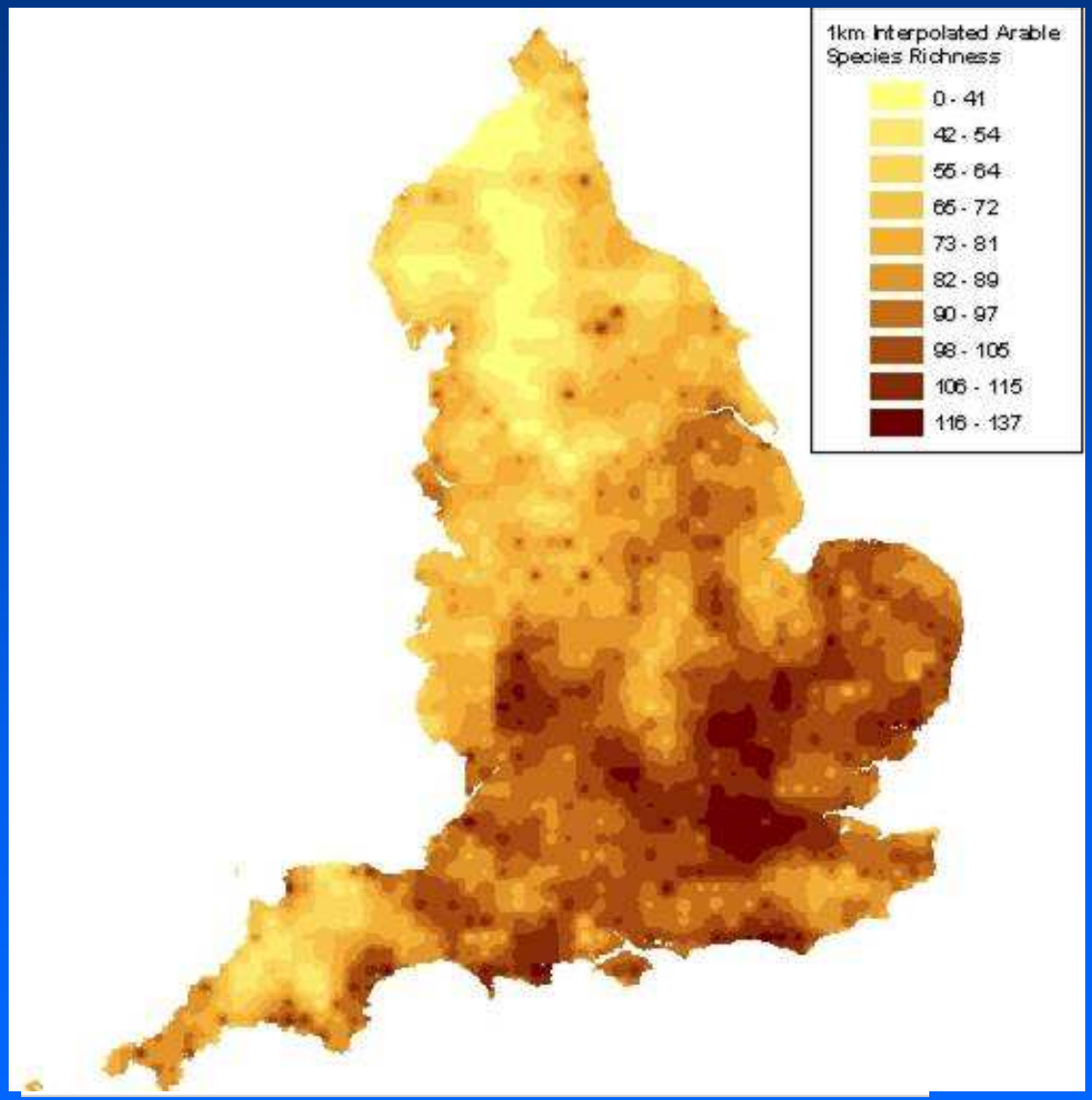
Species layer for hedgerow, meadow, margin, wetlands etc



Plant data issues:

- Resolution of source data – min 1km^2 needed
- More work needed to establish UK list of quality, typical species of farmland;
- Differences between countries/regions?

Data resolution : species



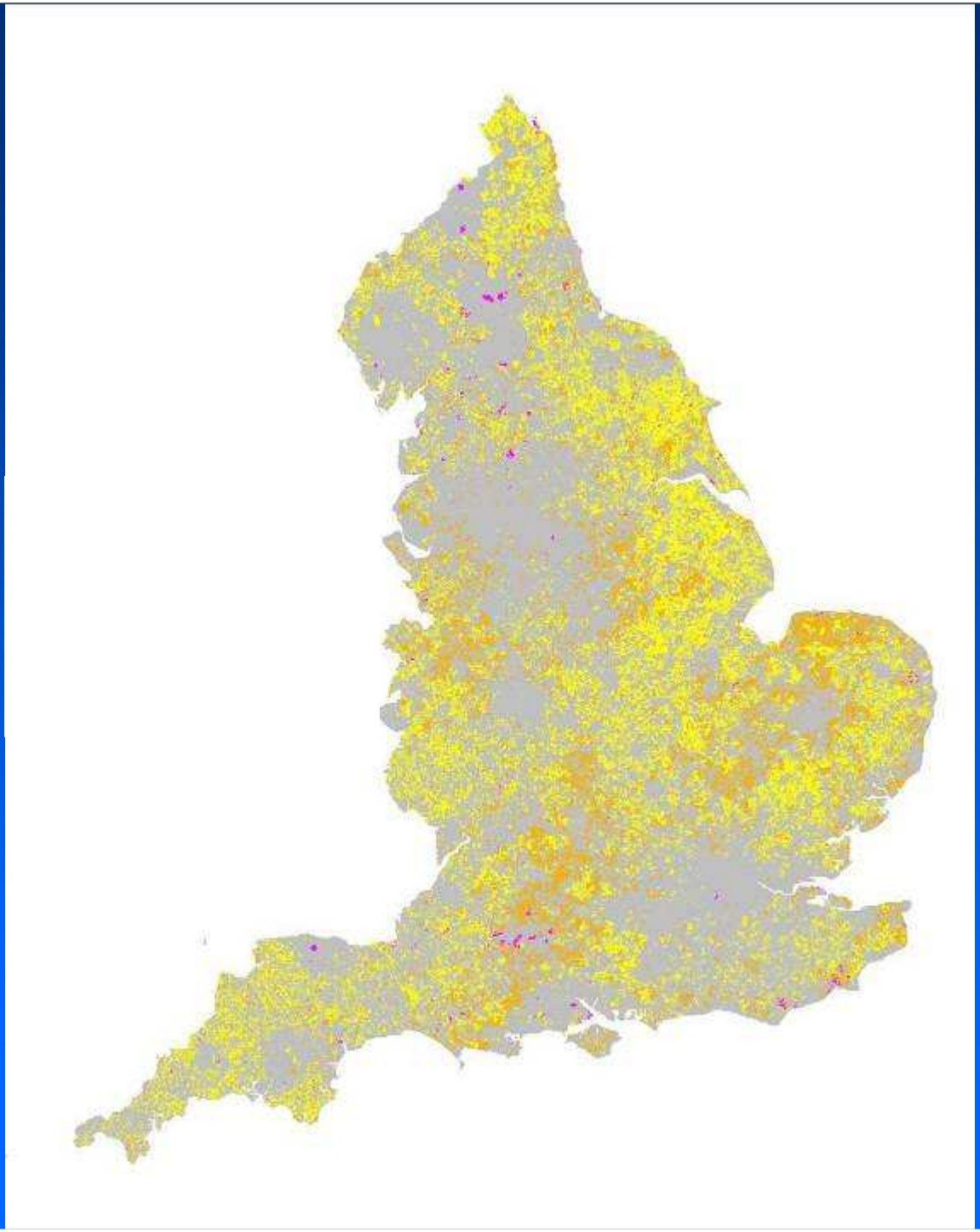
Arable Species :
Available at 10Km^2
Richness – Interpolated to 1 km Grid
Selected– Top 25%

Issues raised:

- Type II small-scale mosaics;
- Data supply – species/habitats;
- National flexibility and consistency across Europe;
- ability to report.

Uses of HNV in UK

- Indicator of state and trend (RDPE);
- Input to agri-environment targeting (multi-purpose);
- Input to other policy areas (eg LFA)
- State of Environment reporting;
- Legitimate 'layer' as context to other issues – climate change, land-use change, etc.



Most Agric land covered by existing classic schemes

- ELS within Type I land
- ELS within Type II land
- ELS Total Feb 2007

Further development to meet CMEF needs

- Current guidance – focus on low intensity systems;
- Potential versus existing HNV – future proofing;
- Consistent approach to 'high' value areas;
- Member State criteria/SOCC lists;
- Standards and reporting on indicators.

Reporting: the reality and expectation

- Baseline situation variable;
- Surveillance approaches;
- Multi-disciplinary approach needed.

Conclusions

- Approach is logically sound;
- Physical measures may not correspond to existing biodiversity;
- Flexibility vs consistency challenge;
- Opportunity for innovation in surveillance.