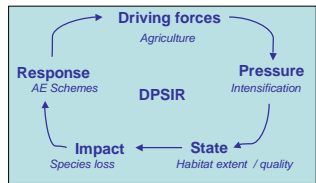


# MIRABEL Models for Integrated Review and Assessment of Biodiversity in European Landscapes

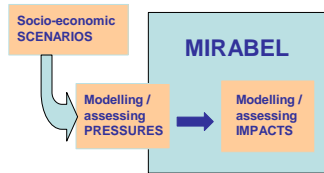
Sandrine Petit, project coordinator, [spet@ceh.ac.uk](mailto:spet@ceh.ac.uk)  
 Simon Smart, Lindsay Maskell, Simon Wright

## Conceptual framework

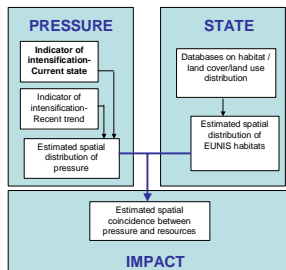
The DPSIR framework



MIRABEL assesses the impact of Environmental pressures on Biodiversity

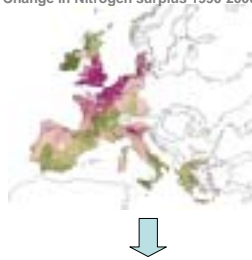


The impact assessment is quantitative and spatially explicit

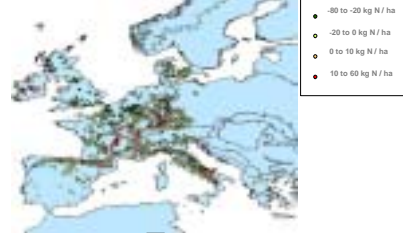


## Example 1: Farming intensification

Indicator of pressure  
 Change in Nitrogen surplus 1990-2000

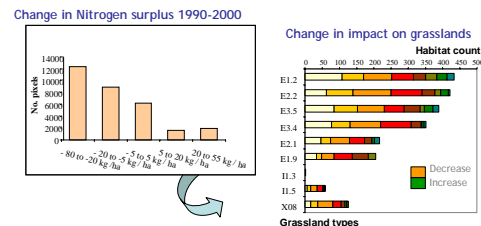


Biodiversity impact  
 Distribution of Calcareous grassland affected by increase or decrease in Nitrogen surplus

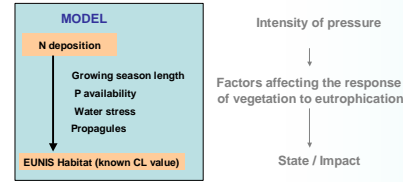


Regional assessment  
 Change in indicator of pressure and impact on habitats

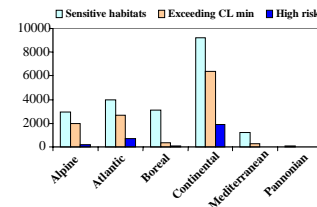
Atlantic Region



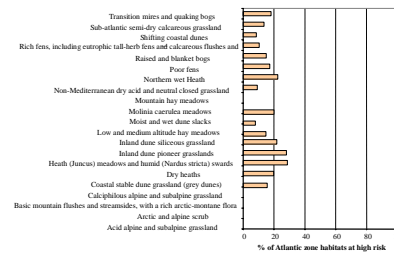
## Example 2: Nitrogen deposition



Pan-European assessment  
 Proportion of sensitive habitats at risk



Regional assessment  
 Change in indicator of pressure and impact on habitats



## Impact of research

MIRABEL is the official framework used by the European Environment Agency in its prospective analyses of Biodiversity trends. Results were largely used in the latest State of the Environment report.



As such, MIRABEL will be the framework for biodiversity assessment in the European contribution to the Millennium Ecosystem Assessment



Reference  
 Petit, S. et al.. (2001) MIRABEL: Models for Integrated Review and Assessment of Biodiversity in European Landscapes. *Ambio* 30 81-88.