CONNECT – Linking biodiversity conservation and ecosystem services:

Advancing insights in tradeoffs and synergies between biodiversity, ecosystem functioning and ecosystem service values for improved integrated biodiversity policy

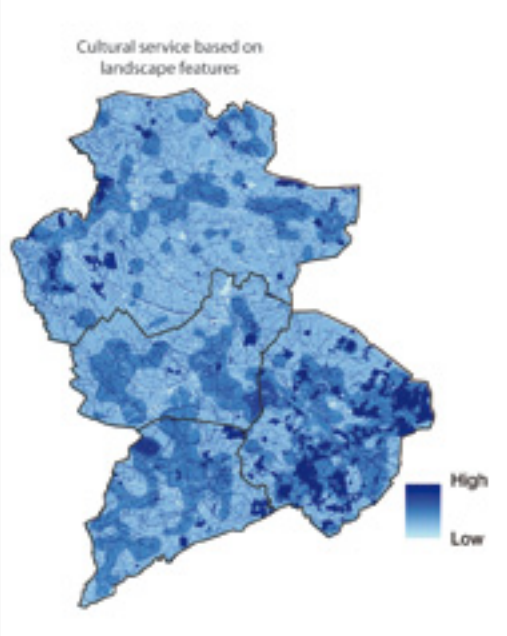
Biodiversity policy is increasingly influenced by evidence about the role of biodiversity in the provision of ecosystem services. However, the current state of scientific knowledge and empirical evidence is inconclusive and does not provide a sufficiently robust basis to make definite statements about whether securing the provision of specific ecosystem services will also guarantee biodiversity conservation, and vice versa. Conserving land for biodiversity purposes is often beneficial for some ecosystem services but at the expense of other ecosystem services. This is especially the case in many European landscapes where human activities have since long shaped biodiversity and landscapes. CONNECT aims at improving and integrating existing research methods from natural and social sciences for the analysis of potential synergies, conflicts and associated tradeoffs in support of effective policy and management.

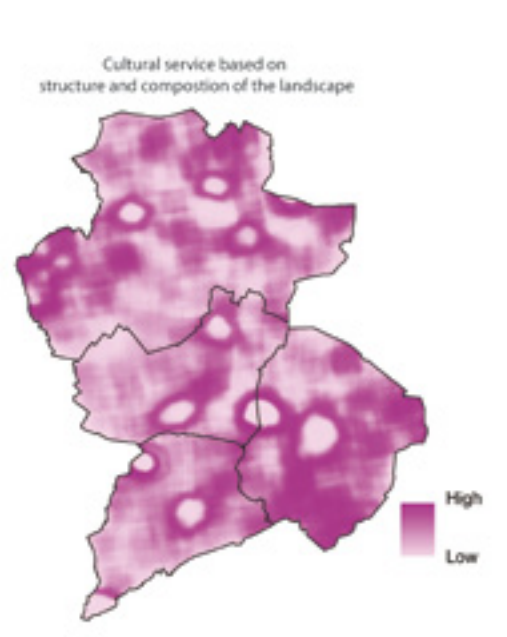
The main outcomes of CONNECT are: 1) an empirically tested decision-support framework for analysis of synergies and tradeoffs between biodiversity, ecosystem services and associated socio-economic benefits, and 2) practical guidelines for the design of effective conservation policies based on improved scientific understanding of the relationship between ecosystem services and biodiversity.

CONNECT examines which dimensions of taxonomic, phylogenetic and functional diversity contribute to ecosystem functioning and hence to ecosystem service provision. Assessment of synergies and tradeoffs between biodiversity and ecosystem services conservation is based on improved spatial modelling and mapping procedures. The project also uses socio-economic valuation methods that are grounded in a better understanding of the complex interaction between ecosystem functioning and societal demand for ecosystem services. Improved theoretical and empirical insights will be translated into generic understanding that can support the development and implementation of policy instruments aimed at biodiversity conservation and the sustainable provision of ecosystem services.

Five case studies and an EU-wide assessment are used to apply the methods and test the findings for operational management. Case studies include an interactive stakeholder process to reveal the role of current policies. The effectiveness of alternative strategies and policies to conserve biodiversity is assessed while accounting for the tradeoffs and synergies between biodiversity and ecosystem services. The results and their implications for biodiversity governance will be discussed during a policy workshop and will contribute to science-policy networks such as TEEB and IPBES.

Spatial variation in ecosystem service provision





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