the effectiveness of conservation will be slow to emerge and this is likely to inhibit large scale investment. The scientific
community is unsure of the rewards for investing in time
in systematic reviews and this discourages formation of subject
review groups. Difficulty of access to data for collation and
synthesis of evidence remains a significant barrier and still
lacks the necessary structures and cultural practices.

399. EVIDENCE-BASED AGRI-ENVIRONMENT
SCHEMES BENEFIT RARE AND COMMON
SPECIES

Pywell, Richard, Natural Environment Research Council
Centre for Ecology and Hydrology, United Kingdom; Bradbury,
Richard, Royal Society for the Protection of Birds, United
Kingdom; Walker, Kevin, Natural Environment Research
Council Centre for Ecology and Hydrology, United Kingdom;
Heard, Matt, Natural Environment Research Council Centre
for Ecology and Hydrology, United Kingdom

Intensive agricultural practices have highly detrimental
impacts on biodiversity. European agri-environment schemes
(AES) aim to mitigate these negative effects over large
areas by encouraging extensive management practices,
and habitat protection and creation. Quantitative evaluation
of the effectiveness of AES across the EU suggests their
effectiveness is mixed and they provide few benefits for rare
species. We present the findings of national monitoring of
the English AES for plants, bumblebees and birds. We found
that management prescriptions which were carefully tailored
to the ecology and habitat requirements of target taxa were
significantly more effective in the conservation of both rare
and common species. In comparison, prescriptions with
broader environmental aims were ineffective in conserving
rare species. Furthermore, there is evidence that the response
of rare species to tailored management prescriptions is
dependent on local and regional differences in species pools.
This suggests the effectiveness of AES policies would be
increased by geographic targeting.

400. ASSESSING ECOSYSTEM SERVICES
THROUGH PLANT TRAITS DISTRIBUTION
IN A CONTEXT OF AGRICULTURAL LAND
ABANDONMENT

Queiroz, Cibele, Department of Systems Ecology, Stockholm
University, Sweden; Lindborg, Regina, Department of
Systems Ecology, Stockholm University, Sweden; Pereira,
Henrique, Faculty of Sciences, University of Lisbon,
Portugal

Land use change is the main cause of biodiversity loss. In
Europe, abandonment of agricultural land has been drastically
increasing in the last decades and the management of
abandoned areas is an issue of major concern. Despite many
studies were done on the consequences of land abandonment
to biodiversity, not many assess the consequences for ecosystem services of different management options in
former agricultural land. We assessed the condition of a group of ecosystem services (provisioning, regulating and cultural)
over four different land uses in a context of land abandonment in two European countries, Sweden and Portugal. Our
methodology to assess the condition of ecosystem services was based in the analysis of plant traits distribution over
the different land uses. For each ecosystem service we selected
a number of traits that are related with the functions assumed
to be essential for the flow of that service. The information on
the different selected traits was collected by field assessment
over the four different land uses and literature review.
The analysis of the final results is still ongoing. We expect
with this study to develop a method for the measurement of ecosystem services that supports management decision
taking in rapidly changing areas.

401. WILDLIFE CORRIDORS FOR RED
SQUIRRELS: DEFINING CONTIGUOUS
AND NON-CONTIGUOUS HABITAT FOR
CONNECTING WOODLAND FRAGMENTS

Quigley, Cally, University of Cumbria, Centre for Wildlife
Conservation, United Kingdom; Ramsey, Andrew, University
of Cumbria, Centre for Wildlife Conservation, United Kingdom;
Nevin, Owen, University of Cumbria, Centre for Wildlife
Conservation, Uzbekistan

Red squirrel (Sciurus vulgaris) populations in the UK
are increasingly confined to small isolated reserves and
fragmented habitat, threatening demographic and genetic
viability. Landscape and population viability modelling have
indicated the need for increasing connectivity through the
matrix, however, there is little or no empirical evidence
to show what constitutes a corridor for this or indeed most
species. Here we present findings of a systematic hair tube
survey of a range of potential corridors in habitat throughout
the North of England. Corridors were selected that link
suitable patches of habitat and were classified based on their
structure and composition and represented contiguous and
non-contiguous habitat; these included mature woodland
corridor, a range of hedgerow types and diffuse single trees.
The results showed that whilst squirrels were found in a wide
range of corridors, most activity was recorded in larger, more
mature corridors. The findings were used to model effective
and viable strategies for increasing connectivity for red
squirrels in the fragmented woodlands of the Solway Plain
in Cumbria.

402. THE URBAN ENVIRONMENT:
QUANTIFYING ECOSYSTEM SERVICES
AT THE NEIGHBOURHOOD SCALE

Radford, Kathleen, University of Salford, United Kingdom;
James, Philip, University of Salford, United Kingdom

The degradation and loss of vital ecosystem functions and
services are an uncontested result of urbanisation and have
led to the need to quantify ecosystem services at a variety of
temporal and spatial scales. Attempts to measure and value
ecosystem services have been made, the most common of
these methods being "willingness-to-pay" which attributes
economic gain to an environmental attribute, but such methods
are subject to debate which has led to a lack of consensus
between academics and practitioners. Current methods also
focus largely on the landscape and global scales; failing to
appreciate services provided at the neighbourhood scale and
different levels of urbanisation. This paper critically examines
a variety of extant methods for measuring ecosystem services
at different temporal and spatial scales. The paper
describes a new tool, based on a selection of previously
used methods such as the Green Flag Award and Residential
Environment Assessment Tool, for quantifying a selection of
ecosystem services at the neighbourhood scale. The tool
has been applied to the Greater Manchester conurbation to
assess ecosystem services at different levels of urbanisation.
The use of this method in planning for sustainable communities
in an increasingly urbanised world are discussed.