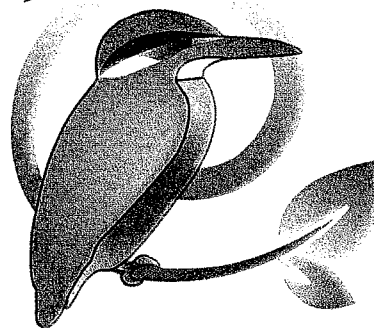
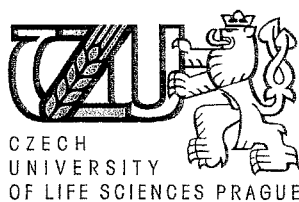


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**BOOK OF ABSTRACTS**

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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 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**

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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**

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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**

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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 uses of this method in planning for sustainable communities in an increasingly urbanised world are discussed.