

Research on the Somerset Levels and Northern France

Over the past two years three NGO's (Somerset Wildlife Trust (SWT), Royal Society for the Protection of Birds (RSPB) and the Farming and Wildlife Advisory Group South West (FWAG SW)) have been working closely together on the Somerset Levels and Moors, funded by the EU INTERREG channel through a scheme known as the Value of Working Wetlands, or WOW for short. INTERREG schemes encourage cross-fertilisation of ideas between countries, and WOW partners also include five organisations in Picardie, Normandy and Brittany and one in Devon (Devon Wildlife Trust). Much valuable research and advisory work has been undertaken over the past 2 years, and results are in the process of being analysed. A final conference is being planned in March 2015 in France, but there will also be workshops in Somerset prior to this to expand on the findings. This article outlines some of the research which is being carried out; contact details are at the end of this article if you would like more information.

Ecological networks

The Somerset Wildlife Trust, in partnership with Somerset County Council and Forest Research, are using the BEETLE GIS model to represent the ecological network in the Brue Valley and to test its connectivity. The model maps good quality habitat - 'core areas' - which are large enough for species to breed (a generic species is used) and 'dispersal areas' for species around these core areas: the dispersal areas change in size according to how easily species can move through the neighbouring habitat. Patches of good quality habitat that are too small to qualify as core areas are known as 'stepping stones'. Ultimately, the model can be used to target habitat restoration. SWT have now commissioned a piece of research, funded by WOW, to evaluate how well these networks are functioning and what other components of the wetland landscape need to be considered to give a true representation of connectivity.

Forage value

The Farming and Wildlife Advisory Group (FWAG SouthWest) have been examining the agricultural value of grasslands on two moors affected by recent flood events, in order to assess their agricultural forage value, and to enable a comparison with national Eblex forage values. The botanical composition of the swards was surveyed prior to hay-cut (they are largely species-poor MG13 grasslands), then sward samples taken and analysed for a range of 10 attributes, such as dry matter, sugar, crude protein and metabolisable energy. Soil samples were taken from the same sites and analysed for pH, phosphorus, potassium and magnesium to help inform the natural and man-made limitations of productivity on the sites. FWAG SouthWest are also piloting a farm business survey in order to capture the motivations and performance of farm businesses, as these will help us to understand the opportunities for wildlife and agriculture on those farms.

WOW partners in Picardie, Normandy and Brittany – a mix of conservation organisations and local authorities, an organisation providing agricultural business and technical support and Caen University – have been carrying out

similar studies in wetland areas in France, including an analysis of the forage value of individual wetland plant species.

Ecosystem Services

The Somerset Wildlife Trust has commissioned a feasibility study into the creation of innovative revenue frameworks, other than Environmental Stewardship grants, which would allow land managers to achieve economic sustainability while maintaining wet habitats. The ultimate goal is the development of local funding streams that can fit with national policy, optimise the provision of ecosystem services and sustain landowning businesses. The study examines two hydrological units and analyses how the provision of ecosystem services would change under different water and land management scenarios. It also aims to prepare an action plan to help to secure new funding instruments.

Snipe productivity

The Somerset Wildlife Trust, under a different source of European INTERREG funding known as DROP (benefit of DROught adaPtation) is studying the productivity of nesting snipe, related to ground conditions and water features such as surface gutters (snipe require damp conditions for successful chick rearing) and to the presence of predators. Using a technique used by the RSPB, and under an NE licence, fields where snipe are nesting are surveyed by dragging a rope over them. Flushed birds may indicate chicks or nests, which are then searched for, and temperature loggers put in any nests found (the time and manner in which a nest cools down can indicate mammalian (night-time) or avian (day-time) predation). At the same time, transects are walked to look for the presence of mammalian predators. In 2015 the survey will be repeated, hopefully with the addition of mink surveys and sensor cameras.

Advisory work with farmers

In addition to the above research, the RSPB, Somerset Wildlife Trust and FWAG SouthWest have also been providing advisory service to farmers on wetland management under the WOW scheme. This has included demonstrations of machinery suitable for use in such areas, and methods for tackling soft rush.

For further information about the above research, about other floodplain studies being carried out in northern France, and about the workshops, please contact Catherine Mowat, Brue Valley Farming Liaison Officer for the Somerset Wildlife Trust on 01823 652416, or Catherine.mowat@somersetwildlife.org