



MSc Project

Closing date: when position filled

Contact: lucy.mason@rspb.org.uk

Quantifying wildfowl grazing on saltmarsh

Timescale: End of 2024

Location: Home-based / University

Resources available: data, training, analytical advice from RSPB supervisors (Basic working knowledge of GIS and common statistical techniques would be useful)

Background

The right grazing levels on saltmarshes are key for providing good habitat conditions for a wide range of saltmarsh specialist plants, invertebrates and birds. Grazing influences the structure of the saltmarsh vegetation which is particularly important for breeding Redshank, a dramatically declining and threatened wader species for which saltmarsh is an important nesting and chick-rearing habitat.

Saltmarshes are often grazed by both domestic livestock in the summer and wild migratory ducks and geese in the winter, and the impacts of these two grazing types likely interact to control and influence the habitat structure.

Saltmarsh conservation efforts currently focus on optimising livestock grazing while wildfowl grazing is often overlooked and currently unquantified. This project seeks to quantify the likely grazing pressure exerted by wildfowl on UK saltmarshes over winter, and how this has changed over time since the 1980s.

Brief Aims and Methods

This desk-based project will involve the analysis of existing historical and contemporary data on winter wildfowl abundance (most likely originating from WeBS - Wetland Bird Survey) and national Redshank and grazing survey data held by the RSPB. It will involve working with large complex datasets, basic statistical analysis and GIS mapping.

Questions for investigation include:

1. What are the average peak counts of migratory wildfowl using key saltmarsh estuaries, and how have these counts changed over time at different sites across the UK?
2. What is the relative grazing pressure exerted by the wildfowl numbers estimated in (1), based on standard Livestock Unit calculations?
3. How do wildfowl grazing pressures and changes in pressures over time relate to saltmarsh habitat condition and breeding Redshank density?