

Northern Ireland Lowland Breeding Wader Survey

Title

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Description and Summary of Results

In the late 1980s, a series of surveys discovered that lowland damp grassland areas were particularly important to Northern Ireland's breeding waders, with over half the total estimated population being found in these sites (Partridge and Smith, 1992). Lowland sites which were surveyed as part of this original study had not been specifically revisited for breeding waders since.

The Northern Ireland Lowland Breeding Wader Survey therefore aimed to resurvey a sample of lowland sites visited in the original study, aiming to:

- Provide a comparison of the quality of habitat and wader abundance between the 1985-87 survey and the present day
- Determine whether sites are still functional and/or retrievable as breeding wader habitats

This project was undertaken in order to enable the Northern Ireland Environment Agency (NIEA) to better target management strategies such as the application of breeding wader agri-environment scheme options and site designation to sites of particular importance. It was hoped that the findings would also benefit conservation NGOs and landowners to focus conservation management strategies to aid the maintenance and recovery of breeding wader populations in Northern Ireland.

Survey sites were located in five broad areas - Loughs Neagh and Beg; Blackwater Catchment; Tyrone Fairy Water Bogs; Upper Lough Erne; and Lower Lough Erne. All sites at Lower Lough Erne were covered by the RSPB, with a combination of volunteers and professional surveyors covering sites in the other four broad areas. Sites were discrete lowland wet grassland areas small enough to survey in one morning. Surveyors made two or three visits and counted the number of Lapwing, Curlew, Redshank and Snipe per field, and also recorded some additional habitat details, e.g. grazing, rush cover and an estimate of dampness).

A total of 74 sites which covered an average of 34ha were surveyed across the two years of the survey (2018 and 2019). Across all sites surveyed between 1985–87 and 2018–19, pairs of Lapwing declined by 70%, Curlew by 80%, Redshank by 76% and Snipe by 71%. There was a significant decline in breeding waders of all species and collectively across the surveyed sites in all regions, but the Lower Lough Erne region had retained generally higher numbers of breeding waders than elsewhere.

Wader presence was significantly associated with all the grassland categories (rushes, tussocks, improved). Although flooding was only present in 13% of fields, these fields made up 45% of the total fields with breeding waders present. Flooding and damp areas showed a highly significant association with wader presence, and Curlew were only found in fields that contained both damp and dry conditions.

Full details of the results are presented in the project report (see publications section below).

Methods of Data Capture

The methodology for this survey replicates that of the original survey by Partridge (1987). At least two or ideally three visits to each site were required between mid-April and mid-June, with at least two weeks between each visit.

Each field or sub-unit was covered on foot and the number of Lapwing, Curlew, Redshank and Snipe were counted per field. Some additional habitat recording was required, e.g. recording grazing, rush cover and estimating dampness)

Partridge, J. K. (1987) Final Report: Northern Ireland Breeding Wader Survey. Report to Department of the Environment (Countryside and Wildlife Branch) Northern Ireland. Sandy.

Purpose of Data Capture

- Provide a comparison of the quality of habitat and wader abundance between the 1985-87 survey and the present day.
- Determine whether sites are still functional and/or retrievable as breeding wader habitats (in order to inform future management decisions).

Geographic Coverage

Survey sites were located in five broad areas in Northern Ireland - Loughs Neagh and Beg; Blackwater Catchment; Tyrone Fairy Water Bogs; Upper Lough Erne; and Lower Lough Erne.

Temporal Coverage

Between mid-April and mid-June in 2018 and 2019.

Other Interested parties

The survey was funded by the Northern Ireland Environment Agency, and RSPB staff members undertook some of the surveys, in particular at Lower Lough Erne where all sites were covered by RSPB staff.

Organiser(s)

Katherine Booth Jones

Current Staff Contact

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Publications

The project report has been published: Booth Jones, K., O'Connell, P., Calladine, J., Noble, D., Wolsey, S., Carrington-Cotton, A. & Wernham, C. 2020. Northern Ireland Lowland Breeding Wader Survey. BTO Research Report 731. Report of work carried out by the British Trust for Ornithology on behalf of the Northern Ireland Environment Agency. BTO, Thetford. Available from <https://www.bto.org/our-science/publications/research-reports/northern-ireland-lowland-breeding-wader-survey>

A paper is also being prepared for potential publication in *Irish Birds*.

Available from NBN?

No.

Computer data -- location

Data are held by NIEA and are also stored in the BTO project folder in the Google Cloud. Some data collected by the RSPB are also held by them.

Computer data -- outline contents

The data contain the raw counts from each site.

Computer data -- description of contents**Information held in BTO Archives**

None – all data have been digitized into Excel.

Notes on Access and Use

Data may be available on request. However, note that the data are owned by the Northern Ireland Environment Agency and therefore data access will be subject to their agreement; hence requests for data access should normally be directed to the NIEA in the first instance.

There may be some additional access and usage restrictions, in particular access to data may be restricted until data analyses are fully completed and the results from the survey have been published in a journal paper.

Other information needed

Notes on Survey Design

Specific Issues for Analysis