

URBAN GULL SURVEY 2018

Information Sheet



As part of the current national 'Seabirds Count' census of the UK and to inform specific policy recommendations and decisions regarding gull conservation, there is a need for robust population estimates of breeding gulls; including those nesting in urban environments. These estimates are required to inform UK and Ireland policy and monitor overall national populations and status

Presently, however, methods for estimating urban breeding gull populations across large spatial scales are unproven. Previous research suggests that the most effective approach for generating robust estimates of urban-nesting gull populations would involve aerial surveys of survey squares, but it has proved prohibitively expensive. The present project instead examines the usefulness of ground-based volunteer surveys for determining populations, and aims to quantify the underestimation when ground based surveys are compared to aerial and vantage-point surveys. The results may be used to correct future national population estimates.

The project aims to account for the limitations of different survey methodologies using a two-step approach to provide estimates of numbers of Apparently Occupied Nests (AONs) within survey areas. First, through surveys of sample squares – comparison will be made of gull counts (of AONs, Apparently Occupied Territories and individual birds) made by ground-based volunteers and (of AONs) made by plane-based digital aerial surveys.

However, while digital aerial surveys provide many advantages over ground-based surveys, they retain some uncertainty in providing estimates of numbers of AONs and consideration is needed of the level of species' identification obtained by aerial surveys, the accuracy of aerial surveys in determining whether individuals are nesting or not, and nest detectability. An additional module of the project quantifies this source of uncertainty by comparing numbers of AONs counted from vantage points with those provided by digital aerial surveys.

Analyses will provide (i) a comparison of ground-based counts, aerial counts and vantage point counts and (ii) population estimates with confidence limits for two study areas (Birmingham Metropolitan District in 2018 and North Wales in 2019), incorporating correction factors and estimated confidence ranges. This approach will thereby provide a formal assessment of the potential of volunteer ground-based surveys to deliver robust national population estimates of urban breeding gulls.

For further information, please contact Ian Woodward (ian.woodward@bto.org) or phone the British Trust for Ornithology (BTO) and ask for Ian Woodward, Dawn Balmer or Niall Burton.



Herring Gull



Lesser Black-backed Gull

Photos: Dawn Balmer