

Winter Gull Survey



2 Methodology & counting techniques

Introduction

Your monitoring efforts for the Winter Gull Roost Survey (WinGS) are vital to collecting updated information on Gulls in the UK, as well as informing effective conservation measures for the group. Here, we will take you through the methods that should be followed for conducting WinGS in order to ensure data collection is consistent across sites and regions. If you have taken part in previous BTO surveys, you may be familiar with the Wetland Bird Survey (WeBS). If you have taken part in WeBS counts you will benefit from the experience of counting large,

multi species flocks. However, the methods required to complete WinGS counts differ from that of WeBS. The primary difference is that Gull Roost Counts must be completed at dusk. Counts conducted during the day will not accurately reflect gull numbers roosting at the key roost sites and may lead to inaccurate population estimates for overwintering gulls.

Gull Roost Count requirements

Gull Identification

A clear understanding of the identification criteria for the UK's six primary gull species is essential for WinGS; Common, Black-headed, Mediterranean, Herring, Lesser Black-backed and Great Black-backed Gulls. More unusual gull species such as Glaucous and Iceland Gulls may also be present at roosts so broad knowledge is helpful. This is particularly relevant to Key Sites where there are likely to be over 1000 roosting gulls.

If your gull identification skills are not to an expert level, don't worry! This is a great opportunity to get involved if you are less familiar with gull roost counts. Sample sites are likely to have a more manageable count of gulls so should be suitable for developing your skills. As this survey is taking place over two years there is also a chance to build up your confidence from 2024 to 2025. Please refer to the extra resources at the end of this document for some useful gull-identification tips. Contact the WinGS Organiser (WO) of your region if you have any concerns about your site and the required skill level.

Preparation

Through the WinGS online portal, (<https://app.bto.org/wings>) you will see the sites that have been allocated to you. Please ensure that you are familiar with your assigned sites. Using the site map, identify suitable access points to the area and find a vantage point for observation. Before you conduct

any fieldwork activities, familiarise yourself with the health and safety page available on the BTO website and assess possible site specific risks.

Access

Your assigned site may occur on private property. If so you may be required to seek permissions to access sites. Please do so before the key survey date. Often, an initial approach and explanation of the work being undertaken is sufficient to gain access. An explanatory letter of introduction is available from the local or national WinGS organiser if required. Please remember to carefully follow any subsequent instructions from the site owner, e.g. many water companies require counters to comply with health and safety regulations when counting reservoirs. If there are access issues pertaining to permission or location please notify the WO of your region.

Equipment

- Binoculars (typically 8x or 10x magnification).
- Telescope (ideally 30x magnification) and tripod; a wide-angle lens may be an advantage.
- Tally counter (optional); may be useful for Key Sites.
- Dictaphone (optional).
- 1:25,000 map showing boundary of the area to be covered.
- Notebook (for use in the field).
- Two pencils.

Carrying out a Roost Count

Counting techniques

The key survey dates are January **21st, 2024**, and January **19th, 2025**. Additional Key Site surveys in Autumn 2024 will run from August to October. Gull Roost Counts at both key and sample sites are to take place at dusk. You should arrive at your site a minimum of two hours before darkness. Once you are at a suitable vantage point, you should count and identify any gulls already roosting on the inland or coastal water body. Then, count and identify gulls as they arrive at the roost along flightlines. Counts for each species should be made up until dark. Please also estimate the number of gulls that have left the roost before dark and remove this from the total reported count. To avoid double counting only include gulls that are using the roost area in your count and exclude gulls continuing on to a different area.

If it is not possible to distinguish between Black-headed Gulls and Common Gulls during all or part of the count, or on a particular flight line, please provide a count of 'Unidentified Small Gulls'. Likewise if it was not possible to distinguish between Lesser Black-backed Gulls, Herring Gulls and Great Black-backed Gulls during all or part of the count, please provide a count of 'Unidentified Large Gulls'.

Counting large, multi-species aggregations of birds away from breeding areas can be difficult. Birds during the non-breeding season may be more sensitive to disturbance and as they are not tied to an area by a nest they are unlikely to return to the same roost. Please take care not to disturb the roost.

How are counts synchronised?

To ensure that the data collected by WinGS can be used to produce national population estimates and to monitor trends, between-site count synchrony is important. Hence, 'key dates' are recommended for January WinGS Counts. This reduces the likelihood of birds being double-counted or missed as movement between roost sites throughout winter is likely. Coordinated counting is especially important at Team Sites. Team Sites are key roosting areas that have been identified by WOs as requiring a team of people to ensure proper coverage. It is the Team Leaders responsibility to ensure that all observers assigned to that site carry out coordinated counts. If you are assigned to a Team Site, be sure you know who the Team Leader is. The Team Leader could be the WO or another volunteer. If you are unsure, contact the WO of your region.

The key dates for 2024 and 2025 are pre-selected to be complementary to the WeBS priority dates. However, the time of high tide varies around the country, and at some coastal sites this may necessitate counts on alternative dates, when the local tidal conditions are more conducive to counts at dusk. If you are covering part of a team site be sure that you know when the agreed date for the site is.

There are many circumstances that can arise that may mean you are unable to complete your count for WinGS on the key or agreed site count date due to illness or other prior commitments. If you are covering a non-team site you may make a count as close to the specified date as possible. Please discuss this with your WO if alternate arrangements need to be made at your site. However, if you are a counter for a Team Site that requires coordination with team members, please inform your WO or Team Leader as soon as possible if you are unable to make the agreed or key survey date for that site as a replacement may need to be found.

Count Conditions

Count accuracy should also be recorded as counts may be influenced by factors such as disturbance and visibility. Cover of suitable habitat should also be recorded. For Inland Sites, please record an approximate value for the percentage of surface water area within your site covered by ice. For Coastal Sites, you are asked to record the state of the tide e.g. rising, falling, high, low.



Photo by Neil Calbrade @ BTO

Data submission

Data can be submitted using the WinGS Online system; please see the separate 'Guide to WinGS Online' for details on how to get set up for this. We request that you submit your data promptly after

January counts. If you do not have internet access, WinGS recording forms are available from the WinGS Office or from your WO. You will be provided with sufficient recording forms for the sites you cover.

Site Types

Sites are broadly defined as Key or Sample Sites. Key Sites are those that have been previously identified as supporting over 1,000 roosting gulls and include inland water bodies such as lakes, reservoirs and gravel pits, and coastal sites including estuaries and bays where gulls are roosting on the sea. Key sites have been identified through a combination of previous WinGS counts, WeBS roost counts, BirdTrack records and county bird reports. Gull roost counts at Key Sites should include all gulls roosting in the area even if they are outside the count area shown, **as long as they do not intersect with the count boundary of another site.**

Sample Sites are sites selected at random from stratifications of inland and coastal habitats. Data collected from samples will be used to generate UK wide population estimates with confidence intervals for gull species. Sample Sites constitute inland areas of 2x2 km (a 'tetrad') and coastal stretches of coastline up to around 2 km long. Gull roost counts at sample sites should not be biased by including gulls roosting outside the count boundary, meaning if gulls are within view of the observer but outside the count boundary defined for the sample site they should be excluded from the count. Note that this contrasts with the guidance for key sites so please ensure that you are aware whether the site you are covering is a key site or a sample site.

Four categories of sites are covered within the survey design: Coastal Key Sites, Inland Key Sites, Coastal Sample Sites and Inland Sample Sites. Count methodologies differ slightly for each site type.

Coastal Key Site

Gull roost counts at Coastal Key Sites should only include birds that roost on the sea, cliffs, islands or below the high tide mark. Counts of birds roosting behind the high water mark on terrestrial habitats should be excluded. You should count gulls roosting on the water within 2km of the shore line, or as far as visibility extends. Coastal key sites may also occur within estuaries. Include counts of all gulls visible to the observer, except when gulls extend to a separate count coastal site.

Inland Key Site

Gull roost counts at Inland Key Sites should include all gulls roosting within the count boundary. If an inland key site is adjacent to another waterbody, observers may also include any gulls seen there but **only** if that waterbody is not defined as a separate count area. If gulls outside the defined site area are included in the count, please ensure that further details of the extent of the roost are noted when you submit your count. In some cases, key inland sites are adjacent to the coast or another coastal site. It is important to ensure that there is no double counting and that the sites remain separated while counting. If the Inland Key Site is adjacent to the coast, do not include any birds that are roosting on the coastal marine waters, cliffs or below high tide mark.

Coastal Sample Site

Coastal stretches should be surveyed, including gulls roosting within 2km of the coastline or estuary bank. The extent of the count area is defined in WinGS Online and is usually around 2 km. Observe from a vantage point that extends the greatest visibility of the focal area. If there are gulls present outside your site boundary but within your view, do not include these within your count. Counts should only include birds that roost on the sea, cliffs, small islands or below the high tide mark. Counts of birds roosting behind the high water mark on terrestrial habitats should be excluded. Where a random coastal stretch within an estuary outline is detailed and follows small inlets and creeks, you are not expected to observe these closely and focus should be given to the major waterbody.

Inland Sample Site

Inland sample sites cover a 'tetrad' (2x2 km square). Due to the random sampling strategy, inland sample sites have a variable amount of surface water. Oftentimes Inland Sample Sites have little surface water and the roosting gull counts at these sites may often be zero. These zero counts are paramount to generating population estimates with low confidence intervals. We encourage you to visit the site to generate true low/zero count records for the purposes of producing robust population estimates. Please

discuss the site with your WO if there is little to no surface water present.

Where there is one large water body within an Inland Sample Site, focus observation efforts here. Where there are two or more water bodies within a sample site, if possible, count from a vantage point that provides visibility to all water bodies. However, if you feel that your sample site may need more than one person for proper coverage, discuss the possibility of designating the site as a Team Site with your WO. Only include counts of gulls on the sections of water bodies within the sample boundaries. If gulls occur outside the sample boundary, they should be excluded from the count.

Team Sites

Team sites have been designated where the site requires a team of people to visit the site and count in a coordinated manner. Team Leaders have been designated by the WO, and may be the WO or another volunteer. It is the Team Leaders responsibility to ensure that all counters are present at the same time and count in a coordinated manner ensuring no sections are missed or double counted. If you are assigned to a Team Site, you will be in contact with the Team Leader and your other Team Members to coordinate your count areas within a site. Team Sites will usually be Key Inland or Coastal sites. However, sample sites may also be designated as Team Sites if the WO determines it necessary. Sample sites that encompass multiple large water bodies or a long stretch of coast may necessitate two or more counters

Ringed and Colour-ringed

Birds If you spot a ringed or a colour-ringed bird please report your sighting to www.ring.ac. Alternatively, please send details of your sighting, including your contact details, to:

The Ringing Department
BTO, The Nunnery,
Thetford, Norfolk
IP24 2PU



Photo by Neil Calbrade @ BTO

Resources

BTO bird identification videos, including those on Gulls can be accessed here:

<https://www.bto.org/id-videos>

Published paper on the previous WinGS can be found at:

Banks, AN., Burton, N.H.K., Calladine, J.R. and Austin, G.E., 2007. *Winter Gulls in the UK: Population Estimates from the 2003/04-2005/06 Winter Gulls Roost Survey*. British Trust for Ornithology.