



WinGS Methodology

As this survey will be new to most of the BTO network we are providing survey instructions methods for organisers within this handbook. Methods for counters are available in the Counters Resource Manual Chapter 2 which you may also refer to.

The methods required to complete WinGS counts differ from that of the Wetland Bird Survey (WeBS) which you may be familiar with. The primary difference is that Gull Roost Counts must be completed at dusk. Counts conducted during the day do not accurately reflect overwintering gull populations and can lead to inaccurate population estimates. Counts of gulls taken during winter WeBS counts will not be included in WinGS analysis.

4.1 Requirements for Observers

A clear understanding of the identification criteria for the UK's six primary gull species is essential: 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 observed so broad knowledge is helpful. This is particularly relevant to key sites where there is likely to be over 1000 roosting gulls.

There is also an opportunity to involve those new to gull identification. Sample sites are likely to have a more manageable count of gulls so should be suitable for those developing their skills. As this survey is taking place over two years there is also an opportunity for observers to build up their skills from 2024 to 2025. If you receive requests from individuals that are less confident with their gull identification skills, please direct them to the training material available on the WinGS webpage.

4.2 Survey Preparation

Through the WinGS online portal, observers will see the sites that have been allocated to them. Please ensure that observers are familiar with their assigned sites. Ask observers to identify the access points to the area and plan a suitable vantage point for observation. Ensure observers are familiar with the health and safety page available on the BTO website and assess possible site-specific risks. If they are required to seek permissions to access sites which occur on private property, please ask them to do so before the key count weekend. If there are access issues pertaining to permission or location, please notify the WinGS office.

4.3 Counting Methods

Counts at both key and sample sites are to take place at dusk. Observers should arrive at the site a minimum of two hours before darkness. Once the observer(s) has arrived at the site, they should count and identify any gulls already roosting on the water. Then, count and identify gulls as they arrive at the roost along flight lines. Counts for each species should be made up until dark. Observers should also estimate the number of gulls that have left the roost before dark and remove this from the total reported count.

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'.

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 the presence of gulls outside the count boundary, meaning if gulls are within view of the observer but outside the count boundary they should be excluded from the count.

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.

4.3.1 Coastal Key Sites

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. Observers should count gulls roosting on the water within 2km of the shoreline, 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.

4.3.2 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. 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, cliffs, or below high tide mark.

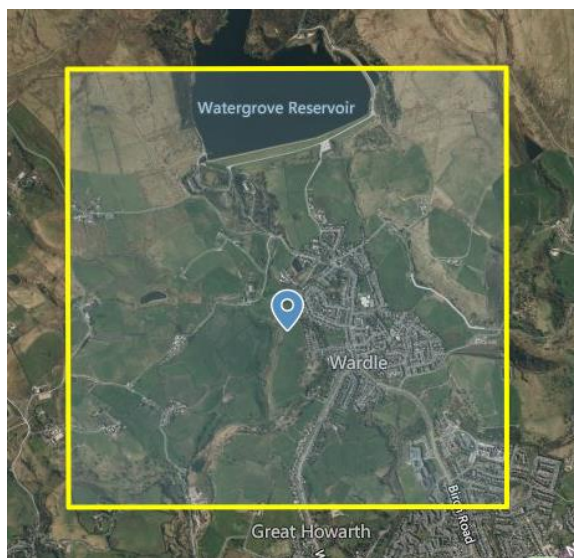
4.3.3 Coastal Sample Sites

Coastal stretches of 2km should be surveyed, including gulls roosting within 2km of the coastline or estuary bank. Observe from a vantage point that extends the greatest visibility of the focal area. Do not bias your count area based on the presence of gulls. 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.

4.3.4 Inland Sample Sites

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. Even if you believe that there are no gulls present at a site, we ask that you still encourage counters to visit the site to generate true low/zero count records for the purposes of more accurate population estimates. However, we will accept an assumed zero if there is no surface water present and you and the observer are confident the site does not support roosting gulls. If a sample site seems to contain little water, you may direct counters to focus efforts on playing fields or rooftops when sample sites occur over urban environments.

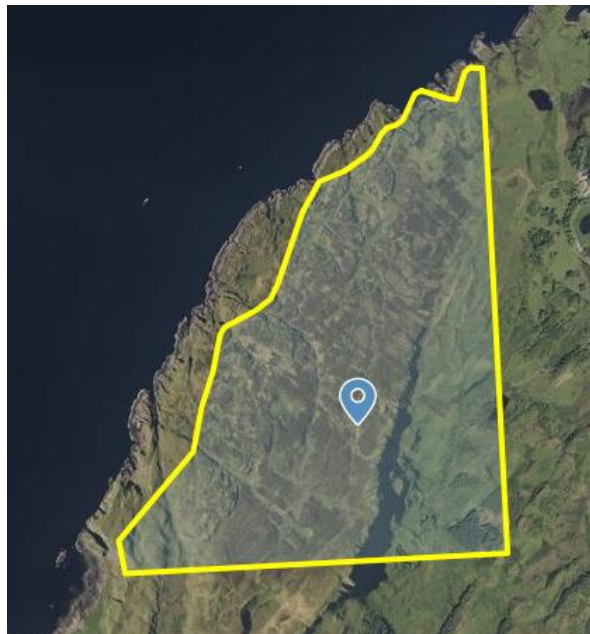
Where there is one large water body within an Inland Sample Site, focus observation efforts here. Where there are two or more water bodies within a sample site, if possible, observers should count from a vantage point that provides visibility to all water bodies. However, in these cases it may be necessary to designate that sample site as a team site to be covered by more than one observer in order to ensure proper coverage. If you are unsure, scoping activities may be necessary to assess where gulls are preferential to roosting. 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.



4.3.5 Intersecting Sites

Due to the random sampling regime, there are a number of cases where Inland Sample Sites intersect with the coastline, or other Key and Sample Coastal Sites. It is very important that the methods are clear to the counters in these cases to prevent double counting. It may be necessary to coordinate the counts of intersecting inland sample and coastal sites as there is a chance that gulls may move between them during roost. Please consider this on a site-by-site basis and liaise with volunteers allocated to these sites.

Inland sample sites should only include counts of gulls roosting on inland water sources i.e., ponds, lakes, rivers or marshes. Gulls roosting on building roofs which may be present in the tetrad are also to be included. Any gulls roosting on the coastal marine habitat should be excluded from the count.



Conversely, if a Coastal Site is intersected by an Inland Sample Site. Only gulls roosting on the estuarine or marine water source should be included in the count of Coastal sites and any gulls roosting on inland water bodies should be excluded.



4.3.6 Subsites

Some large and complex sites have been split into more manageable count units, or subsites. This could be adjacent bodies of inland water, sections of a large inland waterbody or substantial estuaries. These sites are usually segregated spatially but may also have a high level of connectivity between them. If it is likely that roosting gulls may move between subsites, then it is necessary to organise coordinated counts by designating the site as a Team Site. Please refer to Section 3.3 of the WO Handbook for instructions on designating and managing Team Sites.