

Seabird Monitoring Programme data Guidance Notes



The Seabird Monitoring Programme

The scheme

The Seabird Monitoring Programme (SMP) is a scheme funded jointly by BTO and JNCC, in association with the RSPB, and is supported by the Co-operating Organisations (Natural England, Natural Resources Wales, NatureScot and Department of Agriculture, Environment and Rural Affairs) and a wider SMP Advisory Group that also includes organisations from Ireland. This partnership structure has been in place since July 2022.

The scheme mobilises participants (volunteers and professionals) to monitor breeding seabirds throughout Britain and Ireland, the Isle of Man and the Channel Islands.

For more information on the scheme in general, please visit: www.bto.org/smp

For full survey methods, please visit: www.bto.org/sites/default/files/seabird-monitoring-handbook.pdf (note: methods vary between seabird species).

Introduction to the data

The SMP database contains data collected at seabird colonies throughout Britain and Ireland, the Isle of Man and the Channel Islands.

Abundance counts are of the total number of seabirds breeding at specified 'sites', i.e. colonies or parts of them (known as 'Whole Colony Counts'). Count 'units' are of individual birds or nesting sites (burrows, sites, nests, territory, etc) depending on the species monitored (Appendix 1). See Appendix 2 for details of data fields.

Estimates of the **breeding success** – fledglings – within sub-sections or 'plots' of the colonies (known as 'Breeding Success') are held in the SMP database. See Appendix 3 for details of data fields.

Both these datasets can be browsed and downloaded via the SMP Online application (app.bto.org/seabirds/public/data.jsp).

The primary use of the data collated through the SMP is to determine population and breeding success trends at UK and country scales and for the Republic of Ireland and thus inform seabird and wider marine management and conservation. This annual analysis is conducted by BTO on behalf of the wider partnership.

The Partners and Associate Partner provide access to data, except where this might represent sensitive information. There may be cases where bespoke data requests are made, and specific data extraction required. Charges for such services may be made and any surplus being fed back into the scheme. Analysis or interpretation of data will need to be commissioned separately.

Data which are 'sensitive' in nature (meaning its release could harm the environment) will only be disseminated with appropriate due care and regard. Generally, 'sensitive' data refers to rare breeding bird species at risk of persecution, disturbance or collecting. These species have been identified in conjunction with, and with advice from, Statutory Nature Conservation Bodies and the Rare Breeding Birds Panel.

Analytical methods

Methods of analysis for production of indices of abundance and estimation of productivity:

https://webarchive.nationalarchives.gov.uk/ukgwa/20210301120337mp_/https://data.jncc.gov.uk/data/701c338f-ed54-43da-a61c-254cb79698b8/Analysis-methods.pdf

What data are included?

Data available from the SMP database include annual counts going back to 1986. The database also includes count data from censuses since the 1980s: The Seabird Colony Register census (1985–1988), Urban Gull censuses (1976 and 1993-1995), Seabird2000 (1998–2002), Seabirds Count (2015–2020). In addition, there are a handful of counts dating back to 1980.

Whilst the majority of annual SMP data are in the database, some census data are being processed and reviewed prior to being added to the main database in the near future. Over time, the SMP database will expand as further data are transferred into the database, particularly following review of past census data.

Special care – sensitive species

If data on sensitive species (Leach’s Storm-petrel, Mediterranean Gull, Roseate Tern, Little Tern) are supplied, data must be treated with great care. For example, locations of records should be blurred so as to protect their breeding locations and this information should not be passed onto a third party.

Acknowledgements

The following acknowledgement should be used in publications resulting from use of the data: “Data were provided by the Seabird Monitoring Programme, a Scheme funded jointly by the British Trust for Ornithology and Joint Nature Conservation Committee, in association with the Royal Society for the Protection of Birds, with fieldwork conducted by both non-professional and professional surveyors.”

If a project relies heavily on data collated at any of the SMP Key Sites (Canna, Fair Isle, the Isle of May or Skomer Island), additional acknowledgement will be required. More information on the wording and if additional acknowledgement is needed for the specific project, should be requested at smp@bto.org when necessary.

Publications made

It is asked that copies of all publications, including reports that are in the public domain, must be supplied to the BTO. Please send copies of all such publications to datarequests@bto.org.

References:

SMP Handbook: <https://www.bto.org/sites/default/files/seabird-monitoring-handbook.pdf>

SMP Privacy Policy:

https://www.bto.org/sites/default/files/seabird_monitoring_programme_privacy_policy.pdf

SMP Data Access and Use Policy:

https://www.bto.org/sites/default/files/seabird_monitoring_programme_data_access_and_use_policy.pdf

SMP Report 1986-2019: <https://jncc.gov.uk/our-work/smp-report-1986-2019/>

APPENDIX

Appendix 1: Units and methods for surveys of seabird numbers/abundance.

Table 1: Units for surveys of seabird numbers/abundance. Units to be used vary between species.

Unit	Abbreviation	Description
Apparently Occupied Nest	AON	An active nest occupied by a bird, pair of birds, or with eggs or chicks present.
Apparently Occupied Territory	AOT	When nests cannot be discerned (e.g. for Great Skua), the presence of a nest may be inferred at the time of year when nests are likely to be complete or eggs are newly hatched by the presence of an incubating adult, or adult displaying territorial behaviour.
Apparently Occupied Site	AOS	An active site occupied by a bird, pair of birds, or with eggs or chicks present. Used for species without obvious nests such as Northern Fulmar.
Apparently Occupied Burrow	AOB	An apparently active and occupied burrow which may have a nest.
Individuals	IND	Individual birds of some species e.g. Guillemot

Table 2: Methods and the timings outlined below for recording seabird abundance. The methods listed here are derived from Walsh *et al.* (1995) where more detailed descriptions and comparisons of all survey methods can also be found, in addition to methods for measuring breeding success.

Species	Unit	Period	Notes
Northern Fulmar	AOS	Count between 09.00 and 17.30, late May to early July.	Apparently Occupied Sites are those ledges suitable for nesting with a bird present (Population-monitoring method 1, Walsh <i>et al.</i> , 1995).
Manx Shearwater	AOB	Survey using tape playback between 09.00 and 17.00. Late May to mid-June.	(Population-monitoring method 2, Walsh <i>et al.</i> , 1995).
European Storm Petrel	AOB/AOS	Survey using tape playback during incubation period between 09.00 and 17.00. Late May to June.	
Leach's Storm Petrels	AOB/AOS	Survey using tape playback during incubation period between 09.00 and 17.00. Late May to June.	
Gannet	AOS/AON	June	AOS - all sites occupied by one or two Gannets whether nesting material present or not. AON - occupied nests including those with only a trace of nest material. Time to early or mid-nesting period; usually June
Great Cormorant	AON	Count period late May to early June.	(Population-monitoring method 1, Walsh <i>et al.</i> , 1995).
European Shag	AON	Count period late May to early June.	
Arctic Skua	AOT	Count period early June.	Repeat counts on several days. Count when on complete clutch through to eggs starting to hatch.
Great Skua	AOT	Count period early June.	Repeat counts on several days. Count when on complete clutch through to eggs starting to hatch.
Black-legged Kittiwake	AON	Count early to mid-June.	Only count completed nests with at least one adult attending.
All gull species	AON IND	Count late May to June.	Counts of adults on nests or transects to count nests. Alternatively, flush counts of individual adults (Population-monitoring method 1, 3, or 5, Walsh <i>et al.</i> , 1995).
All tern species	AON IND	Count late May to June.	Counts of adults on nests or transects to count nests. Alternatively, flush counts of individual adults (Population-monitoring method 1, 2 or 3, Walsh <i>et al.</i> , 1995).
Common Guillemot	IND	Count between 07.00 and 16.00, and from 1st – 21st June, with ~5 repeats if possible.	Birds on tidal rocks or sea excluded.
Razorbill	IND	Count between 07.00 and 16.00, and from 1st – 21st June, with ~5 repeats if possible.	Birds on tidal rocks or sea excluded.
Black Guillemot	IND	Count any adult breeding plumage birds seen within c. 200m of the shore and any on land, between 05.00 and 08.00, and from April to early May.	Counts in pre-breeding period.
Atlantic Puffin	AOS/ AOB IND	Evening or early morning visits will produce highest counts. May.	Ideally, AOS/AOB should be counted, following methods described in Walsh <i>et al.</i> , 1995. For small colonies, count individuals above ground, flying over the colony and birds within 200m of the shore in April (Census-method 3, Walsh <i>et al.</i> , 1995).

Appendix 2: Data fields for Whole Colony Count extract.

Species = one of the 25 species monitored by SMP. Note: four sensitive species may not be included

Country/County = location the record is from

SiteID, Site and MasterSite = unique names/codes identifying location. MasterSite may contain multiple Sites. MasterSite can identify sites on SPAs

StartGrid = location of where the colony starts or where no EndGrid is given, the central location for the colony

EndGrid = location of where the colony ends – in cases with the extremities of the colony recorded

Site category, Site type, Site habitat = description of site

Start date/End date = when starts began and finished

Times = time of surveys

Method/Unit = code, see Handbook

Wind/Rain/Visibility/Sea = conditions during survey

Count = these data relate to the 'Unit' column for the species. Displaying count method for the given species at the given site, e.g. number of individual birds (IND) v's the count of territories (AOT), etc.

Accuracy = C – Count / E – Estimate

Estimate = level of accuracy in the count

Comments = general comments by surveyors

Appendix 3: Data fields for Breeding Success extract.

Species = one of the 25 species monitored by SMP. Note: four sensitive species may not be included

Year = year recorded

Country/County = location the record is from

SiteID, Site, MasterSite and subsite = unique names/codes identifying location. MasterSite may contain multiple Sites. MasterSite can identify sites on SPAs

StartGrid = location of where the colony starts or where no EndGrid is given, the central location for the colony

EndGrid = location of where the colony ends – in cases with the extremities of the colony recorded

Site category, Site type, Site habitat = description of site

Method/Unit = code, see Handbook

Count = these data relate to the 'Unit' column for the species. Displaying count method for the given species at the given site, e.g. number of individual birds (IND) v's the count of territories (AOT), *etc.*

Accuracy = C – Count / E – Estimate

FledgedCount = number of chicks to have been recorded to have successfully fledged

FledgedAccuracy = C – Count / E – Estimate

Comments = general comments by surveyors

Appendix 4: Terms and Conditions.

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For queries, please contact smp@bto.org.