

BTO HERONRIES CENSUS 2022 SUMMARY

SARAH KELMAN / BTO

INTRODUCTION

This year (2023) marks the 95th anniversary of the Heronries Census, which began in 1928 as a special survey for *British Birds* coordinated by Max Nicholson (who went on to be a leading contributor to the formation of the BTO, five years later). Although the 1928 Census was initially intended to be a one-off, surveyors continued to undertake counts in the following years and the survey became the annual survey that is still going nearly 100 years later.

The initial Census covered only the Grey Heron as no other heron species were present in the UK at that time. Some Census volunteers now count up to five or even more species, including Cormorant – which first nested in trees at Abberton Reservoir (Essex) in 1981. Little Egret has now successfully colonised three of the four UK countries and recently bred in Scotland for the first time, whilst Cattle Egret, Great White Egret and Spoonbill may, sooner or later, follow the same path.

We would like to thank all Heronries Census volunteers and Regional Organisers for their efforts to count all species at colonies in 2022, the results from which are presented in this annual summary report. In 2022, over 900 sites were visited. This is similar to 2019 and 2021 (Fig. 1); as we usually expect additional late returns, it is likely that the coverage in 2022 will turn out to be the highest ever for a standard Census year (i.e. excluding the 'full survey' years of 2003 and 2018 when enhanced promotion and surveying effort occurred).

The increasing possibility of the presence of one of the scarcer species at heronries will make Census visits more exciting as we approach the centenary of the Census in 2028. However, it also means that surveyors may need to be more mindful about causing potential disturbance to these rarer herons (see guidance on page 4).

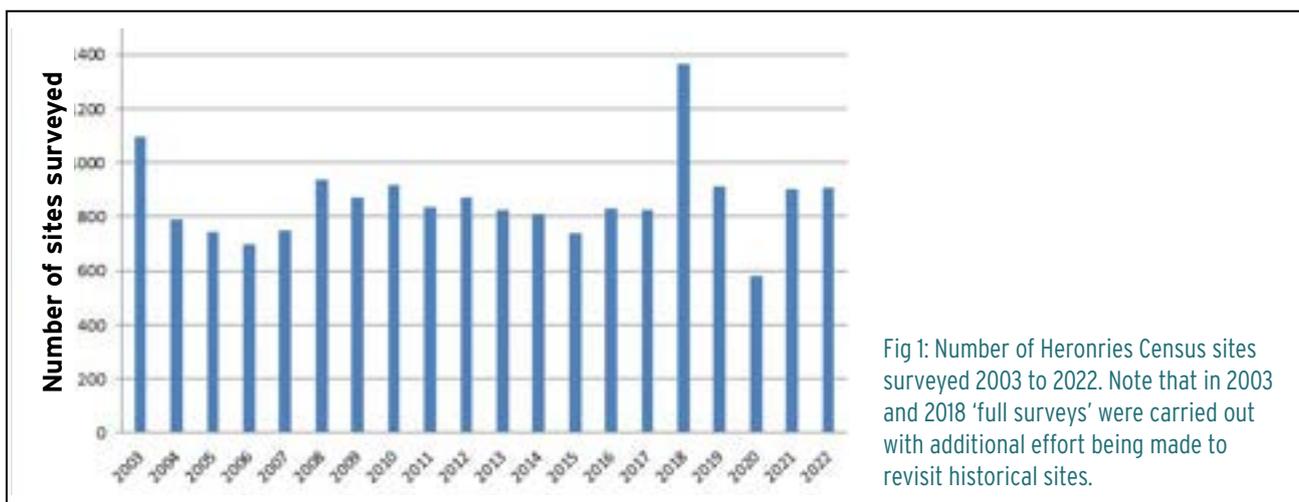


Fig 1: Number of Heronries Census sites surveyed 2003 to 2022. Note that in 2003 and 2018 'full surveys' were carried out with additional effort being made to revisit historical sites.

Please note that Avian Influenza has recently been confirmed in Grey Herons at a site in Scotland. If you observe sick birds or dead birds, please submit details via the BirdTrack app and consider whether to **submit a report** to Defra.



GREY HERON RESULTS

The UK population estimate for 2022 is 9,509 apparently occupied nests, up from the revised total of 9,341 nests in 2021. The largest Grey Heron colony recorded in 2022 was 110 nests, at a site in Hampshire and matching the total at the same site in 2021.

Despite the very slight recovery over the last two years, the population still remains well below the levels seen at the peak in the early 2000s, when there were around 13,000 nests in the UK (Fig. 2). It is unclear why Grey Heron numbers have failed to recover. One possibility is that the absence of any recovery could relate to increased instances of severe weather caused by climate change. Cold snaps such as the 'Beast from the East' in 2018 might have increased mortality and spring gales during breeding might affect Grey Heron productivity.

Although Nest Record Scheme data show a linear decline in both clutch size and brood size since the late 1960s, this finding is based on a small sample and there is no significant trend in the number of fledglings produced per breeding attempt. Ringing data do not suggest a decline in survival for adult birds, but severe weather outside the breeding season could affect survival of young birds and, consequently, recruitment into the breeding population.

Another possibility is that the success of other similar colonial waterbird species could be causing some interspecific density-dependent effects, but this is speculative and there is no scientific evidence for it. In fact, of the colonising species, only Little Egret is widespread enough to potentially have a population level effect on Grey Heron. If there were any competition for resources between these two species, then it would be more likely to affect Little Egret as it is the smaller and less dominant species. We lack evidence of other potential drivers of decline, such as changes in habitat at the sites, disturbance, or the impact of pesticides or other pollutants on herons or their prey.

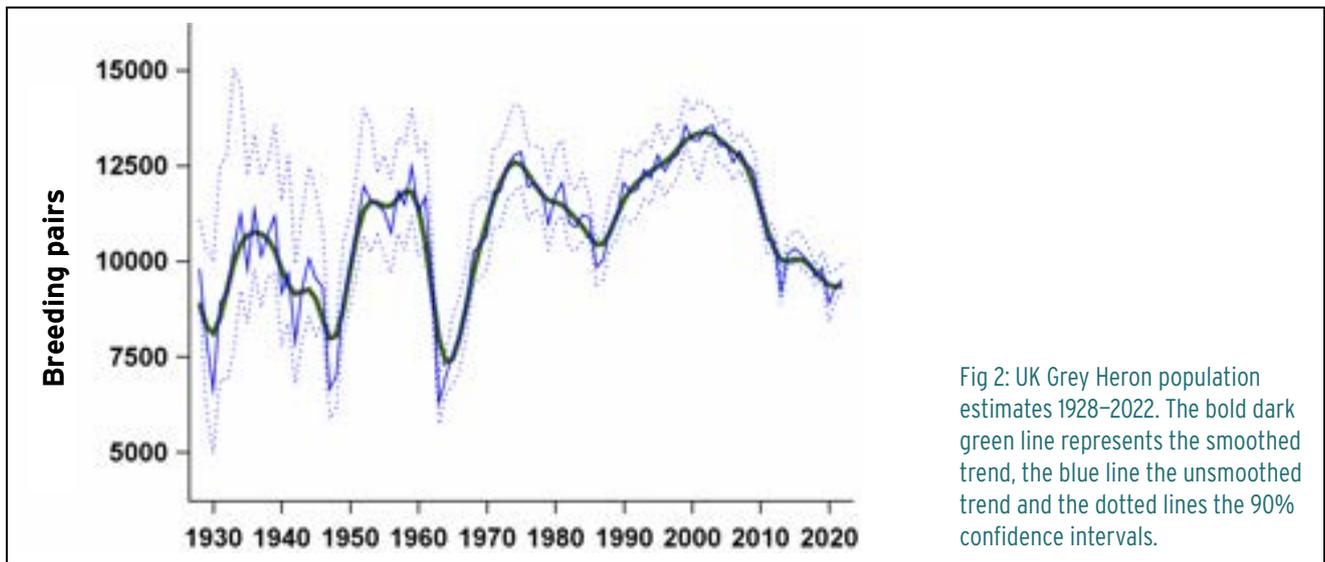


Fig 2: UK Grey Heron population estimates 1928–2022. The bold dark green line represents the smoothed trend, the blue line the unsmoothed trend and the dotted lines the 90% confidence intervals.

LITTLE EGRET

A total of 1,205 apparently occupied Little Egret nests (AONs) were counted in 2022, a slight decrease from the 1,256 nests in 2021 (Fig 3). It should be noted that these totals are actual counts rather than population estimates; since we expect to receive some late counts over the coming weeks, the final 2022 total may be higher than 2021. However, the largest site count of 107 nests (made at a colony in Kent) was down from 126 nests at the same site in 2021. We are currently assessing whether we can now use the Heronries Census model to produce population estimates for Little Egret by following a similar method to the one we use to produce the Grey Heron population estimates. This would enable us to assess and interpret Little Egret trends more robustly in the future, as the estimates would take into account differences in site coverage between years.



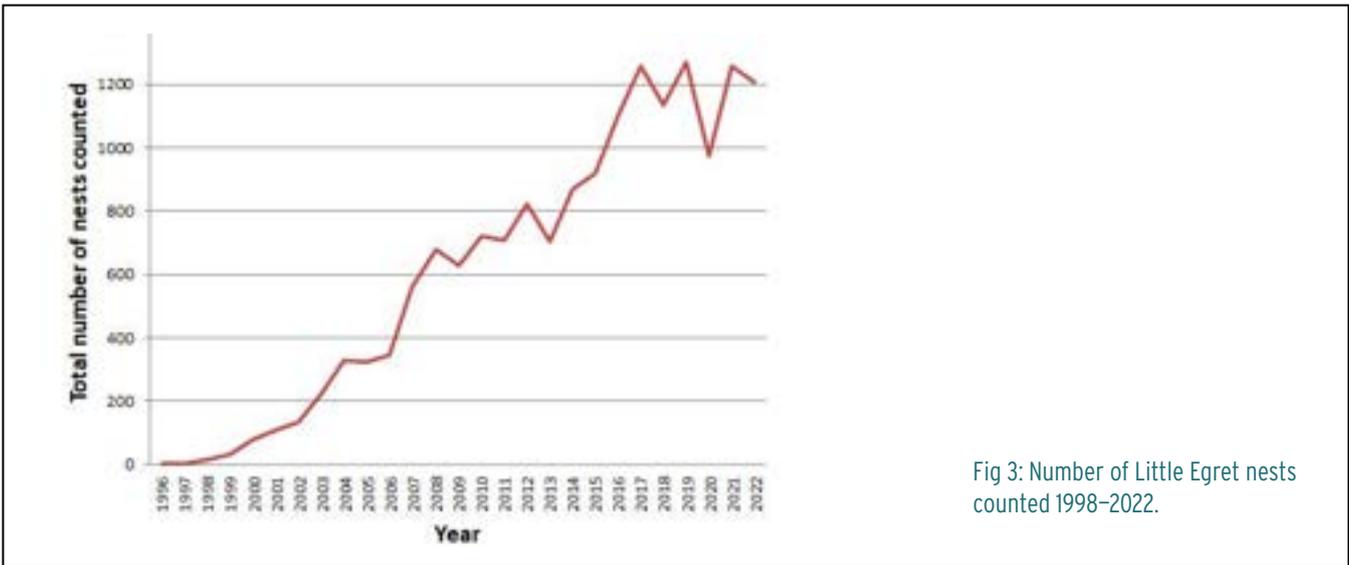
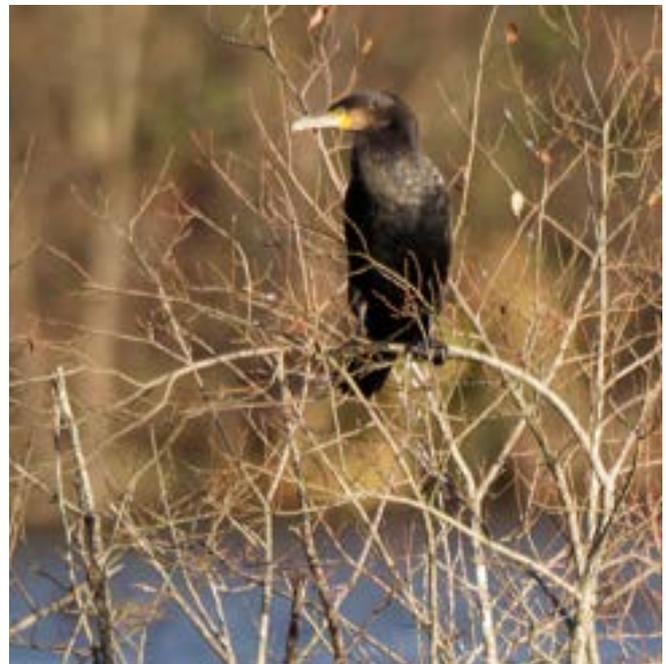


Fig 3: Number of Little Egret nests counted 1998-2022.

CORMORANT

A total of 1,487 apparently occupied nests were counted at 38 Heronries Census sites in 2022, down from 1,695 nests at 45 sites in 2021 (Fig. 4) with the largest site count of 213 nests coming from a site in Merseyside. As for Little Egret, the totals are actual counts rather than population estimates. As in previous years we are missing counts from some of the medium- and larger-sized colonies, and we encourage observers to submit counts for tree-nesting (and inland-nesting Cormorants). BTO has recently taken over coordination of the Seabird Monitoring Programme (SMP) from the Joint Nature Conservation Committee and will be organising SMP survey coverage from 2023 onwards. The scheme's Partners and funders are BTO and JNCC, and the RSPB is an associate Partner. Through an SMP Sampling Strategy currently underway, and conversations between the SMP and Heronries Census teams at BTO, the feasibility and method for data flow between the two surveys with regards to Cormorants is being discussed at the time of writing.



JOHN HARDING / BTO

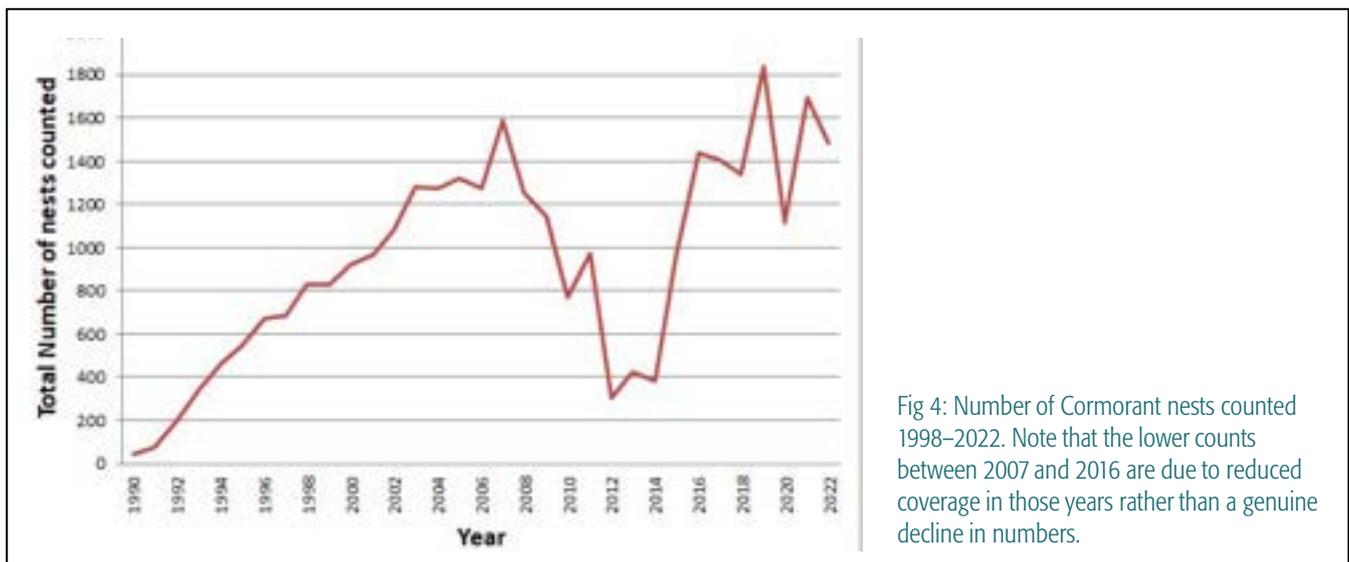


Fig 4: Number of Cormorant nests counted 1998-2022. Note that the lower counts between 2007 and 2016 are due to reduced coverage in those years rather than a genuine decline in numbers.

SCARCER SPECIES

The Heronries Census also collects data on other colonial birds nesting within heronries. We have received records of a minimum of 44 Cattle Egret nests in 2022 at 10 sites, 23 Great White Egret nests at four sites and 66 Spoonbill nests at five sites (Fig. 5). As for Little Egret, these are actual counts rather than population estimates and hence the apparent decreases in 2022 may not represent a real decrease. We know that these records do not give the full picture for these species; the latest Rare Breeding Birds Panel (RBBP) report for 2020 (*British Birds* **115**: 623–686) records approximately double the number of Great White Egrets and 1.5 times the number of Cattle Egrets than the Census figures for that year. These records from the early years of colonisation will be particularly useful in the future, enabling accurate population estimates and trends to be produced in future years, and we would welcome late submissions for these species for 2022 and earlier years.



PHILIP CROFT / BTO

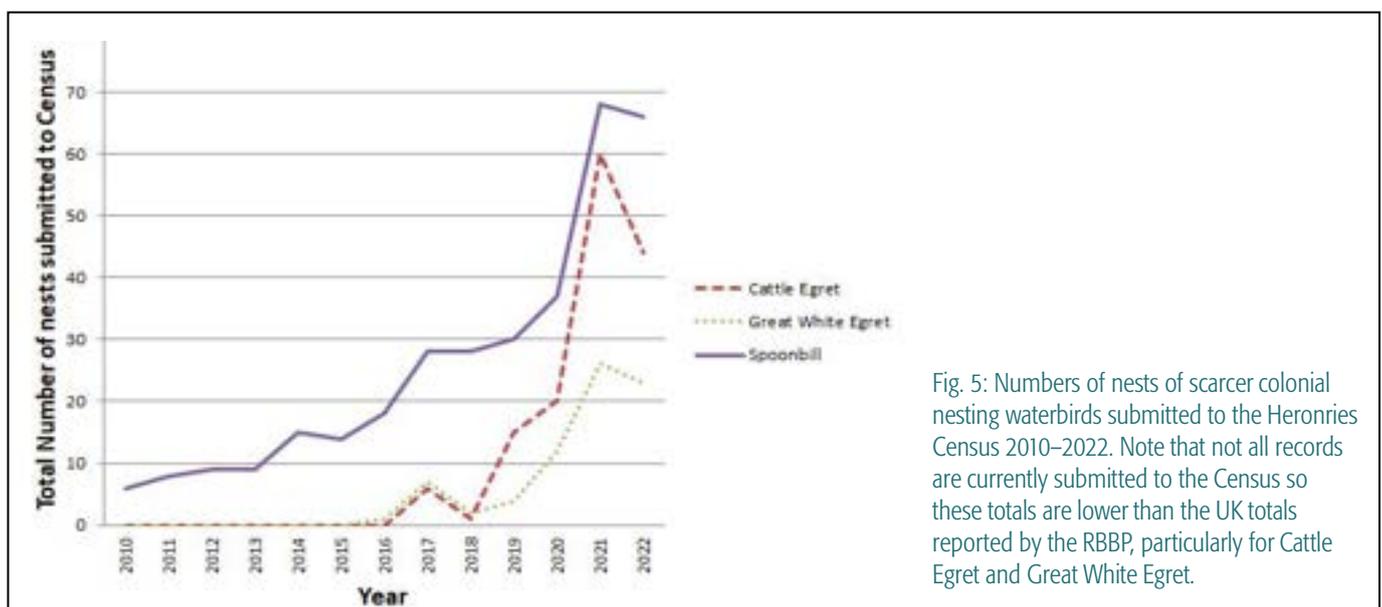


Fig. 5: Numbers of nests of scarcer colonial nesting waterbirds submitted to the Heronries Census 2010–2022. Note that not all records are currently submitted to the Census so these totals are lower than the UK totals reported by the RBBP, particularly for Cattle Egret and Great White Egret.

GUIDANCE ON SURVEYING FOR RARER SPECIES

Heronries surveyors should be mindful of the possible presence of Little Egrets and other rarer species in a colony. Robust surveying of egrets will often require patient observation from vantage points and additional visits later in the breeding season.

Census volunteers, particularly those in England and Wales, are encouraged to carry out additional visits later in the season, to look for activity by egrets and Spoonbills. Even if you are unable to carry out extra visits, it is important to be aware of the possible presence of Little Egret and the three rarer species within the site(s) you survey. It's also worth looking carefully at the behaviour of Glossy Ibis if you are fortunate to have any present at your site during the breeding season.

The rarer species (and Little Egret) may be prospecting for potential sites when Census visits are being carried out in March or April. As most pairs will still be prospecting at this time, they are likely to be more sensitive to disturbance than the nesting Grey Herons, which will be more settled and may already have eggs or young.

If you normally need to approach your heronry closely to carry out your April Census count, we would encourage you to allow more time than usual for your visit so that you can approach the heronry more cautiously. This is particularly important if you are aware that some of the rarer species have recently been present in the local area or if you have previously noticed that some of the herons become alert or are disturbed from the nest on your approach. If this is the case, you may also wish to consider whether you can find an alternative viewing point to carry out your count or to look for the presence of other species before approaching the heronry.

If you are lucky enough to find Spoonbills present within your heronry, you should be aware that this species is afforded additional protection under Schedule 1 of the Wildlife & Countryside Act (1981) and it is therefore an offence to intentionally or recklessly disturb these birds when they are building a nest or at a nest containing eggs or young, i.e. you should not approach the nest without a Schedule 1 disturbance licence issued by the relevant licencing body. In the absence of such a licence, you should only carry out Census counts where Spoonbills are nesting if the colony can be viewed from a vantage point without causing disturbance. Although Great White Egret and Cattle Egret are not listed under Schedule 1, if you find these species you should consider treating these species in the same way as Spoonbill.

Note that it will often not be possible to view egret nests from your vantage point and hence you may need to carry out several potentially lengthy visits to observe birds commuting to and from the site in order to confirm probable breeding and to estimate the numbers of nests from flightlines and landing points. Even if disturbance is not a concern, it may still be worth considering carrying out additional and longer watches to assess numbers of egrets (including Little Egrets) present in a heronry. Anecdotal evidence from observers suggests that egret colonies are harder to check and count than Grey Heron colonies because they nest more frequently at lower heights and in denser vegetation. Subsequent visits later in the season (in late June or early July) would be helpful to confirm if breeding was successful, as young may become more easily visible from your vantage point as they begin to move away from their nests, immediately prior to and after fledging.

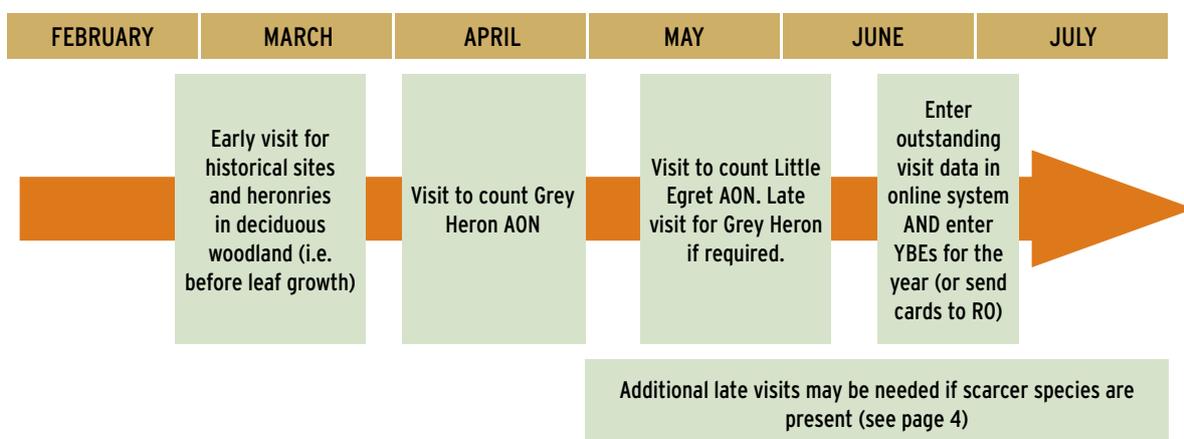
Whilst confirming breeding of the rarer species could potentially be time-consuming it may also be rewarding. Your observations may, for example, be the first breeding record for your county, and will provide important information to both the Census and the RBBP about the expansion of these species across the UK.

You should also consider carefully whether to inform others of the presence of the rarer species in the heronry. Whilst it will be important to inform the landowner, it will normally be best to err on the side of caution about publicising your sighting more widely, even if the colony is publicly accessible. For Spoonbill, Little Bittern, Night Heron, Cattle Egret, Great White Egret and Purple Heron, RBBP suggest that no records of these species in circumstances suggestive of breeding or potential breeding are shared in the public domain during the breeding season, unless public viewing has been arranged (see rbp.org.uk/wp-content/uploads/2021/06/RBBP_Guidance_on_reporting_Rare_Breeding_Birds.pdf).

If you will not be able to spend the time needed to carry out additional watches in order to count nests and confirm a breeding attempt yourself, it may be appropriate to inform one or two others in strict confidence in order to help you do so (obviously whilst bearing in mind the RBBP guidelines above and provided the landowner is happy for you to do so). Note that any records of rarer breeding species submitted to the Census database will be treated as confidential.

Further guidance about considering the possible presence of rarer species when surveying heronries can be found within the [Survey Resources](#).

SURVEY TIMETABLE AND TASKS



USEFUL LINKS

Log in and enter data: <https://app.bto.org/colonies/login/login.jsp>

Heronries vacant sites map: <https://app.bto.org/colonies/public/vacant-sites.jsp>

Survey resources: <https://www.bto.org/our-science/projects/heronries-census/taking-part>

SPECIAL THANKS

We would like to thank all surveyors and Regional Organisers for their work on the 2022 Census. Space does not permit all observers to be acknowledged individually, but we would especially like to thank the ROs for their efforts



HERONRIES CENSUS REGIONAL ORGANISERS IN 2022

ENGLAND

Avon	Eve Tigwell
Bedfordshire	VACANT (now Phil Cannings)
Berkshire	Sean Murphy
Birmingham & West Midlands	Steve Davies
Buckinghamshire	Phil Tizzard
Cambridgeshire	Charlie Kitchen
Cheshire (Mid, North-East, South)	VACANT
Cleveland	Michael Leakey
Cornwall	Simon Taylor
Cumbria	Colin Gay
Derbyshire (North, South)	VACANT
Devon	VACANT (now Alex Banks)
Dorset	Greg Lambe
Durham	David Sowerbutts
Essex (North-East)	Steve Hallam
Essex (North-West)	Graham Smith (Now VACANT)
Essex (South)	VACANT
Gloucestershire	Michael Smart
Hampshire	Glynne Evans (now Robin Findlay)
Herefordshire	Chris Robinson
Hertfordshire	Murray Orchard
Huntingdon & Peterborough	VACANT
Isle of Wight	Jim Baldwin
Isles of Scilly	Will Wagstaff
Kent	Brian Watmough
Lancashire (East)	Bernard Bracken
Lancashire (North-West)	Jean Roberts (now VACANT)
Lancashire (South)	VACANT
Leicestershire & Rutland	Dave Wright
Lincolnshire (East, North, South, West)	Barrie Wilkinson
London (North)	Sabrina Schalz
London (South)	Richard Arnold
Manchester	Nick Hilton
Merseyside	VACANT
Norfolk (North-East)	Chris Hudson
Norfolk (North-West)	VACANT
Norfolk (South-East)	Rachel Warren
Norfolk (South-West)	Vince Matthews
Northamptonshire	Bob Bullock
Northumberland	Tom Cadwallender
Nottinghamshire	VACANT
Oxfordshire (North)	Frances Buckel
Oxfordshire (South)	John Melling
Shropshire	Jonathan Groom
Somerset	Eve Tigwell
Staffordshire (North, South, West)	Scott Petrek
Suffolk	Mick Wright
Surrey	Ray Phillips
Sussex	Helen Crabtree
The Wirral	VACANT
Warwickshire	Annette Jarratt-Knock
Wiltshire (North)	John Sealy
Wiltshire (South)	Phil James
Worcestershire	Mervyn Needham (now VACANT)
Yorkshire (Bradford)	Mike Denton
Yorkshire (Central)	Mike Brown
Yorkshire (East, Hull)	Brian Walker
Yorkshire (Leeds & Wakefield)	VACANT
Yorkshire (North-East)	Nick Gibbons
Yorkshire (North-West)	VACANT
Yorkshire (Richmond)	Mike Gibson (now VACANT)
Yorkshire (South-East)	Grant Bigg (TEMP)
Yorkshire (South-West)	Grant Bigg
Yorkshire (York)	Rob Chapman

SCOTLAND

Aberdeen	Moray Souter (now VACANT)
Angus	Steve Willis
Argyll (Mull, Coll, Tiree & Morven)	Ewan Miles
Argyll (mainland & Gigha) & Bute	Nigel Scriven
Arran	James Cassels
Ayrshire	Susan McCourt
Benbecula & The Uists	Yvonne Benting
Borders	Malcolm Ross
Caithness	Donald Omand
Central	Neil Bielby
Dumfries	Andy Riches
Fife & Kinross	Paul Blackburn
Inverness (East & Speyside, West)	Hugh Insley
Islay, Jura & Colonsay	David Wood
Kincardine & Deeside	Claire Marsden
Kirkcudbright:	Andrew Bielinski
Lanark, Renfrew & Dumbarton	Gordon Brady
Lewis & Harris	Craig Ferries
Lothian	Stephen Metcalfe
Moray & Nairn	Melvin Morrison
Orkney	Colin Corse (now VACANT)
Perthshire	Mike Bell
Rhum, Eigg, Canna & Muck	Bob Swann
Ross-shire	Simon Cohen
Shetland	Dave Okill
Skye	Stephen Bentall
Sutherland	VACANT
Wigtown	Andrew Bielinski (TEMP)

WALES

Anglesey	Ian Hawkins
Brecknock	Andrew King
Caernarfon	Rhion Pritchard
Cardigan	Naomi Davis
Carmarthen	VACANT
Clwyd (East)	Anne Brenchley
Clwyd (West)	Mel ab Owain
Glamorgan (Mid, South)	Wayne Morris
Glamorgan (West)	Lyndon Jeffrey
Gwent	Richard Clarke
Merioneth	Dave Anning
Montgomery	VACANT
Pembrokeshire	Annie & Bob Haycock
Radnorshire	Carlton Parry

NORTHERN IRELAND

All regions	Ian Enlander
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CHANNEL ISLANDS

Channel Islands (excl. Jersey)	Chris Mourant
Jersey	Tony Paintin

ISLE OF MAN

Isle of Man	Pat Cullen
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We would be grateful for help organising the Heronries Census in regions currently without a Regional Organiser (marked **VACANT**), or those currently being covered on a temporary basis (marked **TEMP**) If you live in one of these regions and would be interested in taking on the role, please let us know.

Many thanks are due to the ROs listed who stepped down during 2022.

Finally, we would like to thank all the landowners who kindly allow volunteers access to their land to carry out Heronries Census visits.