



Animal &
Plant Health
Agency

Livestock Demographic Data Group: Poultry population report

**Livestock population density maps for GB, using
July 2024 data**

Published June 2025



© Crown copyright 2025

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v.3. To view this licence visit www.nationalarchives.gov.uk/doc/open-government-licence/version/3/ or email PSI@nationalarchives.gsi.gov.uk

Data Protection:

For information on how we handle personal data visit www.gov.uk and search Animal and Plant Health Agency Personal Information Charter.

This publication is available at www.gov.uk/government/publications

Contributors:

Department of Epidemiological Sciences, APHA
Epidemiology and Risk Policy Advice team, APHA
Avian Species Expert Group, Surveillance Intelligence Unit, APHA
Science Strategy and Planning Group, APHA
Field Epidemiology Team, APHA

Any enquiries regarding this publication should be sent to us at:

Freedom of Information (FOI), Environmental Information Regulations (EIR) and Subject Access requests: enquiries@apha.gov.uk

Management Information and Data Architecture Services (MIDAS): Midas@apha.gov.uk

Livestock Demographics Data Groups (LDDG): lddg@apha.gov.uk

Epidemiology and Risk Policy Advice, APHA: erpa@apha.gov.uk

Data source: Great Britain Poultry Register (GBPR; now incorporated within the SAM database)

Data Year: July 2024

www.gov.uk/apha

APHA is an Executive Agency of the Department for Environment, Food and Rural Affairs and also works on behalf of the Scottish Government, Welsh Government and Food Standards Agency to safeguard animal and plant health for the benefit of people, the environment and the economy.

Contents

Who are these reports for? 1

Who did this work? 1

What do the data show about the population?..... 1

How accurate are the data?2

What do the data not show?3

How were the maps produced?3

Acknowledgements..... 15

References 15

Annex 1: Data quality statement for poultry (Jan-25)..... 15

 Introduction 15

 Overview and purpose of the source data..... 15

Annex 2: Number of poultry holdings and number of poultry per county 19

Annex 3: GB Counties Reference map.....23

Annex 4: GB Poultry density change maps from July 2023 to July 202424

Who are these reports for?

These reports are suitable for use in animal health and welfare policy work which requires an estimate of the distribution and size of the poultry population at GB level. This type of population level information is often required to assess the economic or social impact of particular animal health policies, for contingency and resource planning, or to provide evidence to trading partners. There are important assumptions and uncertainties with these estimates which the user needs to take into consideration and can be found with the Quality Statement.

Who did this work?

The Livestock Demographic Data Groups (LDDG) were formed in January 2014. These are made up of APHA representatives from data systems, epidemiology, species expert and GIS work groups. The work was initiated and completed between October 2024 and December 2024.

What do the data show about the population?

The maps (Figures 1 and 2) show either the density of birds, with a small map to show how this compares with the density of holdings, or vice versa. The data extract is interpreted as a snapshot of the poultry population in July 2024 (please refer to [Annex 1](#) page 18, and [GOV.UK](#)). These map styles have then been reproduced and applied to the separated species groups of Poultry in Figures 3 – 10; namely chickens, ducks and geese (species combined), gamebirds (multiple species combined) and turkeys. The methodology for the extraction of species-level data is described below. The GB poultry population density map and the GB poultry holding density map correspond with the Avian Expert Group's current opinion of the geographical distribution of the industry. The significant concerns over data quality discussed below, limit the application of the maps and tables. Our current understanding of the inaccuracy in the data restricts the interpretation to an indication of likely relative density.

Due to steady increases in the numbers of poultry birds and poultry holdings in recent years, the data classification categories used in the maps of previous annual poultry population reports were felt to be increasingly unable to accurately represent the detail in the distribution of poultry across GB. Additionally, new government legislation came into effect from October 2024 requiring the registration of holdings with 1 or more birds. This was anticipated to lead to an increase in holdings for the 2025 report, which would further limit the effectiveness of the data classification categories used in previous reports. As such a review of these was conducted, and new data classification categories were utilised in the maps which allow for a great level of detail to be discerned by the reader. To aid comparison of the 2024 maps shown in this report with those in the 2023 report change

maps were created to show how much that map has changed from the previous year – these can be found in [Annex 4](#).

How accurate are the data?

The Great Britain Poultry Register (GBPR) (now incorporated within the Sam database) represents the statutory systematic record of the location, species, usual number of birds and seasonal variations, for all birds in Great Britain. Assessment of the GBPR data quality during a survey identified a significant percentage of holding records were ineligible for use in a study on avian influenza, which can be considered a proxy for percentage of inaccurate records. Eligibility varied between species, from fowl breeders with 20% ineligible to turkey breeders at 58%, with an overall average of 30% ineligible due to reasons around inaccurate data (no birds or less than the number specified, moved away/no longer in business or wrong class of birds). The causes of this inaccuracy are discussed in the quality statement ([Annex 1](#)).

Historically there was also some concern regarding the number of unregistered poultry holdings. Registration under the GBPR was only mandatory for holdings with greater or equal to 50 birds. Foot patrol investigations during notifiable outbreaks of highly pathogenic avian influenza have shown good representation of these larger holdings in kept databases. However, it has also confirmed the underrepresentation of holdings keeping less than 50 birds. These are generally referred to as smallholding or backyard poultry however some of these holdings may have some associated commercial activity. For further information please refer to the Data Quality Statement in [Annex 1](#).

A public consultation on proposed registration requirements for all bird keepers in GB was held from 7 March to 31 May 2023 aiming to address these concerns ([Summary of responses and government response - GOV.UK \(www.gov.uk\)](#)). The consultation has now concluded and following careful consideration of responses and taking into account government objectives to tackle outbreaks of notifiable avian diseases (such as bird flu) in kept birds, Defra, Scottish Government and Welsh Government have agreed to proceed with proposed changes to:

- extend registration to all kept birds, not just poultry, and reduce the threshold from 50 to 1.
- exempt psittacines and passerines (budgies, parrots, canaries and similar species) kept within a dwelling or in a dedicated 'bird house' without any access to the outside, from the mandatory registration requirement.
- mandate all keepers to review their records annually.

The proposed changes would be implemented in 2 phases. The mandatory registration requirements from late summer or early autumn 2024 and the mandatory annual updates 12 months afterwards. These changes will be reflected in next year's report where it is expected that there will be a large increase in smallholding premises in areas unaffected by Highly Pathogenic Avian Influenza although the increase in birds is expected to be limited.

What do the data not show?

The data and maps presented here do not show the seasonal variations the population undergoes across the year, instead these data represent the usual capacity of the holdings. For the reports produced since 2020 ([Poultry population in Great Britain: annual reports - GOV.UK](#)) information is broken down to individual species level for chickens, turkeys, ducks, geese and gamebirds. This dataset does not include details of wild birds or birds in zoological collections.

There is significant uncertainty in the accuracy of the information displayed. Limitations in the dataset are discussed in the supporting quality statement ([Annex 1](#)). The creation of maps from incomplete data results in a high risk of incomplete and or misleading information being portrayed. Similarly, population and holding density maps are displayed with different data classes and units in their respective legends and due care must be taken regarding their interpretation.

How were the maps produced?

The maps have been created using the kernel density function in ArcGIS software. This tool distributes population information over a defined radius, creating a smooth density surface. Two key parameters that require adjustment are the search radius distance and the size of the output surface grid. Discussion at the LDDG meetings informed these criteria, and their selection is recognised as a subjective process¹. A search radius of 20km was deemed sufficient to enable distinction between categories and a 1km grid square was used for the density surfaces themselves. The classification bins were limited to six, to aid in cross referencing areas of the map to the key. Comparison between the maps was optimised by assigning similar parameters between the species. However, further refinement of the parameters for each species dataset could represent the information more accurately.

Change maps in [Annex 4](#) were created using the Raster Calculator tools in ArcGIS Pro. This was done by subtracting the values of the 2023 density surface from the values of the 2024 density surface. Increases in density of birds or holdings is shown as warm colours (oranges-browns), and decreases in density of birds or holdings is shown as cold colours (blues-purples). The darker shades represent the larger changes, whereas lighter shades represent smaller changes.

¹ Pfeiffer, D. Spatial Analysis in Epidemiology, 2008. p47.

Table 1: Number of poultry holdings and number of birds by country in GB, based on July 2024 records, comparing with 2023 records. The number of poultry holdings and total number of poultry per county is provided in [Annex 2](#) and a reference map of all counties across GB is provided in [Annex 3](#).

Country	July 2023 Holdings	July 2024 Holdings	% Change	July 2023 Stock numbers	July 2024 Stock numbers	% Change
England	50,783	53,971	6.27%	328,081,379	327,174,443	-0.27%
Scotland	3,784	4,446	17.49%	32,457,464	32,560,658	0.31%
Wales	3,844	4,016	4.47%	25,079,085	25,553,240	1.89%
GB Total	58,411	62,433	6.88%	385,617,928	385,288,341	-0.08%

The reported total number of poultry in GB was just over 385.2 million, which was slightly reduced from the figure of 385.6 million poultry from 2023 records (Table 1). The reported total number of holdings, however, has increased from 58,411 in 2023 to 62,433 in this current report based on the 2024 records (Table 1 and [Annex 2](#)). This however is subject to the data quality issues addressed above, poultry numbers are dependent on poultry registration which may be affected by the presence of notifiable diseases in poultry. Notifiable disease investigations may force registration updates implying change or addition in poultry numbers that in reality were always present. In the event of notifiable avian disease occurrence, there is a statutory requirement to undertake a census and identify all poultry and captive bird keepers within a Protection Zone; it is likely that some unregistered holdings, particularly smallholding premises, will be registered by APHA as a result. This would likely increase the number of registered holdings whilst having a limited impact on the true number of animals. An investigation of the impact of this trend undertaken in June 2023 can be found in Annex C of the [Livestock Demographic Data Group: poultry population report - 2023](#).

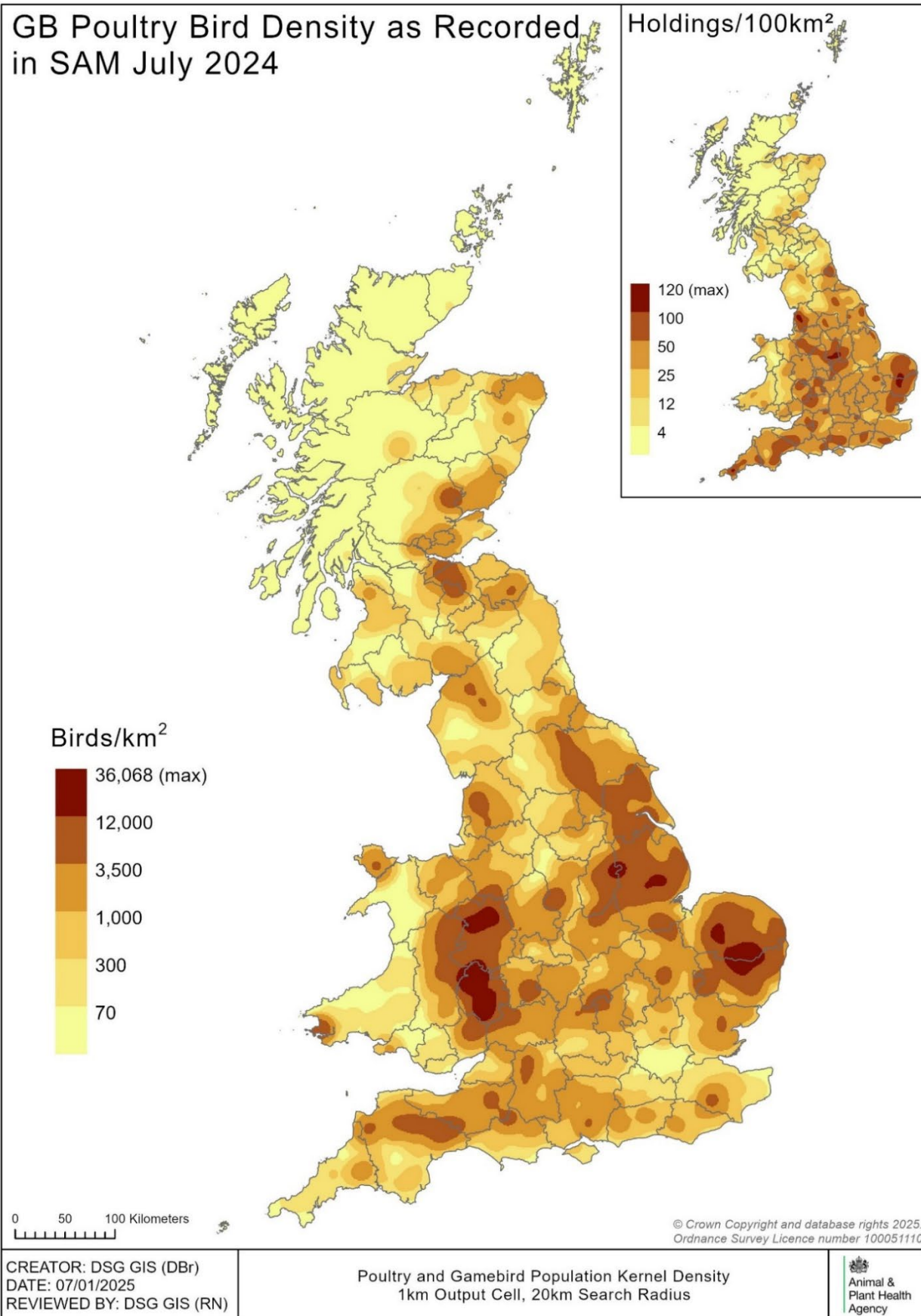


Figure 1: Poultry population density in GB based on July 2024 records. See [Annex 4](#) for changes from 2023 to 2024, to offset the lack of direct comparability of the 2023 report to new cut off values introduced in this report.

GB Poultry Holding Density as Recorded in SAM July 2024

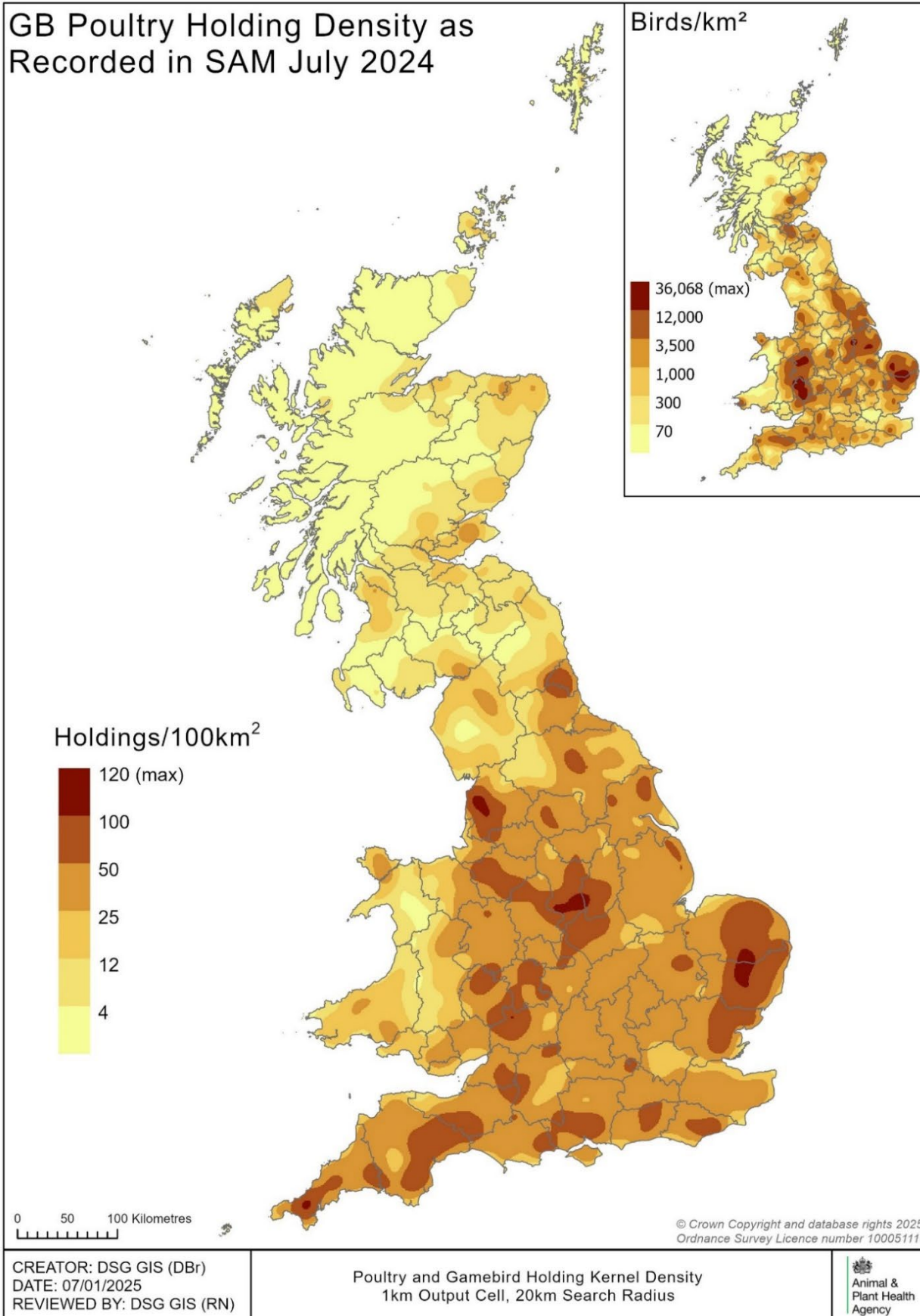


Figure 2: Poultry holding density in GB based on July 2024 records. See [Annex 4](#) for changes from 2023 to 2024, to offset the lack of direct comparability of the 2023 report to the new cut off values introduced in this report.

GB Chicken Bird Density as Recorded in SAM July 2024

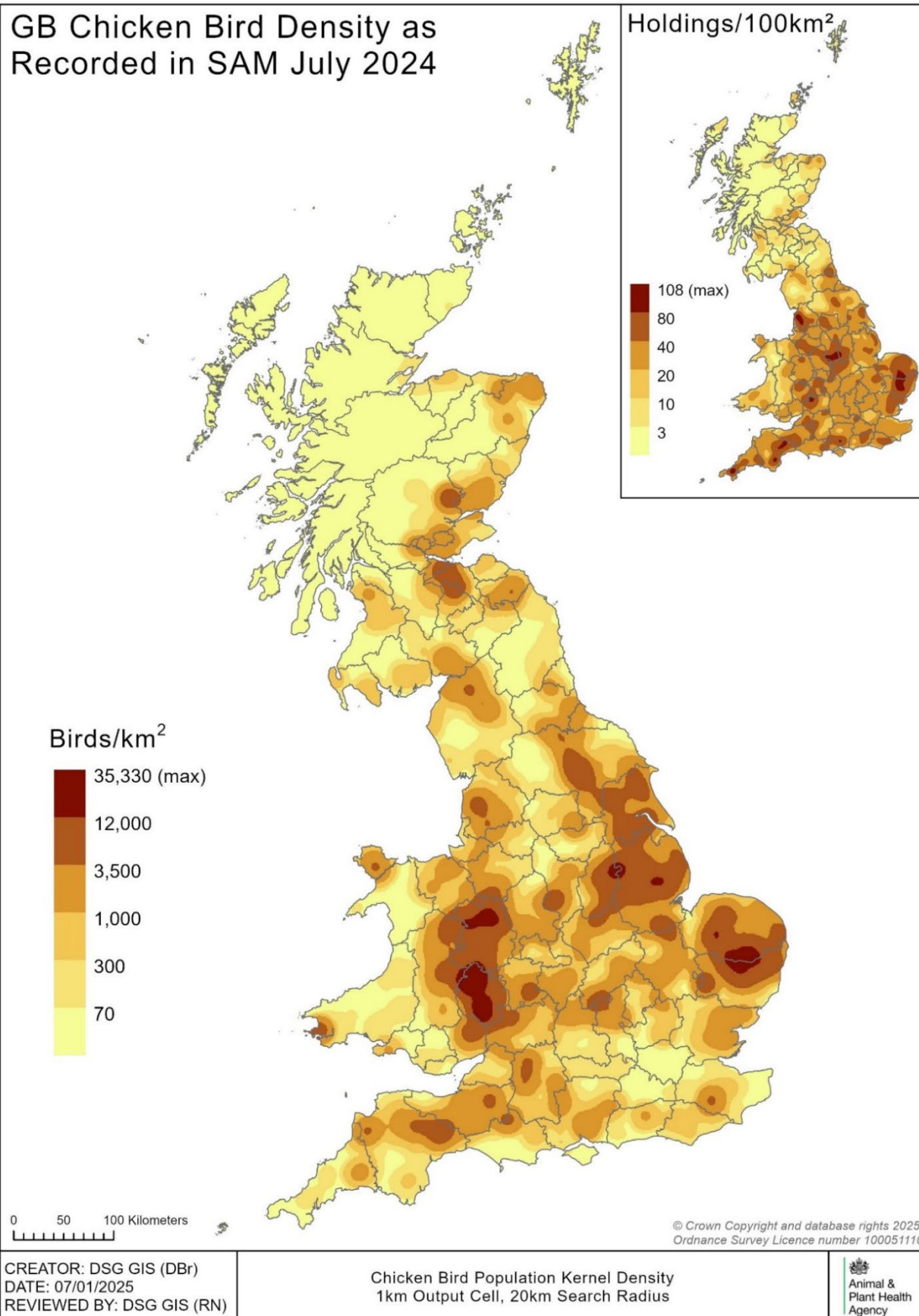


Figure 3: Chicken population density in GB based on July 2024 records. See [Annex 4](#) for changes from 2023 to 2024, to offset the lack of direct comparability of the 2023 report to the new cut off values introduced in this report.

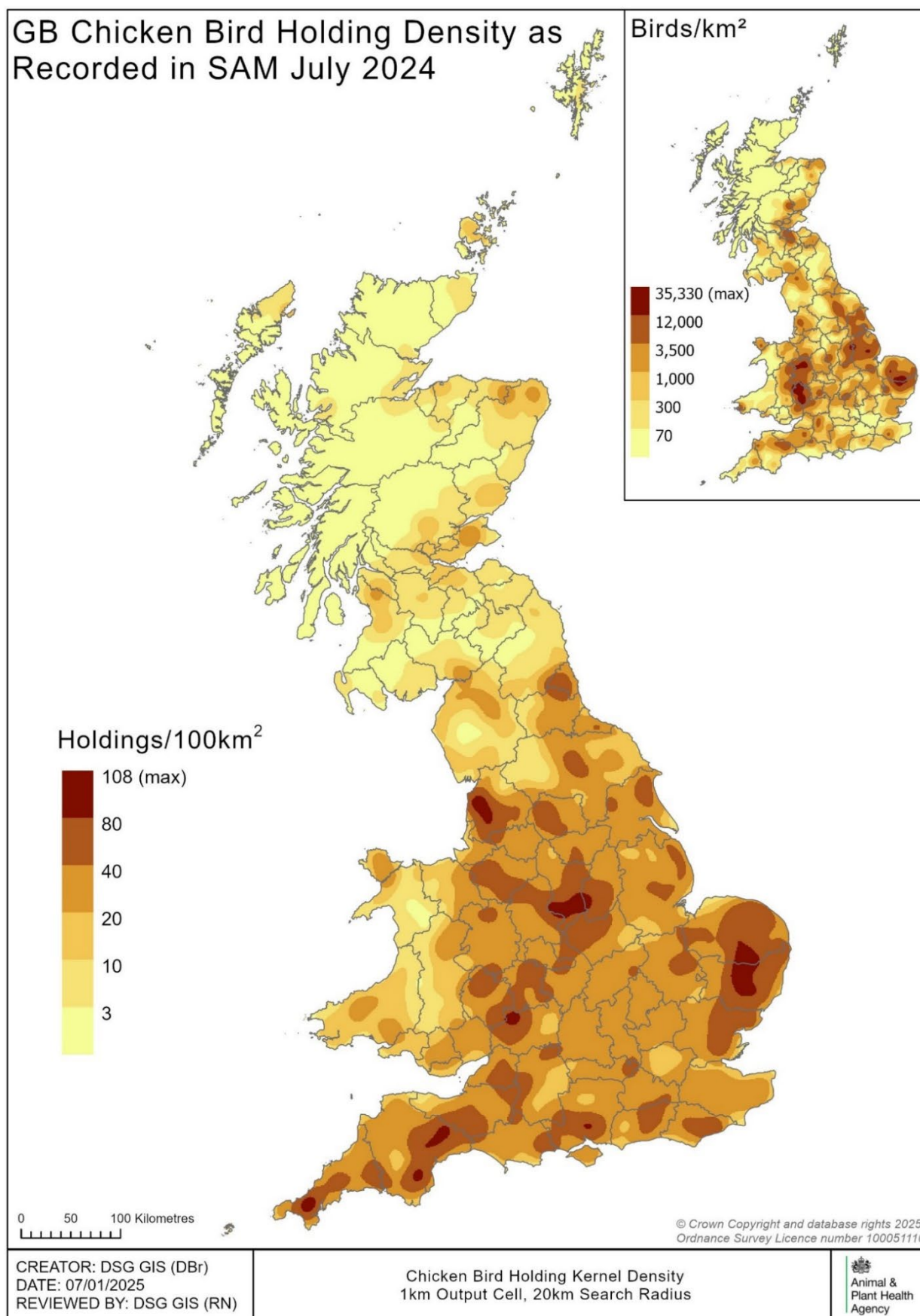


Figure 4: Chicken holding density in GB based on July 2023 records. See [Annex 4](#) for changes from 2023 to 2024, to offset the lack of direct comparability of the 2023 report to the new cut off values introduced in this report.

GB Ducks and Geese Bird Density as Recorded in SAM July 2024

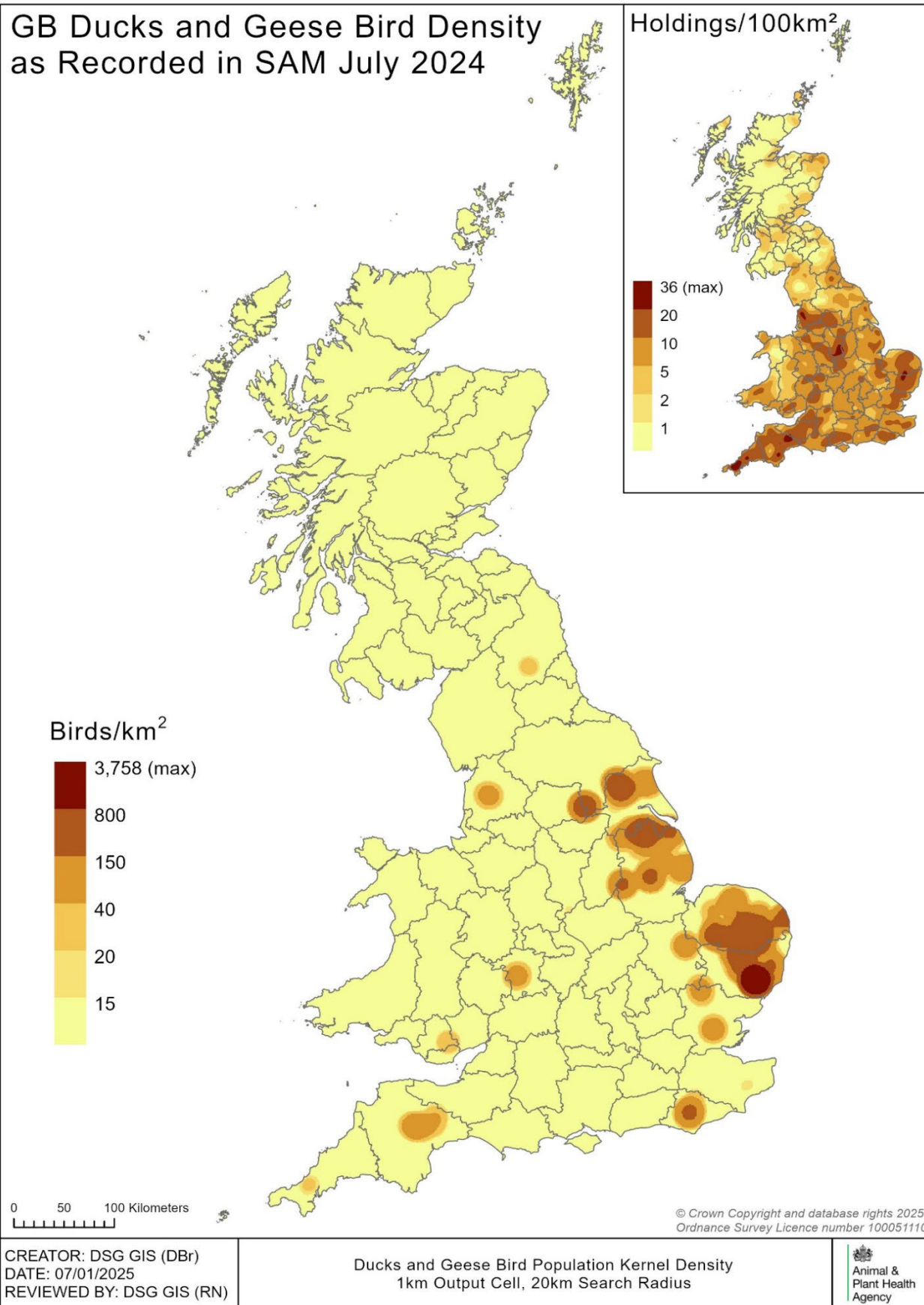


Figure 5: Duck and Goose population density in GB based on July 2024 records. See [Annex 4](#) for changes from 2023 to 2024, to offset the lack of direct comparability of the 2023 report to the new cut off values introduced in this report.

GB Ducks and Geese Bird Holding Density as Recorded in SAM July 2024

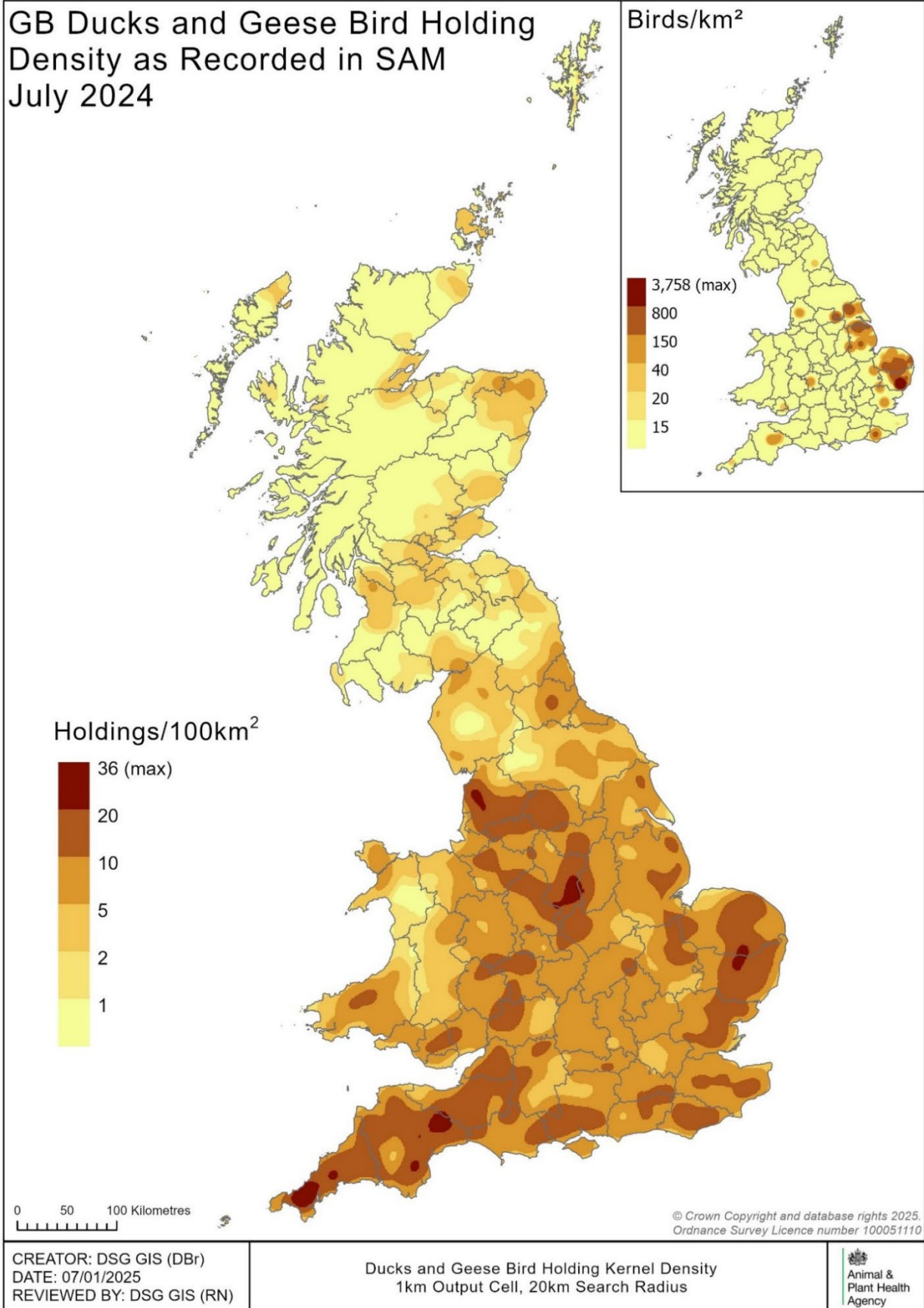


Figure 6: Duck and Goose holding density in GB based on July 2024 records. See [Annex 4](#) for changes from 2023 to 2024, to offset the lack of direct comparability of the 2023 report to the new cut off values introduced in this report.

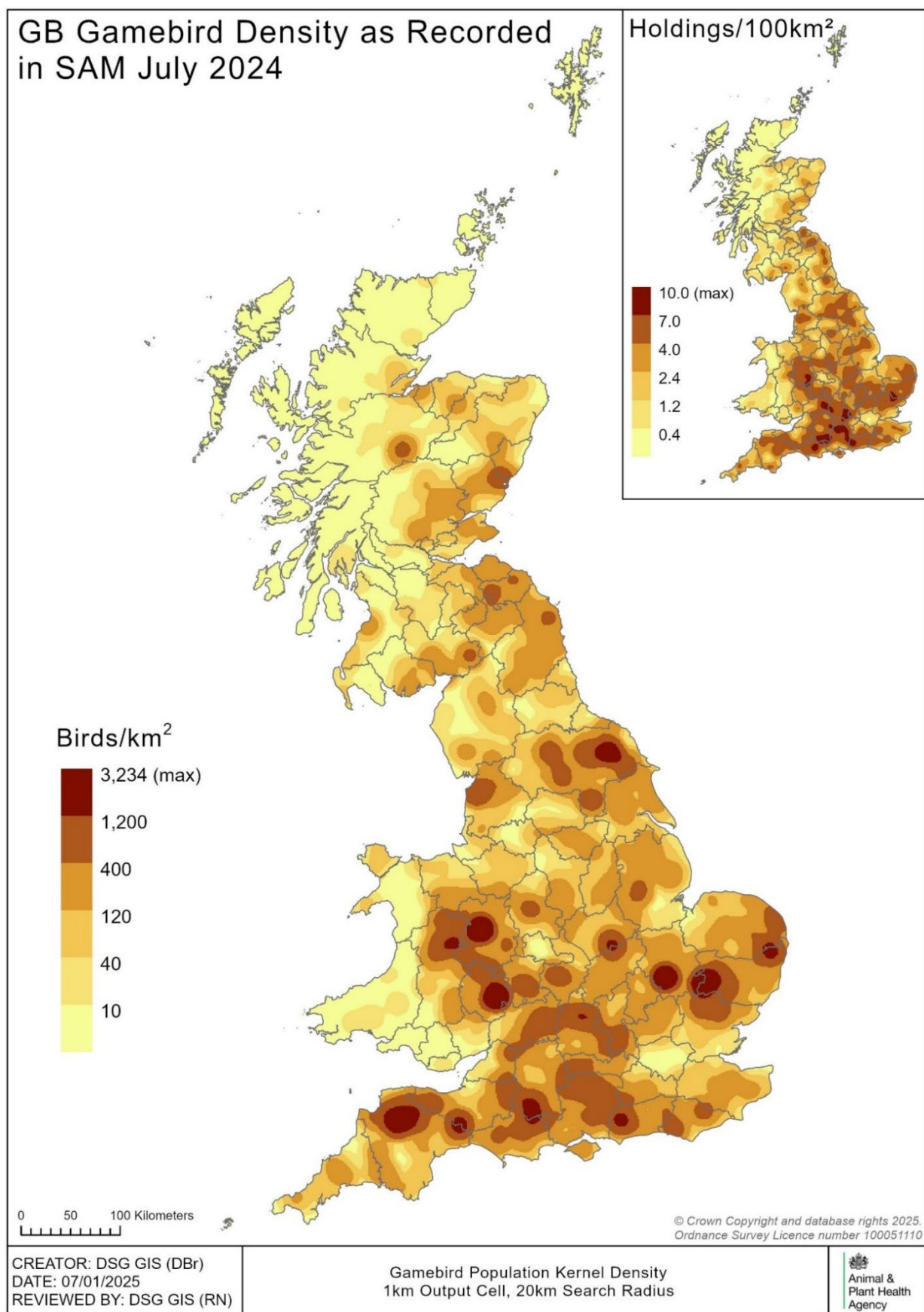


Figure 7: Gamebird population density in GB based on July 2024 records. See [Annex 4](#) for changes from 2023 to 2024, to offset the lack of direct comparability of the 2023 report to the new cut off values introduced in this report.

GB Gamebird Holding Density as Recorded in SAM July 2024

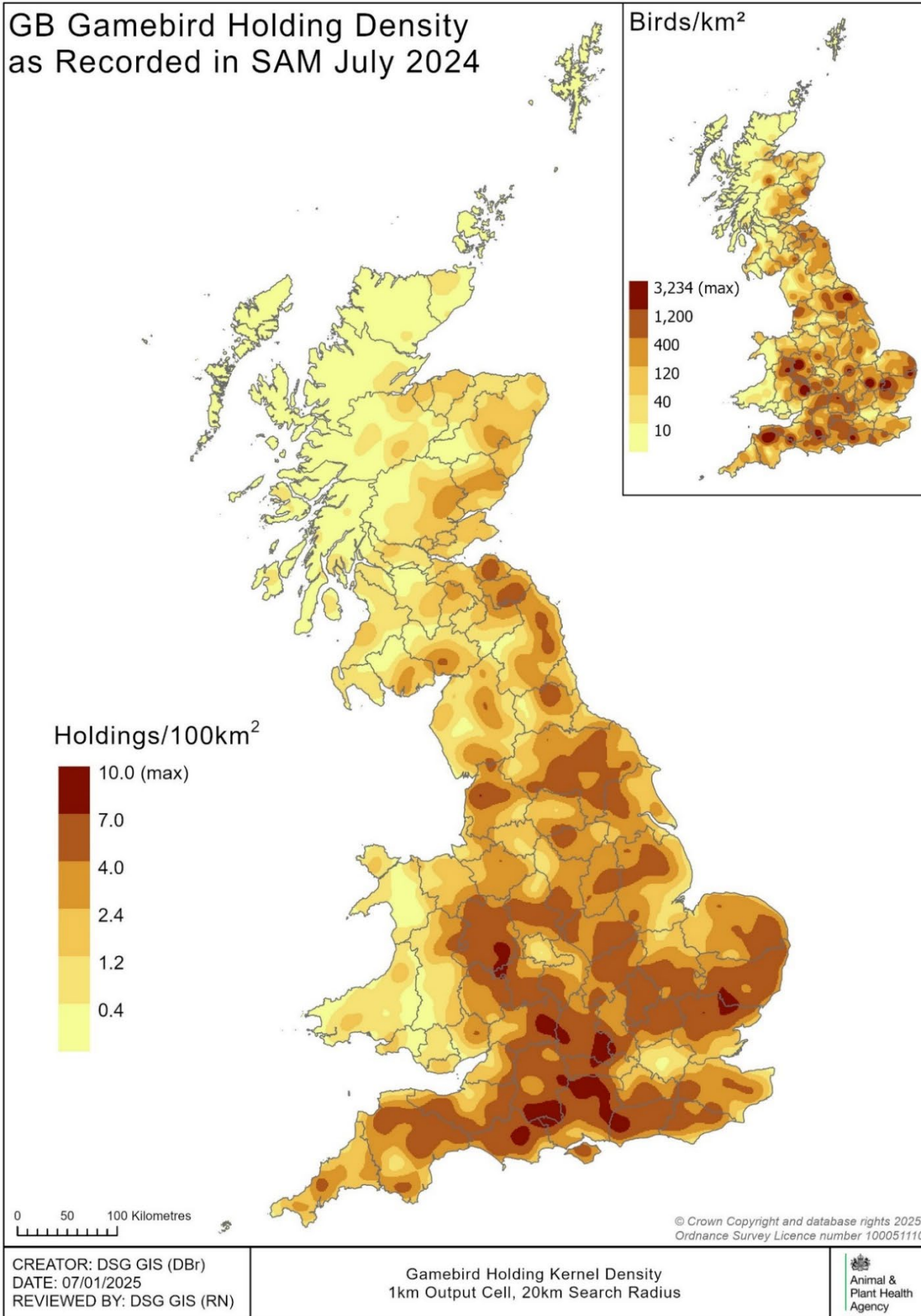


Figure 8: Gamebird holding density in GB based on July 2024 records. See [Annex 4](#) for changes from 2023 to 2024, to offset the lack of direct comparability of the 2023 report to the new cut off values introduced in this report.

GB Turkey Bird Density as Recorded in SAM July 2024

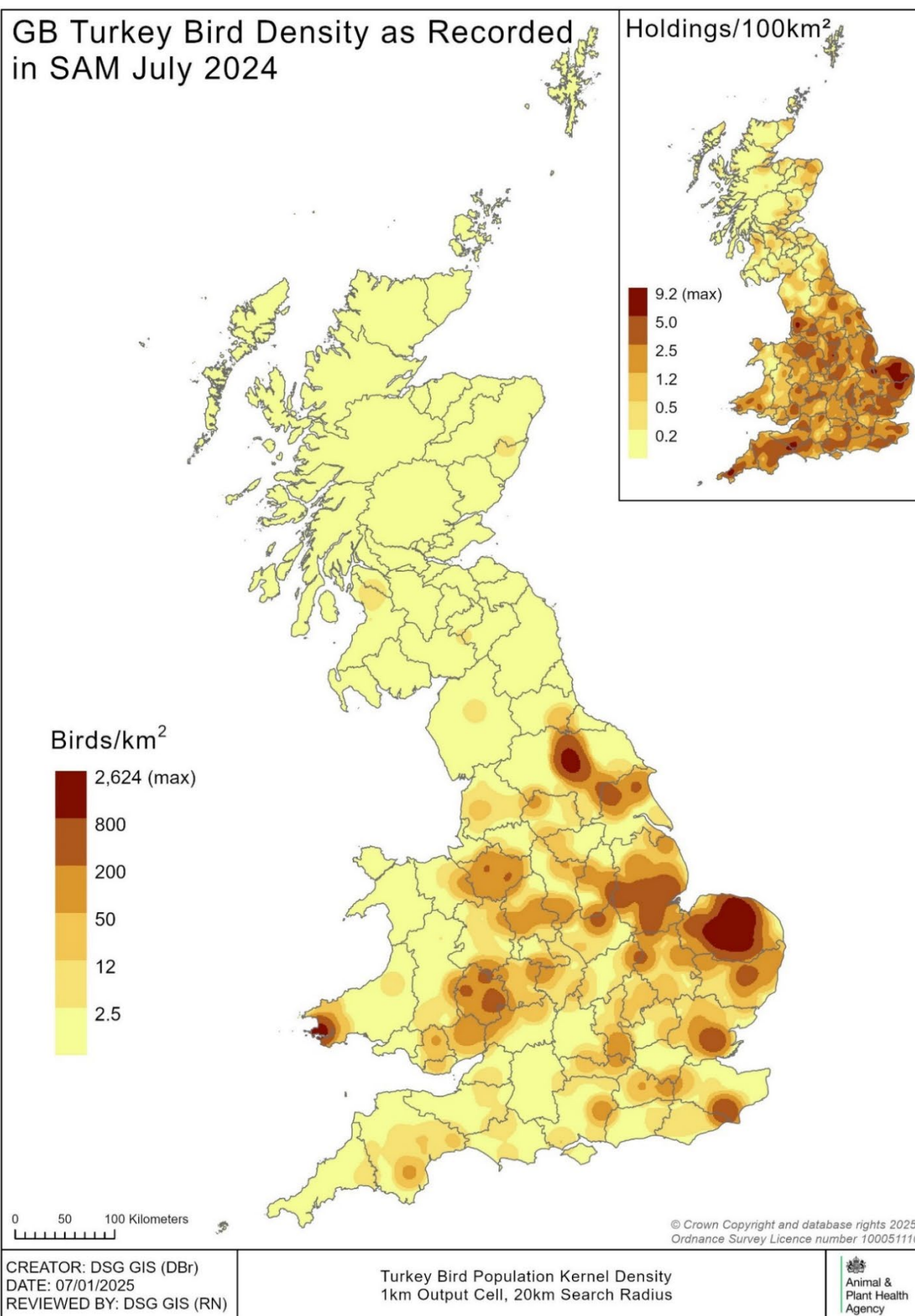


Figure 9: Turkey population density in GB based on July 2024 records. See [Annex 4](#) for changes from 2023 to 2024, to offset the lack of direct comparability of the 2023 report to the new cut off values introduced in this report.

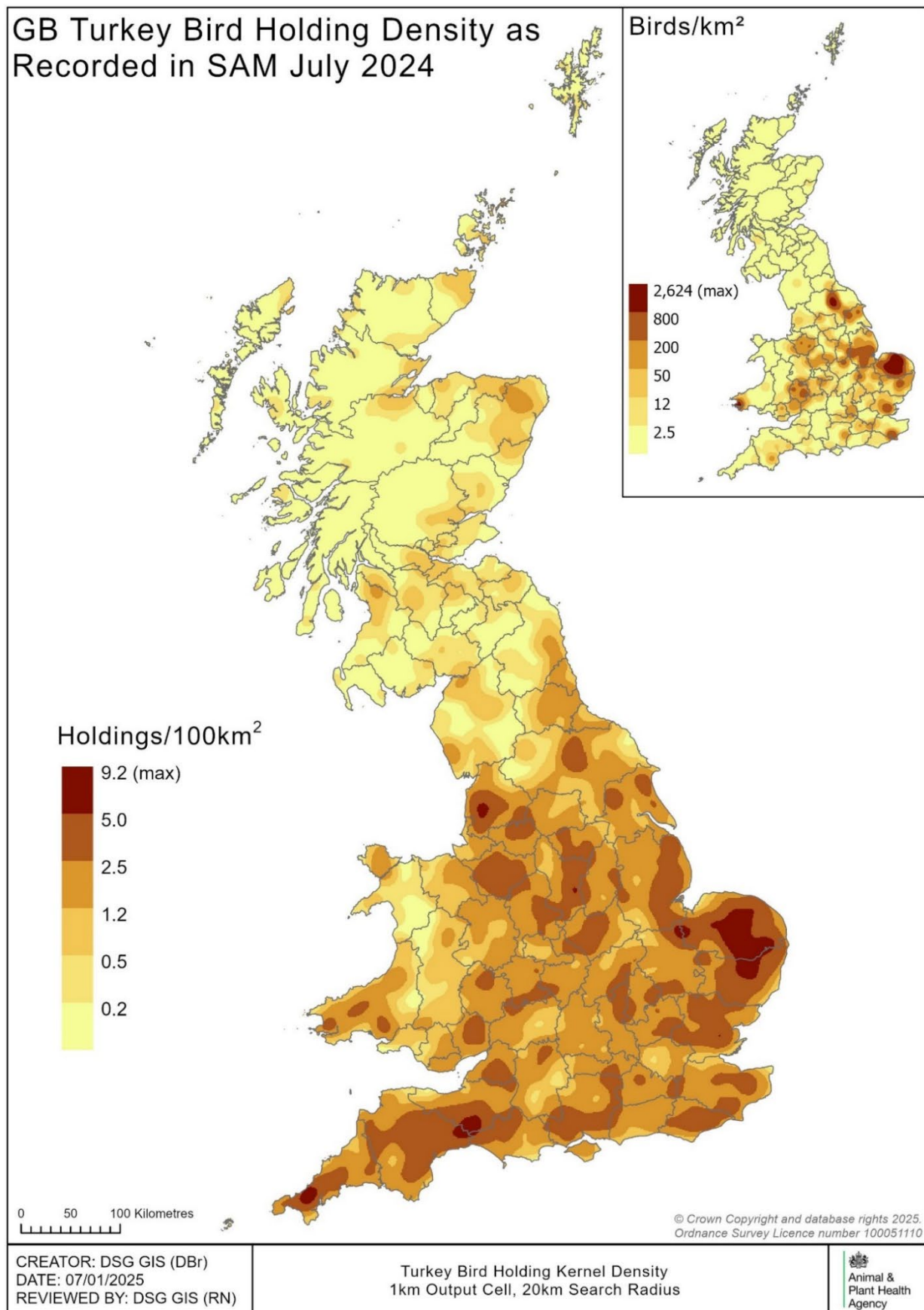


Figure 10: Turkey holding density in GB based on July 2024 records. See [Annex 4](#) for changes from 2023 to 2024, to offset the lack of direct comparability of the 2023 report to the new cut off values introduced in this report.

Acknowledgements

The LDDGs are grateful to Defra, Welsh Government, Scottish Government and APHA Data System Group (DSG) staff who handled the Great Britain Poultry Register data (now incorporated within the Sam database) and for their assistance in producing this report.

References

Charpentier, A., & Gallic, E. (2016). Kernel density estimation based on Ripley's correction. *Geoinformatica*, 20(1), 95–116. <https://doi.org/10.1007/s10707-015-0232-z>

Pfeiffer, D. U., Robinson, T. P., Stevenson, M., Stevens, K. B., Rogers, D. J., & Clements, A. C. A. (2008). *Spatial Analysis in Epidemiology* (1st ed.). Oxford University Press.

Annex 1: Data quality statement for poultry (Jan-25)

Introduction

This statement provides an overview of the quality of the data used to underpin the kernel density holding and livestock maps. This statement is written in the context of the data being used to provide an overview of the livestock demographics within Great Britain. The statement may not necessarily relate to data quality for other purposes.

Overview and purpose of the source data

The source data is from APHA's Sam database as in July 2024. The dataset holds information from registration of poultry holdings ≥ 50 birds. Premises with less than 50 birds were encouraged to register and so a proportion of these premises will be included within the Sam extract. As of October 2024, all poultry premises (≥ 1) are required to register.

Relevance of Data

The degree to which data meets user needs in terms of currency, geographical coverage, content and detail

Spatial coverage: The data cover Great Britain

Temporal coverage: Registrations have been recorded in the GBPR since 2008. The data are an extract from APHA's Sam data source which incorporated the GBPR data after it's decommissioning in April 2013.

Key data items available: The dataset includes information on species, rearing method, industry sector and housing type. A metadata document is available with more detailed information from APHA Data Systems Group.

Timeliness

The degree to which data represent reality from the required time point

How often are data collected? Data were captured continuously from submissions by poultry holding owners that were received by the GBPR team since the start of the register up to its point of decommission and then subsequently by Cardiff Customer Service Centre (CSC) for incorporation into Sam.

When do data become available? Data are available on request from the Management Information and Data Architecture Services (MIDAS) team in Worcester.

Were the data updated often? The onus under statute is on keepers to update significant changes, within 30 days. Prior to 2013 keepers could update their own data and GBPR personnel performed data-maintenance. Since its incorporation into Sam, data can no longer be directly updated by the owner and additionally has restricted ongoing data maintenance. Keepers are encouraged to contact Cardiff CSC, to update incorrect or incomplete data. Surveys relying on Sam demographic data such as the EU Avian Influenza Survey provide feedback on data inaccuracies to Cardiff CSC for amendment.

Accuracy and precision

The extent of data error and bias and how well data portrays reality

How were the data collected? Data are entered by the Cardiff CSC from submissions of a registration form which is mandatory for holdings with ≥ 50 birds. However, examination of the Sam extract shows that about 50% of registrations are for holdings with < 50 birds.

Sample & collection size: The dataset lists 69,782 holdings. Of these, 1,038 have 0 stock recorded and these were removed from the data mapped. 48,961 premises have between 1 and 49 birds (all species).

What steps have been taken to minimise processing errors? We are unaware of any steps taken to minimise errors in the dataset. Work in other projects indicate that approximately a third of the premises in the GBPR do not contain the poultry types (referring to either production or species) as listed: 38% of the 2024 avian influenza poultry survey (223 eligible out of 594) of premises contacted were eligible for sampling (some were ineligible for practical reasons such as seasonal variation in access to birds, unable

to contact or game birds already released). However, due to the large number of submissions, it is not possible to take steps to minimise these errors once entered into the database.

What are the non-reporting or non-response rates? We do not have information on non-reporting or non-response rates for holdings in Sam. It remains a legal requirement for flocks of 50 or more birds to be registered; this requirement has been promoted through industry sectors, and the registration forms (for keepers of both more than 50, and fewer than 50 birds) were updated in January 2019.

Are any parts of the population unaccounted for in the data collection? Holdings with <50 birds are not required to register with Sam hence this “smallholding” population, is not fully accounted for, and information held almost certainly only represents a snapshot of the smallholding population. For the purposes of this report, all holdings with <50 birds are referred to as “smallholding” premises although the purposes

Comparability

How well these data can be compared with data taken from the same dataset and with similar data from other sources

Within dataset comparability: The format and data analysis methods are similar between years.

Other dataset comparability: How does the data stored compare to data stored in other data sources? The Agricultural survey only targets holdings of over 1000 birds and last ran a full census in 2010, though little work has been done by the LDDG to compare the GBPR with this dataset.

Coherence

The degree to which data can be or have been merged with other data sources

How consistent are the data over time? If there are differences, what are they and what is their impact? This has not been accurately assessed. More recent extracts indicate the presence of fewer holdings, but it is unknown if this is representative of the population or an artefact due to inaccurate data. This might be clarified if there was a mechanism for owners to update their poultry numbers on a regular basis.

Have there been changes to the underlying data collection? We are unaware of any changes in data capture methods but do not expect any changes to be significant or impact our use of the data.

Have any real-world events impacted on the data since the previous release? How have these impacts on the data been managed? The introduction of Sam has led to a switch in April 2013 to record data in Sam instead of GBPR. It would be appropriate to

mention the largest and longest ongoing HPAI outbreak seasons since 26th October 2021. The HPAI outbreak season for 2021 to 2022 ended with a total of 152 confirmed infected premises, followed immediately by the 2022 to 2023 season which ended on the 30th of September 2023 with a total of 207 confirmed infected premises (160 England, 39 Scotland and 8 Wales). The HPAI outbreak season 2023 to 2024 ended with a total of 8 confirmed cases. Although the report recognises their significant importance it is unlikely that the impact can be quantified on the population data. Incidents of HPAI cause forced registration of smallholding premises within 3km of the affected holding. This can increase bias where registrations may be significantly higher in affected areas. This was explored in more depth in Annex C of the [Livestock Demographic Data Group: poultry population report - 2023](#).

What other data sources in society report similar information? How do these data sources compare? Aside from Sam and the Agricultural survey, the Egg Marketing Inspectorate (EMI) database may hold comparable information relating to laying flocks.

Interpretability

How well the data are understood and utilised appropriately

Is there a particular context that this data needs to be considered within? See comments above.

What other information is available to help users better understand this data source? Further information on data held in GBPR can be obtained from Cardiff CSC who now hold the GBPR data. The MIDAS Team in Worcester can be contacted to obtain an extract of this data.

Are there any ambiguous or technical terms that may need further explanation? The UK poultry population is comprised of different poultry species and production types, as follows:

- Chickens - breeder, layer and broiler flocks.
- Turkeys - fattener (meat-type) and breeder flocks.
- Ducks - breeder, meat and layer flocks.
- Geese - breeder, meat and layer flocks.
- Feathered game classified as poultry - breeders and rearer flocks of pheasants, partridges and ducks reared for shooting.
- Other minor poultry species including, guinea fowl, quail, pigeons reared for meat, ostriches, emus, rheas.

Other kept species (aviary; bird of prey; racing pigeons) and birds in zoo collections are not included within the scope of this document (not covered by the definition of 'poultry'), nor wild birds. Feathered gamebirds are considered 'wild' once released.

Accessibility

The availability of relevant information and access to these data in a convenient and suitable manner

What data are shared and with whom? Data must be aggregated to at least a county level before publishing so individual farms cannot be identified (e.g. by CPH or postcode). Also estimates based on less than five holdings should not be used as this would breach confidentiality. A confidentiality agreement is required for data that is not publicly available. Some data can be obtained from APHA Cardiff CSC. APHA Data Systems Group has a copy of the final extract.

Contact details for data source queries: customerregistration@apha.gov.uk

Animal and Plant Health Agency (APHA)
Cardiff Specialist Service Centre
Poultry Data Team
Government Buildings
Cardiff Edge Business Park
Longwood Drive
Cardiff
CF14 7YT

Agricultural Survey England: Farming-statistics@defra.gov.uk

Agricultural Survey Wales: Stats.agric@wales.gov.uk

Agricultural Survey Scotland: agric.stats@scotland.gov.uk

Annex 2: Number of poultry holdings and number of poultry per county

Table 2: Total number of poultry holdings and number of birds per county for England, based on July 2024 records. Data for counties with 6 or less holdings have been excluded from this table for data protection reasons.

County	Number of poultry holdings	Number of poultry stock numbers
Avon	674	1,034,039
Bedfordshire	425	1,361,475
Berkshire	473	775,155
Buckinghamshire	600	3,053,535
Cambridgeshire	1,196	5,338,297
Cheshire	1,232	3,972,516

Cleveland	303	746,187
Cornwall	2,151	1,622,571
Cumbria	1,041	6,499,174
Derbyshire	1,667	4,720,808
Devonshire	3,534	12,329,481
Dorset	1,151	2,034,303
Durham	678	2,367,140
East Sussex	894	1,459,518
Essex	1,873	5,440,150
Gloucestershire	1,317	6,217,153
Greater London	343	27,498
Greater Manchester	536	770,335
Hampshire	1,837	5,288,717
Herefordshire	1,067	35,490,727
Hertfordshire	537	1,123,428
Humberside	1,489	18,809,578
Isle of Wight	204	127,100
Isles of Scilly	22	2,227
Kent	1,272	3,096,340
Lancashire	1,823	6,248,839
Leicestershire	1,152	4,993,551
Lincolnshire	2,132	37,401,715
Merseyside	188	582,352
Norfolk	3,287	34,257,469
North Yorkshire	2,142	18,229,351
Northamptonshire	814	4,410,571
Northumberland	534	1,350,866
Nottinghamshire	1,025	9,105,886
Oxfordshire	880	2,956,070
Shropshire	1,256	29,545,478
Somerset	1,556	8,340,754
South Yorkshire	553	498,141
Staffordshire	1,237	4,871,602

Suffolk	2,600	23,062,782
Surrey	685	486,641
Tyne & Wear	527	51,386
Warwickshire	699	3,303,292
West Midlands	378	113,910
West Sussex	870	1,720,783
West Yorkshire	883	1,689,084
Wiltshire	1,277	6,242,629
Worcestershire	957	4,003,839

Table 3: Total number of poultry holdings and number of birds per county for Scotland, based on July 2024 records. Data for counties with 6 or less holdings have been excluded from this table for data protection reasons.

County	Number of poultry holdings	Number of poultry stock numbers
Aberdeenshire	513	2,818,669
Angus	228	2,505,866
Argyll	100	67,523
Ayrshire	295	1,342,243
Banffshire	151	621,577
Berwickshire	125	2,982,087
Bute	14	3,534
Caithness	74	38,412
Clackmannanshire	56	841,797
Dumbartonshire	20	1,626
Dumfriesshire	283	2,401,191
East Lothian	84	532,909
Fife	327	1,631,059
Inverness-shire	203	380,705
Kincardineshire	73	925,194
Kinross	29	1,140,714
Kirkcudbright	122	747,473
Lanarkshire	147	417,702
Midlothian & Edinburgh	106	2,627,601
Moray	133	358,188
Nairn	25	89,605
Orkney	188	7,668
Peebles	56	3,283,221
Perth	291	3,426,457
Renfrew	58	6,398

Ross & Cromarty	308	265,868
Roxburgh	78	447,493
Selkirk	23	297,350
Shetland	74	2,240
Stirling	81	13,677
Sutherland	54	19,964
West Lothian	51	1,483,579
Wigtown	76	831,068

Table 4: Total number of poultry holdings and number of birds per county for Wales, based on July 2024 records. Data for counties with 6 or less holdings have been excluded from this table for data protection reasons.

County	Number of poultry holdings	Number of poultry stock numbers
Clwyd	539	2,745,488
Dyfed	1,021	3,312,683
Gwent	433	3,458,398
Gwynedd	591	2,407,936
Mid Glamorgan	282	120,972
Powys	866	12,958,970
South Glamorgan	119	74,509
West Glamorgan	165	474,284

Annex 3: GB Counties Reference map



Annex 4: GB Poultry density change maps from July 2023 to July 2024

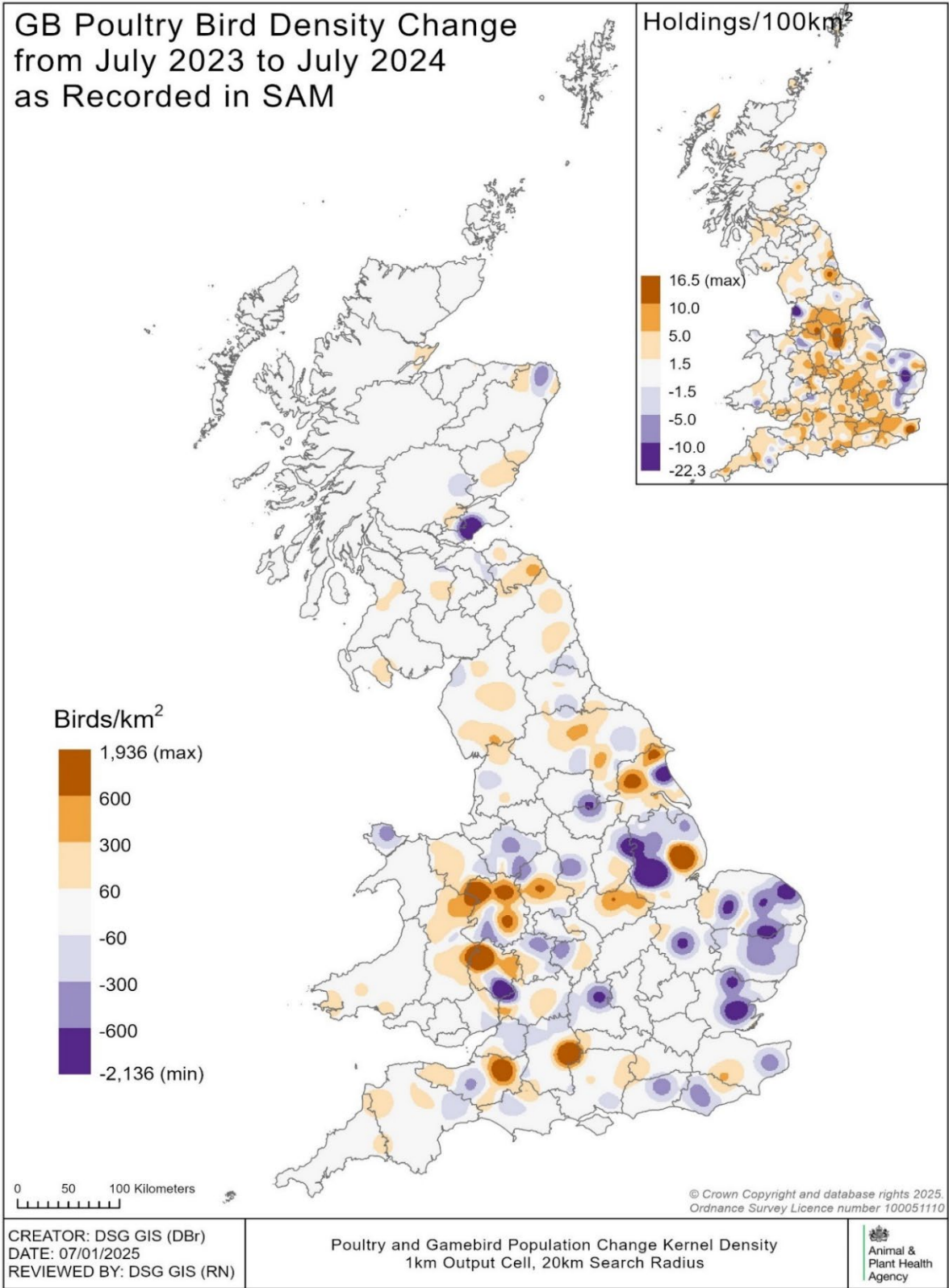


Figure 11 GB Poultry population density change from July 2023 to July 2024. [How were the maps produced?](#)

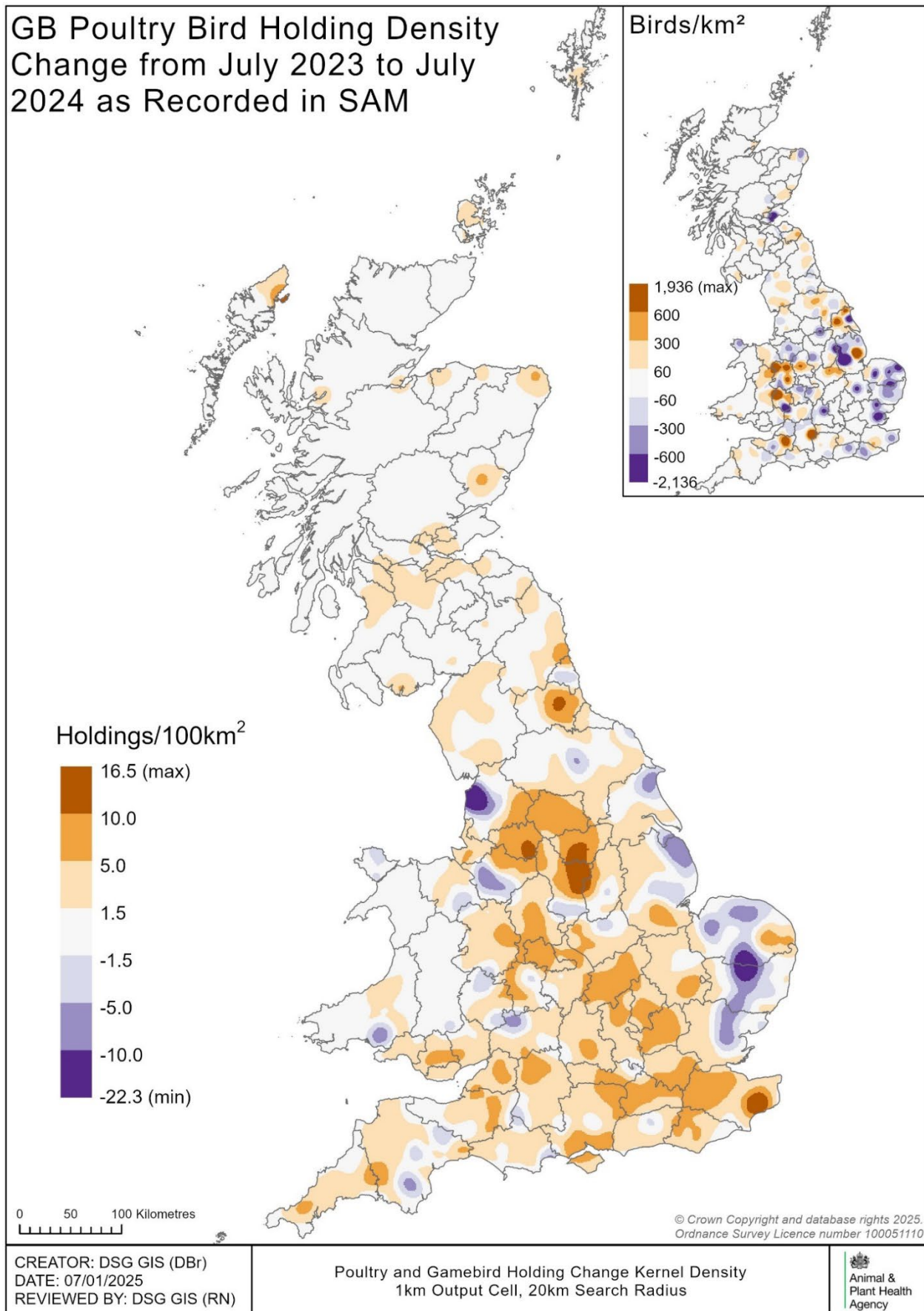


Figure 12 GB Poultry holding density change from July 2023 to July 2024. [How were the maps produced?](#)

GB Chicken Bird Density Change from July 2023 to July 2024 as Recorded in SAM

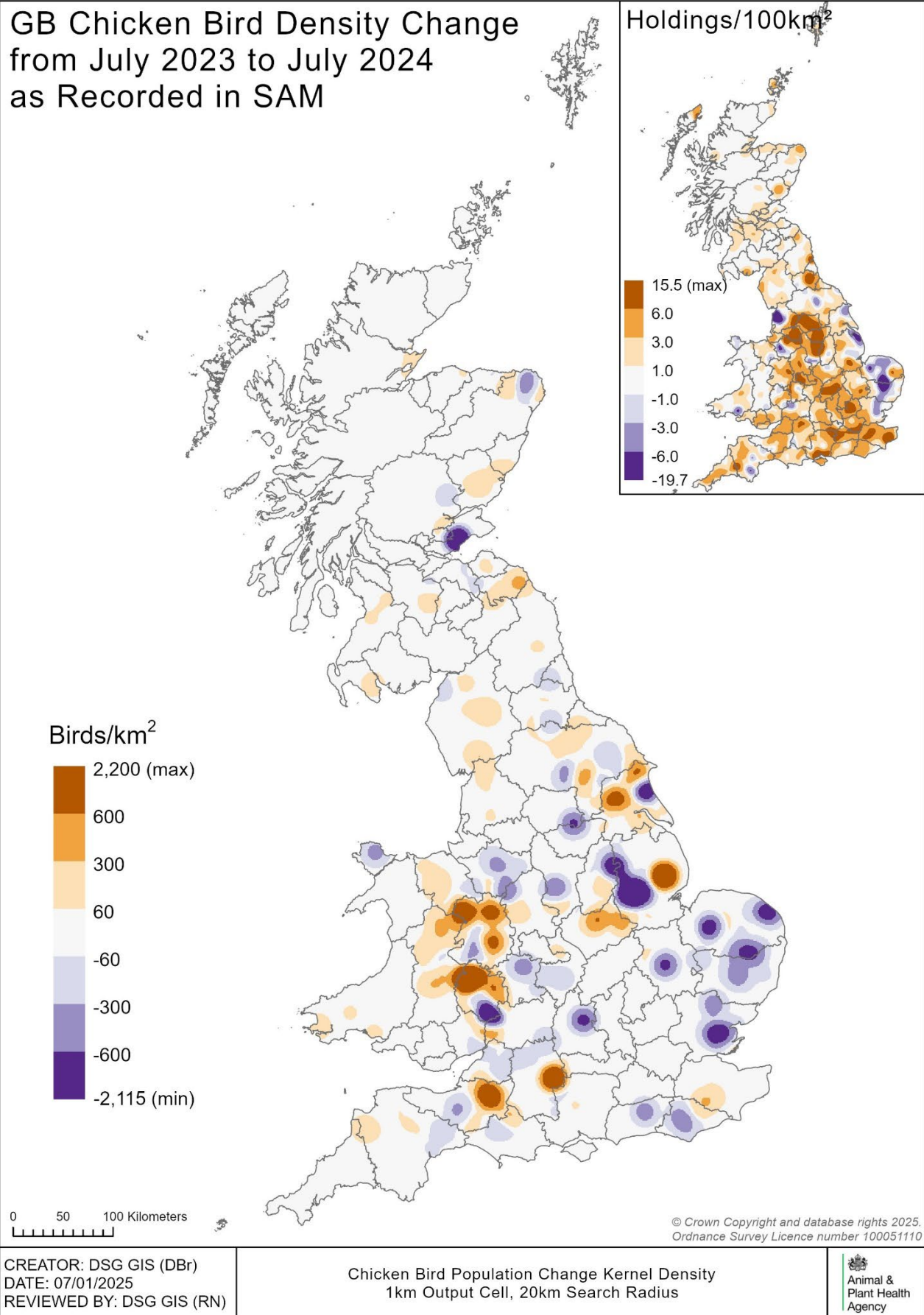


Figure 13 GB Chicken population density change from July 2023 to July 2024. [How were the maps produced?](#)

GB Chicken Bird Holding Density Change from July 2023 to July 2024 as Recorded in SAM

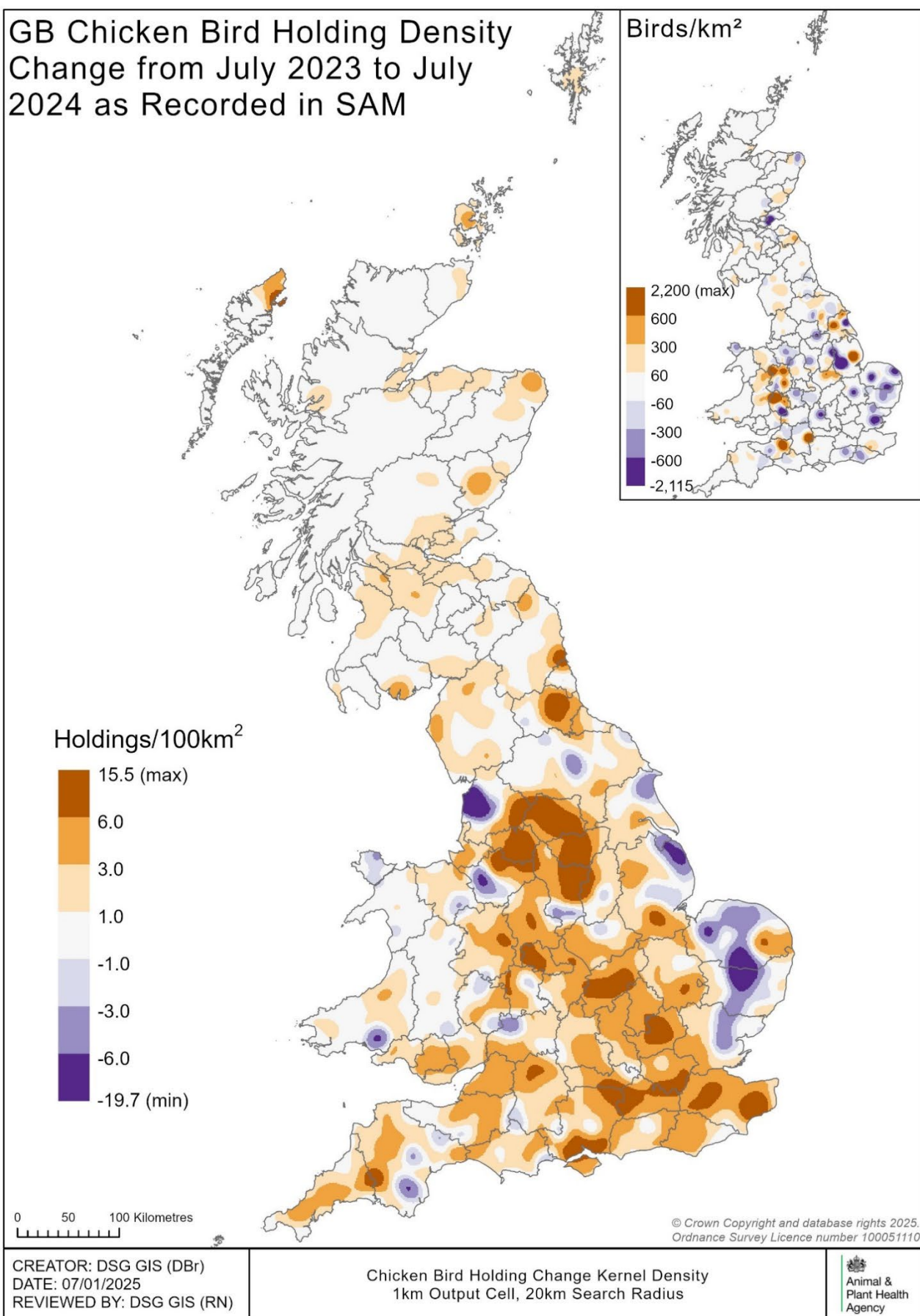


Figure 14 GB Chicken holding density change from July 2023 to July 2024. [How were the maps produced?](#)

GB Ducks and Geese Bird Density Change from July 2023 to July 2024 as Recorded in SAM

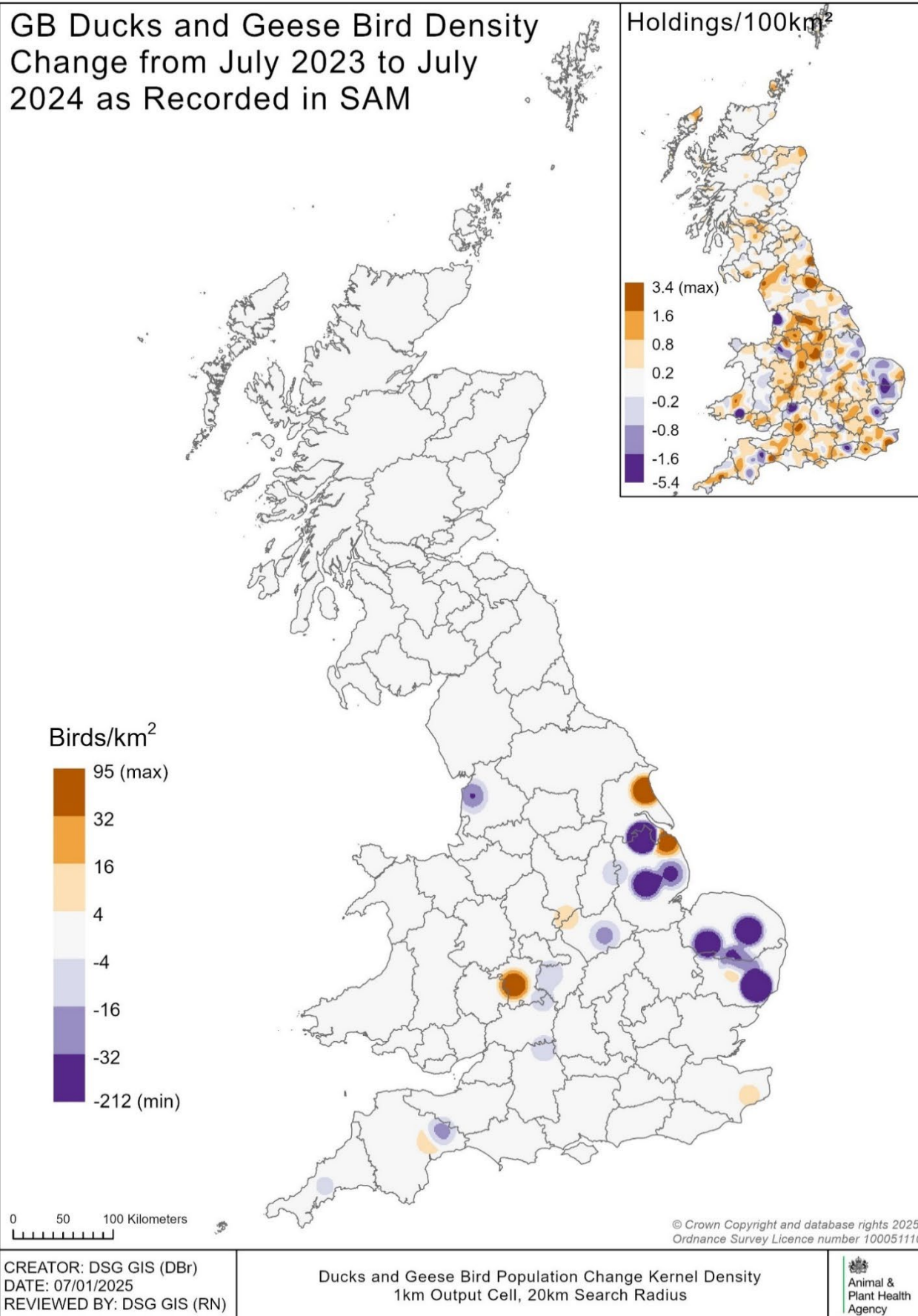


Figure 15 GB Ducks and Geese population density change from July 2023 to July 2024.
[How were the maps produced?](#)

GB Ducks and Geese Bird Holding Density Change from July 2023 to July 2024 as Recorded in SAM

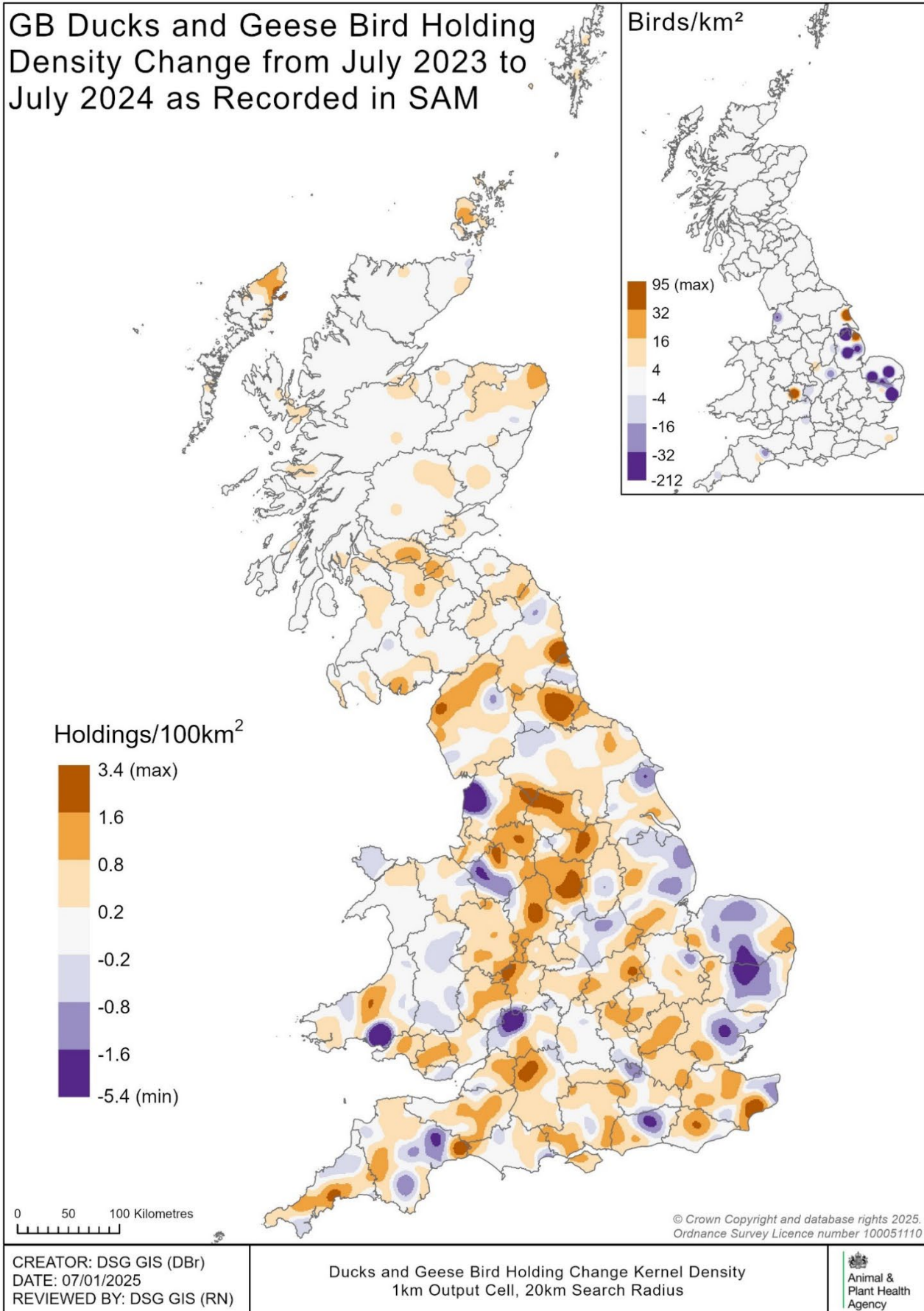


Figure 16 GB Ducks and Geese holding density change from July 2023 to July 2024. [How were the maps produced?](#)

GB Gamebird Density Change from July 2023 to July 2024 as Recorded in SAM

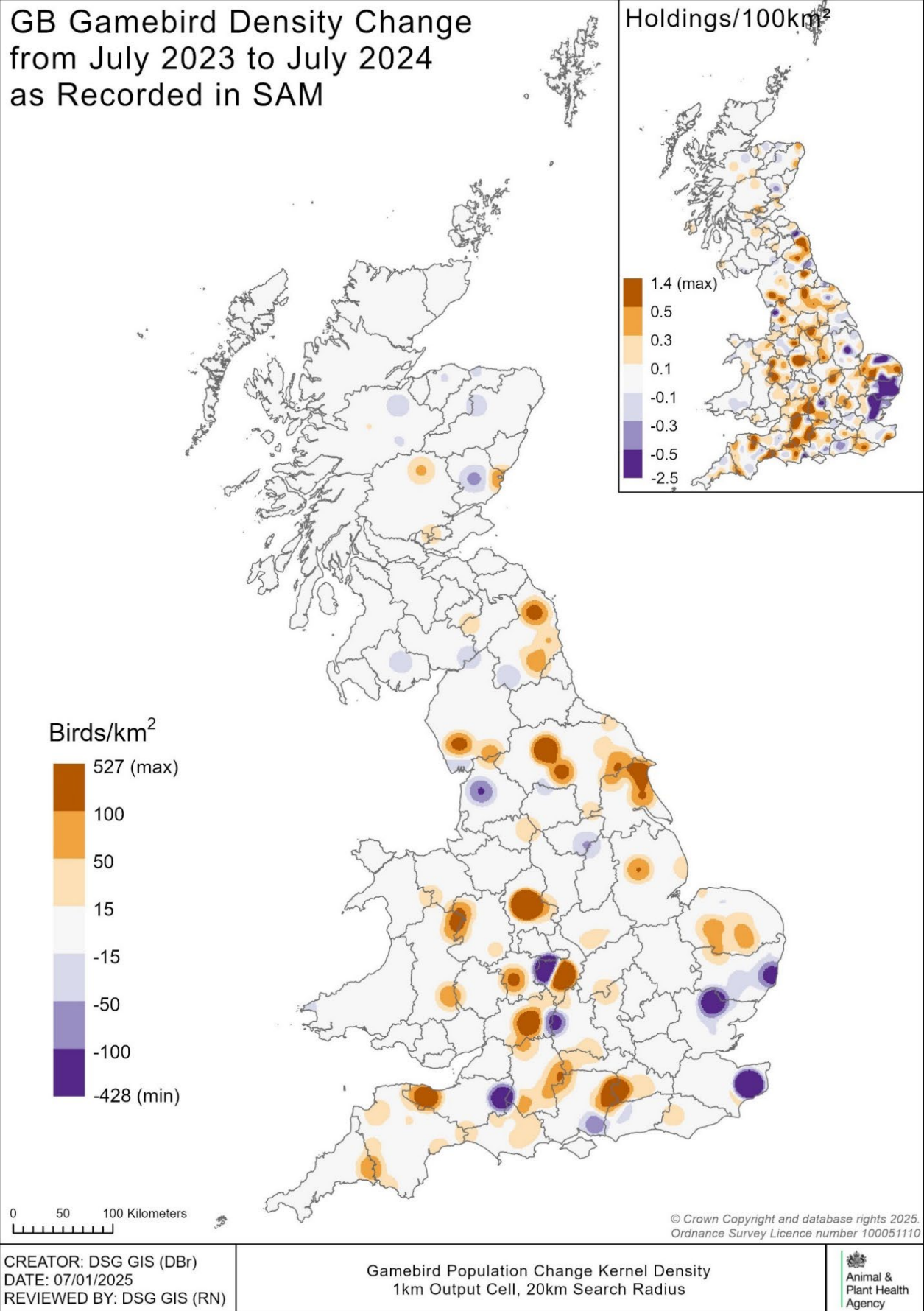


Figure 17 GB Gamebird population density change from July 2023 to July 2024. [How were the maps produced?](#)

GB Gamebird Holding Density Change from July 2023 to July 2024 as Recorded in SAM

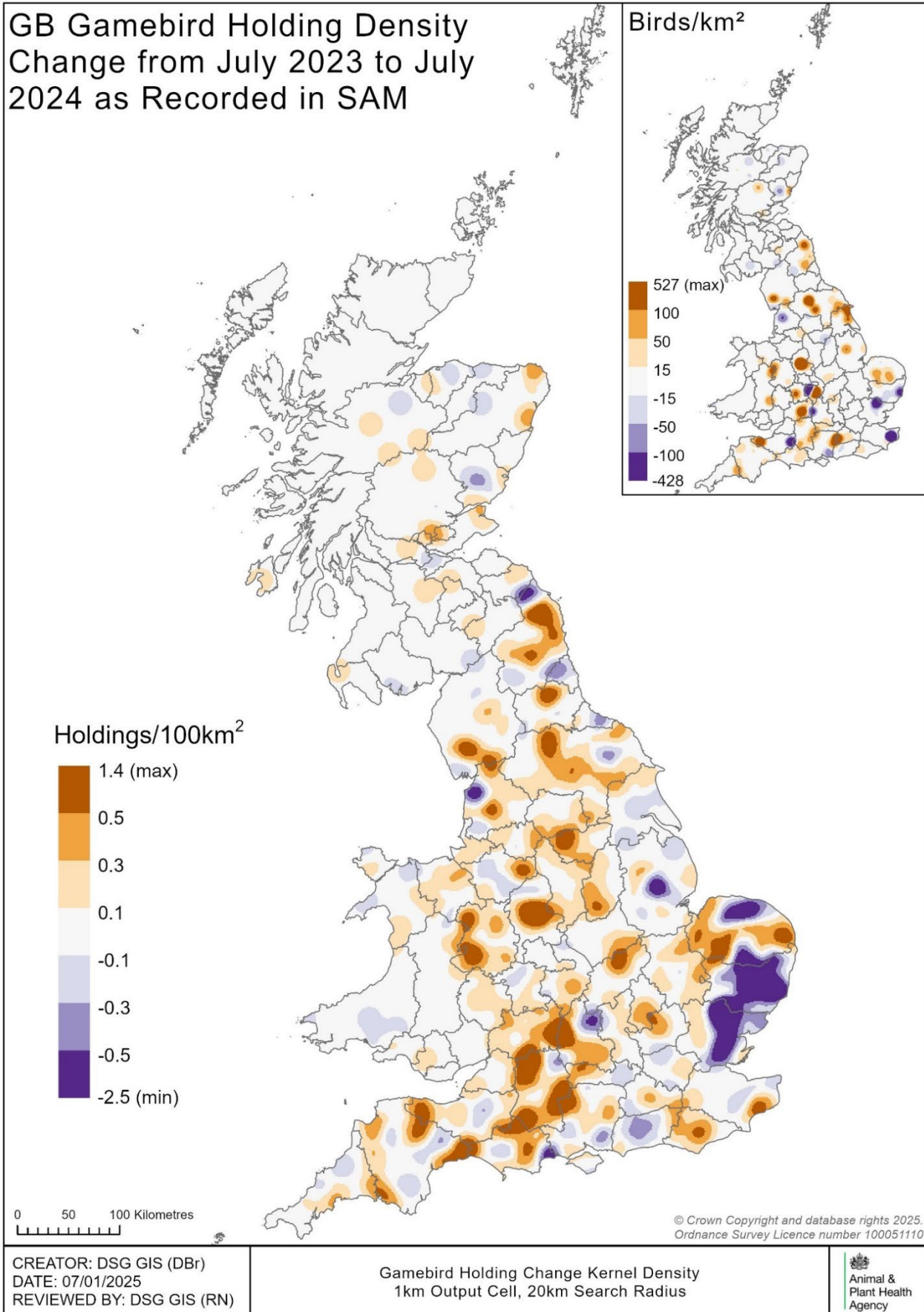


Figure 18 GB Gamebird holding density change from July 2023 to July 2024. [How were the maps produced?](#)

GB Turkey Bird Density Change from July 2023 to July 2024 as Recorded in SAM

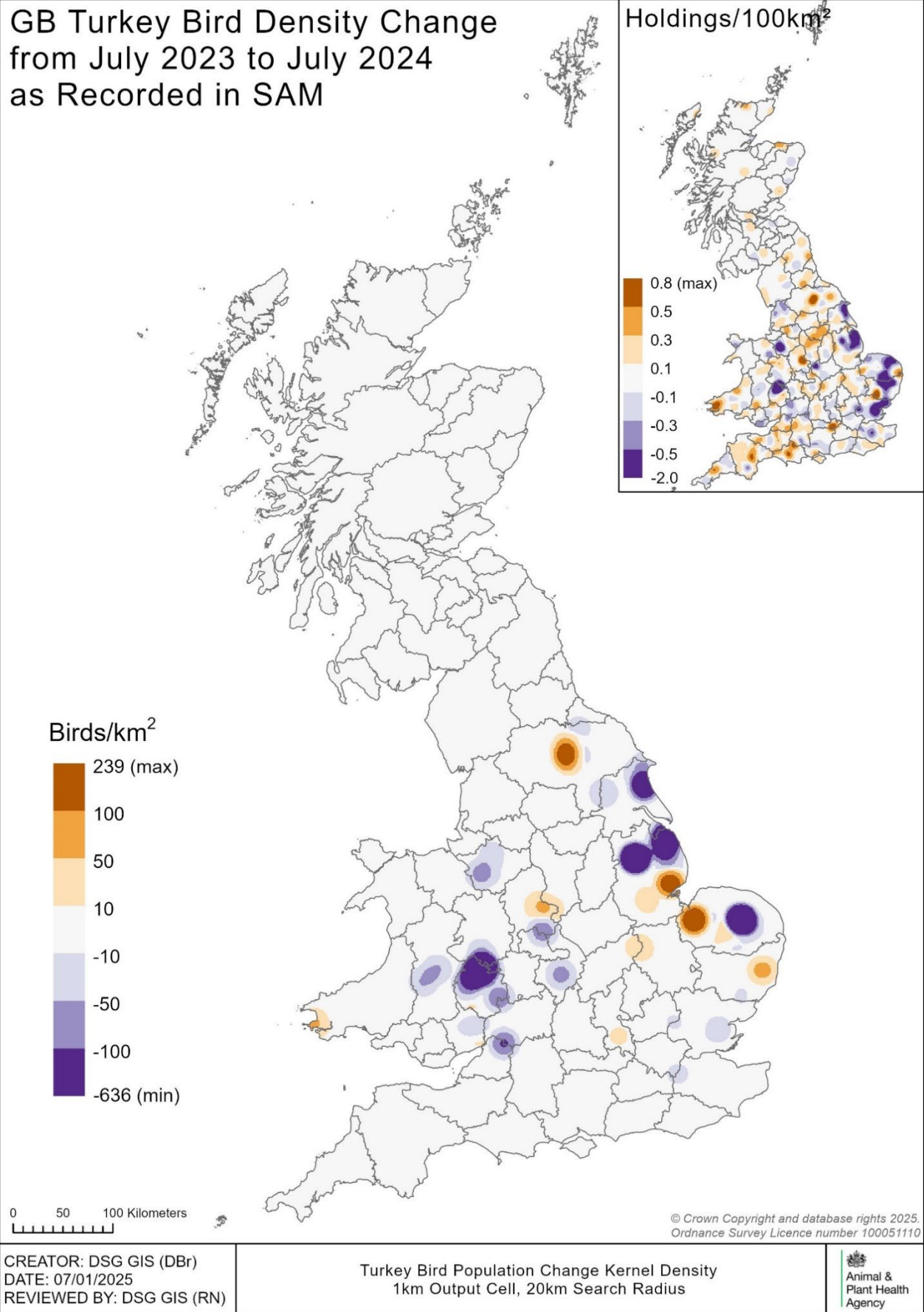


Figure 19 GB Turkey population density change from July 2023 to July 2024. [How were the maps produced?](#)

GB Turkey Bird Holding Density Change from July 2023 to July 2024 as Recorded in SAM

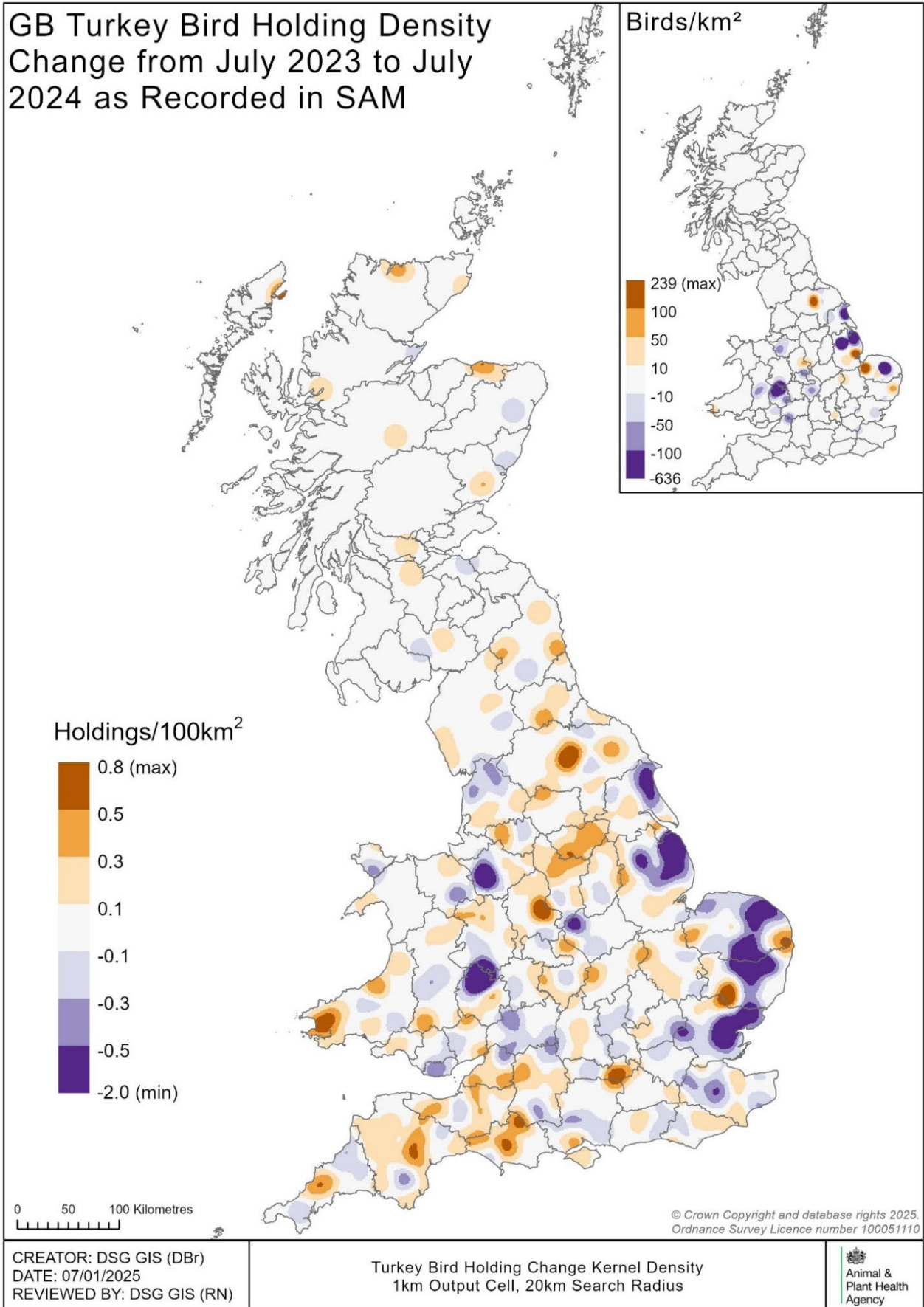


Figure 20 GB Turkey holding density change from July 2023 to July 2024. [How were the maps produced?](#)