

IN GREAT BRITAIN, 12th NOVEMBER, 1961

The combined records of 87 observers show that on 12th November, 1961 the total number of Greylag Geese Anser anser in Great Britain was at least 33,000 and the number of Pink-footed Geese A. brachyrhynchus was about 55,000. These figures represent increases of at least 10% and about 12% respectively on the numbers found on 13th November, 1960. In 1961 remarkably complete cover of all the places normally used by Greylags and Pinkfeet in November was achieved, although no aerial surveys were made.

In the table below the national totals are broken down into the numbers found in each county. Where geese were roosting in one county and feeding in another they have been assigned to the roosting place. The counties are listed from north to south. The figures given are the sums of counts from all visited localities in each county, rounded to the nearest ten birds. The numbers in parentheses are for 1960.

| | Greylags | | Pinkfeet | |
|--------------------------------|--------------------------|----------------|--------------|----------------|
| | 1961 | (1960) | 1961 | (1960) |
| SCOTLAND | | | | |
| Caithness | 100 | - | - | - |
| Ross and Cromarty (incomplete) | 210 | (4150) | (?) | (190) |
| Inverness | 340 | (410) | 140 | (0) |
| Moray | 470 | (1220) | 0 | (0) |
| Aberdeen | 2210 | (1050) | 1720 | (820) |
| Kincardine | 10 | (500) | 0 | (0) |
| Angus | 6400 | (3180) | 600 | (3100) |
| Perth | 14390 | (9140) | 17400 | (6730) |
| Fife | 2300 | (2130) | 5700 | (4500) |
| Kinross | 350 | (240) | 50 | (1300) |
| Stirling and Clackmannan | 20 | (310) | 1560 | (460) |
| Dunbarton | 340 | (400) | - | - |
| Renfrew | 10 | (60) | - | - |
| Lanark | 290 | (760) | 580 | (1700) |
| Midlothian | 640 | (310) | 4990 | (1300) |
| E.Loathian | 0 | (0) | 250 | (1400) |
| Berwick | 210 | (100) | 3800 | (3700) |
| Peebles | 0 | (0) | 5000 | (300) |
| Argyll | 500 | (860) | 10 | (0) |
| Bute (including Arran) | 2120 | (2650) | - | - |
| Ayr | 60 | (60) | - | - |
| Dumfries | 340 | (740) | 1020 | (7000) |
| Kirkcudbright | 540 | (440) | 0 | (40) |
| Wigtown | 1050 | (1360) | 10 | (0) |
| Scottish total | 32920⁺ | (30070) | 42830 | (32540) |

ENGLAND

| | | | | |
|------------------------------------|--------------|----------------|--------------|----------------|
| Northumberland | 40 | (30) | 0 | (0) |
| Cumberland | 70 | (0) | 750 | (50) |
| Lancashire | 120 | (140) | 4800 | (3200) |
| York | 0 | (30) | 1840 | (5340) |
| Lincoln | - | - | 5520 | (5900) |
| Norfolk | - | - | 0 | (0) |
| Cambridge | - | - | 0 | (60) |
| Gloucester | - | - | 40 | (110) |
| English total | 230 | (200) | 12950 | (14660) |
| TOTAL (to nearest thousand) | 33000 | (30000) | 56000 | (47000) |

GREYLAG. The resident breeding population of Sutherland, Ross and the Outer Hebrides and feral stocks elsewhere were not included in this census, nor are the numbers of Greylags in Ireland in November known to me at present. No report on numbers at a major roost in Easter Ross is yet available so that the total of 33,000 may subsequently have to be increased by perhaps as much as 4,000.

The stock of 30,000 in November, 1960 had been thought remarkably large. The further substantial increase in 1961 was probably due to another highly successful breeding season. Sample counts in four widely-scattered areas showed the proportion of first-winter birds to be about 40%, with an average brood-size of 3.9. If it is assumed that the losses of Greylags between November 1960 and November 1961 were of the order indicated by estimates of the death-rate from recoveries of ringed birds (about 40% for first-winter and 23% for older geese) the expected number of survivors in 1961 would have been 21,000 and the total population $21,000 + \frac{2}{3}(21,000)$ first-winter birds, or 35,000 in all.. This is in reasonable agreement with the observed results.

There are considerable differences in the regional distribution of Greylags between 1960 and 1961, with a marked concentration in Perth and Angus this year.

PINKFOOT. The cover of known haunts of this species was virtually complete. There was a notable concentration in central Scotland, including Fife, Midlothian and Peebles as well as Perth and Angus where the Greylags too were unusually plentiful. These concentrations seem to be associated with local abundance of food produced by harvest conditions in the favoured areas. In contrast, the Solway and Humber had unusually small numbers, well below those found there in October 1961 as well as in November 1960.

The proportion of first-winter birds was about 37%. Using annual death rates of 26% for adults and 42% for first-year birds, the expected number of survivors in November 1961 from 47,200 (32,600 adults and 14,600 first-winter) in November, 1960, would be 32,700. With the addition of 19,200 young geese ($32,700 \times \frac{37}{63}$) the

expected total population would be 51,900, compared with the observed 55,300. Given the relatively low precision of all the estimates used, this is a reasonably good fit.

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