

they should only be visited in darkness. (At places like the pool at Mileham, described by P. L. Wayre at pp. 19-20, which ducks use for feeding at night but not in the daytime, day visiting is clearly preferable.)

Catching inside the trap

Take a supply of sacks with a wire hook attached to hang on the wire netting inside the trap and a string, also attached, with which to tie up the mouth. Catch up all the ducks inside the trap and put them into the sacks. Not more than four Mallard or six Teal should be put in one sack and Teal should never be mixed with bigger ducks. Ring those to be used as decoys and leave them in the trap. Tie up the sacks and take the other ducks away to a convenient place for ringing and recording.

Ringing

Good ringing cannot be done in discomfort. Take the sacks to a shed or some suitable shelter and ring the birds there. Ducks will remain quiet and in good condition for an hour or so in *dry* sacks which are *not too full*.

SUMMER RECOVERIES OF WIGEON, PINTAIL, SHOVELER AND TUFTED DUCK RINGED IN BRITAIN¹

By Hugh Boyd

IT has been generally accepted that only a small proportion of the ducks found in Britain in winter breed in this country and that most of the visitors come from Scandinavia, the Baltic countries and farther east. Recoveries of ringed ducks are of no great importance in establishing the limits of the breeding range and the passage routes of a species, which can be done more effectively by direct observation, but they do show how the British-wintering populations are distributed within the specific range. In this paper the summer recoveries of

¹ I am much indebted to Miss E. P. Leach, formerly Hon. Secretary, and to Mr R. Spencer, Secretary of the Bird Ringing Committee of the British Trust for Ornithology, for communicating the data from which this paper was compiled.

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four species are compared with what is known of the distribution of those species. Because the number of recoveries is rather small no very precise analysis is possible. It is assumed that the months of May, June and July make up the 'breeding season' and that recoveries in April and August are less likely to show the whereabouts of 'breeding grounds'. No recoveries reported later than the end of 1955 are included here.

Small numbers do not represent the only limitation in the value of recoveries for illustrating the summer distribution of British-visiting ducks. Recoveries consist very largely of ringed birds killed by human agency and most European countries afford ducks legal protection in the spring and summer. Where legal protection is well enforced the only recoveries likely to be reported will be accidental casualties. Reports of ducks found in fishing-nets, musk-rat traps and similar devices make up an important part of the recoveries from Sweden and Finland. Most Russian recoveries do not specify the cause of death, but since some ducks are reported shot in each of the summer months it seems likely that shooting in the nesting season is not prohibited in Russia. This must account in part for the great preponderance of Russian records in the summer and may exaggerate the apparent importance of northern Russia and Siberia as the main nursery of ducks visiting Britain.



About 1500 Wigeon have been ringed in Britain, providing more overseas recoveries than for any other duck except Teal and Mallard (both ringed in much greater numbers). Figure 1 includes 51 recoveries in the months of May-July, and a further five and two in April and August respectively. Most have been obtained between 35° and 70° E and from 52° to 67° N, falling within the known area of greatest breeding-density, but with fewer in Finland and Sweden than would be expected. This presumably is due to legal protection in those countries. There is a striking concentration in the lower basin of the River Ob (c. 65°N, 65°E), east of the Ural Mountains. Though this is described by Isakov (in Dementiev and Gladkov, Handbook of Birds of U.S.S.R., vol. IV, 1952), as an important moulting area, the recoveries were obtained in late May and early June, not in the moulting season. Although four Wigeon ringed as moulting adults in the Volga delta have been recovered later in Britain, no British-ringed birds have been reported from there. This may indicate the efficiency of the protection given to moulting ducks in the large Astrakhan reserve. One of the earliest Wigeon to be ringed in Britain (Warwickshire, October 1915) was recovered in the Uralsk district in April 1918, and an Orielton-ringed Wigeon was shot as far south as the River Don in September 1936, but it appears that relatively few of the British population 'transfer' to the southern-wintering populations which breed farther to the south and east. There are as yet no decisive indications that Wigeon marked at different ringing stations in Britain frequent different areas in summer, although those marked

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Fig. 1 Summer Wigeon Recoveries



Fig. 2 Summer Pintail Recoveries

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in eastern England seem rather more likely to be found east of the Urals than birds marked in the west (15 of 31 of eastern-ringed but only 7 of 26 of westernringed birds reported in the summer months).

No Wigeon ringed in Britain has yet been reported from Iceland in summer, although about 45 ringed in Iceland have been recovered in the British Isles, which seem likely to be visited by most of the Iceland-breeding Wigeon. Since Iceland-ringed Wigeon have been found in summer in north Russia (Magnús Bjornsson, 1940: *Fuglamerkingar* V-VIII Ar., p. 39) and in winter in several places on the Continent they should not be regarded as an isolated population. But Iceland Wigeon evidently do not frequent southern and eastern England, where most British duck ringing has been done.



The summer recoveries of the three other species to be considered here are comparatively few, because of the small numbers so far ringed (about 390 Pintail, 320 Shoveler and 565 Tufted Duck by the end of 1955). Thus they cannot be expected to provide detailed pictures of breeding distribution.

The Pintail is abundant as a breeding species throughout the area in which recoveries of British-ringed birds have occurred (Isakov, *loc. cit.*). The numbers breeding in north-west Europe, including Britain, are relatively small. The extent of the recoveries of Pintail (Figure 2) is similar to that of the Wigeon in respect of the absence of records from west of $20^{\circ}E$ and a southern limit of about $52^{\circ}N$, but no British Pintail has been found beyond $72^{\circ}E$ (known eastern limit $86^{\circ}E$ for the Wigeon) and only 3 of 17 summer recoveries have been in Asia (compared with 22 of 57 for the Wigeon). These results of British ringing conform very well with those from Mortensen's ringing of autumn migrants in Denmark

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and from the marking of moulting adults in the Volga delta (A. Landsborough Thomson, 1941, *International Wildfowl Inquiry*, vol. I, pp. 84–105). The summer recoveries of the Danish birds were from northern Scandinavia and north-west Russia, while the Volga moulting birds evidently breed mainly to the east and south of the 'Western European winter population', especially beyond the Urals. More ringing must be done before the homogeneity of the British population can be asserted with confidence, but the scatter of winter records as well as of those shown here suggests that much mixing occurs.

The summer distribution of British-ringed Shoveler differs appreciably from that of the two previous species (Figure 3). The recoveries lie in a rather narrow belt running north-east to no farther than 66°N, 58°E, with no records in Russia south of Lake Ilmen. The Shoveler breeds over a very wide range in Europe and Asia, without being very numerous except in a region between 35°E and 90°E and 48°N to 55°N. Apparently birds from that part of the U.S.S.R. do not visit Britain extensively, our immigrants coming only from the northwestern extremity of the Palearctic range of the species.

The Tufted Duck ringed in Britain in winter have included some Britishbreeding birds, but most recoveries have come from northern Russia (southern limit about $47^{\circ}N$). The scatter of these recoveries accords well with the distribution of the species according to Isakov (*loc. cit*). He indicates an area of high density in southern Finland and the adjacent area of Russia (shaded in the map). Seven of the 21 recoveries plotted here were marked in London, by the London Natural History Society, and 12 in Essex. Others marked in Britain as ducklings have been recovered here in winter, as have some marked in Iceland, and it is likely that the preponderance of immigrants from the north-east suggested by the map is not a reliable representation of the composition of the total British winter population, although it may well reflect that of the London area.

The three maps all convey the impression that the populations so far sampled (i.e. largely those of south and east England) come principally from north-west Russia and Finland.



RECOVERIES OF BRITISH-RINGED GREY LAG GEESE

By Hugh Boyd

FIFTY Greylags were ringed in Iceland between 1932 and 1938 (*Fuglamer-kingar* I-XV År, published by Náttúrugripasafnið, Reykjavik, 1932–51). Thirteen were recovered. All had been ringed as juveniles. They had been captured in five localities in the north and three in the south of Iceland and were also widely scattered when found in Britain: eight in Scotland (Orkney one, Inverness one, Perthshire three, Dumfries two, Wigtown one) and five in Ireland (Wexford four, Kilkenny one). It could be inferred that the Iceland-breeding population

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