# The movements of Shoveler ringed in Britain

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## Summary

SHOVELER breeding and bred in Great Britain tend to move south in autumn and winter, some travelling as far as south-west Spain, the Camargue and central Italy. Few seem to be wholly sedentary. No clear case of abmigration has been found. Ringing in autumn and winter in southern England and Wales reveals differences in the movements of Shoveler caught from August to October and those caught from November to February. While recoveries in winter of birds from both groups show a mainly southerly scatter like that of the breeding birds, the winter-ringed birds have provided a relatively large proportion of recoveries around the Baltic and east into the U.S.S.R. This suggests that winter visitors and passage-migrants from the north-east tend to arrive in England quite late. Shoveler are probably most numerous in England in March, but hardly any have been ringed at that time so that the movements of these late-winter and spring visitors are not yet understood.

#### Introduction

The account of the distribution and migrations of British Shoveler Anas clypeata given in Witherby et al (1939) was based, of necessity, on observational evidence alone. More recent accounts, such as that of Bannerman (1958), have done little to improve the picture. This is not hard to understand because the Shoveler, though widespread, is a strangely elusive species, not often found in large numbers and frequently evading the mesh of the Wildfowl Count scheme. The contribution that ringing can yet make to knowledge of Shoveler movements is small, because the species is even harder to catch than it is to count. To 31st December, 1960 only 515 had been ringed in Great Britain, a small fraction of the number present here at any one time and dangerously few to represent all the Shoveler that have occurred in the last twenty-five years, within which almost all the ringing has been done. Yet this very small catch has yielded no less than 143 recoveries, 27.7% of the birds marked, so that the recoveries give a very good picture of the fate of the ringed sample. Two earlier accounts of British-ringed birds have been published: Thomson (1941) had only seven recoveries to report, while Boyd (1957) illustrated nine recoveries in summer (April to August). Both authors also made use of recoveries in Britain of birds ringed abroad. The present paper is restricted to British ringing and is primarily concerned with a comparison of the movements of native and immigrant Shoveler.

The small numbers of Shoveler ringed abroad and recovered in Britain do not importantly affect this comparison since the much larger class of ducks ringed here in mid-winter is effectively equivalent to them. The only European countries in which more Shoveler have been ringed than in Britain are the U.S.S.R. and the Netherlands. Perdeck and Taapken (1961) have illustrated recoveries of Dutch-ringed immigrants, which resemble British immigrants in their behaviour. Russian results, reported by Treyus (1957) and Vinokurov (1961), though of great importance in any consideration of Shoveler movements on a continental scale, are largely irrelevant to this study, because nearly all ringing in the U.S.S.R. has been in places outside the range of British-visiting Shoveler.

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# Summer ringing

Full-grown Shoveler ringed during May, June and July have been assumed to be British breeding birds. The recoveries of these birds (12) and of the pulli (15) ringed in this country show a marked southward movement (Figure 1).

The number of places where Shoveler have been ringed in summer is few. All the full-grown birds and 7 of the pulli recovered were marked at Abberton Ringing Station, Essex. The other recoveries of pulli are of birds ringed at Southport, Lancashire; Gladhouse Reservoir, Midlothian; and on the Isle of Man. At these three places the one or two broods concerned were ringed on a single occasion. The sample, though small, is quite informative and recoveries from the different ringing localities fit into the same pattern. There is, however, a great need for more ringing of British-bred Shoveler to help fill in the picture of their winter distribution.

Table I. Recoveries of Shoveler ringed in Britain.

Country		Month of recovery												
	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Total	
Great Britain	n 1	1		1	2	8	5	4	5	14	3		44	
Ireland					1	2	2	5	3	3	1		17	
Holland	1				4	4	6	1	1				17	
France					3	2	1	2	2	4	8	7	29	
Spain						1			1	1	1		4	
Portugal												1	1	
Italy										1		2	3	
Germany					1					1			2	
Denmark					3	1	3	1					8	
Poland					1								1	
Sweden					1								ī	
Finland					ì								i	
U.S.S.R.	2	6			5	2							15	
Total	4	7	_	1	22	20	17	13	12	24	13	10	143	

## Autumn and winter ringing

The ringing of Shoveler in autumn and winter has been carried out mainly at Slimbridge, Gloucestershire and Orielton, Pembrokeshire, most of the latter being between 1935 and 1940 and from 1946 to 1950, with smaller numbers at Abberton; Abbotsbury, Dorset; Borough Fen Decoy, Northants; and nearby Deeping Lake.

Twelve recoveries are of birds ringed between September and January and recovered within fifty miles of the place of capture during the same season. These are not illustrated, though included in Table II (opposite).

Overseas recoveries show a clear distinction between birds ringed between August and October, and those ringed from November to February (Figure 2). Recoveries of both autumn- and winter-ringed Shoveler show a winter distribution similar to that of the summer birds. There are distinct movements out of the country both west into Ireland and also south and east to the Low Countries and France and thence to the Iberian Peninsula, the southern coast of France and northern Italy. There is only one recovery from Russia of an autumn-ringed bird.

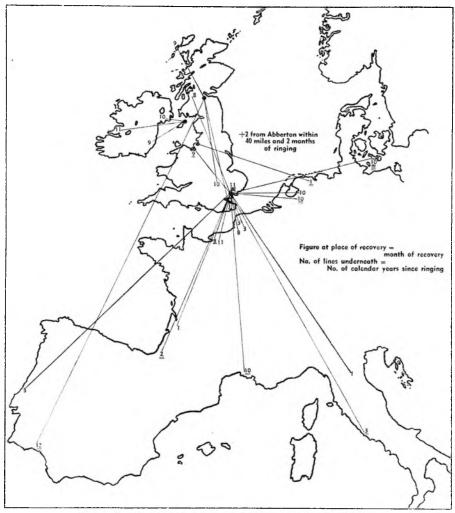


Figure 1. Map to show recoveries of summer-ringed Shoveler.

Table II. Recoveries of Shoveler ringed in Britain.

Country of recovery	Month of ringing												
	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Total
Great Britain	3	1	5	2	2	4	2	3	16	6			44
Ireland	1			3	3	2	3	1	3		1		17
Holland			1	1	3	5			3	4			17
France		2	3	3	4	6	2	3	4	1		1	29
Spain	1		1		1		1						4
Portugal			1										1
Italy				2						1			3
Germany		1									1		2
Denmark	1	1							3	2		1	8
Poland								1					1
Sweden										1			1
Finland								1		-			1
U.S.S.R.						1		1	8	4	1		15
Total	6	5	11	11	13	18	8	10	37	19	3	2	143

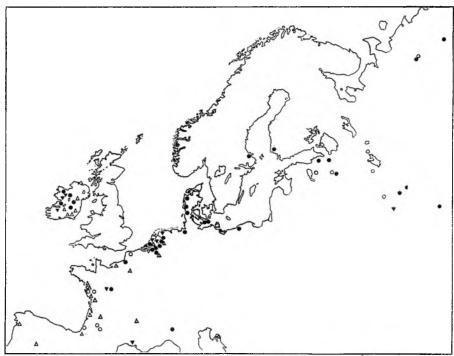


Figure 2. Map to show recoveries of Autumn and Winter-ringed Shoveler.

- A Ringed Aug.-Oct. Recovered same season
- ▼ Ringed Aug.-Oct. Recovered subseq. season
- O Ringed Nov.-Feb. Recovered same season
- Ringed Nov.-Feb. Recovered subseq. season

In strong contrast the winter-ringed birds have provided several summer recoveries in Russia, indicating that a Russian-breeding population arrives in Britain comparatively late in the year. This is confirmed by recoveries in early autumn in Finland, Sweden and Denmark of birds ringed in previous winters in Britain.

In Figure 2 it is shown that of the nine recoveries in France of birds ringed in winter, six are during the season of ringing, indicating that these were passage migrants through Britain and not birds choosing different wintering places in subsequent years.

A tendency to return to or remain in the same place on passage or in winter is shown by nine recaptures of birds at the ringing place between one and three years after the season of ringing. Three of these were ringed in summer and autumn and may be birds resident in the area, the others were all ringed in the winter and are much more likely to have left the area during each summer. The 12 first season recoveries within 50 miles of the ringing place form some slight basis for the supposition that Shoveler, having arrived at their winter quarters, remain there until the spring.

### Discussion

An increase in the number of summer recoveries from the nine used by Boyd (1957) to 34 has not led to any major change in the outline of the

summer range of our winter visitors, nor has recent ringing done more than fill in the sketch of winter distribution that could have been made five or ten years ago. The value of this amplification is not in doubt, but the lack of novelty raises the question of what ringing of Shoveler in the future should try to achieve. The case for ringing of breeding birds is strong. Even though the pattern of their dispersal may be known any evidence that can be found to amplify the meagre knowledge of our native population is important. The value of continued marking of passage-migrants is less clear, but it is worth drawing attention to a particular gap in our knowledge. It has long been obvious, and has been quantitatively shown by Atkinson-Willes (1956), that Shoveler are most numerous in England in February and March, Yet Table II shows that the number of recoveries of birds ringed at that time is extremely small so that hardly anything is known of the origin of these immigrants. This is of considerable interest, because recoveries of Dutch-ringed birds show that relatively large numbers are found in the south of their range, especially in Italy, in March. The interpretation of recoveries in late winter and spring is of course complicated by differences in the beginning of the close season in different countries so that ringed ducks are relatively unlikely to be heard of in Britain or Holland in March. It would be useful to make special efforts to catch Shoveler at this time, to provide recaptures as well as newly-ringed birds.

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