

RESULTS OF SHAG RINGING, 1948-55

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Five hundred and forty-seven nestling Shags have been ringed from 1948 to 1955. From these ringed birds there have been ninety-eight recoveries of dead birds and eight birds taken and released. Of the ninety-eight dead, eighty were recovered in their first year of life, 82% of the total. If this period of heavy mortality is further divided it is found that 63% of the eighty were recovered before the end of October and 37% from November to the end of April.

This heavy mortality in the months immediately following fledging is a well proven fact among many other species of birds. In the case of the Shag which is subject to shooting the mortality of first year birds is artificially increased as the young birds appear to make an easier target than the older ones. Of the ninety-eight recovered dead at least fifty-five are due to man's activity, the majority being shot, a fair proportion drowned in nets and a few oiled.

There have been thirteen recovered dead during the second year of life, 13% of total recoveries. Analysis of older age groups becomes highly inaccurate as over half the ringing has been done in the last two years under review. One ring was recovered when eight years old. This ring was worn at the clip and had gaped and fallen off into the nest of a pair of breeding adults. As rings may be lost from eight years old our general ringing efforts to date of this species are useless for assessing average annual mortality of adults or their further expectation of life. However, we have this year (1956) achieved one of the purposes of ringing which is to discover the age at which a species may breed, a fact not previously known about the Shag. A nestling ringed on the Shutter in 1952 was this year retrapped as a breeding adult female on its nest. It is interesting to note that its nest, which was south of the Devil's Limekiln about 280 yards from the Shutter, was a 'new' nest site, that is to say not used in 1954 or 1955. Other ringed adults which I was unable to retrap were this year observed at 'new' nest sites and were very probably 1952 nestlings returned to breed, the more so in that prior to 1952 a total of only sixty-four nestlings had been ringed.

In 1955 nine breeding adults were trapped at their nests and given an individual colour marking and one non-breeding adult, believed to be a four-year old, was trapped and marked. Of these ten, eight returned in 1956 and bred, giving an 80% survival rate of adults. This year a further eleven adults have been trapped and marked.

The geographical distribution of recoveries is of some interest and is tabled below :

Age Group	(i)	(ii)	(iii)
	France	South Cornwall and Devon	Bristol Channel [including Ireland]
1st Year up to end of Oct.	13 (24%)	26 (47%)	16 (29%)
1st Year Nov. to April	7 (23%)	17 (57%)	6 (20%)
2nd Year	6 (46%)	4 (31%)	3 (23%)
3rd and subsequent year	1 (20%)	2 (40%)	2 (40%)

The percentages are the proportion of the total recoveries for the age group. Recoveries of birds three years old or more retrapped on the island during the breeding season are not included.

Although numbers are small for any age groups over one year a few tentative deductions can be made. When the juveniles leave the island there is a general scatter with a preponderance of birds going southward to the English Channel and beyond. This is slightly more emphasized during the second half of their first year. During the second year there is a greater proportion at the south of their migrational range. The meagre recoveries for third and subsequent years suggests a return to home waters. In 1948 there was an unusual eastward movement along the English Channel when two first year birds were recovered from S. Dorset and one from Jutland. These individuals have been included under columns (ii) and (i) respectively. All but one of the French recoveries are west of longitude $2^{\circ} 0'$, the majority in the Finistère region.

