

# ESTABLISHING CANADA GEESE IN WEST KENT AND THEIR USE OF NESTING RAFTS

**Dr. James M. Harrison and Dr. Jeffrey G. Harrison**

IN June 1956 the first 19 Canada Geese were collected from the Wildfowl Trust and placed on two industrial ballast waters, one of 10 acres, the other of 40 acres, about a mile apart in the Darent valley near Sevenoaks. Both waters are wildfowl reserves controlled by the Kent Wildfowlers' Association through the kindness of their owners, Mr. Basil Jones of the Sevenoaks Brickworks and Mr. George Wallis of the Kent Sand and Ballast Company. All the geese settled down at once and of the 12 placed on the larger water, four which were half-grown goslings were cared for by the adults, which appeared to make excellent foster-parents. Nine were feather pinioned to prevent wandering and by the end of the winter only one bird had left, although by early February a few were flying between the two waters and one pair moved to a third ballast water just to the west near Chipstead.

One of the disadvantages of these particular ballast waters is their complete lack of islands and the two companies concerned very kindly each constructed and presented us with a raft composed of railway sleepers, lashed together with wire and floating on tanks. These were then covered with soil and vegetation and anchored well out. Each measured 14 x 8 feet and was extremely substantial, but the cost worked out at about £12 each.

In view of this it was fortunate that a pair quickly adopted and defended each raft, on which courtship took place. A clutch of 5 eggs had been laid on the Kent Sand and Ballast raft by May 1st but the other pair never laid. The pair on the Chipstead water had completed a clutch of 5 a few days earlier on the bank among spike-grass. Two of these eggs proved infertile, a third was knocked into the water by the goose and two hatched, but both goslings died a fortnight later after walking into a small patch of melted tar.

The gander of the pair on the raft was in close attention for four days prior to hatching. All five young were successfully reared and the parents from strategic positions fore and aft were able to defend their young from the attentions of Carrion Crows, which wrought havoc among Mallard ducklings on the same water.

In June 1957, a further 24 adults were obtained from the Wildfowl Trust and were put onto the Kent Sand and Ballast Water. Like most of those released in 1956 these geese had been caught in Derbyshire. They were rather slow to mix with the original birds and even now in August 1958, the two groups still occasionally separate out. The parents and five goslings kept completely away from the newcomers until the young were almost full-grown. One of these was eventually killed by a Fox on Christmas Eve, our only casualty of the year.

By mid-February some of the birds became restless and a party of five were often to be seen circling over Sevenoaks, their circuit taking them low over the hospital, where they acted as a fine tonic to a seriously ill gamekeeper. These five eventually disappeared. Four new rafts were constructed, this time of wood an inch thick, in an attempt to cut cost. Each was 5 foot 6 inches

square and floated on four oil drums. They were covered with soil and vegetation and weighed down with rocks to a suitable height and placed on the Kent Sand and Ballast Water. Two in sheltered water proved satisfactory, but the others in more exposed water were unable to withstand the waves and had to be lashed into one. Courtship and pair formation was well under way by the end of February and last year's successful pair were back on their raft by March 2nd, but the onset of a cold spell a week later stopped all this activity.

By mid-April both of last year's pairs were nesting in the same places; a third was on one of the small rafts at the Kent Sand and Ballast Water with a fourth on the bank about 100 yards away. The same pair returned to the railway sleeper raft on the Brickworks and nested, while single pairs which we had placed on the Chipstead water and on Bradbourne ponds brought the total of nesting pairs in the district to seven.

On the Kent Sand and Ballast Water we now had four rafts anchored roughly in two pairs about a quarter of a mile apart, but the distance between each raft of a pair was only about 30 yards. This proved to be too close and the geese occupying one raft of each pair drove others from the unoccupied ones. These were moved to about 80 yards apart in mid-April and one raft was quickly adopted and defended in its new position, but no eggs were laid. Two other pairs separated out from the main flock without laying. It would seem that a nesting colony of Canada Geese commences at the periphery of the nesting terrain and fills up nesting sites centrally.

Of the seven nesting pairs, the following table shows the breeding successes:—

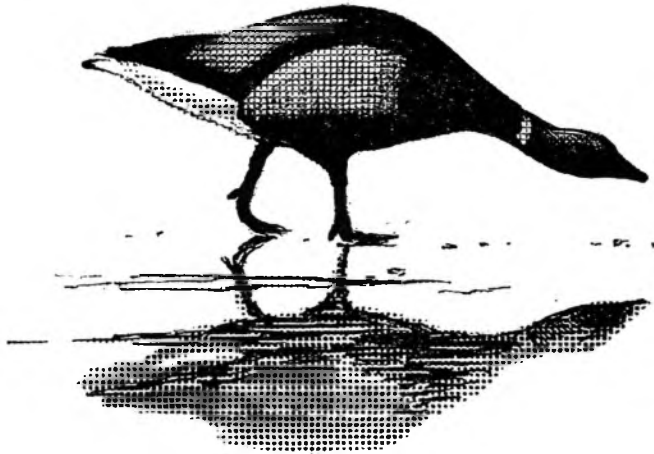
Place	Clutch	Hatch	Maturity
Kent Sand and Ballast .. ..	c.7 (Raft)	7	7
	c.5 (Raft)	5	5
	c.5	0 (Robbed)	0
Chipstead ..	c.6	4 (1 late hatch)	3
	c.5	3	3
Brickworks ..	c.5 (Raft)	4	4
Bradbourne Lakes	c.5	0 (infertile)	0

It is gratifying that of all the goslings which hatched, only the late one was lost, owing to the fact that the parents had already left the nest with their three young. The raft nesting families frequently returned to their rafts at night for several weeks after hatching.

In July one of the non-breeding females was found dead, the cause for which could not be demonstrated. This together with the five which flew off in the spring means that our local flock has increased by 16 this year. Those on Bradbourne Lakes were seen to kill several young Mallard, which they pecked at in an inquisitive manner when they were swimming close together in a confined pool. No such trouble has occurred on the larger ballast waters. Food appears to consist almost entirely of grass at present, of which there is an abundance in the low-lying fields surrounding the waters and so far no flighting has taken place.

This summer the Kent Sand and Ballast Water was visited by Mr. Cooley, the President of the Colorado Sand and Gravel Producers, from Denver, Colorado. Mr. Wallis reports that he was far more interested in his native geese than in the equipment he had come to see and used up some 50 colour photographs on them! He returned to America enthusiastic about industrial ballast waters being used as wildfowl reserves.

This concludes our account of an experiment which has shown how the Wildfowl Trust, wildfowlers and industrialists can all combine together. We believe that industrial ballast waters can play a big part in the British wildfowl scene and the enthusiasm shown by all the workers on those in west Kent has been most encouraging. We look forward now to watching these Canada Geese as they establish their new traditions and hope to continue our experiments with other suitable species of wildfowl.



## BRENT GEESE IN ESSEX, 1957—1958

P. J. K. Burton

IN the 9th Annual Report (pp.175-179), an account was given of work on the proportion of first-winter birds in flocks of Brent Geese in Essex. Similar observations have been made during the winter of 1957-58, and these are dealt with below.

### Results

The method of estimation, using the numbers of first-winter birds in samples of 50, has been continued. A greater number of samples than in previous years have been obtained, and these came from several localities as follows:

Foulness	...	...	...	...	22 samples
Stansgate (S. Blackwater)	...	...	...	...	5 samples
Osea I. (N. Blackwater)	...	...	...	...	4 samples
Holbrook Bay, Suffolk (Stour estuary)	...	...	...	...	2 samples
Dengie	...	...	...	...	1 sample

Total 34