

It is obvious that strongly constructed nests would withstand winter winds better than poorly constructed ones. In two years, out of twenty-five hundred Mourning Doves' nests, only fifty-five withstood the winter. Since the dove builds a flimsy nest, only nests in the more protected places would last. As no count of total numbers of robin nests was made, we do not know what percentage of the total built the old ones represented. Other nests would grade in between these two extremes.

SUMMARY

Old nests of birds and fox squirrels that have withstood winter winds were counted in Lewis, Iowa, in March of 1939 and 1940. A total of 469 nests of nine species of birds and one species of squirrel were found in twenty-three species of trees. Nests surviving the winter in the greatest numbers were those of the Eastern Robin, Baltimore Oriole, fox squirrel, and Mourning Dove. Trees supporting the greatest numbers of old nests were elm, box elder, and red pine.

Nebraska Game Forestation and Parks Commission
Upland Game Bird Survey
Ord, Nebraska

CROSS-MATING OF CANADA GEESE WITH EMDEN GEESE

BY ALEXANDER W. BLAIN, M.S., M.D., F.A.C.S.

Plate 16

THE crossing of certain wild ducks and pheasants has been carefully studied. The condition is undoubtedly much rarer in the wild state than in birds kept in a semi-domesticated state upon which most of the studies have been based. J. C. Phillips discusses this in an interesting article entitled 'A Further Report on Species Crosses in Birds' (*Genetics*, 6: 366-383, 1921). Anyone who has bred various types of pheasants in captivity has had much the same experience. The crossing of the Mallard with the white call-duck has proved a troublesome problem in my flock, and while the offspring all reverted to the wild state and nested on my property outside of the pen, there was never any trouble in distinguishing the interesting hybrid as it flew from the nest or was seen in the water.

The polygamy on the part of some birds is very well known. This is especially true in this part of the country among Red-winged Black-birds. On the other hand, the belief has been quite constant on the part of ornithologists and hunters that the Canada Goose (*Branta*

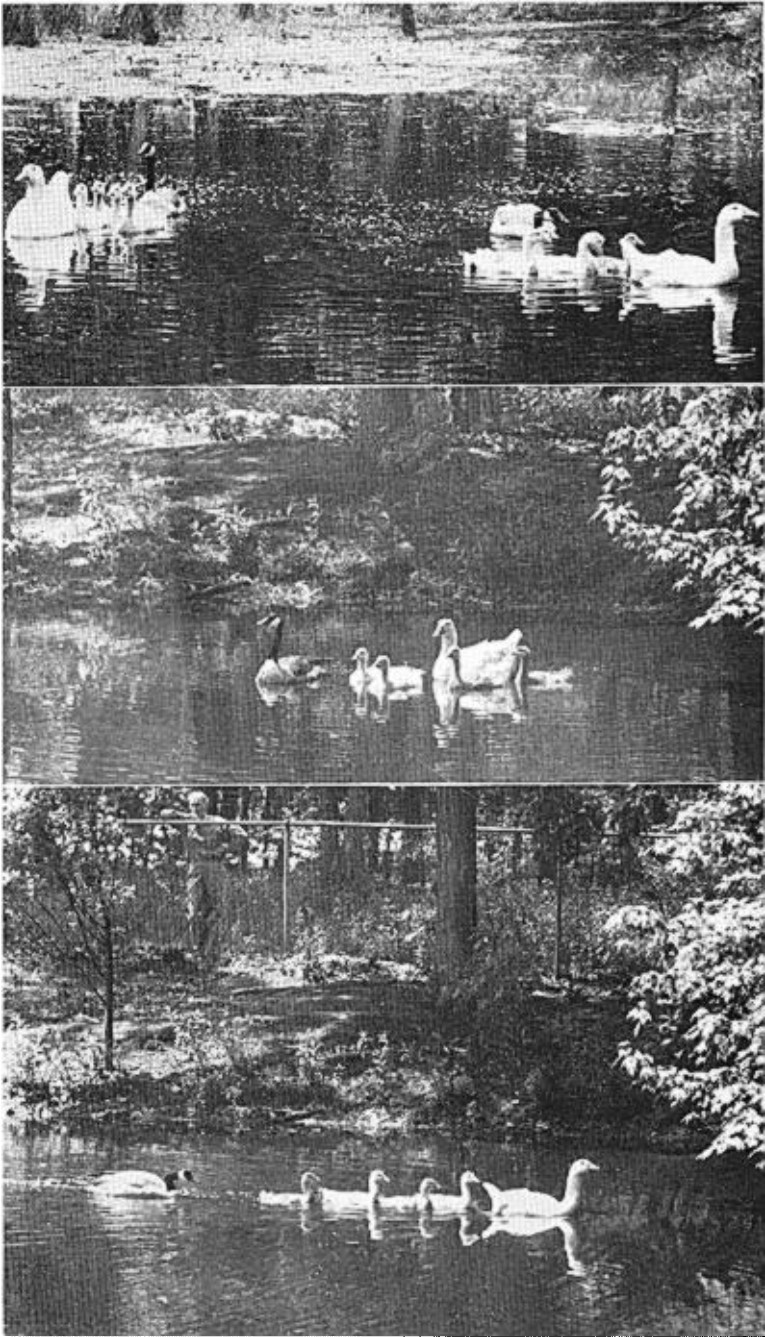
canadensis canadensis) mates for life. To quote Francis Kortright in 'The Ducks, Geese and Swans of North America' (1942, American Wildlife Institute, publishers): "Contrary to the habits of ducks and geese which seek new spouses each year, the Canada Goose mates for life; should either partner die or be killed, the survivor, it is said, never pairs again. (No verification of this statement has been found by the author in his researches nor, to his knowledge, has it been disproved.)" It is not unusual, however, to have a large flock of Canada Geese of mixed genders penned together in an enclosure, and have no mating whatever take place. The following incident is, I believe, quite unusual.

A pair of Canada Geese which I had had for some time finally mated. For some reason the nest was destroyed. The following year they rebuilt their nest. Eggs were deposited, but no goslings produced. In the fall of 1941 I placed a pair of tame domesticated Emden geese of the pure white barnyard variety in the same enclosure with the Canadas. I was surprised to find, early in the spring of 1942, that each of the Emdens and Canadas had cross-mated, with each newly mated pair producing and nicely bringing to maturity four goslings. In each family some of the birds resembled the Canadas and others showed the white feathers of the Emden. One bird was pure white.

None of the offspring were killed and all are still under observation, but all were removed from the enclosure. This year, 1943, with the Emdens and young hybrids all removed, the Canadas have again built a nest, and when last observed (April 14), the female was sitting very closely and the male was in characteristic 'on guard' position. The sex of the hybrids is not known, but they are being kept under observation many miles from where they were hatched, and it will be interesting to see whether they choose to mate. While I was watching them recently, a few birds from a wild flock came into their enclosure.

These observations are perhaps not conclusive, yet they would tend to show that the Canada Goose is not averse to changing its mate under certain conditions and to a bird of another genus. The statement should, perhaps, not be furthered that the Canada Goose mates for life, especially not under the environment of semi-domestication.

During the fall migration of 1943, two of the hybrids which I retained in my enclosure (including the white bird noted above) disappeared. Early this spring (March, 1944) they returned. It is possible they migrated to some other sanctuary not too far away from their birthplace. In April, three of the other hybrids, which had



CROSS-MATED CANADA GEESE AND EMDEN GEESE.

been removed in the fall of 1942 several miles from my enclosure, returned and joined the others. The hybrids of the 'Canadian-type' cannot be distinguished from the full-blooded parents.

Detroit

Michigan

THE RECORDS OF A PROFESSIONAL DUCK HUNTER

BY HAROLD B. WOOD

DEFINITE records of the number of birds killed in large numbers by sportsmen or professional gunners are rare because usually none are kept. Lamentable as mass killings and continued shooting are, definite records of birds killed over a period of years show interesting figures. They suggest the relative prevalence of various species during past years, indicate migrational seasons, suggest variations in bird populations, show present rarities, and add unknown species to a local list. Some colloquial names are learned.

About 17,000 waterfowl fell in fifty-three years before the gun of the professional gunner of the olden days whose records are the basis of this account. He kept daily accounts of his bags, and his diary I was permitted to copy. It is reminiscent of the days of fifty years ago when every meat market had its racks festooned with many species of waterfowl. The maker of these records, Hardie Disney, was born in 1873 and lives on the banks of the Susquehanna River opposite Harrisburg. He began to shoot when eleven years old, in 1884, and bagged fourteen birds the first day. Later, he professionally shot game to supply the five hotels of Harrisburg, and received a dollar a duck, with three to five dollars apiece for Canvas-backs. The hotels offered a roast-duck dinner, with all the trimmings, for \$1.50. It was a gunner's living in those days. In the fall of 1906, for instance, Disney's accounts show that he received \$161.75 for 445 ducks. He shot for a living, although with sad consequences which he could not foretell.

The ducks seemed to be in inexhaustible quantities and there were no restrictions on gunning. "There were thousands of ducks in those days, and every year there was more," as he expresses it. "When a boy, I got up at 4 A. M. and went out and killed ducks before I went to school. I ducked in March and April." All shooting was done from a boat as he and his 'buddy' paddled in the shallow, mile-wide Susquehanna. He sometimes used wooden decoys, never live ones, and never baited the water. He shot among the small, grassy islands called 'patches,' where the ducks collected. The de-