

FLOCK SIZES OF MIGRATING CANADA GEESE
IN EASTERN PENNSYLVANIA IN AUTUMN

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From 1962 through 1975, while studying migrating hawks at Bake Oven Knob, Lehigh County, Pennsylvania, we routinely kept records of the numbers of Canada Geese (*Branta canadensis*) passing the Knob. These are birds of the Mid-Atlantic population presumably composed mostly of the subspecies *B. c. interior* (Bellrose, *Ducks, Geese & Swans of North America*, 1978: 144-145).

Whenever possible we also counted the numbers of individuals contained in each flock. Generally we first located the birds with 10X binoculars, then studied them with 20X telescopes to determine flock size.

We succeeded in counting 43,595 Canada Geese in 759 flocks which averaged 57.4 birds per flock. In central Illinois, Bellrose (1978: 154) determined that 74 flocks of migrating Canada Geese averaged 96 birds per flock. The table summarizes by year the range and mean number of birds contained in our flocks. We were unable to determine if flocks containing more than seven or eight birds represented several family groups (as opposed to groups of random individuals), but it is likely that the former situation prevailed. Phillips (*Auk*, 1916: 25-27) and Elder and Elder (*Wilson Bulletin*, 1949: 133-140) previously demonstrated in Massachusetts and Illinois in autumn that Canada Geese migrate in family parties or groups. However, their conclusions were based on field studies of small flocks of geese noted at hunting stands in marshes or in wildlife refuges. Our field studies were of flocks of migrating geese engaged in cross-country flight. Nevertheless the conclusions reached by the workers in Massachusetts and Illinois (and elsewhere) should apply equally to geese migrating across Pennsylvania.

Our appreciation is extended to all of the persons who assisted us over the years at Bake Oven Knob. It is not practical to name each person, but their assistance nevertheless is appreciated.

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CANADA GEESE FLOCK SIZES BAKE OVEN KNOB, PENNSYLVANIA

Year	No. Flocks Counted	No. of Birds in Flock		
		Minimum No.	Maximum No.	Mean
1962	7	4	100	30.7
1963	6	8	19	12.6
1964	20	6	100	39.8
1965	8	35	62	50.2
1966	14	10	50	29.3
1967	34	6	200	56.3
1968	115	1	500	55.9
1969	110	1	400	69.8
1970	114	1	500	69.3
1971	87	4	230	55.4
1972	59	1	234	61.6
1973	27	3	110	37.1
1974	65	4	305	53.0
1975	93	2	200	49.8
Totals	759	1	500	57.4