

**STATUS OF THE RESIDENT CANADA GOOSE
(*BRANTA CANADENSIS*) FLOCK ON EUFAULA NWR**

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INTRODUCTION

Eufaula National Wildlife Refuge's (ENWR) flock of resident transplanted Canada Geese (*Branta canadensis*) is the oldest in Alabama, having been transplanted to the refuge in 1965. The stocks placed on the refuge were *B. c. canadensis*, *interior*, and *maxima* (Combs et al 1984). The history and implications of transplanting Canada Geese on ENWR were reviewed by Johnson et al (1976) and Oberheu (1973).

METHODS

Basic trend data on population size and gosling productivity were gathered between 1980 and 1991 by refuge staff during winter waterfowl surveys and spring gosling counts. In 1991 a 14 point questionnaire addressing flock depredation on crops (corn, soybeans, wheat and sorghum) and fouling of public areas was mailed to 46 landowners within a 30 mile (48.3 km) radius of the refuge. Brood sightings were also addressed. This paper reports those findings.

RESULTS AND DISCUSSION

Census data collected between 1980–1991 on wintering (Dec–Jan) goose populations suggests that they are mainly residents. Migrant additions, when present, do not occur in large numbers (Table 1, Figure 1). In 1985 and 1989 single neck banded geese were observed on the refuge. None were reported between 1981 and 1984. *Branta canadensis minima* were sighted during the 1989–1991 seasons by refuge personnel. Small numbers (<25) of Snow Geese (*Chen caerulescens*) and White-fronted Geese (*Anser albifrons*) have been consistently observed and Drennen (1989) reported a Ross' goose (*Chen rossii*) on the refuge in the winter of 1989.

Higher winter count totals were not apparent even during years of low lake levels when there was an increase in grazing areas and planted row crops within the refuge river valley. Goose numbers during the fall and winter have stayed consistent. Spring adult counts, however, were lower in 1989 and 1990. This may be related to census techniques and the

dispersal of goose pairs in spring to remote locations.

There has been no noticeable increase in Canada Geese. Data collected on adult summer birds suggest that the population may be stable (Table 1). Combs et al (1985) believed that the resident population of geese had grown to about 500 by 1982. Winter census data for that year showed the highest number (628) counted during the previous 12 years of surveys.

Gosling production data (Table 2, Figure 2) on the refuge suggest that since 1977 production has been sporadic with higher totals reported in 1979, 1982, 1985 and 1986. Low number years may be related to water level fluctuations and depredation by predators. Combs et al (1985) found water levels to be a significant factor in nest and gosling mortality. He believed, however, that low gosling survival was probably offset by high adult survival.

During 1991, the Corps of Engineers counted >40 goslings at subdivisions around the "lower end of the lake" and about 100 goslings at White Oak Creek and East Bank Parks, all south of ENWR.

Thus, trend data suggests that the resident ENWR Canada goose flock is stable with high adult survival offsetting low gosling survival. Population numbers seem to stay consistent throughout the year with no substantial increase from migrants. The resident geese have now expanded off of ENWR and are reproducing as farsouth as East Bank Park, northeast to Fort Benning and as far west as the Grant Farm.

Goose depredation on sprouting corn in the Houston Unit of the ENWR is common and winter waterfowl food plots are sometimes damaged. In some fields at least 20% of the crop was lost in 1991. Similar damage occurred in 1990 and 1989. The geese have become habituated to "Zoon Guns" and "Screamer Sirens" scare devices. At wood duck banding sites geese consumed large amounts of the corn bait.

Complaints by landowners concerning spring and summer flock depredation on crops and fouling of public places have increased. Of the 46 questionnaires issued, 34 (73.9%) were returned. Most problems seem to be isolated, and occur on farmland adjacent to the refuge or on neighboring recreation areas (Table 3). Economic impacts on the majority of landowners were minor. Seven landowners reported <\$300 of damage occurred per year. In four instances there were >\$300 of damage reported per year. Most complaints involved cleanup of public beaches, re-seeding of crops sown in early spring, and surprisingly, peanut depredation in late summer.

Most economic damages attributed to Canada geese are isolated and account for <\$300. However instances of >\$300 were reported. Effected areas are mainly public beaches and croplands.

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**TABLE 1. RESIDENT CANADA GOOSE FLOCK
1980-1991 AND 1985-1991 TRENDS**

Date	Dec-Jan Counts	June-July Counts
1991	556	390
1990	593	147
1989	335	157
1988	506	512
1987	476	491
1986	521	374
1985	518	589
1984	475	*
1983	529	*
1982	628	*
1981	545	*
1980	317	*
X ± s.d. =	499.92 ± 92.32	380.00 ± 172.04

* No count made during these years.

TABLE 2. GOSLING TOTALS (MAY/JUNE, 1977-1991)

Date	Total Goslings Counted
1991	84
1990	62
1989	28
1988	70
1987	91
1986	118
1985	118
1984	-
1983	-
1982*	160
1981*	76
1980*	74
1979*	101
1978*	88
1977*	74
X ± s.d. =	88.00 ± 32.03

* Taken from Combs et al (1984), expressed as eggs hatched.

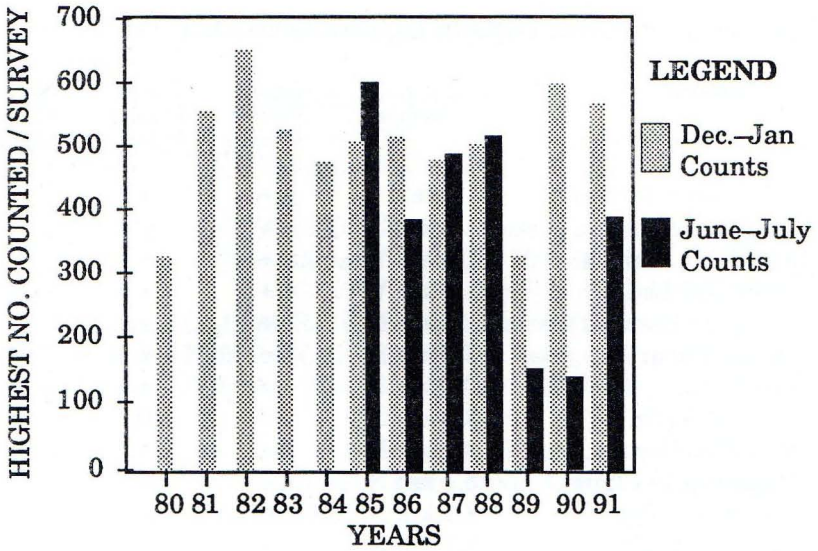


Figure 1. Adult resident Canada Goose flock; 1980-1991 and 1985-1991 Trends.

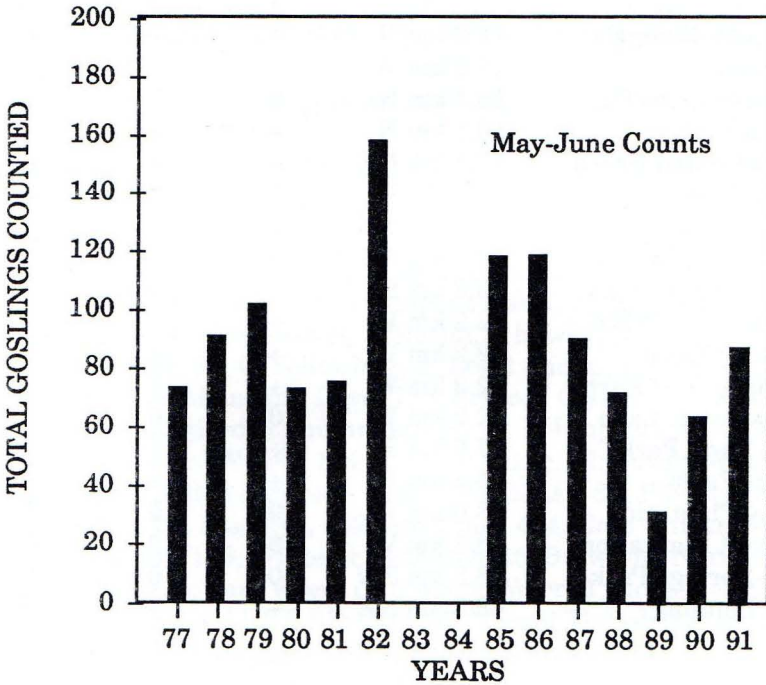


Figure 2. Gosling survey totals, 1977-1991.

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TABLE 3. CANADA GOOSE QUESTIONNAIRE DATA

Name	Approx. Km from Refuge office	Adults Present at times	Broods Present in May-Ju	Negative Economic Effect
Refuge coop farmer	Al side	+	+	-
LakePoint Park	<1.6 km W	+	-	-
LakePoint Marina	<1.6 km W	+	+	0
LakePoint Lodge	<1.6 km W	+	+	0
Scroggins Farm	<1.6 km N	+	+	-
Mann's Farm	<3.2 km S	+	+	0
Barr Farm	<3.2 km S	+	+	0
Waddell Farm	3.2 km SE	0	0	0
W. C. Bradley Co.	3.2 km E	+	+	-
Cedar Hghts Plant	8.1 km N	+	+	0
Lakeside Lodge	8.1 km S	0	0	0
City of Eufaula	8.1 km S	+	+	-
Lockwood Farm	8.1 km W	+	+	-
Cowikee Campground	9.6 km W	+	+	0
Country Club Al.	12.9 km S	+	0	0
Florence Marina	12.9 km N	+	+	0
Gray Farm	12.9 km W	+	+	-
Hatchachubbe Cr.	16.1 km N	0	0	0
Bowden Farm	16.1 km N	+	+	-
Mead Coated Board	17.7 km NE	+	+	0
Briar Creek Park	19.2 km N	0	0	0
Bluff Creek Park	22.5 km NE	0	0	0
Geo. T. Bagby Park	24.1 km SE	+	+	0
White Oak LCreek	25.8 km S	+	+	-
Barbour Co. WMA	32.2 km W	+	+	-
Hartzog Farm	32.2 km W	+	+	0
Cowikee Turf Farm	32.2 km W	+	+	0
Barbour Co. Lake	32.2 km W	0	0	0
East Bank Park	37.0 km S	+	+	-
Grant Farm	40.2 km W	+	+	0
Schoy Plantation	48.0 km W	0	0	0
Wycott Plantation	48.3 km W	0	0	0
Blue Springs Park	48.3 km SW	0	0	0
Fort Benning	48.3 km NE	+	+	0

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ALABAMA CHRISTMAS BIRD COUNTS, 1990-91

Thomas A. Imhof

BIRMINGHAM, Dec. 22, 43 observers, 80.5 party-hours.

Pied-b Grebe, 13; Gt Blue Heron, 25; Canada Goose, 48; Wood Duck, 4; Mallard, 18; Blue-wg Teal, 1; Gadwall, 2; Canvasback, 14; Ring-nk Duck, 22; Hooded Merganser, 2; Ruddy Duck, 4; ducks, 13; Turkey Vulture, 5; Sharp-shin Hawk, 5; Cooper's Hawk, 2; Red-shld Hawk, 12; Red-tail Hawk, 46; Am Kestrel, 5; Merlin, 1; hawk, 1; Bobwhite, 18; Am Coot, 8; Killdeer, 95; G Yellowlegs, 2; Least Sandp, 1; Com Snipe, 14; Rock Dove, 956; Mourning Dove, 775; Screech Owl, 4; Barred Owl, 2; Rufous Hummingbird, 1; hummingbird, 1; B Kingfisher, 30; Red-hd Wdpkr, 32; Red-bel Wdpkr, 104; Y-b Sapsucker, 23; Downy Wdpkr, 48; Hairy Wdpkr, 3; Red-cockaded Wdpkr, 3; Flicker, 85; Pileated Wdpkr, 15; E Phoebe, 20; Blue Jay, 452; Am Crow, 414; Caro Chickadee, 301; Tufted Titmouse, 169; White-br Nuthatch, 46; Brown-hd Nuthatch, 90; Brown Creeper, 5; Caro Wren, 150; Winter Wren, 1; Golden-cr Kinglet, 63; Ruby-cr Kinglet, 113; E Bluebird, 97; Hermit Thrush, 14; Am Robin, 340; Catbird, 1; Mockingbird, 158; Brown Thrasher, 41; Am Pipit, 30; Cedar Waxwing, 911; L Shrike, 11; Starling, 1869; Orange-cr Warbler, 1;