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GEES E

Regional Director  
Minneapolis, Minnesota

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Quincy, Illinois

Canada Goose Behavior - Fall 1969

Canada geese use four divisions of the Mark Twain Refuge, Louisa, Delair, Cannon and Calhoun. There was a decided shortage of cultivated crops, corn and soybeans, on all refuge units except Delair which had crops approaching normal. Lack of food had little effect on Canada goose populations as three of the four units had significantly greater use than in 1968 when food supplies were abundant to the point of being surplus.

Canada goose behavior on each of the refuge units is as follows:

LOUISA DIVISION - Canada's moved into Louisa about one month later this year than in 1968, arriving on September 7. By early November 2,000 (1,800 "large" and 200 "small") birds were using the refuge and all were gone by the last week of December, a migration pattern and population level almost identical to 1968.

Foods normally found on Louisa, corn, soybeans and buckwheat were totally lacking this year. In an attempt to provide some food Proso millet was seeded in late July and early August. It matured but was on very short stalks and by September was frequently hid by the other weeds. The Canada's moved into millet fields in late September and by early October had cleaned it up. Some green vegetation may have also been taken in the fields but it appeared that millet was specifically selected by the birds.

Flights off the refuge began as the Proso was consumed and with inclement weather. Flights were mostly in a westerly direction with the birds attempting to feed in picked corn fields. At about the same time (third week of October) green wheat browse seemed to become the main diet component on the refuge. The birds showed a reluctance to go into the taller smartweed patches although there was an abundance of food available in the smartweeds.

During the final week of October feeding flights shifted to the east and north into Illinois. The shift was probably caused by hunting pressure in Iowa. On the refuge, spikerush Elocharis sp. was utilized as the wheat browse had been completely eaten.

Refuge Manager Weier noted in early November the flocks of Canadas seemed more scattered this year with 20 to 300 in each location as opposed to 1968, when all the geese could be found in one or two spots. He attributes this to the vegetation pattern, high on high ground, low or none on low spots, forcing the birds to break up in smaller groups.

The following week (November 9-15) flights resumed to the west and the first pioneering into smartweeds was observed on the refuge. By the last week of November geese were observed standing and feeding in the middle of dense, tall stands of smartweeds.

Off refuge flights to the south and west became more the rule as the birds attempted to feed in distant cornfields.

Kill of Canada geese near Louisa was up considerably from 1968. The abundance of food in 1968 curtailed feeding flights off the refuge. This year feeding flights went nearly all directions from the refuge and afforded hunters greater opportunity to kill geese. Harassment near the refuge forced birds to go to more distant fields and undoubtedly resulted in a better distribution of hunter opportunity.

**DELAIR DIVISION** - The most noticeable change in Canada goose behavior was the increased number of birds using the refuge. In 1968 only 3,417 use days were recorded with a peak of 96 birds. In contrast, 30,190 use days and a peak of 725 were tallied in 1969.

Delair was the only unit with near normal food production as wheat browse, cover and soybean stubble was available. Canadas (and snow and blue geese) spent all their time in and near the Swan Lakes. Only one off refuge flight was noted during the hunting season and five birds were killed around the refuge.

**CANNON REFUGE** - There was greatly increased use of the Cannon Refuge this fall over past years and may foretell things to come. In 1968 a peak population of 36 Canada geese was observed with 653 use days. This year a peak of 445 with 19,536 use days was recorded. This year for the first time the geese used the area continuously while in past years only sporadic use was noted, which represented migrating flocks stopping for only a day or two and then moving on.

This more intensive use cannot be attributed to food, natural or otherwise, as essentially no cultivated crops were present and while there was an abundance of smartweed nearly all the birds fed off the refuge rather than challenge the tall smartweed stands.

Water was the key to Cannon's attractiveness this year. Most refuge pools were flooded after heavy rains in early September and maintained throughout the fall by additional rain and pumping. Pool No. 1 received nearly all goose use and provided ideal habitat, i.e., shallow water, short or no vegetation around the area providing an unobstructed view, mud shorelines, etc.

The first Canadas moved in October 1, and the population gradually increased to 250 birds the first week of November. It held steady until mid-December when an influx of the "giant" Canadas swelled the population to 445.

In October some use was made of refuge wheat fields but feeding activity was primarily off the refuge to the west and south in cornfields.

Canadas seemed particularly vulnerable to hunting soon after arriving at the refuge. Kill in the refuge area is estimated at 75.

**CALHOUN DIVISION** - Canada geese moved into the Calhoun Division the final week of September, increasing until the first of November when 1,200 birds were present. The population fluctuated between 900 and 1,500 until mid-December. This is a pattern similar to 1968 except population levels were about 50 per cent higher with approximately 15 per cent of the birds of smaller races.

Early use by "Illinois No. 1 Commons" was confined to Gilbert Lake and surrounding wheat fields and is what we consider normal. The smaller birds utilized wheat fields near Swan Lake.

By early November Gilbert Lake geese were using buckwheat with some flights noted to Jersey and Calhoun Counties. When corn became available on the Pere Marquette Park Tracts in late November, geese used it as well as browse fields. Some continued to move off the refuge to feed on private lands.

Canada goose activity in 1969 did not change significantly from past year's although potential food supply was diminished. In years of favorable food production we would expect to get additional use in the Pere Marquette Park lands.

James F. Gillett