

# CANADA GOOSE HARVEST MANAGEMENT IN IOWA

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## Managing Harvests of Mixed Populations of Canada Geese The Role of Special Canada Goose Seasons in Iowa

### Managing Harvests of Mixed Populations of Canada Geese

To most people, a goose with a black head and neck and a white cheek patch is a Canada goose. To taxonomists, however, “Canada geese” are a much more diverse group. Taxonomists have divided “Canada geese” into 2 species, Canada geese (*Branta canadensis*) and Cackling geese (*Branta hutchinsii*). They further divided the Canada geese into 7 subspecies and the Cackling geese into 5 subspecies. During the fall and winter, the “Canada geese” most commonly seen in Iowa are giant Canada geese (*B. c. maxima*), interior Canada geese (*B. c. interior*) and Cackling geese (*B. h. hutchinsii*), formerly referred to as Richardson’s Canada goose (*B. c. hutchinsii*). For management purposes, these subspecies of geese are further divided into populations. For example, the Eastern Prairie Population (EPP), Mississippi Valley Population (MVP), and Southern James Bay Population (SJBP) are comprised of interior Canada geese (*B. c. interior*) that originate from different nesting regions in Canada and winter in different regions in the U.S. (Figure 1). Giant Canada geese, the largest of the Canada goose subspecies (9+ lb.), nest in the southern parts of the Canadian provinces as well as in the U.S. from the Midwest to the Atlantic Coast. EPP and MVP Canada geese, populations of the interior subspecies of Canada geese (6-9 lb.), nest on the west and south sides of Hudson Bay. The Tall Grass Prairie Population (TGPP) of geese consists of Cackling geese that primarily nest on Baffin Island in the Arctic. These geese are noticeably smaller (<6 lb.) than the giant or interior geese and can be easily identified in the field. With the exception of giant Canada geese, these goose populations were named for their wintering sites during the mid 20<sup>th</sup> century: MVP for the lower Mississippi Valley, EPP for area around Swan Lake, MO, and TGPP for the tall grass prairie region that stretches from Minnesota to Louisiana.

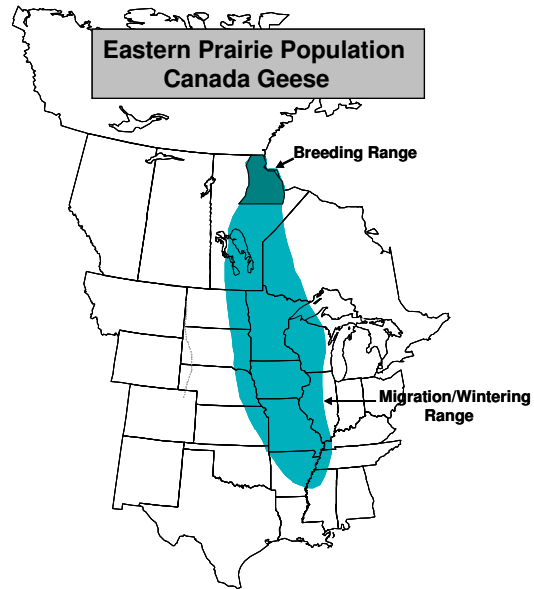


Figure 1. Breeding and wintering range of the Eastern Prairie Population of Canada geese.

During the 20<sup>th</sup> century, the status of sub-Arctic and Arctic-nesting Canada goose populations (EPP, MVP, SJBP and TGPP) determined Canada goose hunting regulations in the Mississippi Flyway. Giant Canada geese were not part of the equation because their numbers were extremely low; an estimated 20,000 giant Canada geese occupied the Mississippi Flyway in the mid 1960s. When sub-Arctic and Arctic-nesting Canada goose populations were high, hunting

seasons were liberal. In Iowa, for example, a liberal Canada goose hunting season was 70-days long with a 2-bird daily bag limit. When these Canada goose populations were low, hunting regulations were restrictive. A restrictive Canada goose season in Iowa was usually 45 days long with a 2-bird daily bag limit, but seasons were as short as 23 days with a 1-bird daily bag limit in the 1970s.

During the last decade of the 20<sup>th</sup> century, increasing numbers of giant Canada geese began to make the process of developing Canada goose hunting regulations more difficult. With Canada goose populations mixing on migration and wintering areas, and some populations increasing while others were decreasing, hunting regulations became increasingly complex. Special seasons and zones were developed to increase hunting pressure on giant Canada geese, while regular seasons in many areas were shortened to protect populations of interior Canada geese and Cackling geese from overharvest. Even though numbers of Canada geese, as a whole, were increasing, the Flyway Councils and U.S. Fish and Wildlife Service (USFWS) had (and still have) a legal responsibility to maintain all distinct Canada goose populations at viable self-sustaining levels. Consequently, hunting regulations were driven by the status of interior Canada goose and Cackling goose populations because these birds were often less abundant than the temperate-nesting giant Canada geese.

Over the years, the Iowa DNR, in cooperation with the USFWS and other states and provinces, has striven to provide reasonable hunting opportunities contingent upon the status of all Canada goose populations in the Flyway. This has resulted in season lengths and bag limits that have changed periodically to control harvests of one or more of the less abundant goose populations. These regulations usually remained in place for more than 2 years because of the limited reproductive potential of these birds. Canada geese usually do not nest until they are 3 or 4 years old. Thus, young geese have to survive at least 3 hunting seasons before they begin nesting. As a consequence of this delayed maturation, Canada goose populations do not recover rapidly from population declines. The recovery lag is longest for sub-Arctic and Arctic-nesting Canada geese, i.e., the interior Canada geese and Cackling geese, because they do not nest until they are 4 years old. These birds also have smaller clutches than temperate-nesting giant Canada geese and they have higher mortality rates because they are hunted from northern Manitoba to Louisiana, from September 1 in the north to January 31 in the south.

Restrictive hunting regulations always result in sacrificing hunting opportunity. After all, you cannot reduce the number of geese harvested without reducing hunting opportunity. When restrictive regulations are necessary, hunters should expect the season dates and bag limits to be less than ideal.

This conservative approach to Canada goose harvest management has been in the best long-term interest of Canada goose populations and Canada goose hunters. The number of Canada geese annually harvested in the Flyway is 3 times what it was in the 1970s and 1980s. More importantly, in Iowa the seasonal Canada goose harvest per hunter has exceeded 3 birds per hunter in the past few years. In the 1970s and 1980s, the average seasonal Canada goose harvest per hunter in Iowa was only 0.2 and 0.5, respectively. Shooting a Canada goose in the 1970s was an uncommon event for most Iowa waterfowlers. Today, most Iowa waterfowl hunters have a good chance of shooting several Canada geese each season.

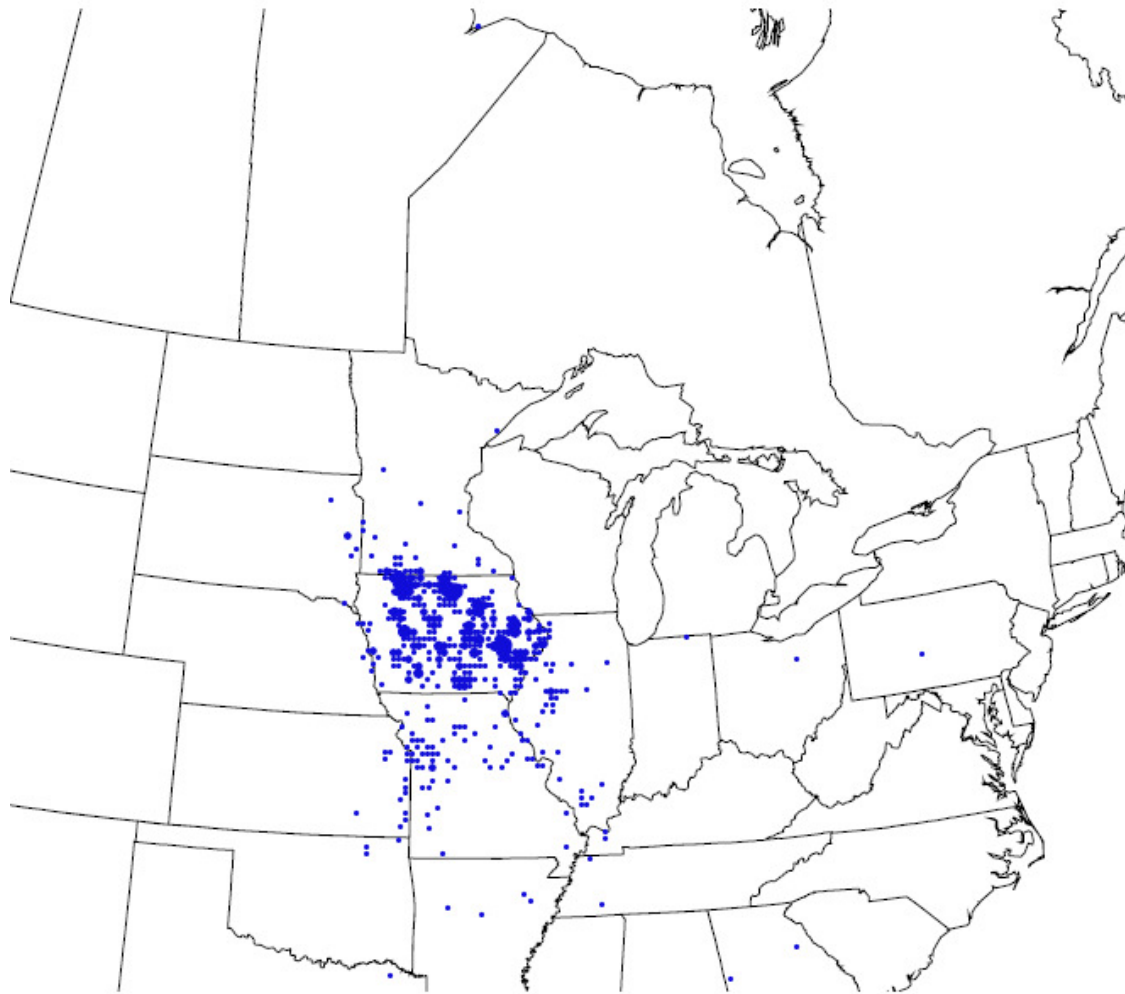
With the increasing numbers of temperate-nesting giant Canada geese, two perceptions have begun to pervade the thinking about Canada goose harvest management. The first is that all Canada geese are the same and all Canada goose populations in the Flyway are at or above desired population levels. As previously mentioned, hunters in Iowa shoot “Canada geese” from the Eastern Prairie and Mississippi Valley Populations of interior Canada geese, from the Tall Grass Prairie Population of Cackling geese, and from the Midwest giant Canada goose population. These goose populations are not equally abundant and the Mississippi Flyway Council and USFWS have the responsibility to maintain all these distinct populations of geese at viable self-sustaining levels. Therefore, even though “Canada geese” may appear very abundant, not all Canada geese are the same and hunting regulations must still be formulated to prevent overharvest of the less abundant populations. Ignoring the status of less abundant Canada goose populations can have dire consequences as witnessed by the closed Canada goose hunting seasons that occurred in the Atlantic Flyway in the 1990s when the Atlantic Population of Canada geese, the interior subspecies of Canada geese that nest in northern Ontario, fell to critically low levels.

The second perception is that most temperate nesting Canada geese do not migrate and therefore hunting seasons can be developed without consideration for any impacts on goose hunting opportunities in other parts of the Flyway. Nothing could be further from the truth. Figures 1 and 2 illustrate recovery locations for Canada geese that were banded in Iowa during the 2001-05. Most of the young geese banded in the state are shot within Iowa, up to 75 % in some years as indicated by the numbers of direct recoveries that occur in Iowa (Figure 2). [Banded geese that are shot and reported by hunters the first season after they were banded are referred to as **direct recoveries**.] However, the indirect recoveries of Canada geese banded in Iowa, i.e., geese shot and reported during the second, third, fourth, fifth, etc., seasons after they were banded, clearly illustrate that these birds are traveling from Iowa to points as far north as the coast of Hudson Bay and as far south as Oklahoma (Figure 3). Obviously, temperate-nesting giant Canada geese are migratory birds.

In Iowa, the status of our local giant Canada goose population is particularly important to sustaining Canada goose hunting opportunities in the state. Harvest derivation analyses using band recoveries weighted for population’s size indicate that nearly two thirds of the Canada geese shot in Iowa are banded in Iowa. Since the majority of the Canada geese harvested in Iowa are produced in Iowa, it is imperative that our local goose population be monitored and managed carefully so hunters can continue to enjoy the hunting opportunities they have grown accustomed to in recent years.

Figure 2. Recovery locations of Canada geese banded in Iowa and shot during the season immediately after banding during the 2001-05.

## Direct Recoveries\* of 2001-2005 Iowa Banded Canada Geese



Direct recoveries CAGO banded in IA 2001-2005

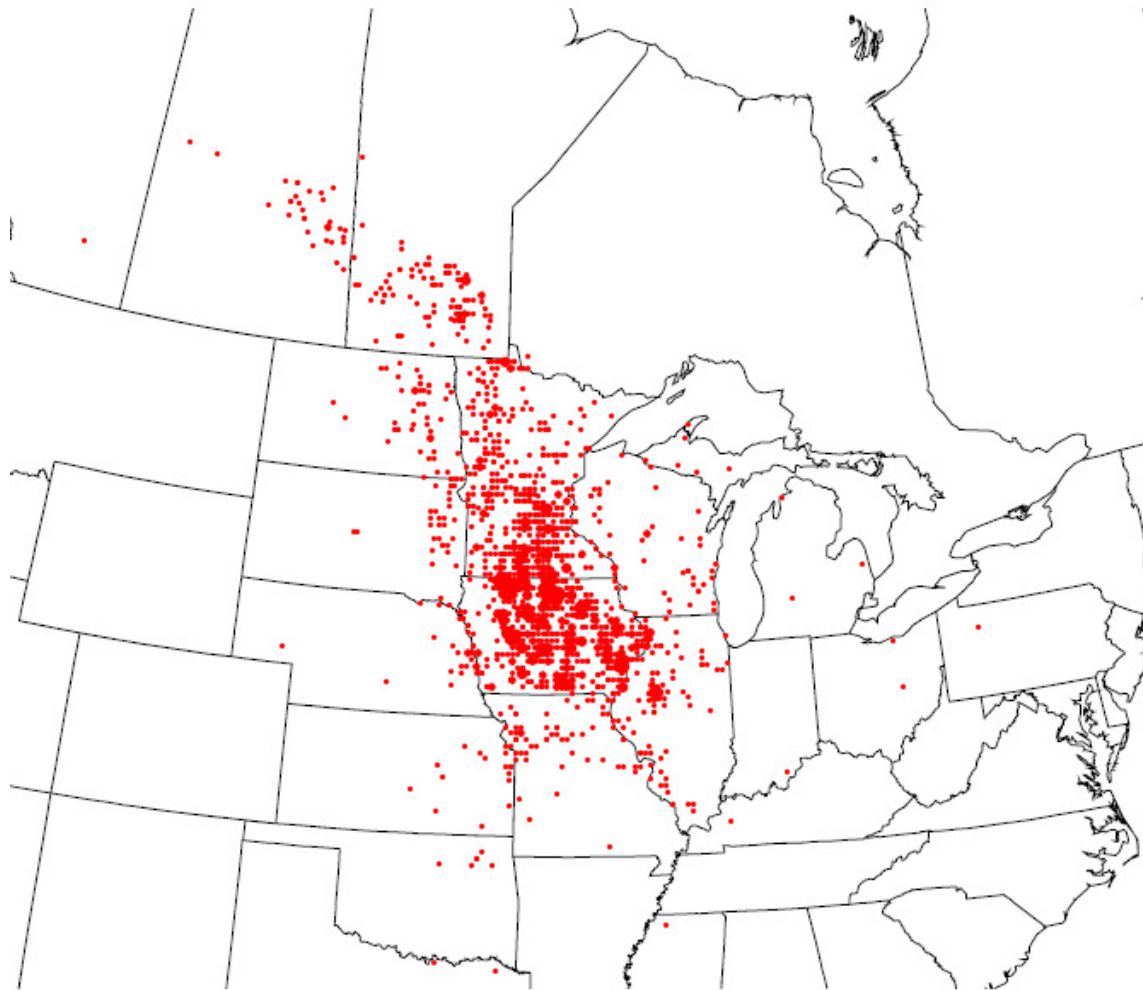
- 1 - 4
- 4 - 15
- 15 - 33
- 33 - 63
- 63 - 117

Canadian Provinces.shp  
United States.shp

\*Direct recoveries are birds that are shot in the same year that they are banded

Figure 2. Recovery locations of Canada geese banded in Iowa and shot during the second, third, fourth, fifth, etc., season after banding during the 2001-05.

## Indirect Recoveries\* of 2001-2005 Iowa Banded Canada Geese



Indirect recoveries CAGO Banded in IA 2001-2005

- 1 - 2
- 2 - 5
- 5 - 10
- 10 - 16
- 16 - 31
- Canadian Provinces.shp
- United States.shp

\*Indirect recoveries are birds that are shot in a different year than they were banded

## **The Role of Special Canada Goose Seasons in Iowa**

The challenge of managing abundant populations of giant Canada geese in conjunction with less abundant populations of interior Canada geese (EPP, MVP, and SJBP) and Cackling geese (TGPP) in the Mississippi Flyway caused several states in the Flyway to implement special early or late Canada goose seasons during the last two decades of the 20<sup>th</sup> century. These “special” seasons were only open when there were few, if any, interior Canada geese or Cackling geese in the state. Until 1996, special early Canada goose seasons could only be opened in states that had proved that 90% of the geese that were harvested during the special season were giant Canada geese. This was done by measuring the wings, legs, and heads of a portion of the geese harvested during the special season for a 3-year experimental period. These measurements, along with the bird’s age and sex, were used to determine if the goose belonged to the EPP, MVP, SJBP, TGPP, or giant population. If 90% of the geese killed during the special season were from the giant Canada goose population, the state was allowed to continue to open the special season.

After similar evaluations were conducted in several states in the Flyway, it became clear that very few interior Canada geese or Cackling geese were migrating into the states before September 15. Consequently, in 1996, the USFWS gave all states in the Flyway the option to open special Canada goose seasons between September 1-15.

The IA DNR took advantage of this option in 1996 and opened a 2-day special September season in the northwest and north-central regions of the state that year. Surveys at that time suggested the Canada goose population in those regions was large enough to sustain additional hunting pressure. Hunters harvested between 10,000 and 16,000 Canada geese each year from 1996 to 2000 during those special 2-day seasons. Most of the geese shot were giant Canada geese that had hatched in Iowa; a few geese originated from southern Minnesota. In 2001, surveys indicated the Canada goose population in northwest and north-central Iowa had declined substantially. As a result, the special 2-day September Canada goose season was terminated. Public pressure prompted reopening the special 2-day September season in 2004 in the north waterfowl hunting zone. In 2005, 2006 and 2007, the special 2-day September was opened statewide. The special September season remained open despite declines in Iowa’s Canada goose breeding population in 2007 and 2008. As a result of these population declines, however, the season was closed in 2008. Any future use of “special” hunts will be contingent upon the status of the Canada goose population in Iowa. Special hunts may not be necessary to control the Canada goose population in Iowa in the near future because the regular Canada goose season in Iowa is now 20 days longer (90-days) than the most liberal seasons (70-days) in the 1990s and early 2000s.

While special statewide September hunts were being opened and closed in the early 2000s, it became clear that additional hunting pressure was needed around some metropolitan areas to control increasing numbers of resident Canada geese in these cities. Because geese living in urban areas have lower mortality rates from predators and are less vulnerable to hunters because of hunting restrictions in cities, their populations grow at faster rates than populations of geese in rural areas. Special September 1-15 hunts were established around the Des Moines and Cedar Rapids/Iowa City areas in 2003 to put additional hunting pressure on the geese in these

metropolitan areas. In 2008, the Cedar Falls/Waterloo area was also added to zones opened for Canada goose hunting from September 1-15. The objective of these special hunts was to use hunting, in addition to nest destruction and translocation, to reduce the numbers of Canada geese nesting in these urban areas. When these urban goose populations are reduced to acceptable levels, these special seasons may also be shortened or terminated.