

**FALL INVENTORY OF MID-CONTINENT**

**WHITE-FRONTED GEESE**

**-2009-**

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## **2009 FALL INVENTORY OF MID-CONTINENT WHITE-FRONTED GEESE**

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Scott Durham and Kevin Kraai**

The 18<sup>th</sup> annual Fall Inventory of Mid-continent White-fronted Geese was conducted in Alberta and Saskatchewan, September 23 – October 1, 2009. All major goose staging areas were included in an aerial count during the peak of white-front abundance (Figure 1). Dry conditions prevailed throughout most of western Saskatchewan and eastern Alberta which distributed white-fronts on the few available wetlands throughout this region which traditionally supports fall staging arctic geese.

Aerial survey coverage in 2009 was excellent, and very intensive due to the presence of a large number of wetlands, particularly in western Saskatchewan. Two U.S. Fish and Wildlife Service aircraft were used throughout the survey. North-western and east-central Alberta was included to ensure that all areas likely to support a significant number of white-fronts were surveyed again this year. Previous data from other aerial and ground inventories, radio telemetry and banding indicate that optimal survey coverage and timing are being attained. Weather conditions were good throughout the survey.

The 2009 survey yielded 583,200 white-fronted geese in Alberta and Saskatchewan, a 22 percent decrease from the previous year (Table 1; Figure 2). These results provide a new three year (2007-2009) average of 699,700 geese, 7 percent less than the previous mean of 755,700 birds. Only 23 percent of the birds counted this year were on the South Saskatchewan River (Figure 1); in some years as much as 60 to 70 percent of the surveyed population has been on that water body. There were about 20,140 white-fronts in the north-western (Peace River) region. Few white-fronted geese were reported in the United States during the survey period; none were reported in Mexico.

As noted above, a significant proportion of the Mid-continent White-fronted Goose Population may occur on the South Saskatchewan River each fall. It has been extremely difficult to obtain accurate aerial estimates of very large numbers of white-fronts among mixed species flocks of waterfowl which in some years exceed one million birds concentrated in a relatively small part of the river valley. These conditions encouraged the development of a ground count on a portion of the river, which has been an operational component of this survey since 2002. Aerial coverage of the South Saskatchewan River has continued as well, providing an annual comparison between the two methods, as well as an “alternate” count if the ground survey fails. Previous reports describe the development of the ground inventory, and it was used again in 2009 to obtain an estimate of the number of geese on the river.

The current aerial survey personnel (pilot biologists and observers) should be maintained, if possible. Although Scott Durham, Louisiana Wildlife & Fisheries, and Kevin Kraai, Texas Parks and Wildlife Department participated as observers again this year, there is a need to begin training alternates in the event that either individual is no longer available. A detailed process of training and annual assessment, requiring several years of involvement in the various components of the fall survey, has been in place for the past several years. It is suggested that the Central and Mississippi Flyways select individuals for this training.

The Fall Inventory of Mid-Continent White-fronted Geese will continue to be conducted in late September and early October, when most of this population is present on the southern Canadian prairies. Survey coverage will continue to be adjusted to compensate for annual changes in goose distribution due to factors such as local wetland habitat conditions. The very large, mixed species groups on the South Saskatchewan River, and the recent significant influx of white geese into this area, are problematic. Changes in the current ground survey protocol may be necessary if a large number of white geese begin to consistently use this wetland during the survey period.

For background information and additional details on the development of this survey, please see previous annual reports, in particular:

Gollop, M. 1993. Counts of Greater White-fronted Geese on the South Saskatchewan River. Saskatchewan Natural Resources, Wildlife Branch Unpublished report. 35pgs.

Nieman D. and Gollop, M. 1993. Coordinated Fall Survey of Mid-Continent White-fronted Geese. Canadian Wildlife Service Unpublished report. 29 pgs.

Nieman, D.J. and Gollop, M. 1994. Coordinated Fall Survey of Mid-Continent White-fronted Geese. Canadian Wildlife Service Unpublished report. 30 pgs.

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**Population Index (2009):** 583,200 (751,700 in 2008)

**Three Year Mean (2007/2009):** 699,700 (755,700 for 2006/2008)

**Survey Dates:** September 23 – October 1, 2009

**Survey Participants:**

**Survey Coordinator:** Keith Warner, Canadian Wildlife Service

**Pilot/Biologist:** John Solberg, US Fish & Wildlife Service  
**Observer:** Kevin Kraai, Texas Parks and Wildlife  
Department

**Pilot/Biologist:** Ray Bentley, US Fish & Wildlife Service  
**Observer:** Scott Durham, Louisiana Wildlife & Fisheries

**Ground Survey:** Dan Nieman, Canadian Wildlife Service  
Phyllis Nieman, CWS Volunteer  
Keith Warner, Canadian Wildlife Service  
Kevin Dufour, Canadian Wildlife Service  
Garnet Raven, Canadian Wildlife Service  
Mike Gollop, Saskatchewan Environment  
Alex Dzubin, Volunteer  
Pat Bergen, CWS Volunteer

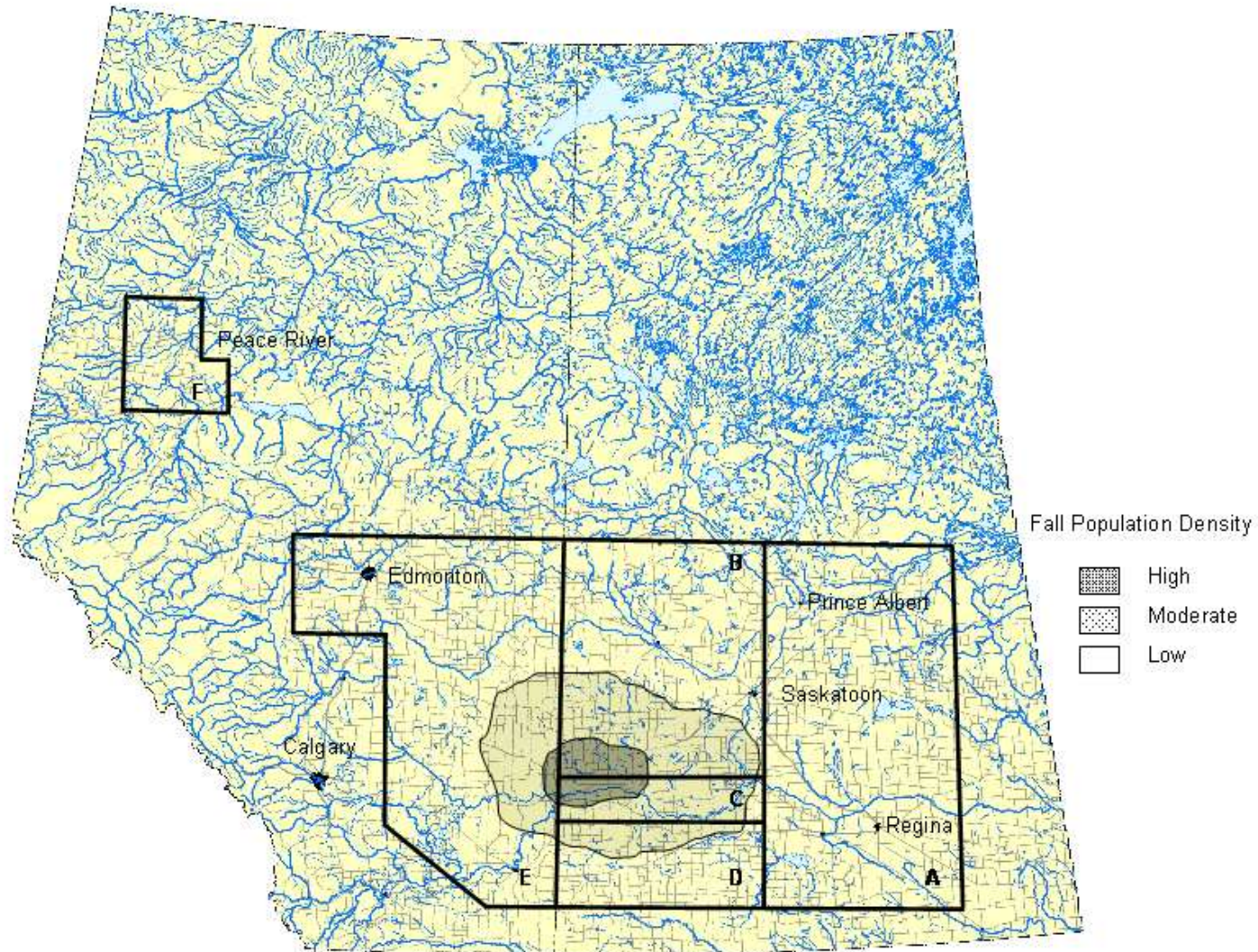
**Other Survey Cooperators**

**Central Flyway:** Dave Sharp, US Fish & Wildlife Service  
**Mississippi Flyway:** Jim Kelley, US Fish & Wildlife Service  
**Sask. Environment:** Mike Gollop  
**Alberta Fish & Wildlife:** Jason Caswel

Table 1. Fall population indices of Mid-continent White-fronted Geese based on aerial and ground surveys in Alberta and Saskatchewan, 1992-2009.

Year	Annual Survey	3-Year Average
1992	623,000	
1993	676,300	
1994	727,300	675,500
1995	1,129,400	844,300
1996	742,500	866,400
1997	622,200	831,400
1998	1,058,300	807,700
1999	963,100	881,200
2000	1,067,600	1,029,700
2001	712,300	914,300
2002	680,200	820,000
2003	528,200	640,200
2004	644,300	617,600
2005	522,800	565,100
2006	751,100	639,400
2007	764,300	679,400
2008	751,700	755,700
2009	583,200	699,700
<b>% change</b>		
<b>2008 / 2009</b>	<b>-22%</b>	<b>-7%</b>

Figure 1. Number of Mid-Continent White-fronted Geese observed by region during the annual fall inventory in Alberta and Saskatchewan, 2008-2009.



REGION		2009	%	2008	%	2005-2009 AVG	%
A	Eastern Sask	2,663	<1%	5,794	<1%	3,388	<1%
B	West-Central Sask	317,346	54%	387,176	51%	382,831	56%
C	South-Sask River	132,596	23%	188,892	25%	120,878	18%
D	South-West Sask	12,121	2%	22,612	3%	45,042	7%
E	Eastern Alta	98,350	17%	143,729	19%	116,153	17%
F	North-West Alta	20,140	3%	3,520	<1%	6,368	1%
TOTAL		583,216		751,723		674,660	

**Figure 2. Population indices of Mid-continent White-fronted Geese, 1992-2009 and the relationship to population goals identified in the Management Plan.**

