



Summary of the 2007 Off-Reservation Treaty Waterfowl Season

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SUMMARY OF THE 2007 OFF-RESERVATION TREATY WATERFOWL SEASON

INTRODUCTION

The fall of 2007 marked the 23rd year of off-reservation treaty waterfowl hunting by Great Lakes Indian Fish and Wildlife Commission (GLIFWC) member tribes on lands ceded in the treaties of 1837 and 1842 (Figure 1). Participating tribes included Bad River, Lac Courte Oreilles, Lac du Flambeau, Mole Lake, Red Cliff and St. Croix of Wisconsin, Keweenaw Bay and Lac Vieux Desert in the Upper Peninsula of Michigan, and the Mille Lacs Band of Minnesota. In addition, 2007 marked the 17th year of off-reservation treaty waterfowl hunting in the 1836 treaty area by the Bay Mills Indian Community in Upper Michigan.

Hunting regulations proposed by GLIFWC, as authorized by tribal governments, were reviewed by the U.S. Fish and Wildlife Service (USFWS) after consultation with GLIFWC and the Departments of Natural Resources of Wisconsin (WDNR), Michigan (MiDNR) and Minnesota (MnDNR), and published in the Federal Register for public comment. Final regulations approved by the USFWS are described below.

Annual surveys to estimate the number of hunters, harvest, and effort by tribal waterfowl hunters were conducted via mail from 1985 to 1994 and by telephone from 1995-1998. Due to the low harvest estimates generated from these surveys, and the insignificant related biological impact, GLIFWC began conducting waterfowl harvest surveys on a 3 year cycle, conducting a telephone survey after the 2001, 2004, and 2007 seasons.

REGULATIONS

Season dates for zhiishiibag (ducks), aajigadeg (coots), manoominikeshiinh (rails), mergansers and snipe [ginwaa'okojiis (central/western dialect) or jiichiishkwenh (eastern dialect)] ran from September 15 - December 31 on all ceded lands. Nikag (goose) seasons ran from September 1 to December 31 in all ceded lands, but also continued later in any area that was open to state-licensed hunters after December 31. Badashka'anzhi (woodcock) hunting was open from September 5 until December 1. A mourning dove [omiimii (central/western dialect) or miimii (eastern dialect)] season ran from September 1 until October 30 in the 1837 and 1842 ceded territories.

In the 1837 and 1842 ceded territories the daily bag limit for zhiishiibag (ducks) was 30, with additional limits on mallards (5 hens and 10 total), black ducks, pintails and canvasbacks (5 each). In the 1836 ceded territory, the daily bag limit for ducks was 20, with the same species restrictions listed above. The daily bag limit for nikag (geese), all species combined, was 20 in the 1837 and 1842 ceded territories, and 10 in the 1836 ceded territory. Other bag limits for all ceded territories were: mergansers 10 (in the aggregate), coots 20, rails 20 (in the aggregate), snipe 16, and woodcock 10. The bag limit for mourning doves was 15.

Possession limits were twice the daily bag limit, except for rails, which had a possession limit of 25. Possession limits did not apply to birds cleaned, dressed, and at the hunter's primary residence. All federal and state closed areas and method restrictions were adopted, with the exception of state imposed open water hunting restrictions. Shooting hours were from ½ hour before sunrise to 15 minutes after sunset, and there was no shell restriction on shotguns.

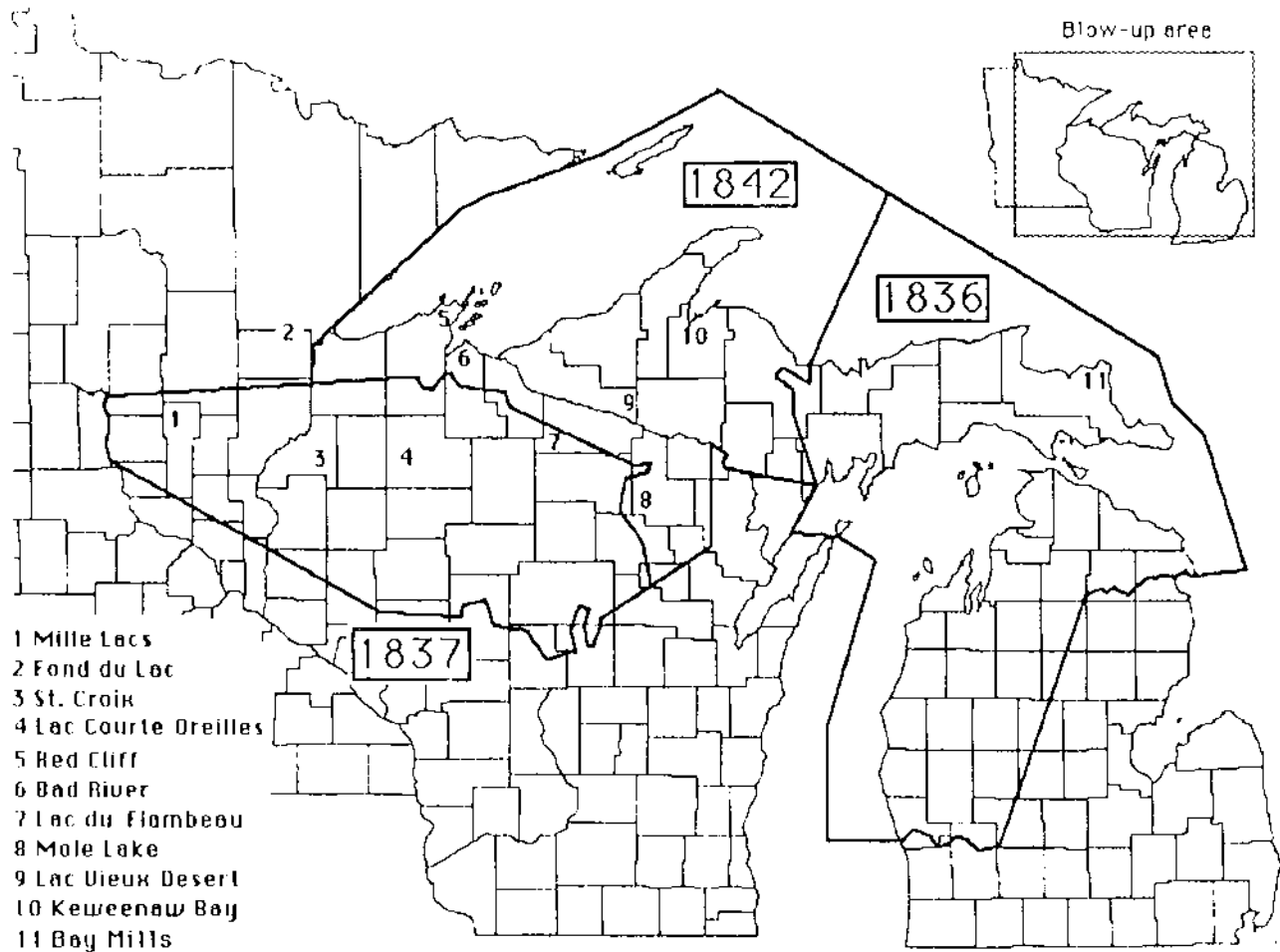


Figure 1. Map of the territories ceded in the treaties of 1836, 1837, and 1842 with reservation locations. (Ceded territory boundary depictions approximate.)

METHODS

Tribal waterfowl hunters were required to possess a natural resource harvesting permit. All tribes with the exception of Keweenaw Bay used an off-reservation natural resources harvesting permit provided by GLIFWC. When tribal members obtained this permit they were asked if they harvested waterfowl off-reservation the previous year, and this information was used to group permit holders into “active”, “inactive”, and “non-respondent” groups (with non-respondents being

those individuals who failed to provide this information). Randomly selected individuals were surveyed by telephone. Twenty-nine percent of the “active” (79/276), 19% of the “inactive” (283/1,475) and 23% of the “non-respondent” (34/149) individuals were surveyed. Separate participation and harvest estimates were then calculated for each group, and added to develop combined estimates.

Estimates for the Keweenaw Bay tribe (KB) were made separately, because KB issued a general hunting/fishing/trapping permit to their waterfowl hunters. Since the data base of permit holders included addresses but not phone numbers, KB members were surveyed by mail rather than phone. A sample of 350 of 636 permit holders were mailed a survey, and 82 were returned, representing 23% of the individuals sampled, and 13% of all permit holders. Survey results were then extrapolated to estimate harvest and effort for the tribe, and combined with the estimates for all other tribes to develop total estimates. Estimates for harvested species in 2007, as in previous years, were based on the hunter’s identification and recollection and may not be comparable to estimates from surveys based on parts collection.

It can be difficult to use the tribal waterfowls harvest data to draw solid inferences about the impact of particular harvest regulations. Estimates based on a small number of hunters can be influenced by random variation and data outliers (such as the individuals who reported harvesting 100 ducks, or 200 coot), while waterfowl harvest tends to be influenced by weather, the strength of the fall flight, and other factors. The interplay of these variable can make it difficult if not impossible to discern the individual effect of any one, particular in a given year. In general, tribal harvest estimates may best be used to evaluate long-term trends.

RESULTS

Although the GLIFWC-issued tribal harvesting permits were validated for waterfowl hunting by 1,900 individuals in 2007, the proportion of permit holders who hunt waterfowl is low, likely because the permit is free and because waterfowl hunting is a simple check-off category on a general harvesting permit that is also required for harvesting other animals and plants. In 2007, for example, 6.1% (115 of 1,900) permit holders were estimated to have hunted waterfowl. Similarly, the Keweenaw Bay tribe’s permit is used for several activities so the percentage of permit holders estimated to hunt waterfowl is also low (i.e. 31 of 636 permit holders or 4.9% in 2007).

Among those tribes using the GLIFWC permit, 8.9 percent (7/79) of the “active” hunters, 4.9% (14/283) of the “inactive” hunters, and 11.7% (4/34) of the “non-respondent” individuals surveyed reported hunting migratory birds in 2007. These 25 survey respondents reported harvesting 271 ducks (100 by one individual), 203 coot (200 by one individual) and 49 Canada geese in 109 days of hunting, yielding expanded estimates of 1,287 ducks, 892 coot and 232 Canada geese in 485 hunting-days by 115 hunters.

Of the KB permittees who returned the survey 4.9% (4/82) indicated they hunted waterfowl in 2007. This figure may over-represent the actual activity rate, and thus inflate estimates, since past mail surveys have suggested that active individuals are more likely to return the survey than inactive individuals. The four active respondents reported harvesting 46 ducks, no coot, 37 Canada geese and 2 snow geese in 38 days of hunting (20 days reported by one individual). These figures yield expanded estimates of 357 ducks and 303 geese including 16 snow geese, in 295 hunting-days, by 31 hunters. Total estimates for the two surveys combined are shown in Table 1.

Table 1. Treaty waterfowl harvest : 1996, 1997, 1998, 2001, 2004 and 2007.

YEAR	ESTIMATED # OF HUNTERS	ESTIMATED # OF DAYS	ESTIMATED HARVEST		
			DUCKS	GEESE	COOT
2007	146	780	1,644	535	892
2004 ¹	63	421	645	84	91
2001	75	353	1,014	81	146
1998	92	625	599	177	172
1997	151	951	1,022	183	164
1996	125	572	1,278	72	57

¹ 2004 estimates do not include the Keweenaw Bay tribe.

Comparing the 2007 estimates to those made for 1996, 1997, 1998, 2001 and 2004, (the five previous years surveyed) suggests that tribal waterfowl hunting has not changed in a biologically substantive way (Table 1). The estimated number of hunters and hunter days in 2007 were within the range for the five previous surveys while estimated harvest of waterfowl in 2007 was greater. The duck harvest may have increased in 2007 relative to recent surveys even if one assumes the value is inflated to some extent by the KB harvest estimate. In general, the KB estimates most strongly influenced the total estimates of hunter days and goose harvest. The coot harvest estimate is probably over-estimated, being determined nearly entirely by a single hunter. It is possible that the larger bag limits, reduced species restrictions, and extension of hunting hours to 15 minutes after sunset that were in place in 2007 induced more hunters to participate. However, as stated above, tribal estimates may be best used to evaluate long-term trends, and estimates from a single year should be used with caution.

An estimated 347 of the hunting days took place in Wisconsin, 393 in Michigan and 40 in Minnesota. The Michigan figure may be an over-estimate, influenced by the KB mail survey. The Minnesota figure may be an under-estimate since one respondent who reported hunting in Minnesota did not provide information on the number of days hunted. Most hunting took place near reservations, with nearly 70% of all hunting days reported occurring in counties with reservations, and 78% of the remainder coming from adjacent counties (Fig. 2).

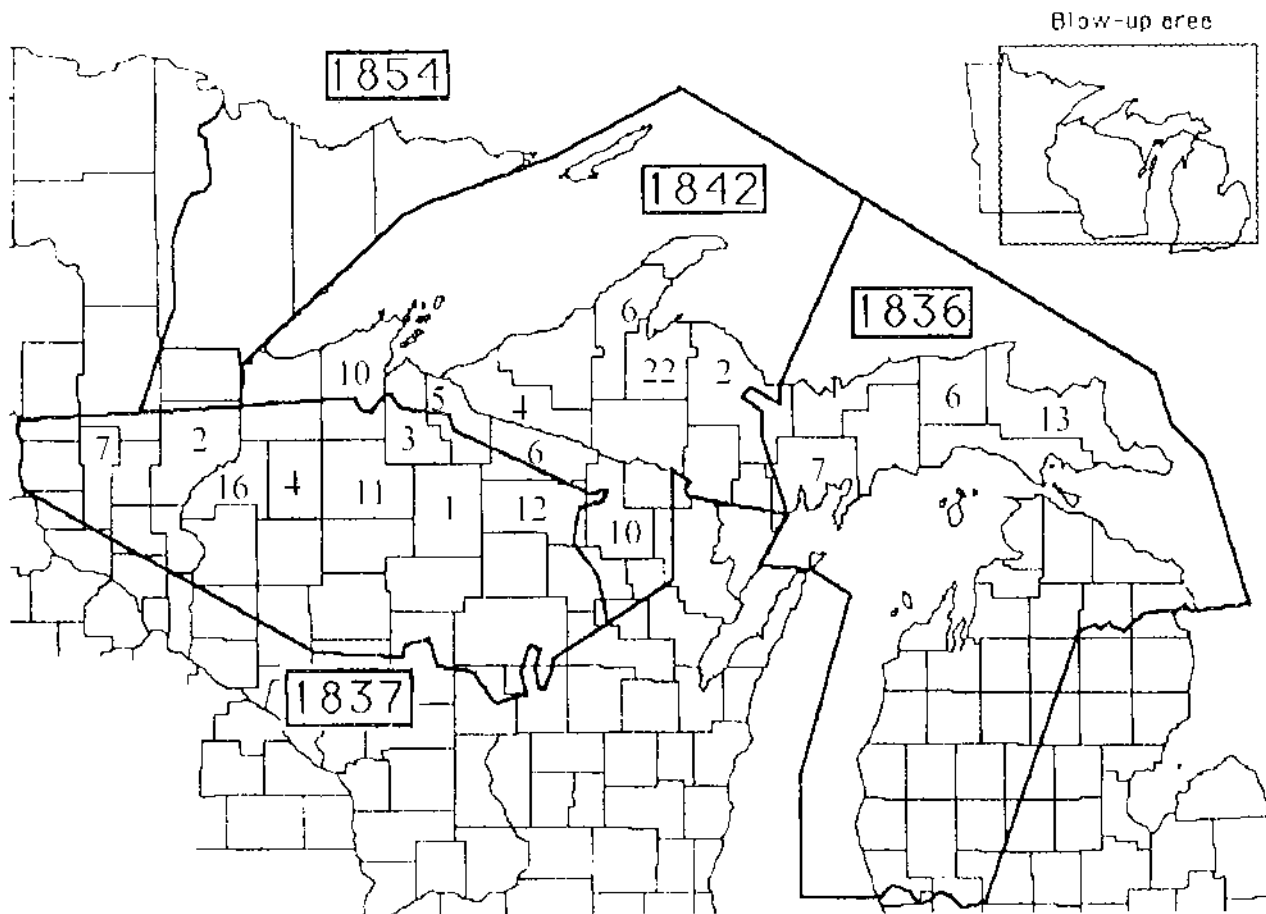


Figure 2. Waterfowl hunting days by county, as reported by respondents to the 2007 off-reservation tribal waterfowl hunting survey.

No survey respondents reported harvesting snipe, rails or doves. Four individuals reported harvesting a total of 10 woodcock. Among active hunters with an opinion (n=27), 41% felt the fall flight was poorer than in 2006, 22% felt it was better, and 37% felt it was about the same.

Hunters were asked to report the largest number of ducks and geese they harvested on a single day of hunting. Responses for the 28 active respondents who provided this information (both surveys combined) are shown in Table 2. The greatest number of ducks reported harvested in a single day was 27, while the average harvest was 2.1 ducks per hunting day. The highest number of geese reported taken on a single outing was 8, and the average harvest was 0.7 geese per hunting day. It is clear that hunter harvest is generally determined by factors other than the bag limit. Although total duck harvest remained low in 2007 even with a thirty-bird bag limit, the large bag limit is important to tribal hunters because it allows those individuals who do locate ducks on a particular hunting trip a greater opportunity to meet their subsistence needs.

Table 2. Highest single day duck and goose harvest as reported by active respondents.

Most Birds Harvested in a Single Day	Number of active hunters reporting for:	
	Ducks	Geese
0-3	17	25
4-6	9	2
7-10	1	1
10+	1	0

Survey respondents were asked to report the composition of their duck harvest. The reported composition in 2007 differed in some respects from the collective composition from the 10 previous surveys (Figure 3). The percentage of mallards and blue-winged teal in 2007 was similar to previous years, while the percentage of wood ducks and scaup in 2007 was less than in previous years. For all other species combined, a larger percentage was noted in 2007 compared to previous years. The significance of scaup in the bag appears to be declining in recent years.

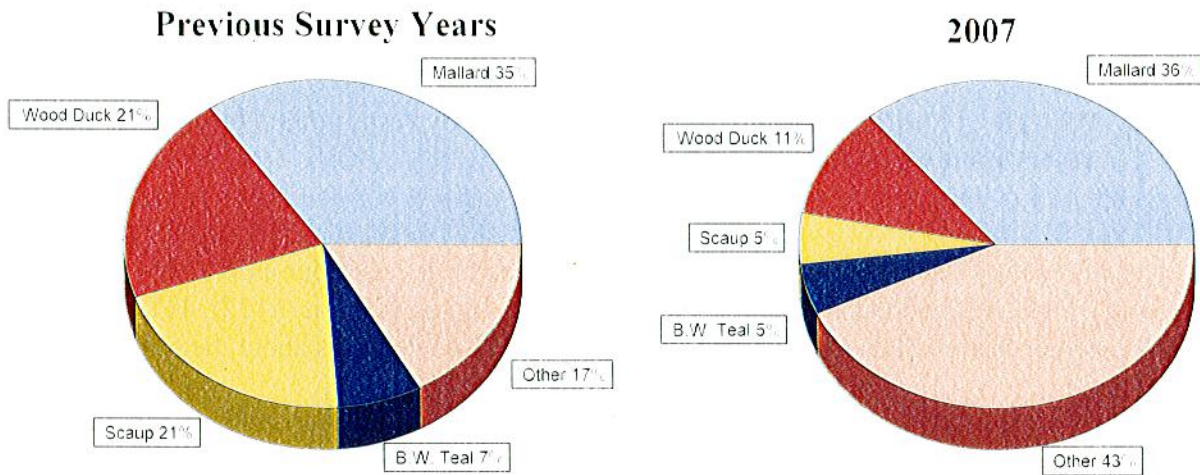


Figure 3. Species composition of the treaty duck harvest, 2007 versus previous survey years (1991-1998, 2001 and 2004 combined)

SUMMARY

A tribal waterfowl harvest survey was conducted following the 2007 season and estimates were compared to previous surveys. The estimated number of hunters and hunter days in 2007 were within the range for the five previous surveys while estimated harvest of waterfowl in 2007 was greater. The estimated harvest of ducks may reflect an actual increase. Coot harvest was likely over-estimated due to the influence of a single hunter, while estimated goose harvest may be biased high as a result of using a mail survey for Keweenaw Bay hunters. While the exercise of the treaty right to harvest waterfowl remains culturally significant to individual tribal members, the biological impact remains insignificant.

