



## Summary of the 2008 Off-Reservation Treaty Waterfowl Season

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## SUMMARY OF THE 2008 OFF-RESERVATION TREATY WATERFOWL SEASON

### INTRODUCTION

The fall of 2008 marked the 24th 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, 2008 marked the 18<sup>th</sup> 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 and minimal biological impact of the harvest, GLIFWC began conducting waterfowl harvest surveys on a 3 year cycle, conducting a telephone survey after the 2001, 2004, and 2007 seasons. However, a survey of the 2008 season was conducted to help determine if an increase in the mallard bag limit from 10 in 2007 to 30 influenced harvest levels.

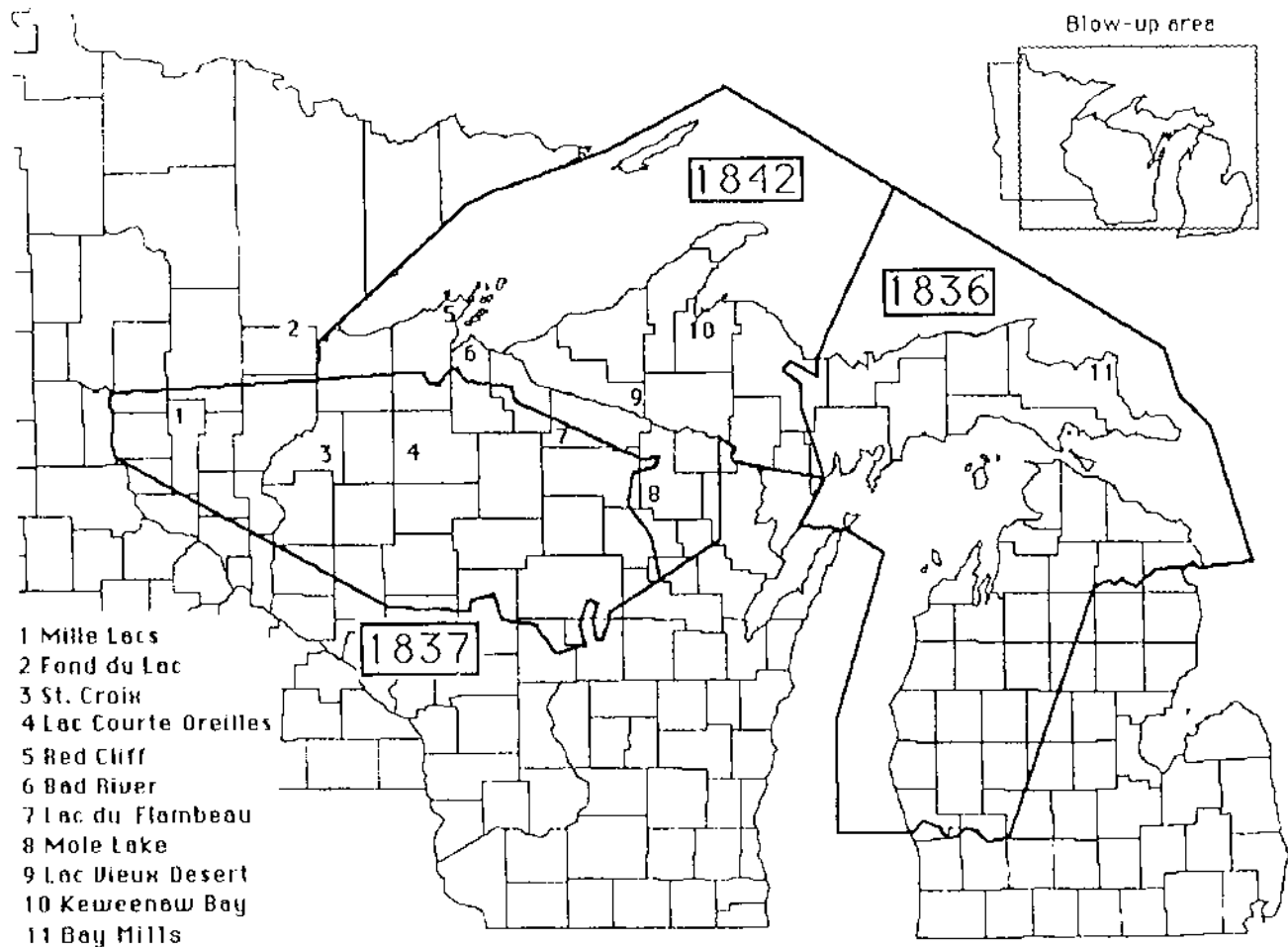
### REGULATIONS

Season dates for zhiishiibag (ducks), mergansers and snipe [ginwaa'okojiis (central/western dialect) or jiichiishkwenh (eastern dialect)] ran from September 15 - December 31 on all ceded lands. The nikag (goose), aajigadeg (coot) and manoominikeshiinb (rail) seasons ran from September 1 to December 31 in all ceded lands, but also continued later for geese 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 November 9 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 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 all ceded territories. 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 were no shell restrictions 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. (Telephone surveys have generally been used since 1995 because of suspected response bias in mail surveys.) Forty-three percent of the “active” (107/247), 27% of the “inactive” (452/1,665) and 18% of the “non-respondent” (8/45) individuals were surveyed. Separate participation and harvest estimates were then calculated for each group, and added to develop combined estimates.

The Keweenaw Bay Tribe (KB) issues a general, life-long hunting/fishing/trapping permit to their tribal members who participate in any of these activities. As a result, the waterfowl hunting activity rate among permit holders is very low: a mail survey sent to 350 of the 636 KB permit holders after the 2007 waterfowl season yielded only 4 active waterfowl hunters among 82 responses (David, 2008), and it is suspected that this number is biased high by a positive response rate among active waterfowl hunters. As a result, KB tribal members were not surveyed in 2008 and no estimate of their 2008 harvest is included in this report. In 2007, KB members accounted for 21.7% of the total harvest estimate of ducks, 56.6% of the estimated goose harvest, and none of the estimated coot harvest (David, 2008). However, because of the suspected positive response bias, it is thought these figures may over-represent the actual harvest levels by KB members.

Identification of the species harvested in 2008, as in previous years, is based on the hunter’s skills and recollection, and may not be comparable to estimates from surveys based on parts collections. In this report, the composition of the duck bag is only broken down for a few common species (mallards, wood ducks, scaup, and blue-winged teal); all others are grouped.

It can be difficult to use the tribal waterfowl harvest data to draw solid inferences about the impact of particular harvest regulations. Estimates based on a small number of hunters can be greatly influenced by random variation and data outliers; in this survey for example, one respondent accounted for over 20% of the reported duck take; another over 75% of the reported coot take. Waterfowl harvest also tends to be influenced by weather, the strength of the fall flight, and other factors. The interplay of these variables 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 1,957 individuals in 2008, 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 2008, 3.9% (76) permit holders were estimated to have hunted waterfowl, including 23.4% of the “active” group, 1.1% of the “inactive” group, and 0% of the non-response group (Table 1).





Activity Group	Total Number	Number Surveyed	Percent Surveyed	Percent Active	Estimated Number Active
Active*	247	107	43%	23.4%	58
Inactive*	1,665	452	27%	1.1%	18
Non-respondent*	45	8	18%	0%	0
Total	1,957	567	29%	3.9%	76

\* Activity grouping is based on reported activity the previous year; see discussion in text.

The relatively low activity rate even among those GLIFWC permit holders who had identified themselves as hunting waterfowl the previous year has been observed in previous surveys as well. It is thought this may be due to individuals who hunted waterfowl on-reservation the previous year, individuals who recalled hunting off-reservation in an earlier year, or both.

The 25 active survey respondents in the “active” group reported harvesting 444 ducks, 92 geese and 59 coots, in 197 days, yielding total harvest estimates of 1030 ducks, 213 geese and 137 coots in 457 days for this group. The 5 active respondents in the “non-active” group reported harvesting 26 ducks and no coot or geese in 13 days, yielding a total harvest estimates of 94 ducks in 47 days for this group. Summing these totals yields a total estimated harvest of 1,124 ducks, 213 Canada geese and 137 coot in 503 hunting-days by 76 hunters (Table 2). This combined harvest estimate is compared to previous harvest estimates in Table 3.

Activity Group	Respondent Reported Harvest				Total Estimated Harvest			
	Ducks	Geese	Coot	Days	Ducks	Geese	Coot	Days
Active*	444	92	59	197	1,030	213	137	457
Inactive*	26	0	0	13	96	0	0	47
Non-respondent*	0	0	0	0	0	0	0	0
Total	470	92	59	210	1,124	213	137	504

\* Activity grouping is based on reported activity the previous year; see discussion in text.



YEAR	ESTIMATED # OF HUNTERS	ESTIMATED # OF DAYS	ESTIMATED HARVEST		
			DUCKS	GEESE	COOT
2008*	76	504	1,124	213	137
2007	146	780	1,644	535	892
2004*	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
Ave.	104	601	1,047	192	237

\*2004 and 2008 estimates do not include the Keweenaw Bay Tribe.

Comparing the 2008 estimates to those made for 1996, 1997, 1998, 2001, 2004, and 2007 (the six previous years surveyed) suggests that tribal waterfowl hunting has not changed in a biologically substantive way. It is possible that the larger bag limits, reduced species restrictions, and extension of hunting hours to 15 minutes after sunset that were first put in place in 2007 is resulting in a somewhat greater subsistence harvest, as hoped. However, as stated above, tribal harvest estimates are best used to evaluate long-term trends.

An estimated 422 of the hunting days took place in Wisconsin, 81 in Michigan and 0 in Minnesota. The Minnesota figure may be an under-estimate, as a small amount of off-reservation waterfowl hunting is believed to occasionally occur in that state. As in past years, most hunting took place in or near counties with reservations (Fig. 2).

No survey respondents reported harvesting snipe, rails, doves or woodcock. Among active hunters with an opinion (n=24), 33% felt the fall flight was poorer than in 2007, 13% felt it was better, and 54% 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 30 active respondents who provided this information are shown in Table 4. The greatest number of ducks reported harvested in a single day was 20, while the average harvest was 2.2 ducks per hunting day. The highest number of geese reported taken on a single outing was 7, and the average harvest was 0.4 geese per hunting day. These responses are similar to what was reported in 2007 (Table 4). It is clear that hunter harvest is generally determined by factors other than the bag limit. Although total duck harvest remained low in 2008 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.



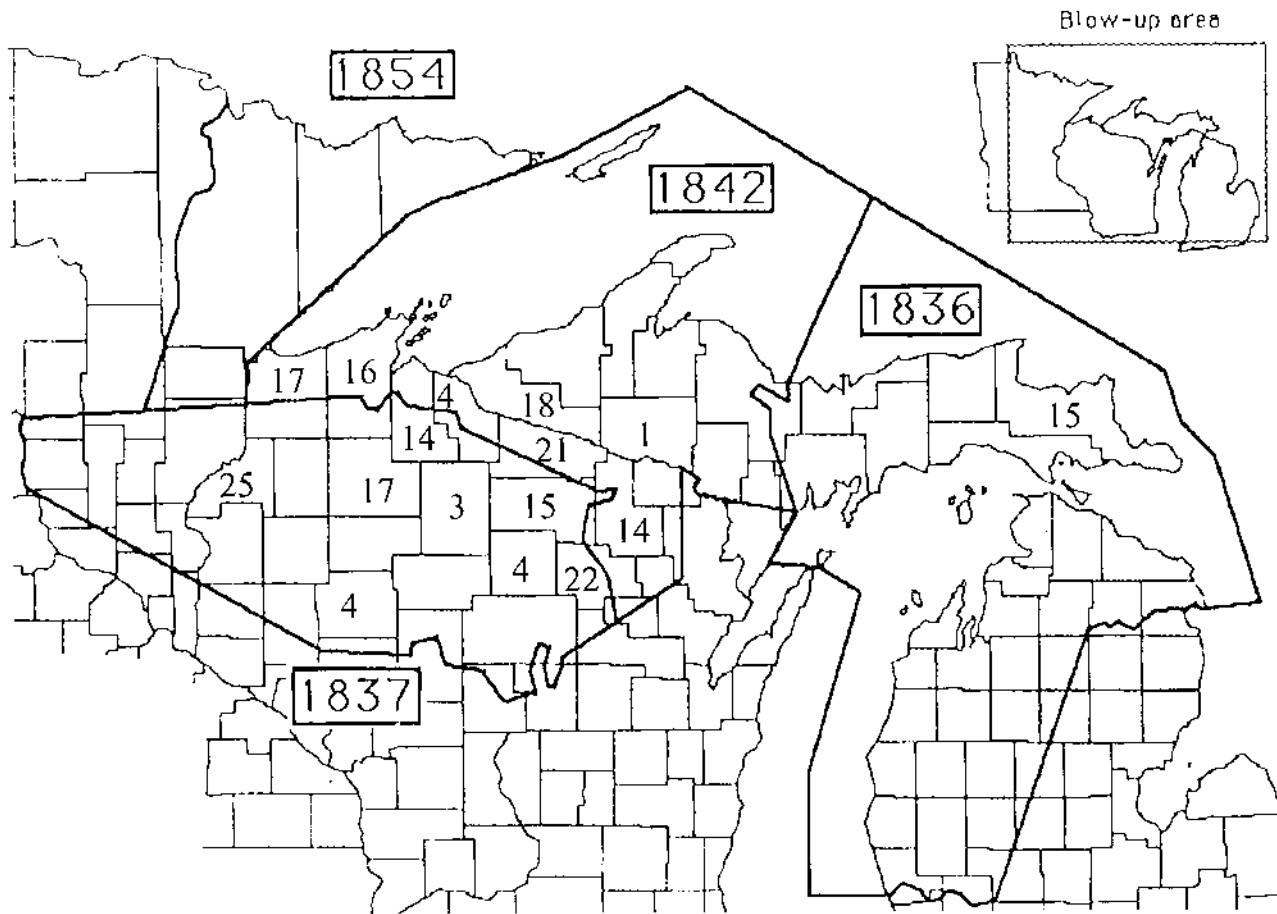
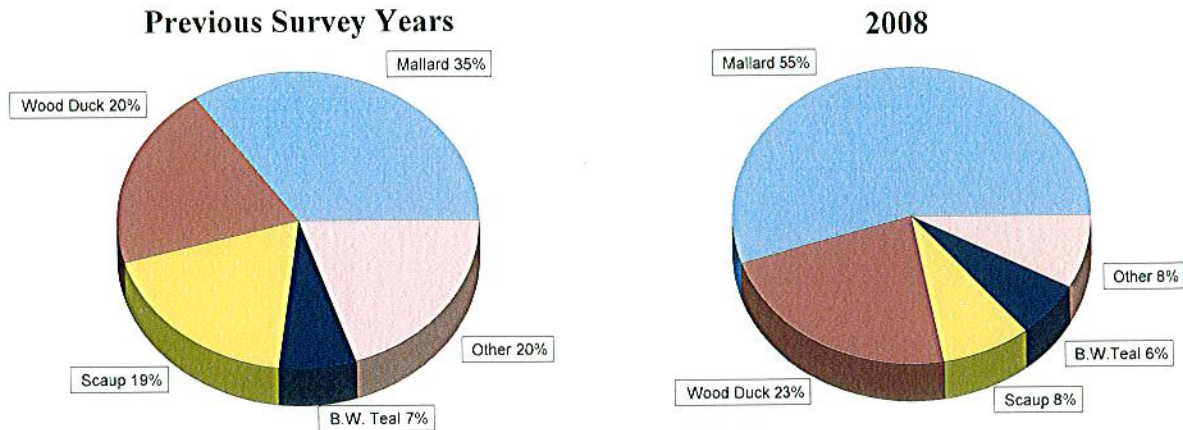


Figure 2. Waterfowl hunting days by county, as reported by respondents to the 2008 off-reservation tribal waterfowl hunting survey.

Table 4. Highest single day duck and goose harvest as reported by active respondents in 2007 and 2008.				
Most Birds Harvested in a Single Day	Number of active hunters reporting for:			
	Ducks		Geese	
	2008	2007	2008	2007
0-3	18	17	27	25
4-6	6	9	2	2
7-10	3	1	1	1
10+	3	1	0	0



Survey respondents were asked to report the composition of their duck harvest. The reported composition in 2008 differed in some respects from the collective composition from the 11 previous surveys (Figure 3). The percentage of wood ducks and blue-winged teal in 2008 was similar to the long-term average, while the percentage of scaup and “other” species in 2008 was lower than the long-term average. The percentage of mallards in 2008 was higher than the long-term average.



**Figure 3. Species composition of the treaty duck harvest, 2008 versus previous survey years (1991-1998, 2001, 2004 and 2007 combined)**

The significance of scaup in the bag has been declining in recent years, perhaps reflecting low populations. While the above-average presence of mallards in the bag would initially appear consistent with an increased harvest resulting from an increased mallard bag limit (from 10 in 2007 to 30 in 2008), the relatively small number of hunters who reported harvesting more than 6 ducks total on their best day of hunting all season suggest other factors may be more responsible.

## SUMMARY

A tribal waterfowl harvest survey was conducted following the 2008 season and estimates were compared to previous surveys. The estimated number of hunters and hunter days in 2008 were within the range for the five previous surveys while estimated harvest of ducks and geese in 2008 was slightly above average (Table 3). Several season liberalizations introduced in 2007 may be leading to modest increases in harvest levels. While the exercise of the treaty right to harvest waterfowl remains culturally significant to individual tribal members, the biological impact is widely dispersed and remains insignificant to waterfowl populations.

## LITERATURE CITED

David, P. 2008. Summary of the 2007 Off-Reservation Treaty Waterfowl Season. Great Lakes Indian Fish and Wildlife Commission Administrative Report 08-09. 7 pp.

