2006 Minnesota Prairie-chicken Hunter Survey

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INTRODUCTION

Hunting seasons for prairie-chickens (*Tympanuchus cupido pinnatus*) in Minnesota were closed from 1943 through 2002. During October 2003 a limited-entry, 5-day hunting season for prairie-chickens was held within 7 contiguous permit areas in western Minnesota. Permits were awarded through a lottery system, and each hunter could harvest a maximum of 2 prairie-chickens. The same format was implemented for prairie-chicken hunting seasons during 2004 and 2005. For the 2006 hunting season the number of permit areas was increased to 11 (Figure 1, Table 1). The objectives of the prairie-chicken hunter survey were to document several aspects of hunter satisfaction with their experience and to provide additional information upon which decisions about managing the prairie-chicken hunting season can be made.

METHODS

Results of the 2006 hunting season came from 2 sources. First, the Electronic Licensing System (ELS) recorded all permit applications, lottery results, and the mandatory registration of some prairie-chickens that were harvested. An ELS problem prevented some successful hunters from registering their prairie-chickens. After the hunting season the Department of Natural Resources License Center sent a letter to hunters who had purchased a prairie-chicken permit asking them to report their prairie-chicken harvest. Responses were then added to the ELS. The second source of information was a post-season survey that accompanied the letter from the License Center to all prairie-chicken hunters. The survey, which was identical to the one sent during 2005, however, was not linked with the ELS or other hunter information. Therefore, survey data could not be separated by permit area or landowner status, and follow-up letters could not be sent to people who did not respond to the survey.

RESULTS & DISCUSSION

One hundred eighty-two prairie-chicken hunting permits were available during 2006. One hundred sixty-seven (34%) of 498 regular applicants were awarded permits (Table 2). Although the number of applicants had been declining during 2003–2005 (Table 3), the number of applicants this year was very similar to the number who applied last year. Seventy-eight percent of people who purchased a hunting permit responded to the post-season survey. Three percent (*n* = 4) of the 120 respondents reported that they did not hunt; injury was the most frequently cited reason.

The amount of time spent hunting, hunting methods, and number of prairie-chickens flushed have been similar during the last 4 years (Figures 2–5). Hunters registered 92 prairie-chickens during 2006 (Table 4). Hunters killed and retrieved approximately 129, 55, and 89 prairie-chickens during 2003–2005, respectively, when 100–110 permits were awarded. Four percent of hunters (*n* = 116) reported knocking down a prairie-chicken and not being able to retrieve it during 2006. Approximately 40–50% of hunters harvested at least 1 prairie-chicken during 2006; success rates were 46–68% during 2003–2005. Only 18–20% of prairie-chicken hunters during the last 2 seasons reported also flushing sharp-tailed grouse (*T. phasianellus campestris*). Unlike during 2005 when no hunters reported wounding or retrieving a sharp-tailed grouse while hunting prairie-chickens, however, prairie-chicken hunters in 2006 reported harvesting 23 sharp-tailed grouse.

As during previous years, approximately 25% of survey respondents hunted only on private land, and 30–45% of them hunted either only on public land or on both public and private land. Of the 66 hunters who reported their ease of gaining access to private land, most reported it being easy, but 17% reported it being difficult (Figure 6).

Hunter satisfaction with the 2006 prairie-chicken hunting season was reported as a median of 7 (mean = 6.8) on a 1–10 scale (*n* = 115, Figure 7), and 90% of responding permit

holders (*n* = 118) reported that they would apply for a prairie-chicken permit again in the future. Twenty-three prairie-chicken hunters (20% of *n* = 116) reported being interfered with by other hunters a total of 37 times during 2006.

ACKNOWLEDGMENTS

I thank all the hunters who responded to the survey for their cooperation, Bill Penning and Ron Kullman for dealing with ELS issues and mailing the survey, Laura Gilbert for entering the data, and Mark Lenarz for reviewing a draft of the report. Wendy Krueger, Richard Kimmel, John Giudice, and others developed and initially implemented the prairie-chicken hunter survey for the 2003 season.

Table 1. Changes to permit areas for prairie-chicken hunting in Minnesota.

Permit area		
2006	2003–2005	Change
801A		New for 2006
802A		New for 2006
803A		New for 2006
804A		New for 2006
805A	405A	Label only; areas identical
806A	407A	Label only; areas identical
807A	407B	Label only; areas identical
808A	407C	Label only; areas identical
809A	420A	Area enlarged and relabeled
810A	420B	Area enlarged and relabeled
811A	421A	Area enlarged and relabeled

Table 2. Results of the lottery for prairie-chicken hunting permits in Minnesota during 2006.

Permit type	Permit area	Permits avail.	No. of applicants	Lottery winners		Permits purchased	
				no.[a]	prop.[b]	no.	prop.[b]
Regular	801A	8	12	11	0.92	7	0.64
	802A	8	7	7	1.00	4	0.57
	803A	8	11	10	0.91	7	0.70
	804A	12	19	15	0.79	12	0.80
	805A	14	74	17	0.23	17	1.00
	806A	13	41	16	0.39	13	0.81
	807A	20	70	21	0.30	17	0.81
	808A	13	52	14	0.27	12	0.86
	809A	16	46	17	0.37	16	0.94
	810A	20	115	25	0.22	25	1.00
	811A	12	51	14	0.27	11	0.79
	All	144	498	167	0.34	141	0.84
Landowner	801A	2	0	0		0	
	802A	2	1	1	1.00	1	1.00
	803A	2	0	0		0	
	804A	3	0	0		0	
	805A	4	1	1	1.00	1	1.00
	806A	4	1	1	1.00	0	0.00
	807A	5	4	4	1.00	4	1.00
	808A	4	3	3	1.00	3	1.00
	809A	4	3	3	1.00	3	1.00
	810A	5	0	0		0	
	811A	3	1	1	1.00	1	1.00
	All	38	14	14	1.00	13	0.93
Both	All	182	512	181	0.35	154	0.85

[a] More permits were awarded to regular applicants than were initially available because unclaimed landowner permits were offered to regular applicants. In area 801A an extra permit was awarded because the last hunter selected in the lottery had applied as a member of a hunting party.

[b] Proportion of the previous column (i.e., lottery winners/applicants and purchasers/winners).

Table 3. Permits and applicants for hunting prairie-chickens in Minnesota during 2003–2005.

	Regular		Landowner	
Year	Permits	Applicants	Permits	Applicants
2003	82	835	18	18
2004	82	734	18	25
2005	88	487	22	13

Table 4. Hunter harvest of prairie-chickens in Minnesota during 2006.

Source[a]	Permit type[b]	Permit area	No. of hunters[c]	Birds retrieved	Birds per hunter	Success rate[d]
ELS	Both	801A	7	1	0.1	0.14
ELS	Both	802A	5	2	0.4	0.20
ELS	Both	803A[e]	7	5	0.7	0.43
ELS	Both	804A[e]	12	8	0.7	0.42
ELS	Both	805A	18	10	0.6	0.44
ELS	Both	806A	13	9	0.7	0.54
ELS	Both	807A	21	9	0.4	0.29
ELS	Both	808A	15	13	0.9	0.67
ELS	Both	809A	19	14	0.7	0.37
ELS	Both	810A[e]	25	15	0.6	0.40
ELS	Both	811A[e]	12	6	0.5	0.33
ELS	Regular	All	141	86	0.6	0.42
ELS	Landowner	All	13	6	0.5	0.23
ELS	Both	All	154	92	0.6	0.40
Survey	Both	All	116	85	0.7	0.49

[a] ELS = Electronic Licensing System; Survey = questionnaire sent by mail to hunters.
[b] Landowner, non-landowner (i.e., regular applicant), or both combined.
[c] For ELS data it is the number who purchased a permit to hunt prairie-chickens; for Survey data it is the number of hunters who responded to a mail survey and reported to have hunted.
[d] Proportion of hunters who killed and retrieved at least 1 prairie-chicken.
[e] Results for these Permit Areas may not be accurate because 2 hunters with permits for area 803A registered 2 birds in area 804A and 2 birds in area 811A, and a hunter with a permit for area 810A registered a bird in area 811A.

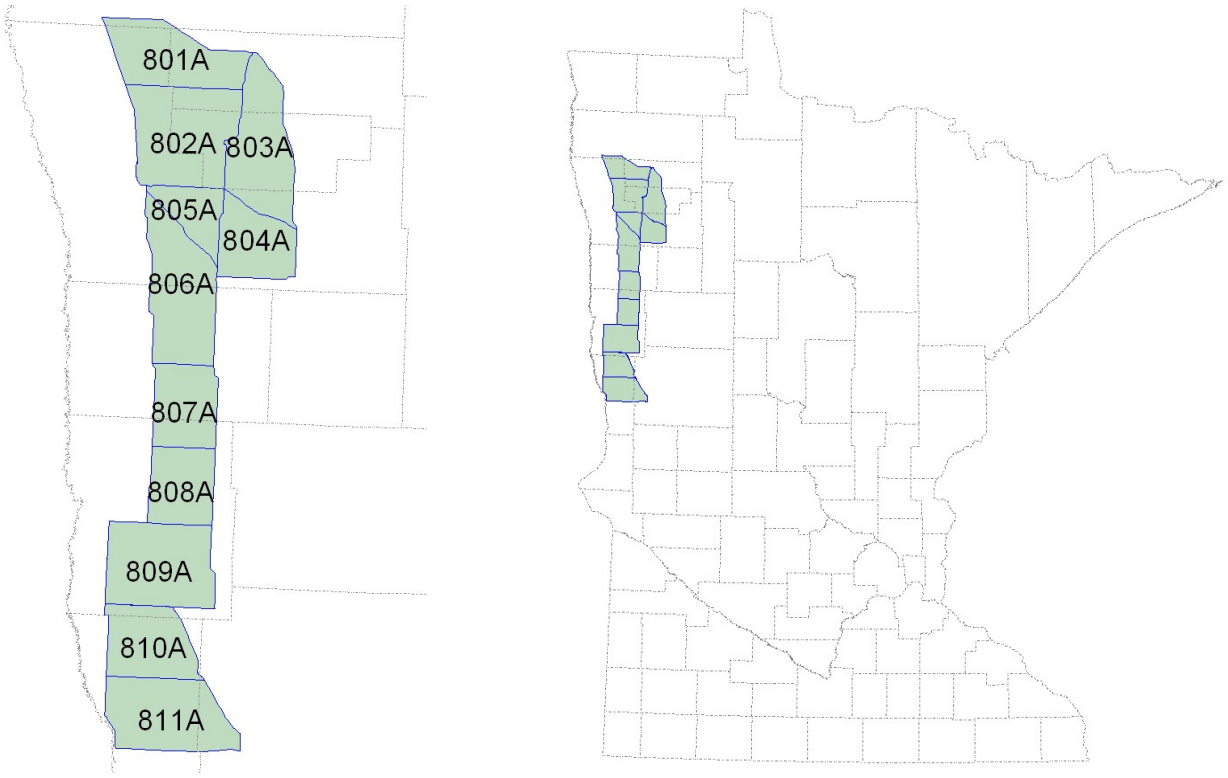


Figure 1. Map of permit areas for prairie-chicken hunting in Minnesota during 2006 (left) and their location relative to counties within the state (right).

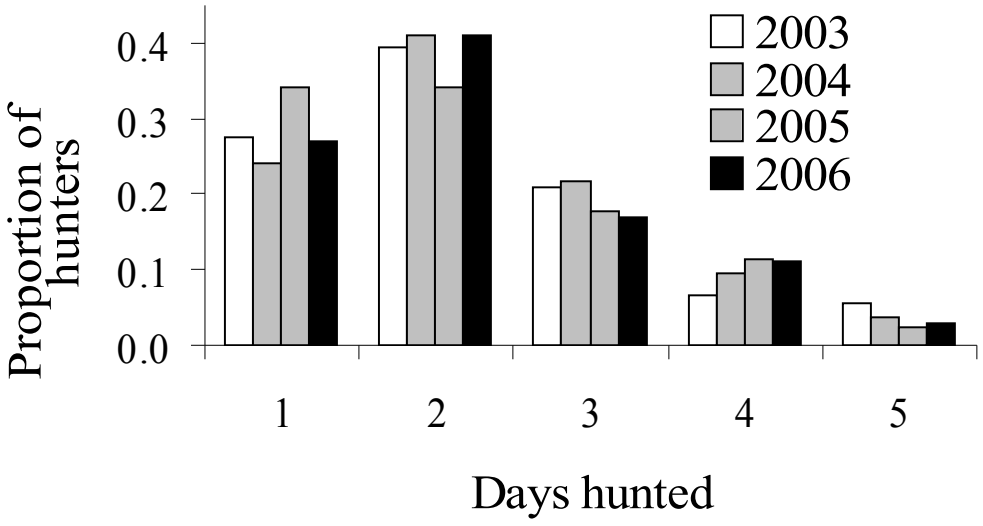
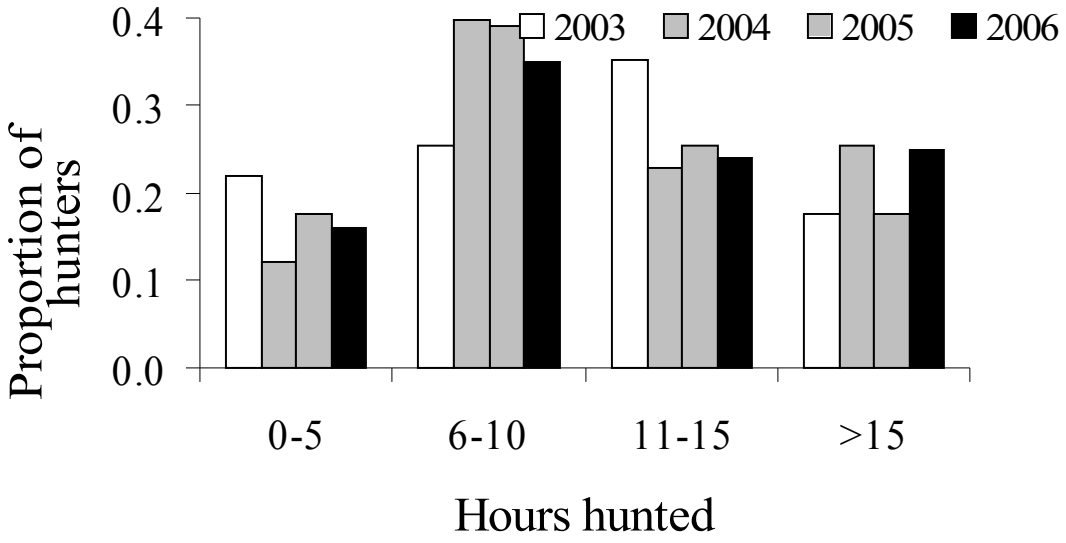


Figure 2. Number of days hunters pursued prairie-chickens in Minnesota (*n* = 91, 83, 79, and 116 survey respondents for 2003–2006, respectively).



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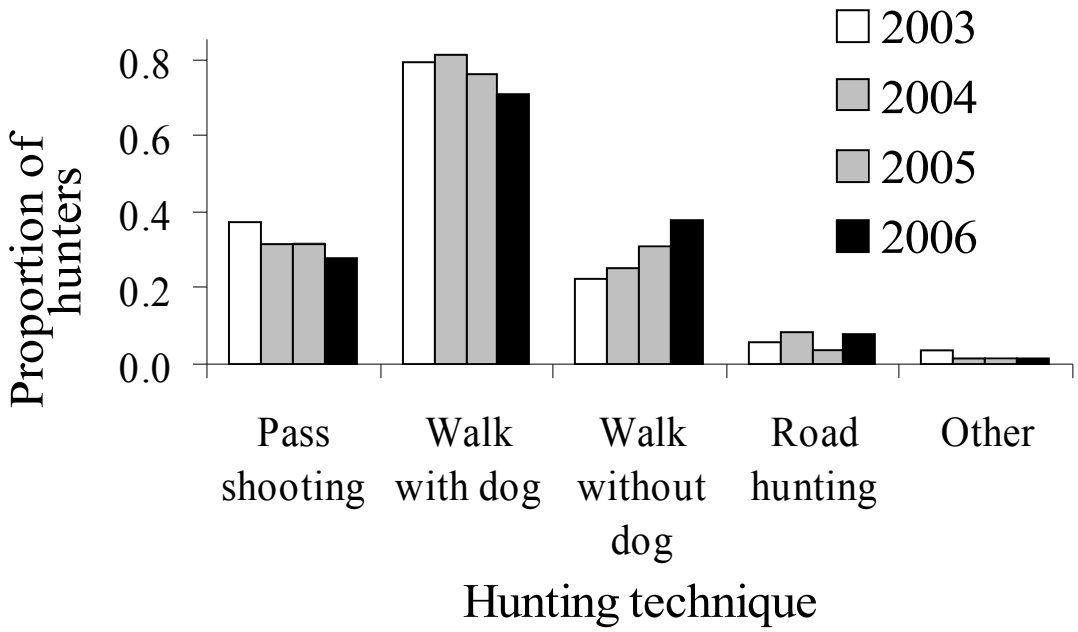

Figure 4. Methods used by prairie-chicken hunters in Minnesota (*n* = 91, 83, 79, and 116 survey respondents for 2003–2006, respectively). The sum of proportions may be >1.

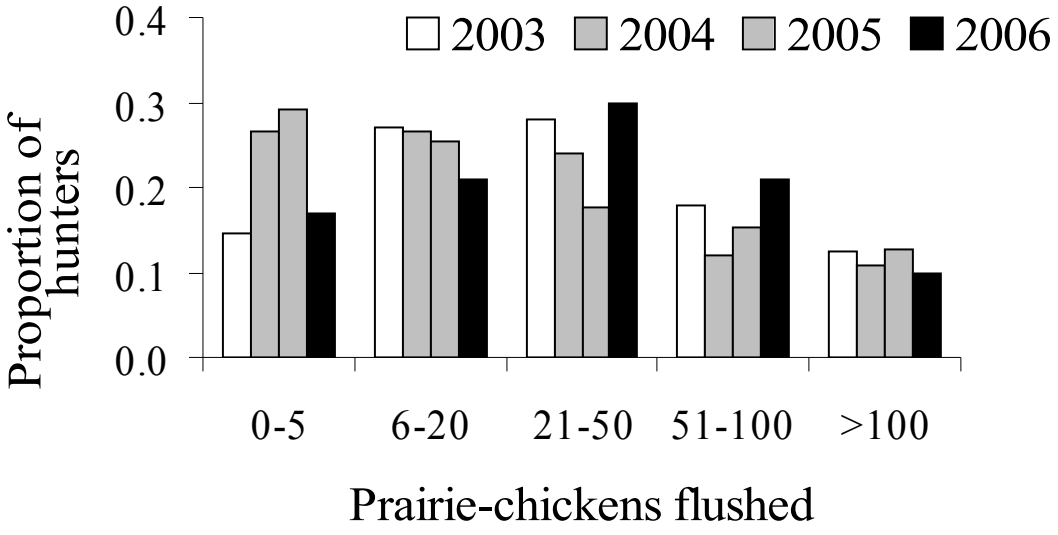

Figure 5. Number of prairie-chickens flushed by prairie-chicken hunters in Minnesota (*n* = 89, 83, 79, and 115 survey respondents for 2003–2006, respectively).

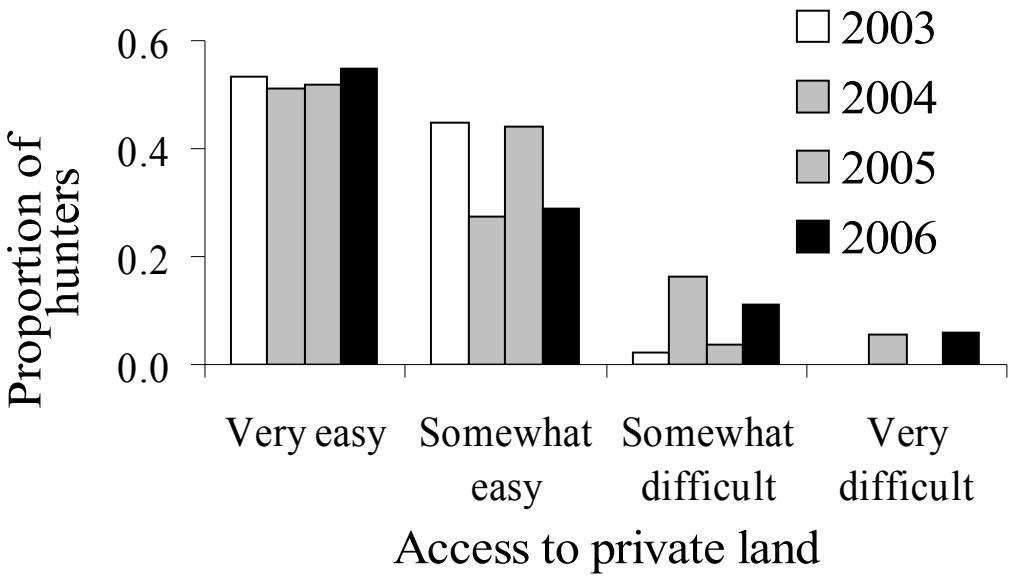

Figure 6. Ease of acquiring permission to access private land for prairie-chicken hunters in Minnesota (*n* = 47, 55, 52, and 66 survey respondents for 2003–2006, respectively).

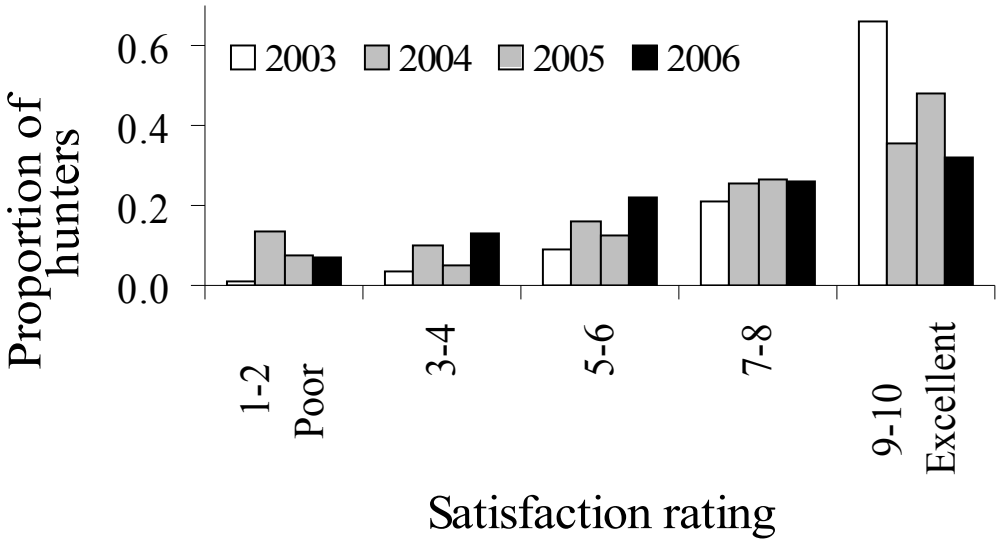

Figure 7. Degree of overall satisfaction of hunters with the prairie-chicken season in Minnesota (*n* = 91, 82, 79, and 115 survey respondents for 2003–2006, respectively).