DEPARTMENT OF NATURAL RESOURCES

Upland Bird Hunting Diary Results 2025

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Introduction

Upland game bird populations can be difficult to monitor, and many current monitoring efforts focus on population indices that do not always reflect the actual experiences of hunters, particularly because they may not fully account for factors such as breeding success or variability in local habitat conditions. To address this gap, the Upland Bird Hunting Diary project was started to directly monitor upland game bird hunter activity, with a focus on measuring flush rates—an important indicator of bird abundance and hunter success. These hunter-recorded observations offer a complementary perspective to formal monitoring programs and help determine how well those efforts align with what hunter's encounter in the field.

Another goal of the diary was to estimate hunter usage of various public lands, including Wildlife Management Areas (WMAs), Hunter Walking Trails (HWTs), and Walk-In Access areas (WIAs), and to evaluate how success rates varied among these land types. Lastly, this initiative aimed to increase engagement with the upland bird hunting community by involving hunters directly in the monitoring and management of species they value.

Methods

Considerable outreach was undertaken to encourage participation in the diary project. Promotional efforts included mentions on popular outdoor podcasts, articles published in outdoor recreation media, and formal news releases. This initiative was exclusively hosted through Survey123, allowing participants to enter their hunting data either by downloading the mobile app or via a web-based entry form.

The diary was open to participants from September 1st, 2025, through January 16th, 2026. Hunters were asked to provide the date of the hunt and submit the county where the hunt took place. Participants also reported on whether they used public land, WMAs, HWTs, or WIAs. Specific to each hunt, hunters recorded whether they used a dog, how long they hunted, and which species they pursued. For each species, hunters were asked to report the number of birds flushed and harvested. Pheasant hunters were asked to distinguish between the number of males and females flushed, and those harvesting pheasants were asked to report the age (juvenile or adult).

Reports were submitted on a voluntary basis, and the data included in this report represent only those records where a sufficient sample size was available to ensure accurate and meaningful analysis. Now, with a second year of data, annual trends will be explored to help us understand annual variation.

Results

A total of 92 hunters submitted diary entries, contributing to 681 reported hunts, which is just less than the 2024 season with 120 hunters and 927 reports. This is likely due to less outreach initiated by the department in 2025 compared to 2024. The number of hunts per hunter ranged from 1 to 51, with 23 hunters submitting at least 10 hunts. Species specific results for total hunts, hours hunted, flushes, and flush and harvest rates can be found in Table 1. Ruffed Grouse was the most frequently hunted species with 591 hunts reported, accounting for 1260.4 hours and resulting in 269 harvested birds with a mean flush rate of 1.5 birds per hour. Ring-necked Pheasant was next with 262 hunts totaling 533.5 hours, producing 153 birds harvested and a mean flush rate of 4.0/hour. American Woodcock followed with 174 hunts, 520.1 hours, 99 birds harvested, and a mean flush rate of 1.5/hour. Sharp-tailed Grouse were pursued in 22 hunts over 59.5 hours with 8 birds harvested and a mean flush rate of 1.8/hour, while Greater Prairie Chicken were hunted in 16 hunts spanning 41.2 hours with 3 birds harvested and a mean flush rate of 1.7/hour. Spruce grouse were pursued in 21 hunts and a total of 38.5 hours, with 15 bird harvest and a mean flush rate of just 0.5/hour. Hungarian Partridge had the lowest effort with just one Hungarian Partridge hunt for 1 hour and no harvest. Reports came from a wide geographic range including 67 counties (Fig. 1), with Ruffed Grouse recorded in 27 counties (Fig. 2), Pheasants in 46 (Fig. 3), and Woodcock in 24 (Fig. 4).

Proportion of hunters using different land types varied widely among species. The species-specific proportion of hunters using public lands, WMAs, HWTs, WIAs, and dogs can be found in Table 2. Public land use ranged from 88% for Prairie Chickens to 100% for Hungarian Partridge and Sharp-tailed Grouse. Note all three of these species have low sample sizes. Use of WMAs ranged from 5% for Spruce Grouse to 100% for Hungarian Partridge. HWT were specifically used by Ruffed Grouse (25%) and American Woodcock (26%) hunters. WIAs were used by fewer hunters, with Sharp-tailed Grouse (14%) and Ring-necked Pheasant (12%) showing the highest use.

Mean flush rates also varied across land types. For public versus private land, the flush rate for pheasants was 3.9 birds per hour on public land and 4.6 flush/hr. on private land (Fig. 5), with the potential for some private lands to have farm-raised pheasants on the property. Ruffed Grouse showed a flush rate of 1.5 flush/hr. on public land and 1.3 flush/hr. on private land, while Sharp-tailed Grouse were notably only on public land with a flush rate of 1.8 flush/hr. (Fig. 5). Except for Ruffed Grouse, flush rates were similar or slightly higher in 2025 than in 2024. On and off Wildlife Management Areas, Woodcock had a flush rate of 1.7 flush/hr. on WMAs and 1.5 flush/hr. off WMAs (Fig. 6). Pheasant flush rates were 4.2 flush/hr. on WMAs and 3.7 flush/hr. off (Fig. 6). Ruffed Grouse showed 1.8 flush/hr. on WMAs and 1.5 flush/hr. off WMAs (Fig. 6). Sharp-tailed Grouse showed an opposite pattern to the other species with 1.6 flush/hr. on WMAs and 2.8 flush/hr. off WMAs (Fig. 6). On Hunter Walking Trails, Woodcock flush rates were 1.7 flush/hr. compared to 1.5 flush/hr. off trails, and Ruffed Grouse were at 1.9 flush/hr. on trails and 1.4 flush/hr. off trails (Fig. 7).

Most hunters reported using dogs, however Spruce Grouse saw the highest rate of hunters reporting not using dogs (38%) along with Ruffed Grouse (29%) (Table 2). Hunters using dogs generally seem to experience higher flush rates: Ruffed Grouse flush rates were 1.8 flush/hr. birds per hour for those hunting with dogs compared to 0.9 flush/hr. for those hunting without (Fig. 8).

Discussion

This hunter diary initiative has provided important insights into upland bird hunting activity and success across Minnesota. With 681 hunts submitted by 92 hunters, this represents another strong year of effort. Compared to 2024, results showed fewer hunters reporting with lower harvest, but higher flush rates for most species; however, it is difficult to draw long-term conclusions from just a couple of years. The diary is intended to track trends over time and will be more informative after at least five years of consistent data collection.

The department made several changes to survey question format that may have helped with participation even though it was slightly lower than the first year. Collecting location data on the county level rather than asking for exact locations or direction from nearest town seemed to be better received. It was also easier for hunters to not report on the sex and age of Ruffed Grouse. To try to increase participation, advertisement of the Upland Bird Hunter Diary will be introduced in the Outdoor News and social media prior to upland bird seasons in 2026.

Continued engagement with the upland bird hunting community will support data-driven decision-making and strengthen connections between hunters and wildlife managers.

Acknowledgements

I thank all upland bird hunters that participated in this survey and the MNDNR staff that provided feedback on earlier drafts of the survey and this report. I also thank Bailey Petersen, Pete Takash, David Schueller, and Morgan Sussman for their help in coordinating outreach and communication to solicit hunter participation.

Tables

Table 1. Total hunts, hours, and flushes, harvest and flushes per hour and harvest per hour by species in 2025.

Species	Total Hunts	Total Hours	Total Flushes	Flushes/Hour Mean (Range)	Total Harvest	Harvest/Hour Mean (Range)
Ring-necked Pheasant	262	533.5	3626	4.0 (0.0 – 30.0)	153	0.3 (0.0 – 2.0)
Sharp-tailed Grouse	22	59.5	100	1.8 (0.0 – 7.0)	8	0.3 (0.0 – 3.0)
Greater Prairie Chicken	16	41.2	45	1.7 (0.0 – 12.0)	3	0.2 (0.0 – 1.3)
Ruffed Grouse	591	1260.4	1566	1.5 (0.0 – 8.5)	269	0.3 (0.0 – 2.7)
American Woodcock	174	520.1	567	1.5 (0.0 – 15.0)	99	0.3 (0.0 – 3.0)
Hungarian Partridge	1	1	6	6.0 (0.0 – 6.0)	0	0.0
Spruce Grouse	21	38.5	48	0.5 (0.0 – 2.7)	15	0.2 (0.0 – 2.0)

Table 2. Total counties reported and proportions of hunters using public land, WMAs, HWTs, WIA, and dogs by species pursued in 2025.

Species	Total Counties Reported	Percent Hunting Public Land	Percent using a WMA	Percent using a HWT	Percent using WIA	Percent using a dog
American Woodcock	24	97%	31%	26%	0%	94%
Greater Prairie Chicken	3	88%	44%	0%	6%	81%
Hungarian Partridge	1	100%	100%	0%	0%	100%
Ring-necked Pheasant	48	88%	59%	0%	12%	96%
Ruffed Grouse	25	96%	21%	25%	0%	72%
Sharp-tailed Grouse	6	100%	82%	0%	14%	86%
Spruce Grouse	6	95%	5%	0%	0%	62%

Figures

Figure 1. Counties that hunters reported hunting.

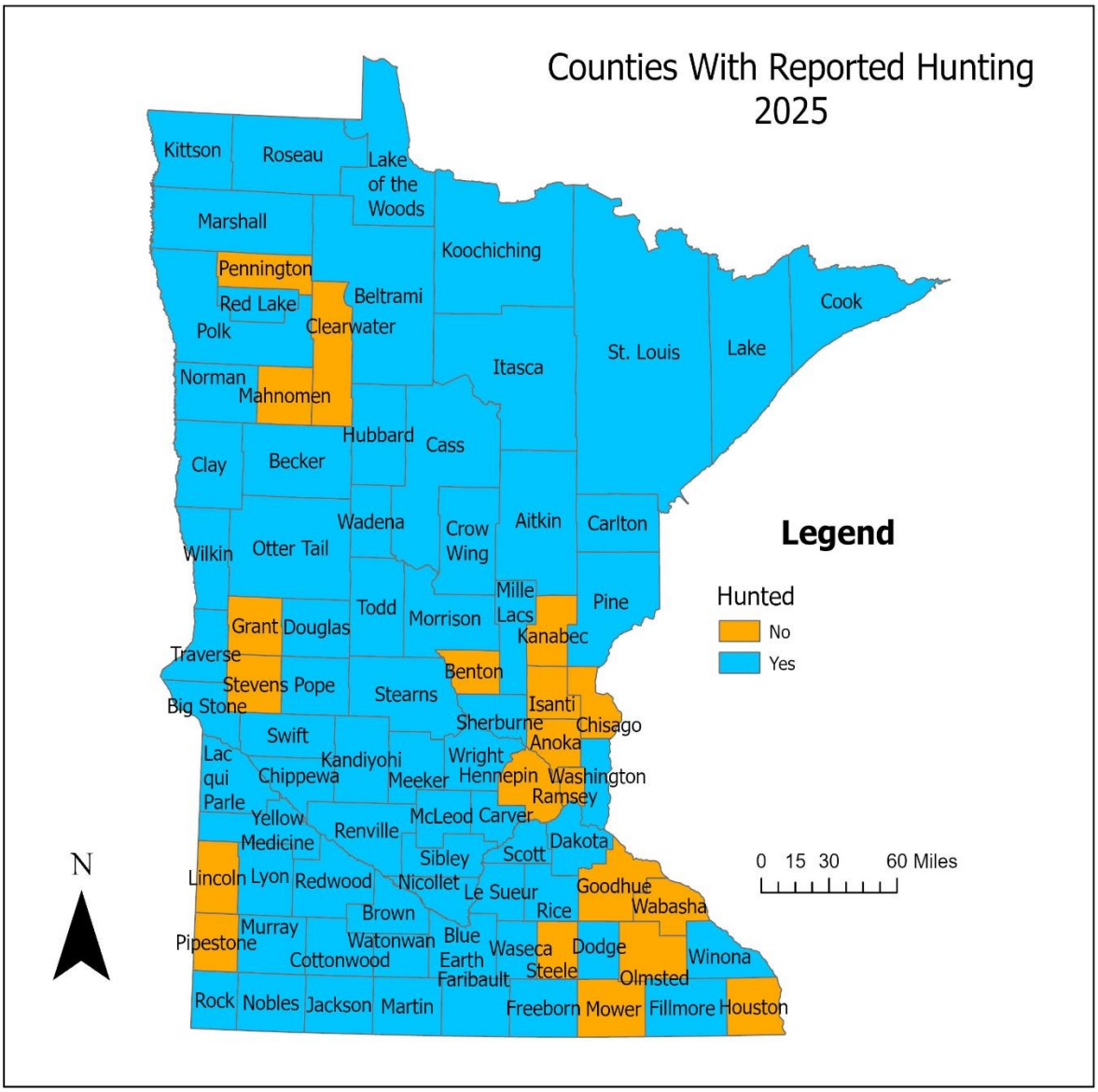

Figure 2. Counties that hunters reported pursuing ruffed grouse.

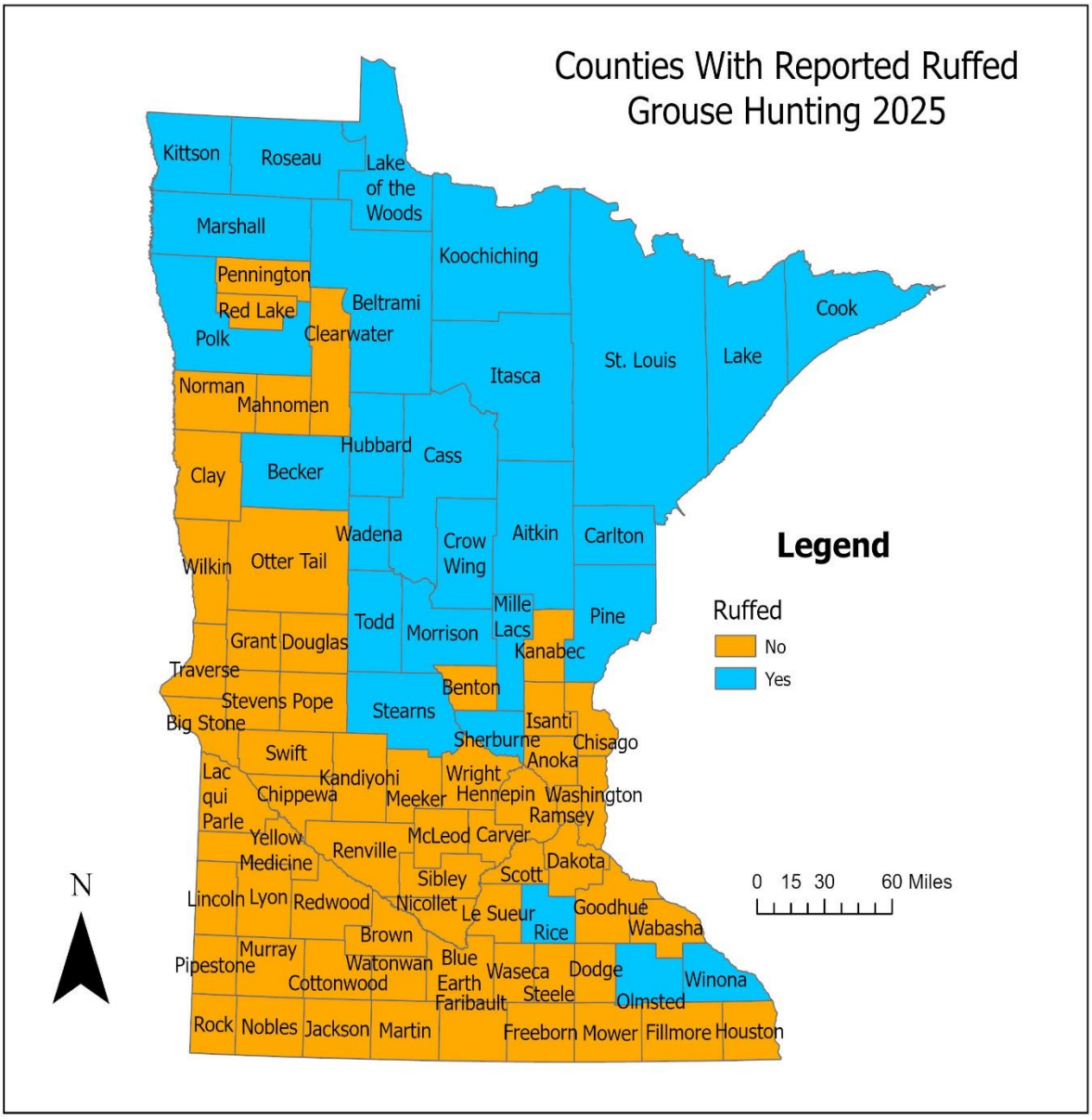

Figure 3. Counties that hunters reported pursuing pheasants.

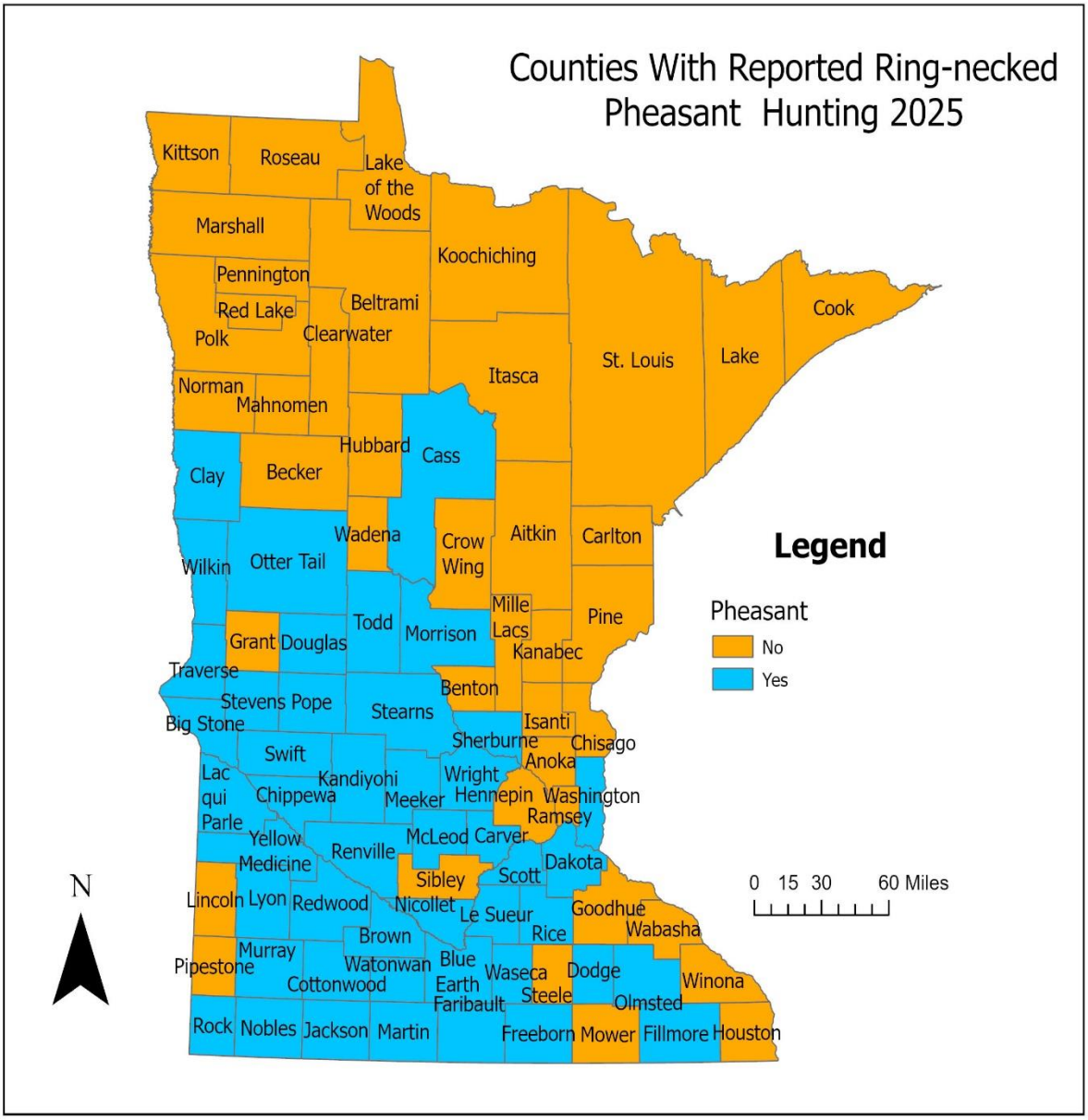

Figure 4. Counties that hunters reported pursuing American woodcock.

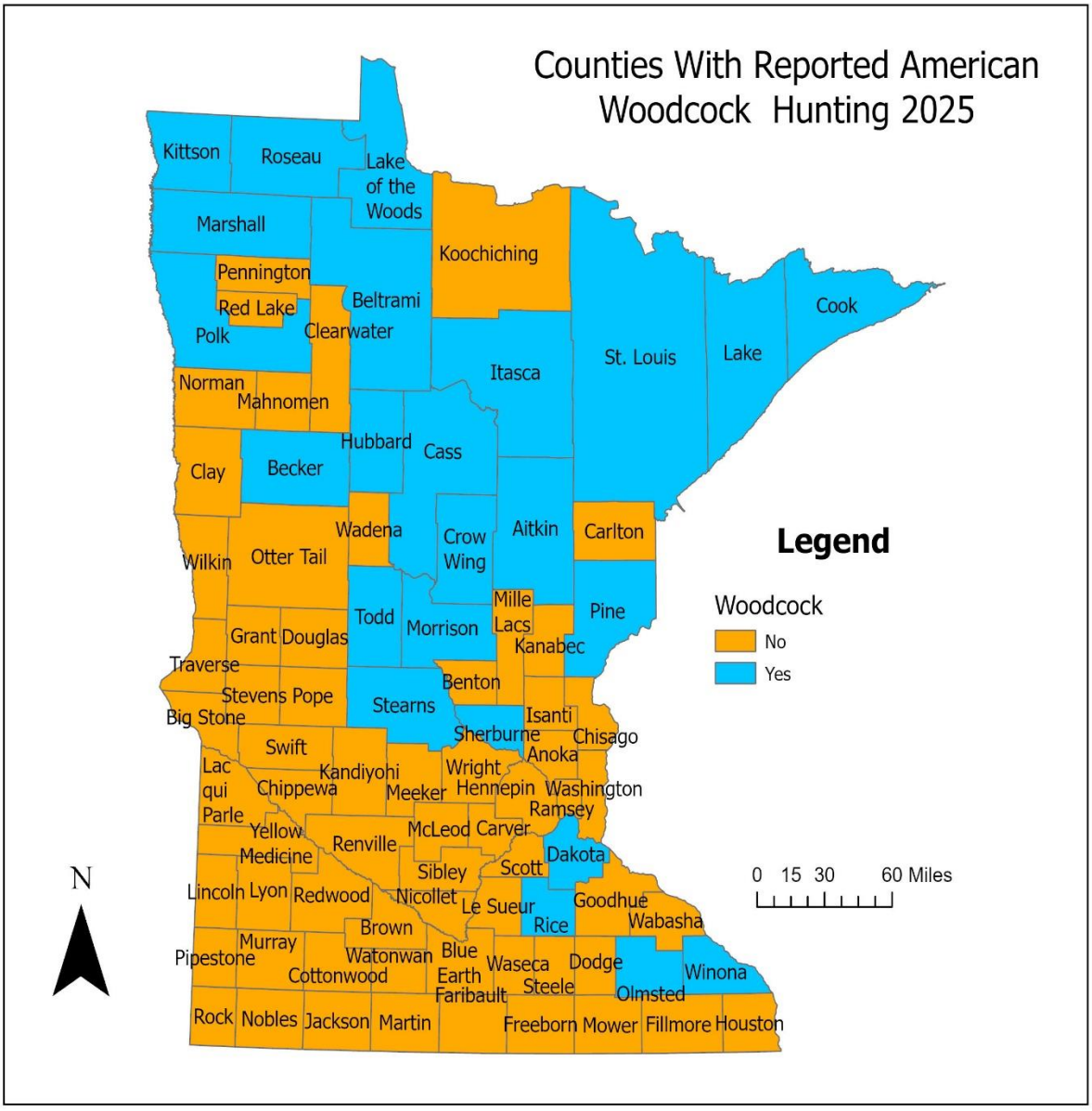

Figure 5. Mean flushes per hour of hunters pursuing pheasant, ruffed grouse and sharp-tailed grouse on public and private land with bars representing the 95% CI.

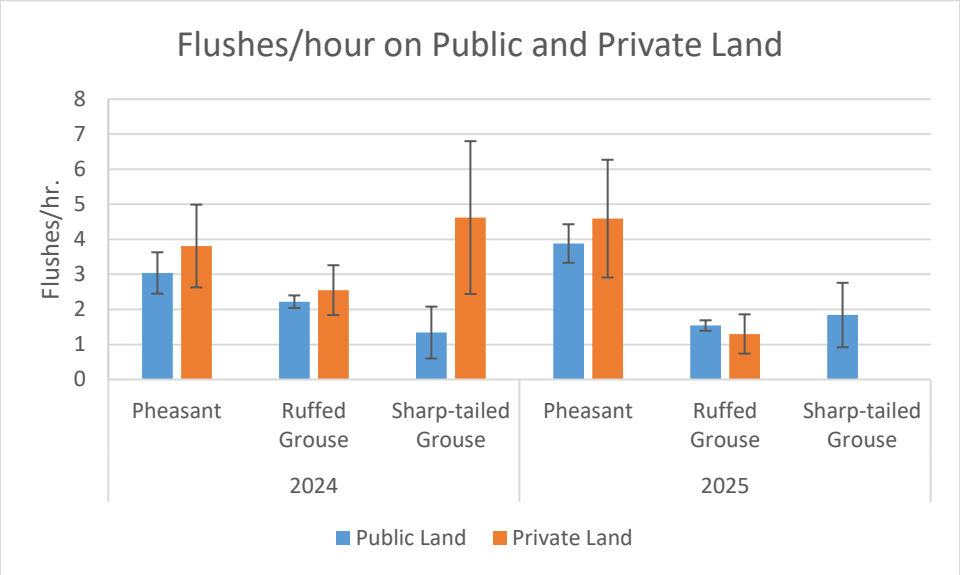

Figure 6. Mean flushes per hour of hunters pursuing woodcock, pheasant, ruffed and sharp-tailed grouse on and off Wildlife Management Areas with bars representing the 95% CI.

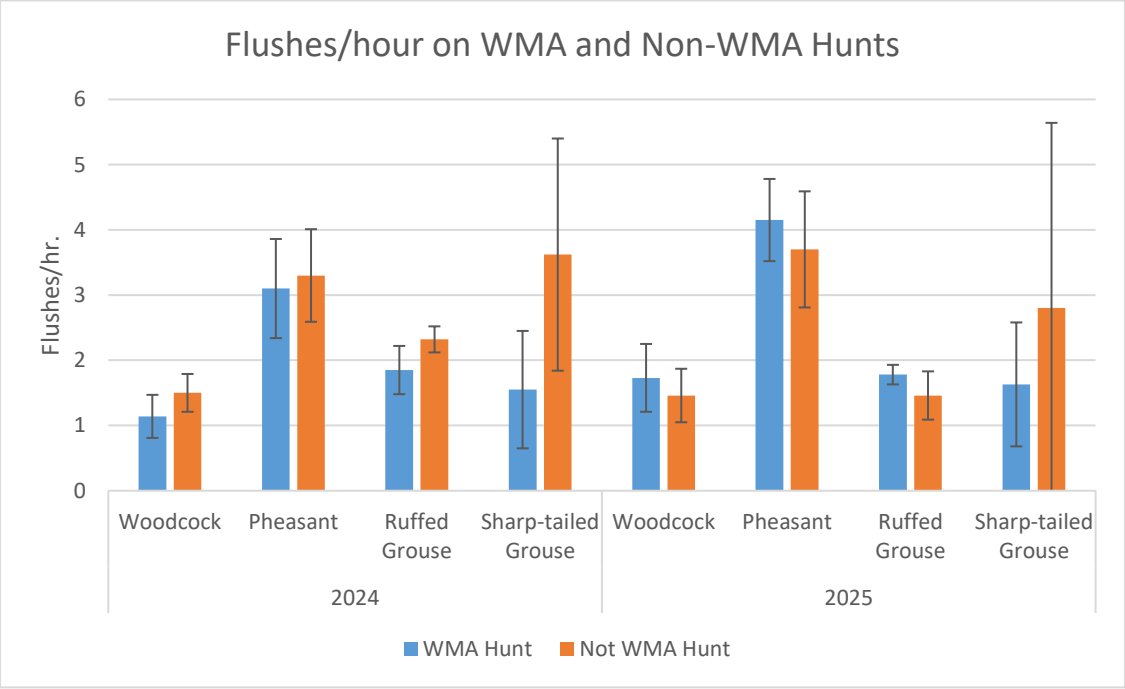

Figure 7. Mean flushes per hour of hunters pursuing woodcock and ruffed grouse on and off hunter walking trails with bars representing the 95% CI.

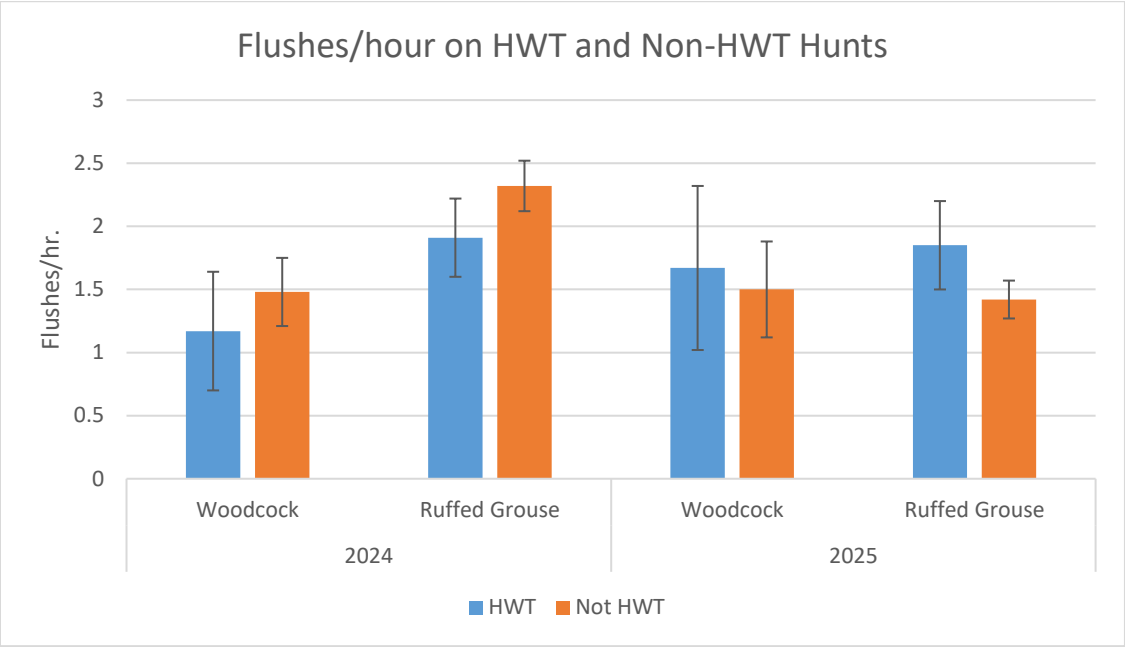

Figure 8. Mean flushes per hour of hunters pursing ruffed grouse with and without a dog with bars representing the 95% CI.