

## MINNESOTA GROUSE AND HARES, 2004

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**RUFFED GROUSE.** Minnesota's 55<sup>th</sup> annual ruffed grouse drumming survey was conducted during spring, 2004. A total of 115 routes were completed. In addition to the Division of Wildlife, this year's survey cooperators include Tamarac and Agassiz National Wildlife Refuges, Chippewa and Superior National Forests, Cass and Beltrami County Land Departments, Blandin Paper Company, 1854 Authority, Fond du Lac, Red Lake, Grand Portage, and White Earth Reservations, Vermillion College, and numerous private individuals. Overall listening conditions were reported as excellent, good, and fair on 55%, 39%, and 6% of the routes, respectively.

Somewhat unexpectedly, drumming indices did not increase in any of the 'northern' grouse zones (Fig. 1; Fig. 2). Counts declined 8% in the Northwest (1.1 drums/stop) and 17% in the Northeast (0.5 d/s), while counts remained stable in the North-Central (0.9 d/s) and Central Hardwood (0.8 d/s) zones. Counts increased by 17% in the Southeast (0.7 d/s). Statewide, drumming indices declined 11% to 0.8 d/s. While confidence intervals aren't currently computed, it's not likely that any of the changes were statistically significant. But it remains unclear whether the lack of apparent increase in northern zones is real, or a result of sampling variability. Overall, winter weather conditions did not appear detrimental to ruffed grouse, and historic patterns, though variable, suggest we should have begun the increase in the grouse cycle. It is possible that the inclement spring weather may have simply delayed or reduced drumming intensity in many areas. This uncertainty highlights the fact that the survey is most valuable as a long-term trend indicator - year-to-year changes should be interpreted cautiously. Regardless, we remain at or near the low point of the grouse cycle in northern Minnesota.

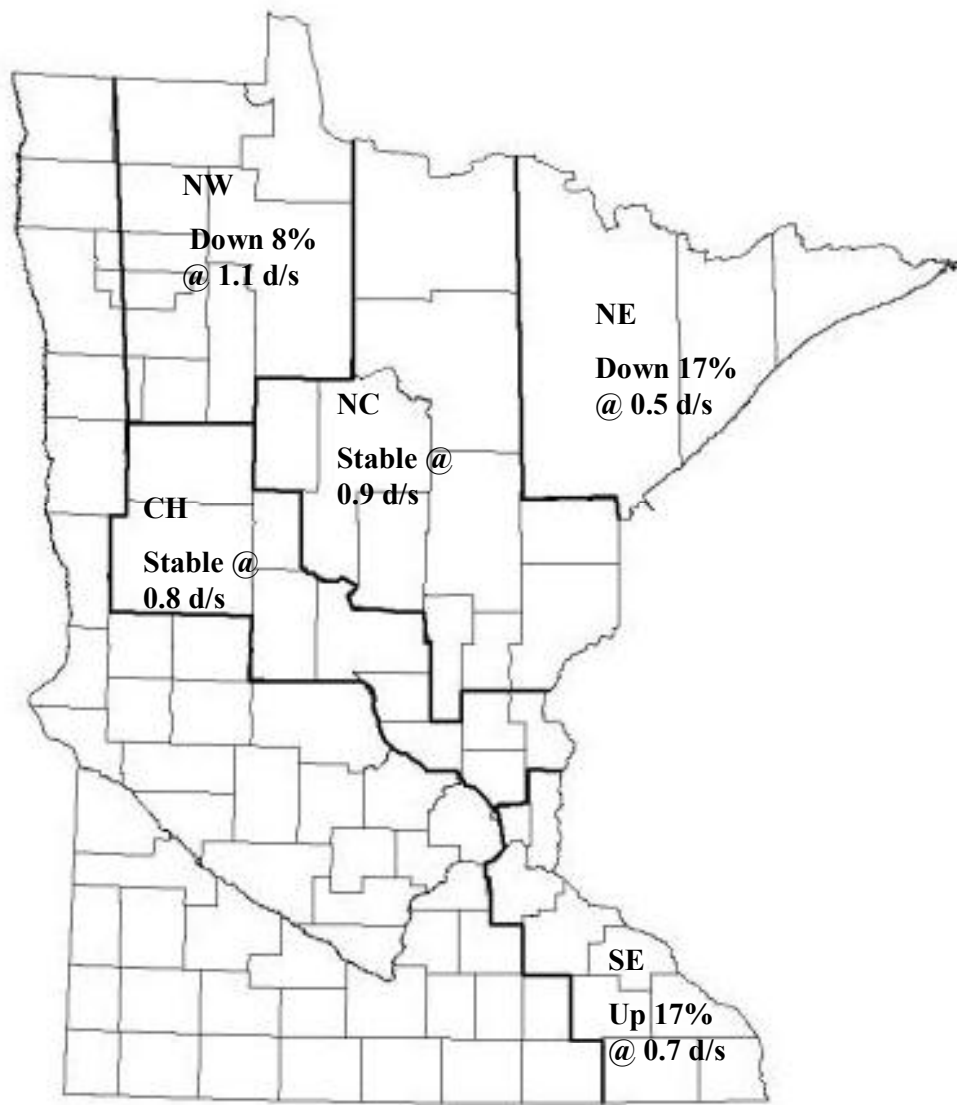
**SHARP-TAILED GROUSE.** Male sharptails were counted on leks during spring 2004 by the DNR Wildlife Division, Rice Lake and Agassiz National Wildlife Refuges, and numerous volunteers. A total of 2068 males were counted (1302 in the Northwest, 766 in the East-Central) in 2004. Statewide, a 24% increase was observed in the total number of males counted on 176 comparable (i.e., counted in both 2003 and 2004) leks. For the 306 leks surveyed in 2004, 65% were occupied (up 7% from 2003), with an average of 10.6 males per occupied lek (up 16% from 2003).

In the East-Central Range, total numbers of males on comparable leks increased 15% (Fig. 3). Occupied leks averaged 8.3 males (Fig. 4), up 8% from last year, with 66% of the 143 surveyed leks being occupied (up 8% from 2003). The total number of males on comparable leks in the Northwest Range increased 31% (Fig. 3) from 2003. Occupied leks averaged 12.6 males (Fig. 4), up 22% from 2003 and the highest recorded in recent history. Sixty-four percent of the 163 surveyed leks were occupied (up 5% from 2003) in the Northwest. Comparison of trends in sharp-tailed and ruffed grouse indices over the past 18 years is shown in Fig. 4.

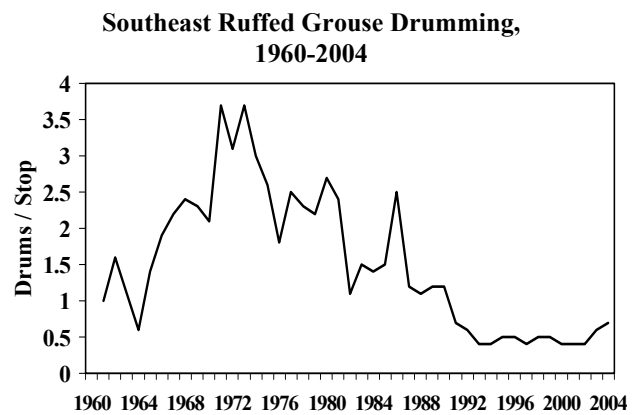
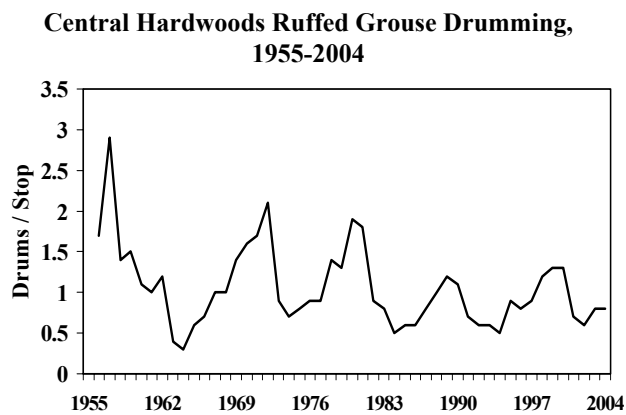
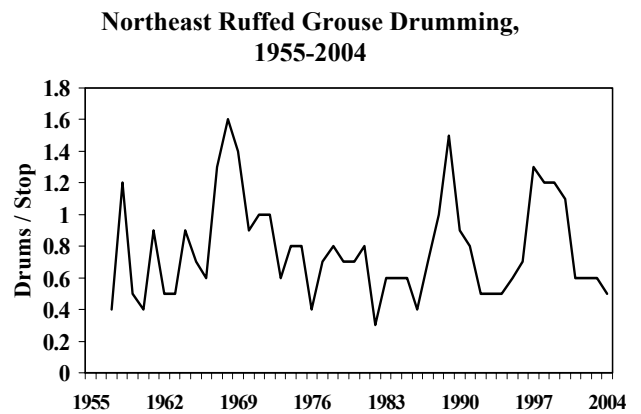
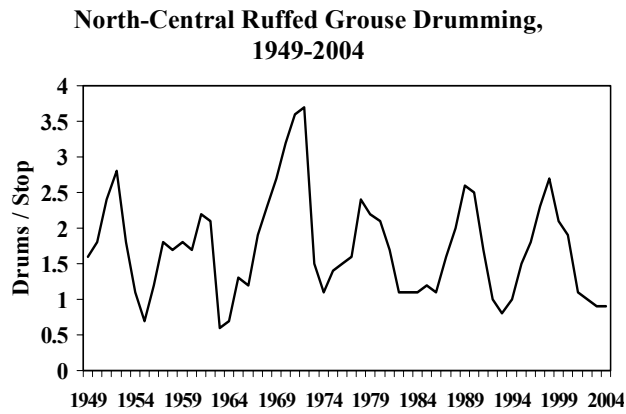
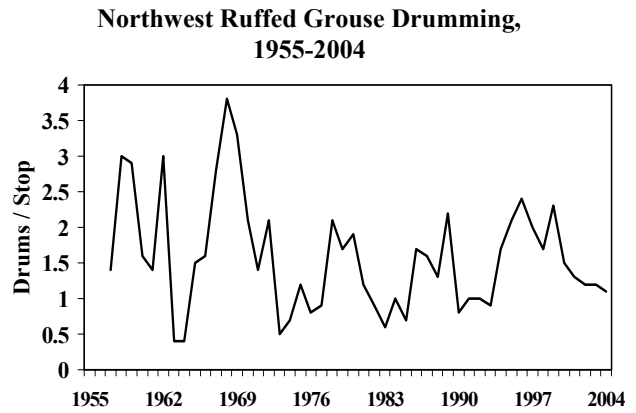
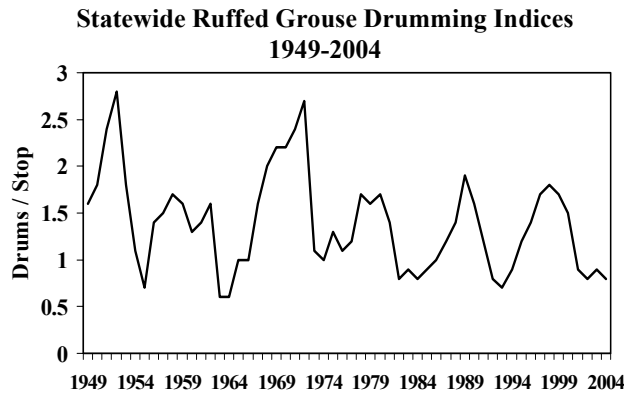
**SNOWSHOE HARES.** A total of 20 hares were observed on grouse drumming routes this spring. The majority (70%) of the hares were observed in the Northeast grouse zone, while the remaining 30% were observed in the North-Central zone. The 2004 spring hare index of 1.2 hares observed per 100 km is a 37% decrease from 2003. A separate hare index computed from the 2003-04 mid-winter furbearer track survey increased 2% from the 2002-03 mid-winter survey (Fig. 5). While we remain near a peak, a cyclic decline in hare numbers may be starting, or can be expected soon.

Sincere thanks if you participated in these spring surveys.

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**Fig. 1. Changes in regional ruffed grouse drumming indices, 2003 to 2004.**



**Figure 2. Minnesota's historic statewide and regional ruffed grouse drumming indices.**

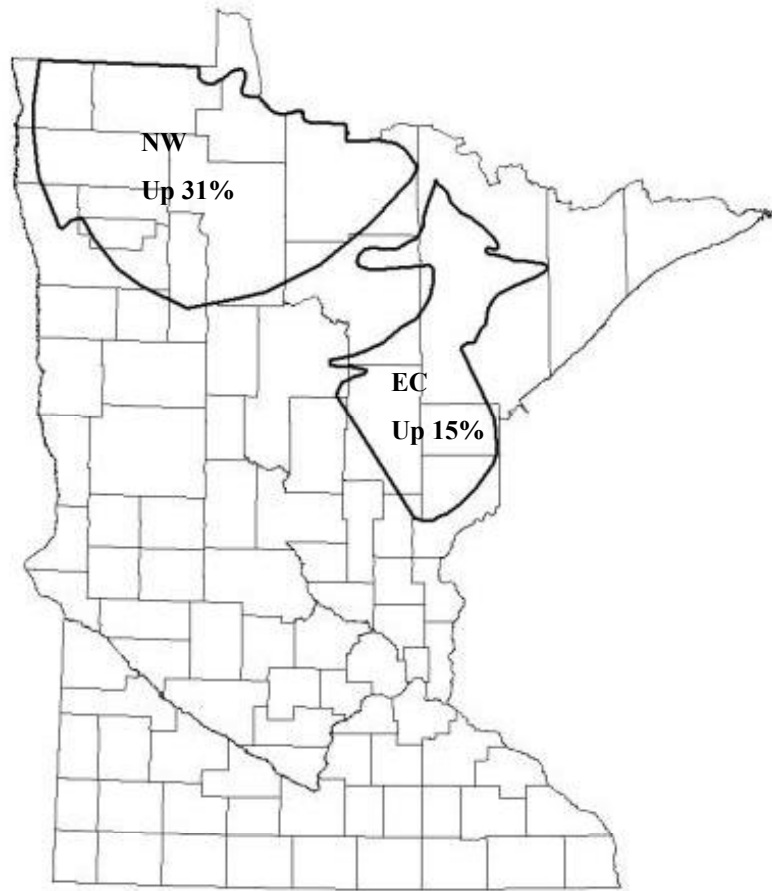


Fig. 3. Regional changes in the number of sharp-tailed males counted on comparable leks, 2003 to 2004.

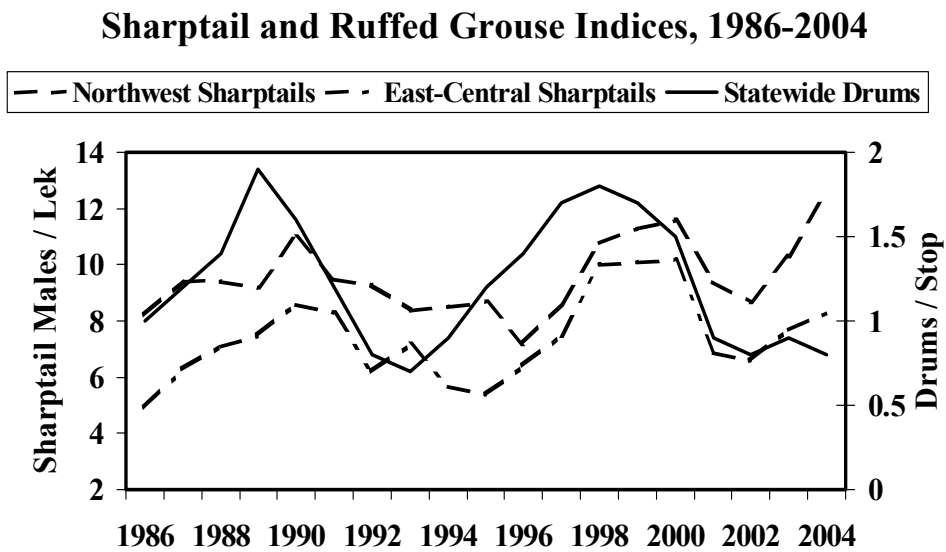


Fig. 4. Ruffed and sharp-tailed grouse survey indices, 1986-2004.

## Snowshoe Hare Index Comparison 1974-2004

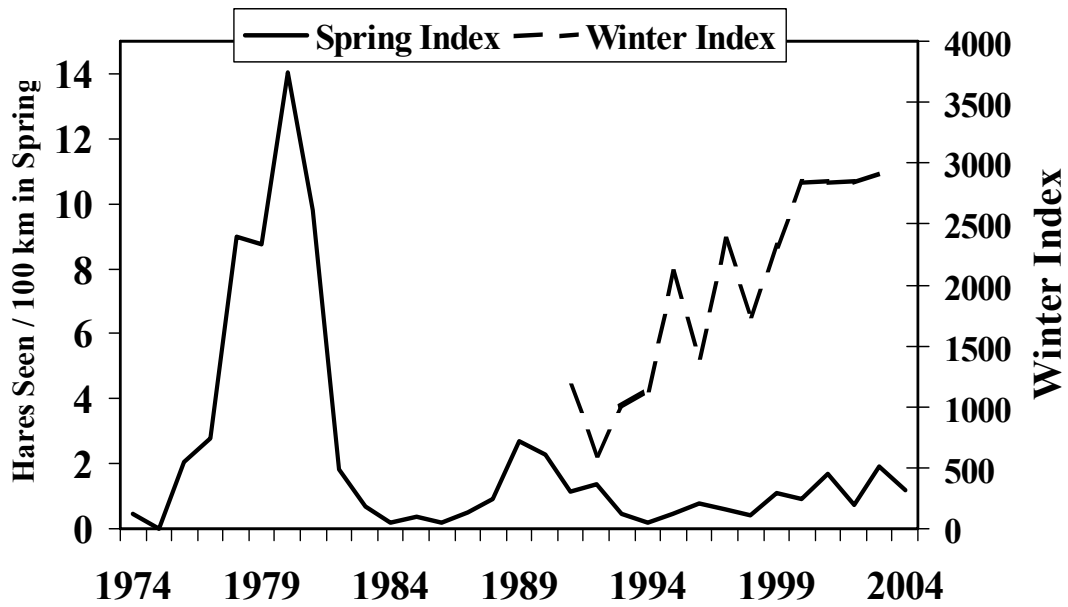


Figure 5. Snowshoe hare indices based on 1) hares seen on grouse drumming routes in spring (1974-2004) and 2) hare tracks observed on winter furbearer surveys (1991-2003).