Cooperative Brushland Conservation: Keeping the Sharptails Dancing

By Russell Kleinschmidt, Soil Conservationist

Sharp-tailed grouse (*Tympanuchus phasianellus*) have fascinated people for many years. Known as the "fire bird" or "fire grouse" to Native Americans, these birds were found in semi-open, fire-prone areas. Natural fires maintained the right combination of grassland and brushland adequate for sharptail habitat. Today these birds serve ecological and economical purposes. During spring breeding early morning birders huddle inside blinds to catch a glimpse of the unique mating display. The birds "dance" on a breeding ground known as a lek as they puff their purple neck sacks, inflate their yellow eye combs, spread their wings, erect and click their central tail feathers, and move in a circle while rapidly stomping their feet. This distinctive ritual impresses and delights observers and photographers of all ages.

The sharptail has also been regarded as a sporty game bird and fine table fare to the hunter. In the 1940's and early 1950's harvests of over 100,000 sharp-tailed grouse were commonplace. In 1949 alone 150,000 birds were taken, but today only roughly 10,000 birds are harvested annually. Spurred by low population levels and high potential for further loss of prime openland and brushland habitat, the Minnesota Department of Natural Resources (MDNR) listed sharp-tailed grouse as a "species of special concern". The precipitous decline is attributed to multiple land-use changes. Bill Berg, retired MDNR Wildlife Biologist and expert on sharp-tailed grouse, states "The lack of natural or prescribed fire, tree planting in open areas, extensive land clearing for agriculture, and recently breaking up large tracts of land into smaller rural lots for development are primary causes of sharp-tailed grouse decline." Management especially geared to improve their habitat and stabilize the population was needed.

In May of 1990, Bill Berg gave a training session on sharp-tailed grouse management to Natural Resources Conservation Service (NRCS) employees in northeastern Minnesota. As a result, brushland management projects with private landowners slowly began to develop. In March of 2003, a unique opportunity presented itself when MDNR Wildlife Biologists coordinated brushland management projects on state land that surrounded private land. The private landowner was interested in participating in the project and it made great biological and economic sense to manage the entire area as a unit. The landowner, NRCS, and MDNR Wildlife formulated a cooperative project using the Wildlife Habitat Incentives Program (WHIP) and MDNR private lands funds. A plan was developed that became the first of many specially geared towards management of brushland habitat under both public and private ownership.

The first contract went well spurring a more formal agreement between NRCS and MDNR for joint sharp-tailed grouse projects under WHIP and the MDNR's Private Lands Program. Since the first project in 2003, there have been 29 cooperative projects initiated, encompassing approximately 1,970 acres on private lands. These projects have also been successful, and NRCS and MDNR are looking into expanding the current priority areas to include additional sharp-tailed grouse habitat in Minnesota.

Penny Backman, previous MDNR Private Lands Specialist in northeastern Minnesota, stated in the conservation plan that the objectives of the project were "to mow or shear overgrown brush/stagnant bog, and to maintain it at an early successional stage through prescribed burning to improve habitat for sharp-tailed grouse and other openland wildlife species." Backman further added "This is an especially valuable project as large openland habitat complexes are currently in decline in northeastern Minnesota." Initially there was some hesitation about the effectiveness of the projects. Bill Berg stated "A lot of people think that northern Minnesota should be trees and that entire northern Minnesota was trees," but added "A lot of northern Minnesota was historically open with natural fires keeping them that way even before logging occurred." Bill Berg further explained "If you do everything right for sharp-tailed grouse habitat you will have the other brushland wildlife species too. Sharp-tailed grouse are an indicator species or what I'd like to call an 'umbrella species.'" An indicator species is a species whose habitat requirements or biological needs are more stringent than other species also associated with the same type of habitat.

Shearing in progress

After shearing

Currently, contracts are prioritized according to certain criteria. First, the project must be within or adjacent to one of 41 priority open landscape townships. These townships, found in Koochiching, Itasca, St. Louis, Aitkin, and Carlton Counties, were originally selected by MDNR Area Wildlife Managers based on land cover and presence and location of breeding grounds. Second, eligible land is scored and ranked. Scoring considerations include distance to nearest lek or brood sightings, nearness to existing long-term management blocks, number of other interested landowners in the area, size of the project, and involvement by limited resource producers or tribal lands. The closer a proposed project is to a lek and the more acres enrolled, the higher the project will score.

Awarding projects close to state lands managed for sharptails or multiple landowner project areas is more time and cost efficient. Larger projects are also more beneficial to sharptails since these birds do not tolerate small brushland or openland areas surrounded by trees. With the entire project costs covered (75% NRCS and 25% MDNR) for high priority projects, most landowners are eager to help maintain and reestablish stable wildlife populations in brushland and openland areas.

According to Jodie Provost, current MDNR Private Lands Specialist in northeastern Minnesota, "Landowner interest has been high, and we can usually work with them to incorporate special interests they have such as food plots or wildlife openings, or allowing land to be hayed or rotationally grazed." Roche Lally, a landowner enrolled in a cooperative WHIP sharptail project and president of the Minnesota Sharp-tailed Grouse Society, said "This is a great program and an opportunity to enhance wildlife habitat. The program has gone very well for me." Additionally he stated, "Since about 4-5 years ago, and specifically in the last 2, I've noticed an increase in birds in the area." He also noted enthusiastically, "I've owned my land for 15 years and last year was the first year a resident sharptail population used it!" When questioned whether the increase of birds was due to the shearing project or an unrelated population trend he responded, "It is most definitely because of the habitat work the DNR and NRCS are doing on private lands."

Ideal openland habitat after management

The cooperation of NRCS, MDNR, and private landowners has not only benefited sharp-tailed grouse, but also many other openland and brushland wildlife. There are 256 birds, mammals, reptiles and amphibians that occur regularly in northeastern Minnesota and utilize brushland. Of these species, 18 species are dependent upon it, including sharp-tailed grouse, loggerhead shrike, woodcock, several warblers, and moose. There are 301 birds, mammals, reptiles, and amphibians that utilize openland. Of these animals, 154 species are dependent upon it, including the eastern bluebird, short-eared owl, American bittern, sandhill crane, yellow rail, and many grassland songbirds, waterfowl and shorebirds. Over 30 species that use openland and brushland are listed as endangered, threatened or special concern in Minnesota and over 60 are on the Minnesota Comprehensive Wildlife Conservation Strategy's list of species of greatest conservation need.

"Birds are starting to come back. We will probably never see record harvests like we did in the 1950's, but we are about 1/3 way to the 40,000 goal the DNR has set" stated Bill Berg. The progress has just begun and continued effort among all partners is necessary to secure the future of sharp-tailed grouse and other plant and animal species that depend on brushland and openland habitat.

For more information, see:

- The sharp-tailed grouse wildlife guide sheet available on the Minnesota NRCS website at http://www.mn.nrcs.usda.gov/technical/ecs/wild/guide.htm and look forward to the new national NRCS Fish and Wildlife Management Leaflet No. 40 entitled "Sharp-tailed Grouse" in the near future.
- "Brushland Dervishes" in the March-April 2006 issue of the Conservation Volunteer or on the MDNR website at www.dnr.state.mn.us/volunteer/marapr06/brushland_dervishes.html.
- The Minnesota Sharp-tailed Grouse Society web site at www.mnsharptails.org and MSGS brochure entitled "Sharp-tailed Grouse Habitat Management for Private Landowners."
- The MDNR Wildlife Private Lands Program web site at www.dnr.state.mn.us/privatelandsprogram/index.html.