

Nature Saskatchewan EXECUTIVE SUMMARY

STEWARDS OF SASKATCHEWAN: BIRD SPECIES AT RISK 2008 REPORT

Operation Burrowing Owl, Shrubs For Shrikes and Plovers On Shore: Habitat Conservation for Species at Risk Through Landowner Stewardship

The Stewards of Saskatchewan (SOS) programs are dedicated to conserving disappearing habitat for prairie species, with a focus on species most at risk of vanishing. The SOS programs work in cooperation with rural landowners (includes landholders) and other organizations, volunteers and professionals, to raise awareness and conserve habitat. Landowners and landholders with nesting Burrowing Owls, Loggerhead Shrikes and Piping Plovers are eligible to join Operation Burrowing Owl (OBO), Shrubs For Shrikes (SFS) and Plovers On Shore (POS), respectively, and are encouraged to remain in the program and conserve suitable habitat (grasslands, shorelines or wetlands) whether or not the owls, shrikes or plovers return to nest. Landowners can also join OBO, SFS and POS by completing a habitat enhancement project. The SOS Conservation Toolboxes, a landowner resource of conservation options (voluntary stewardship, habitat enhancement and conservation easements), informative materials and landowner workshops, is promoted. OBO, SFS and POS, along with Rare Plant Rescue, form the Stewards of Saskatchewan programs of Nature Saskatchewan (NS).

Operation Burrowing Owl (OBO), launched in Saskatchewan in 1987, is a nationally recognized prairie stewardship program that served as a model for later programs across Canada. In its early years, the OBO program identified through an annual census of the owl population that the Burrowing Owl population was declining at an alarming rate. Researchers now estimate that only 500 to 800 pairs of the endangered Burrowing Owl nest in Canada with approximately half of these nesting in each of Saskatchewan and Alberta. Operation Burrowing Owl has been working to reverse this population trend for over 20 years. A total of 432 landowners currently participate in the OBO program, conserving 61,929 hectares (153,030 acres) of grassland habitat. Of these, 379 joined through having nesting owls (are involved in the monitoring component), and 53 joined through undertaking a habitat enhancement project; 24 (of the 379) landowners involved in monitoring have also completed an enhancement project.

Shrubs For Shrikes (SFS) was launched in 2003 and modeled on the successful OBO program. SFS focuses on the threatened Prairie Loggerhead Shrike whose population has declined more than 80% over the last few decades. The Prairie Loggerhead Shrike Recovery Team estimates the population to be 7,000 pairs in Saskatchewan (1999), 3,000 pairs in Alberta (1999) and 118 individuals in Manitoba (2002), with the population trend unclear in Saskatchewan, stable at low levels in Alberta and continuing to decline in Manitoba. A total of 58 landowners currently participate in the SFS program, conserving 2,395 hectares (5,920 acres) of grassland habitat. Of the 58 participants, 50 joined

through having nesting shrikes on their land (are involved in monitoring) and 8 joined through enhancing habitat; 2 landowners involved in the monitoring also have completed an enhancement project.

Plovers On Shore (POS), initiated in 2008 and also modeled on OBO, focuses on the endangered Piping Plover and is dedicated to conserving wetlands, shorelines and surrounding prairie habitat. The Piping Plover population has been declining since the 1940's and monitoring and recovery strategies have been pursued over the last decades, including the International Piping Plover Breeding Census every five years since 1991. Although plover population is difficult to accurately monitor because of its ephemeral habitat, the census gives insight into population trends and habitat use and facilitated the Piping Plover being the first species in Canada to have critical habitat designated. In 2008, its first year, POS focused on determining landowner contact information and increasing awareness and will focus on recruiting participants in the coming season.

The primary goal of OBO, SFS and POS is to conserve prairie habitat through voluntary landowner stewardship actions and agreements, and informed private land stewardship, focusing on the Burrowing Owl, Loggerhead Shrike and Piping Plover. These species at risk are used to garner support for prairie biodiversity and habitat protection for all prairie species. OBO, SFS and POS enlist rural landowners who currently have nesting owls/shrikes/plovers or Piping Plover critical habitat to conserve habitat around active or potential nest sites by signing a voluntary agreement in which the landowner agrees to maintain the species' nesting area by not cultivating the land, altering the nest site or unduly disturbing the birds. Voluntary agreements with landowners are indefinite, and only expire upon request. In 2008, 7 and 11 new landowners joined OBO and SFS, respectively, through voluntary stewardship agreements.

A second goal of the programs is to identify the locations of Burrowing Owls, Loggerhead Shrikes and Piping Plovers, and to monitor their population numbers and distribution changes through an annual census at OBO, SFS and POS sites. Monitoring provides an evaluation of the success of conservation actions. Research studies to determine factors driving population declines of prairie species are supported. OBO, SFS and POS landowners annually report the number of owls, shrikes and plovers on their land and any changes to the nesting habitat. In 2008, OBO participants reported 79 pairs of owls (corrected for non-reporting participants; 73 actual pairs reported by 41 participants), a 23.4% increase from the 64 pairs reported in 2007 (corrected for non-reporting participants; 61 actual pairs reported by 45 participants). OBO has documented an overall population decline of 93.2% from 1988 to 2008 with an average annual decline rate of 12.9%. The average annual rate of decline slowed considerably between 1994 - 2008 to 5.6%, indicating threats to the population may be less severe than in previous years and habitat factors may be improving. In 2008, 41 SFS participants reported 20 nesting pairs, 15 single shrikes and 15 young at enrolled OBO and SFS sites.

A third goal of the programs is to provide education and awareness to rural and urban residents including agricultural producers about the natural history and habitat needs of the programs' target and other prairies species, and the importance of conserving prairie

habitat and species diversity. In early spring, Burrowing Owl and Loggerhead Shrike “Wanted” posters were sent to 50 town and R.M. offices in the target areas to be displayed to encourage the reporting of owl and shrike sightings. Throughout the summer, the posters also were distributed to 36 post offices and local shops (gas station, bakery, restaurant, etc.) that were visited. In 2008, NS staff visited 30 landowners regarding OBO, 26 landowners regarding SFS, and 9 landowners regarding POS. Contact was made with hundreds of others through appearances at two trade shows, Nature Saskatchewan’s Spring and Fall Meets and other events with our informative display. Two Conservation Awareness Day workshops were delivered in 2008-09, one in Rockglen and one in Dundurn. These consisted of presentations and interactive discussions on NS and SOS, habitat enhancement opportunities including an afternoon field trip to a site or enhancement project presentation, mutual benefits of agriculture and biodiversity, species at risk beneficial management practices, common conservation myths, presentations by local/partner organizations, and a lunch with a special guest – an imprinted educational Burrowing Owl from the Saskatchewan Burrowing Owl Interpretive Centre. Printed materials (the annual *Stewards of Saskatchewan* newsletter, Burrowing Owl and Loggerhead Shrike “Wanted” posters, magnets, informative species brochures, and OBO and SFS program brochures) were widely distributed to target audiences.

A fourth goal of the programs is to assist landowners with enhancement and restoration of prairie habitat. This is accomplished through strategic cropland conversion to enlarge pastures and reduce fragmentation, and through shrub planting to increase nesting habitat for Loggerhead Shrikes. These actions improve wildlife habitat, and sequester carbon including greenhouse gas emissions. Strategic fencing and water development for livestock are also supported in order to preserve newly planted grasses and shrubs, existing native prairie and Piping Plover critical habitat. The habitat enhancement program is offered in areas that currently have or recently had nesting owls, shrikes or plovers. In 2008, 12 Burrowing Owl habitat enhancement projects (970 acres seeded, 2.5 miles of fence erected and 3 alternative water development installed), 3 Loggerhead Shrike habitat enhancement projects (130 acres seeded, 2 miles of fence erected and 2 water developments installed) and 4 projects for Burrowing Owls and Loggerhead Shrikes (485 acres seeded) were completed. Landowners sign a ten-year agreement to maintain the enhanced habitat as pasture, and also participate in the annual Burrowing Owl and Loggerhead Shrike census to evaluate the success of the enhancement work.

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