

How to Give a Hoot - Beneficial Management Practices for Burrowing Owls

Submitted by Leanne Thompson on behalf of SK PCAP

Burrowing Owls once occupied most of the grasslands of western Canada, but have experienced a significant population decline over the past three decades. The Burrowing Owl has been designated "at risk" in all four western Canadian provinces and is protected under provincial wildlife acts from capture, harassment, trade, killing, or nest disturbance.

As a result of population declines, the Burrowing Owl was officially listed as Endangered under the *Species at Risk Act* (SARA) in June 2003. As a requirement of SARA, a recovery strategy was developed and was recently revised in 2010. A National Burrowing Owl Recovery Team that includes both government and non-government organizations, developed the recovery plan which aims to increase Burrowing Owl populations in Canada to levels where they can sustain themselves.

Saskatchewan contains critical habitat for Burrowing Owls located mainly along the Frenchman River Valley in southern Saskatchewan. This area of the province is home to populations of Black-Tailed Prairie Dogs which create preferred habitat for Burrowing Owls. These prairie dog towns are so important to the Burrowing Owl, they contain 10-15% of the known nesting population in Canada.

A combination of factors appears to be at the root of the population decline in Burrowing Owls. For example, habitat loss, habitat degradation, human disturbance, and pesticide use have all impacted the population of this unique owl. Conservation groups have developed beneficial management practices (BMPs) for landowners concerned with the preservation of this species. The National Burrowing Owl Recovery Team has provided recommendations to update some of these BMPs based on observations and new research. Below is a list of BMPs adapted from Nature Saskatchewan and Multi-SAR with modifications from the National Burrowing Owl Recovery Team:

- Protect active and historical Burrowing Owl nesting sites;
- Maintain grassland pastures of at least one quarter-section in size, preferably in close proximity to other grasslands;
- Avoid spraying/using insecticides that reduce Burrowing Owl prey populations; if insect control is necessary, use an insecticide with the lowest toxicity to non-target organisms;
- Leave a 500m set back distance around known owl burrows and fox dens when spraying chemicals and poisoning rodents and to reduce general human disturbance;
- Avoid killing Richardson's Ground Squirrels (RGS) around active nesting sites. Badgers, swift foxes and raptors naturally control their populations and could be poisoned accidentally. Fewer RGS also means less food for them. Where RGS exceed tolerable numbers allow vegetation to grow longer as this will naturally deter them;
- Remove low yielding land from annual crop production and seed back to grass (native or tame species);

- Allow regular grazing within 100m of burrows to keep grass height below 10cm. Once the breeding season is over (July), graze pastures that have active burrows or dens;
- Vary stocking rates based on forage production. Increase stocking rates in high production years and decrease them in low production years;
- Graze the pasture in a pattern that creates a mosaic of shorter and taller vegetation. Note: The recovery team has found that the owls prefer to live and forage in short vegetation, so uniformly grazed pastures are likely not a deterrent;
- Place salt blocks and watering sites at least 50m away from burrows to lessen the likelihood of trampling and/or burrow collapse;
- Maintain healthy streamside (riparian) areas by restricting grazing, especially in wet years;
- Avoid planting trees or shrubs on native or tame pasture and reduce or remove woody vegetation in native or tame grasslands by burning, grazing, mowing or manual removal;
- Cultivate fields early (April), removing potential nest burrows in crop fields before the owls arrive to encourage them to nest in other grassland areas;
- Use direct or zero-till seeding during the critical nesting period (May through June) to improve the chances of Burrowing Owl survival.

For more information on BMP's for Burrowing Owls, please visit:

Nature Saskatchewan's website at www.naturesk.ca or;

MULTISAR's website at www.multisar.ca or;

Environment Canada's Species at Risk website at www.sararegistry.gc.ca.

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