

Species At Risk in Canadian wildlife poison use zones:

Burrowing Owl – *Athene cunicularia*

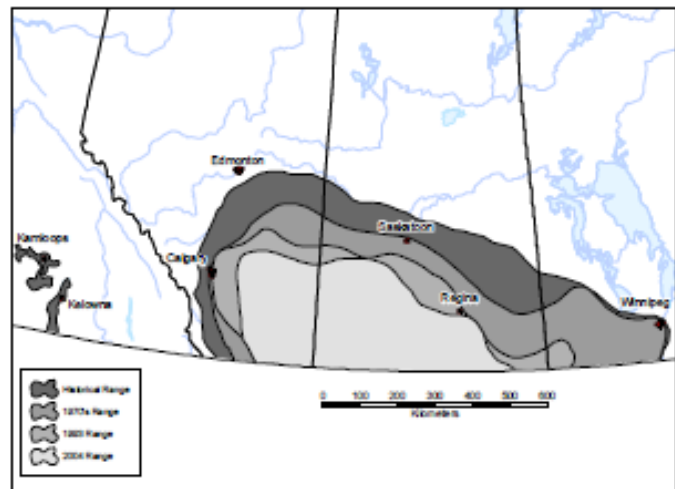
Federal Status: **THREATENED** in Canada / Provincial Status: **ENDANGERED** in Alberta and Saskatchewan



Figure 1 Image of Burrowing Owls courtesy of Anne Brokelman



Map showing historic and current global distribution of the Burrowing Owl. Source: Environment Canada. 2010. Recovery Strategy for the Burrowing Owl (*Athene cunicularia*) in Canada [Revised proposed version]. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. viii + 33 pp.



Map showing changes in distribution of the Burrowing Owl in Canada over time. Source: Environment Canada. 2010. Recovery Strategy for the Burrowing Owl (*Athene cunicularia*) in Canada [Revised proposed version]. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. viii + 33 pp.

Source of reference:

Pest Management Regulatory Agency – Health Canada. (2005). Re-evaluation of Strychnine. Proposed Acceptability for Continuing Registration: PACR2005-08

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*Species of concern, including the endangered swift fox and the **endangered burrowing owl**, are found in the same areas and type of habitat where strychnine is used for ground squirrel control. Additionally, incident reports from the United States clearly indicate that above ground strychnine use resulted in primary and secondary poisoning of non-target species.*

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Information below has been copied from species reports provided by COSEWIC.

Source:

Environment Canada. 2010. Recovery Strategy for the Burrowing Owl (*Athene cunicularia*) in Canada [Revised proposed version]. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. viii + 33 pp. – [http://www.registrelep-sararegistry.gc.ca/virtual\\_sara/files/cosewic/sr\\_burrowing\\_owl\\_e.pdf](http://www.registrelep-sararegistry.gc.ca/virtual_sara/files/cosewic/sr_burrowing_owl_e.pdf)

#### 1.5.6 Environmental Contaminants

*Pesticides are used to control weeds, insects, and burrowing mammal populations on agricultural land and along roadside ditches. Although these chemicals do not target Burrowing Owls, they may have negative effects in ingested indirectly through prey or scavenged carcasses or if they significantly reduce Burrowing Owl food supplies at a critical period of the nesting cycle (Floate et al. 2008.) For example, owls in pastured treated with strychnine-coated grain weighed less than owls in control pastures (James et al. 1990), and owls near carbofuran-sprayed fields had lower reproductive output than did control pairs (54% fewer young per nest and 50% reduction in the proportion of successful nests; James and Fox 1987). The application of granular carbofuran was banned in Canada in 1995.*

*A variety of owl species are sensitive to these and other environmental contaminants (Sheffield 1997b)), but whether Burrowing Owls in particular are affected by other contaminants is largely unknown...Burrowing owls are known to occasionally scavenge ground squirrels. The effects of Burrowing Owl exposure to persistent*

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It should be noted that in Alberta, livestock producers have access to 2% liquid strychnine concentrate, thereby increasing the opportunity for off-label use and stockpiling<sup>1</sup>.

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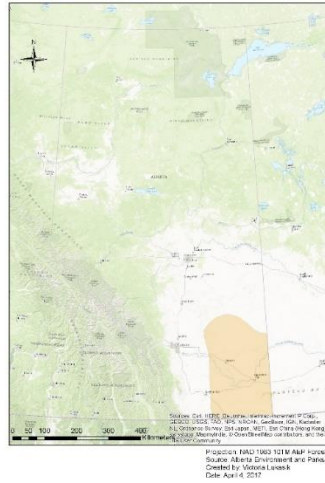
<sup>1</sup> COSEWIC Assessment and Status Report on the Swift Fox *Vulpes velox* in Canada. 2009

The US Department of Agriculture has documented the strychnine-caused death of the following endangered species: Attwaters' greater prairie chickens, **burrowing owls**, whooping cranes, bald eagles, peregrine falcons, northern aplomado falcons, jagurundi, ocelots and wolves<sup>2</sup>.

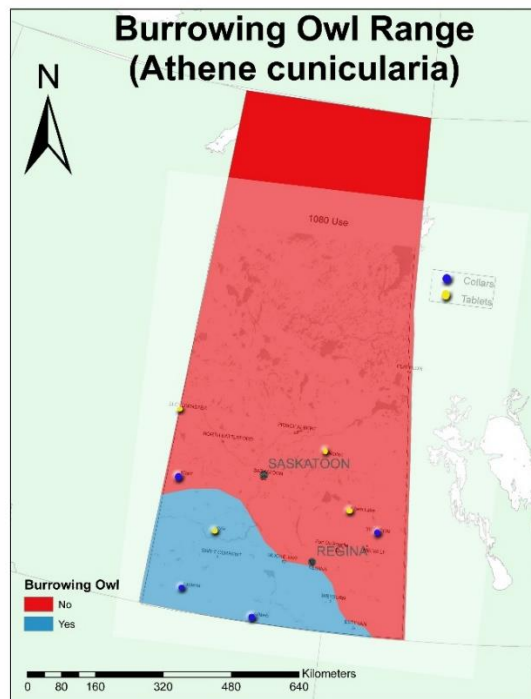
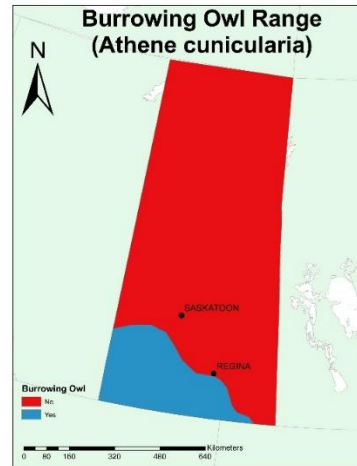
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The maps below have been put together to demonstrate that compound 1080 is currently being used in areas too close to Burrowing owls and their range. We are not able to show where liquid strychnine is being used, but this use also causes great concern.

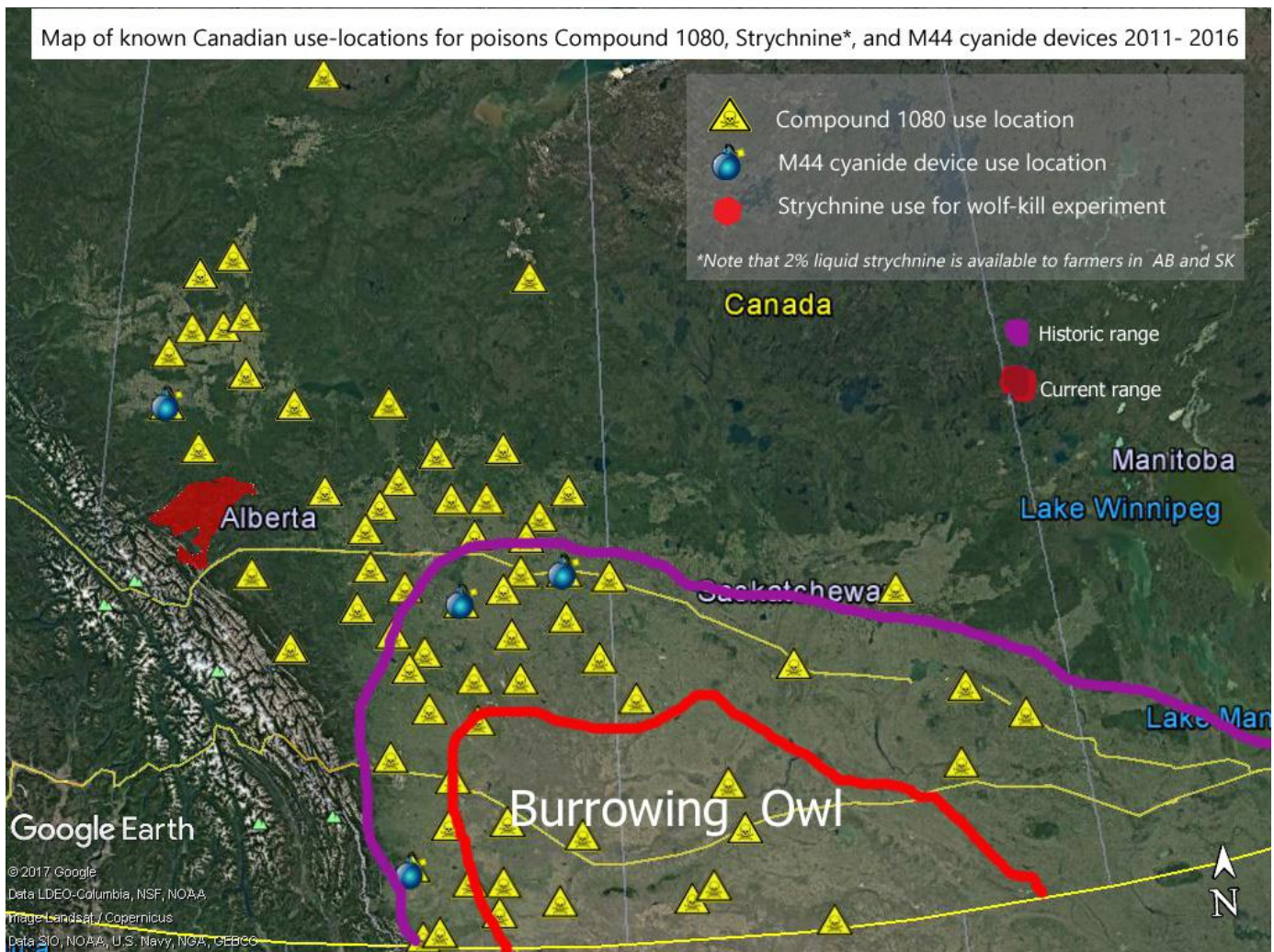
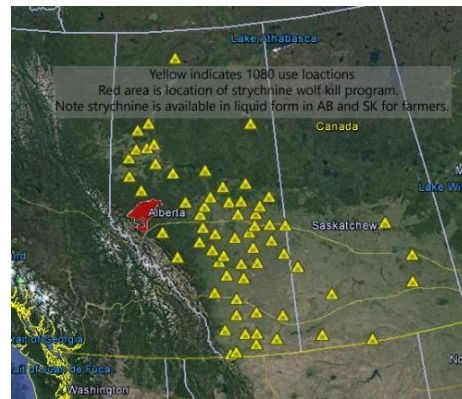
Alberta Burrowing Owl Range



Saskatchewan



<sup>2</sup> U.S. Department of Agriculture – Animal and Plant Health Inspection Service – Animal Damage Control. 1994. Final Environmental Impact Statement.



Recovery Strategy for the Burrowing Owl  
(*Athene cunicularia*) in Canada [Revised proposed version]

2010

