

Species at Risk

2012-13 Recovery Action Summary

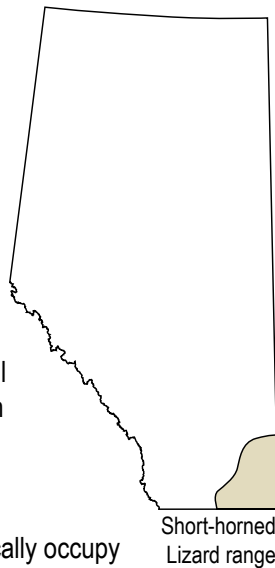


Short-Horned Lizard



Background

The short-horned lizard is currently designated as Endangered under both Alberta's *Wildlife Act* and the federal *Species at Risk Act*. Primary reasons for listing include a small, severely fragmented distribution and continued decline in the quality of its habitat. Isolation and rarity of occupied habitats, combined with the threat of ongoing oil and gas development, proliferation of roads, proposed mineral development, and an increased human presence, all present significant challenges to the recovery of this species. Short-horned lizards are the only lizard species in Alberta, and typically occupy a habitat of sparsely vegetated slopes of river valleys or badland formations. Their distribution in Alberta, which represents the northern extent of this species' range, comprises several small, disjunct populations in extreme south-east corner of the province. For this reason the short-horned lizard is particularly vulnerable to extirpation, and because of their small dispersion distance, it is unlikely immigration from neighbouring populations in Montana will occur. Specific population estimates are difficult to determine as the species exists in low densities and in small, isolated populations; their cryptic colouration also makes detection difficult. The most recent provincial estimation was in 2001, placing the population between 2677 and 16379 mature individuals, occupying 29-88 km².



Recovery Plan

The Alberta Short-horned Lizard Recovery Plan is currently being drafted and is targeted for release during the 2013/14 fiscal year.

Recovery Goal

The Alberta recovery goal for short-horned lizards is to maintain a viable, self-sustaining short-horned lizard population distributed across suitable occupied habitat in its Alberta range.

Strategies

1. Population Conservation and Management
2. Habitat Conservation and Management
3. Information and Outreach
4. Research
5. Resource Acquisition
6. Plan Management



Actions

Important recovery actions have been initiated, and are ongoing. Recovery strategies are delivered by ESRD, with assistance from industry, landowners, leaseholders, and non-government conservation organizations. A short summary of recent progress on actions is provided below, along with some upcoming actions, organized by the six strategies.

1. Population Conservation and Management

- Though a more precise population estimate is still required to detect early signs of population decline, an initial estimate has been completed.
- Upcoming monitoring for changes in habitat quality at five-year intervals coinciding with occupancy surveys is proposed.

2. Habitat Conservation and Management

- Setback distances for industrial activity have been established where short-horned lizards are likely to occur. Low disturbance activities and high disturbance activities are restricted within 100m and 200m of occupied habitat, respectively.
- A Habitat Suitability Index (HSI) model developed for short-horned lizards identifies areas likely to be suitable habitat for the species.
- Partial designation of critical habitat in the upcoming federal recovery strategy will offer additional protection.
- While it is illegal to kill, harm, possess, buy, or sell individuals under the *Wildlife Act*, there is no formal protection of short-horned lizard habitat in Alberta on private lands. However, some habitat falling on public land is currently under protective notation, and future plans include adding protective notations to all habitat identified on public land.

3. Information and Outreach

- Public education regarding short-horned lizards and their habitat requirements is promoted through programs such as Multisar (working directly with landowners), Alberta Conservation Association (producing educational materials), and other prairie conservation organizations.

Research

- A Resource Selection Function (RSF) model has been developed for short-horned lizard habitat, which aids in focusing surveys for other potential populations
- A University of Calgary study is currently underway to understand the current and historic relatedness among short-horned lizard populations in Alberta.
- Future research proposals include testing methods to restore disturbed habitats, and collecting data on dispersal capabilities. The distances short-horned lizards disperse through undisturbed habitats will serve as a starting point to understand how habitat disturbances affect connectivity.

Resource Acquisition

- Many actions identified for conservation and recovery will be delivered through in-kind activities of government, landholders, and industry.

Upcoming

The provincial recovery plan is currently being drafted and will incorporate new findings and recent data. Efforts in habitat management, data collection, and monitoring are ongoing. For further information visit www.esrd.alberta.ca.