Alberta’s
Canadian Toad
(Bufo hemiophyrs)

data deficient

Description
The Canadian toad, also known as the Dakota toad, is the smallest true toad in Alberta. It ranges in length from 3 cm to 7.5 cm, with the males usually smaller than the females. Like all true toads, the Canadian toad has a stout body, and its skin is mottled with grey-green or brownish blotches with irregular brownish-red, toxin-producing warts. The Canadian toad is most often brown or grey-green in colour. However, it can also occur in a rusty or red-coloured phase. Its underside is whitish and spotted with grey. The male’s throat is dark, whereas the female’s throat is the same light colour as her belly. The Canadian toad has two ridges along the top of its head that are either parallel or joined to form a raised bump between its eyes.

The Canadian toad is active from April to September in Alberta. It is mainly seen during the day, stalking and preying upon earthworms, beetles, and ants with its long, sticky tongue. At night the Canadian toad generally burrows into the ground for cover. However, if the evening is warm enough, it may also be active at night.

Distribution
As its name suggests, the Canadian toad is mainly found in Canada, inhabiting the prairie, aspen parkland and boreal forest regions of Alberta, Saskatchewan, Manitoba and the Northwest Territories. Its distribution extends into the United States, along the Canadian border to western Minnesota and northeastern South Dakota. Within Alberta, the Canadian toad occupies roughly the eastern half of the province.

Habitat
The Canadian toad is generally found in river valleys or along lakes with sandy borders. Even though the Canadian toad requires wetlands for breeding, much of the year is spent in adjacent uplands. Such areas of sandy soil are important winter hibernation sites, into which individuals burrow to avoid freezing. Over-wintering areas, called hibernacula, may contain large concentrations of toads, and can be several hundred metres from ponds. Because of this, entire subpopulations of the Canadian toad are susceptible to forest harvest and construction activities during the nonbreeding season.

Breeding occurs between May and July, after adults emerge from hibernation and migrate to breeding sites. Males begin calling in shallow areas of ponds, lakes, marshes, and temporary bodies of water at temperatures as low as 5°C. A female will lay 4000 to 7000 eggs in long, spiral strings of jelly at the bottom of the pond.

Population
The Canadian toad was common and its population was stable in Alberta until the mid-1980s. Since then, it appears to have declined and may no longer occur in areas of our province south of Medicine Hat. The population has also been declining in the northern parts of the prairies and in the parkland region. The remaining population is small and appears to be declining further, but

status

Alberta: Recommended by the Endangered Species Conservation Committee (ESCC) as Data Deficient
Saskatchewan: Secure
Manitoba: Secure
Northwest Territories: May Be At Risk
Canada (COSEWIC): Not assessed by COSEWIC; National General Status is Sensitive
USA: Unranked/Not yet assessed (N?)
data deficient

since historical information on population size is limited, accurate estimates of the rate of decline are not available. The species is rare in many locations; however, the population size is still unknown. This is because until recently there have been no large-scale programs in place to survey amphibian populations in our province.

**Threats**

Alberta’s Canadian toad population faces a number of threats that may have been responsible for broad-scale declines during the past few decades, including disturbance to hibernacula (such as through construction activities), forest harvest, wetland loss and alteration, disease, and climate change. More than 90% of wetlands in prairie and parkland areas have been drained or modified for agriculture, 60% of which has occurred in the last 50 years. The greatest modifications have taken place in the grasslands and the parkland, the areas in which Canadian toads have declined.

**Management**

Under Alberta’s *Wildlife Act*, the Canadian toad is currently designated as a “non-game animal”. This means that it cannot be killed for any reason, cannot be bought or sold, and a permit is required to hold this species for educational or scientific purposes. This will ensure continued general protection for the species in our province while better data are collected.

The Alberta Endangered Species Conservation Committee (ESCC) has recommended that the status of the Canadian toad be “Data Deficient” because there is insufficient information on this species to accurately assess its status in Alberta. The ESCC has recommended that the Alberta government facilitates the collection of better information on the population size, distribution and trend of the Canadian toad, and that the status of the species in the province be reassessed within five years. This research is needed to determine the impacts of threats to toad populations, and to gain a more complete understanding of the biology of this species. The current volunteer network of the Alberta Amphibian Monitoring Program could provide support for this task.

**What You Can Do To Help**

*As a member of the public, a land manager, or an industrial developer:*

- Report any observations of the Canadian toad to the nearest office of the Fish and Wildlife Division, Alberta Sustainable Resource Development.
- Volunteer with the Alberta Amphibian Monitoring Program, which is organized by the Alberta Conservation Association and Alberta Sustainable Resource Development [www3.gov.ab.ca/srd/fw/amphib].
- Avoid altering wetland habitat, and minimize the impacts that cattle have on these areas. Fencing off these areas and pumping out water for cattle is one very effective way of preserving wetland habitat.
- Contact wildlife management staff at the nearest Fish and Wildlife Division office for information on ways that you can minimize impacts on amphibian populations.

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For more information on Alberta’s Species At Risk: [http://www3.gov.ab.ca/srd/fw/riskspecies/](http://www3.gov.ab.ca/srd/fw/riskspecies/)