



THE PROVINCIAL MUSEUM OF ALBERTA

Alberta's Ord's Kangaroo Rat

(*Dipodomys ordii*)

endangered

status

Alberta: Endangered;
Listed in 2002

Saskatchewan: Sensitive

Canada (COSEWIC):
Special Concern

USA: Secure (N5);
considered common
in many states in
which it occurs

Description

The Ord's kangaroo rat is a medium-sized rodent with orange-brown fur on its back and white fur on its abdomen, feet and above its large dark eyes. It measures 20 to 28 cm from the tip of its nose to the end of its tail, which can be up to 16 cm in length. Its particularly large hind legs, large feet, and long tail, as well as its hopping style of locomotion have earned the Ord's kangaroo rat its name. It can jump up to 2 metres in a single leap!

The Ord's kangaroo rat is not closely related to either kangaroos or rats. It belongs to the family Heteromyidae, a group of rodents that is specialized for living in very hot and dry environments. The kangaroo rat is so well adapted for water conservation that it can survive without drinking water. It is a secretive animal that avoids predators by relying on its good sense of hearing, escaping into underground burrows, and being active at night instead of during the day. Even on nights with bright moonlight, it prefers to remain in its burrow rather than emerge above ground where predators might easily see it. Early morning investigations of its sand dune habitat sometimes show the telltale signs of its nightly activity: scurried, paired footprints, snake-like meanderings from its tail, and fresh burrows in the sand.

Distribution

The Ord's kangaroo rat is found in the western and central United States and as far south as central Mexico. A small northern population, isolated by more than 300 km, occurs in the Middle Sand Hills north of Medicine Hat in southeastern Alberta, and in the adjacent Great Sand Hills of southwestern Saskatchewan.

The Canadian portion of the distribution map has been updated with the most current available information.



Habitat

The Ord's kangaroo rat depends on open, sparsely vegetated sand dunes, which are becoming increasingly rare in Alberta because they require disturbance to persist. Historically, natural prairie wild fires and large mammals such as plains bison discouraged vegetation from growing in these sandy areas. The kangaroo rat needs loose, open, sandy soils so that it can dig its underground burrow and hop quickly across the open ground to escape from predators.

The Ord's kangaroo rat eats seeds and prairie plants, which it stockpiles in its underground burrow. It aggressively defends its food stash against other kangaroo rats and other small mammals, and is known to use its powerful hind legs to lunge at potential thieves. When

endangered

dangerous predators approach, it turns and kicks sand in the assailant's face as they flee. The Ord's kangaroo rat has many predators, including owls, snakes, badgers, bobcats, coyotes, foxes and weasels.

Population

It is difficult to estimate the size of the Ord's kangaroo rat population in Alberta because they have highly variable reproductive and survival rates. However, there are probably fewer than 1000 individuals during the early spring. Winter is a critical time, because up to 90% of the population dies as a result of a lack of food and inadequate stored fat, despite the fact that they try to save energy by hibernating during winter.

Threats

There are a number of potential threats to the survival of the Ord's kangaroo rat in Alberta. When natural habitat is in short supply, it uses sandy habitats such as roadsides, trails or cultivated fields. These alternative habitats may provide easier access for predators. Another potential limiting factor is that the kangaroo rat is often infested with a large parasite, called a botfly, that reduces its reproduction and survival. As well, because the kangaroo rat stays underground during bright nights, artificial lights presumably reduce foraging opportunities and may ultimately leave it without enough stored food and fat to survive the long winter.

Management

There are currently no provincial or national recovery plans in place for the Ord's kangaroo rat. Within one year of the Ord's kangaroo rat being listed as an "Endangered" species, a provincial recovery team, including Alberta Sustainable Resource Development and other relevant agencies and groups, will prepare a recovery plan to set goals, objectives, strategies and management actions needed to guide the recovery of this species over the next five years. The Endangered Species

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Conservation Committee (ESCC) recommended that efforts be focused on conservation of existing populations through prevention of further habitat decline. Protection of Ord's kangaroo rat populations will be implemented to ensure no loss of important den areas. Long-term monitoring of populations and distribution, and assessment of potential impacts of industrial disturbances such as oil and gas developments, need to be conducted.

Research is needed to determine if it is possible to mimic historical natural disturbances to encourage erosion and maintain suitable habitat in otherwise densely-vegetated sand dunes. As well, research should be undertaken to evaluate whether human-disturbed habitats such as roadsides can support sustainable populations.

What You Can Do To Help

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

- Report any observations (or signs) of the Ord's kangaroo rat to the office of the Fish and Wildlife Division, Alberta Sustainable Resource Development in Medicine Hat, and avoid disturbing areas where this animal occurs.
- Turn off bright night-time lights where the kangaroo rat may be affected.
- Contact wildlife management staff at the Fish and Wildlife Division office in Medicine Hat for information on ways that you can minimize impacts on kangaroo rat populations.

