

ecause of its nocturnal nature, the badger is poorly understood, yet this species is essential to the prairie landscape. Vital in controlling rodent populations (often decimating entire colonies of ground squirrels!), the badger is also essential to the survival of endangered species like the burrowing owl and swift fox (without badger burrows, we simply would no longer see these species on the prairie landscape). This fact sheet provides a window into the badgers' fascinating life cycle.



#### **OPERATION GRASSLAND COMMUNITY**

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## THE LANDOWNER'S TOOLKIT SERIES

# Badgers Why They are Critical to **Our Prairie Ecosystem**

### **DIGGING & BURROWING**

Badgers are well adapted for digging up burrowing rodents - their main prey. Their short, squat profile and wedge-shaped head allow for quick maneuvering in tight places. With five partially webbed toes tipped with sturdy claws up to two inches in length, the badger is able to scoop out large "handfuls" of dirt, using their hind legs to remove the dirt as their front legs dig.

The burrows that badgers create are used by many different species. In Alberta, swift fox, burrowing owls, and snakes use abandoned burrows for dens, nests and hibernacula, respectively. In fact, burrowing owls and swift fox could not survive without the burrows provided by badgers.

#### Some Facts about Badgers and Digging:

- The Badger is designed to dig: thin, transparent membranes protect a badger's eyes from dirt particles, and its ears are short and round, with long, stiff hairs that help keep dirt out of the ear canal.
- Dens/burrows are essential to the badger, serving as sites for daytime activity, food storage, birthing, and as the focus for foraging activities.
- Their burrows may be as long as 9 m and up to 3 m deep!
- During cold weather, badgers will plug the entrance of burrows in winter with loose soil
- Badger diggings help to aerate the soil, promote the formation of humus (organic part of soil) and allow soil genesis, the ability of water to reach deep into the soil.

### **DIET & HUNTING**

- In the Canadian Prairies, Badgers play a key role in controlling Richardson's ground squirrels ("gophers") and Northern Pocket Gophers.
- North American badgers also supplement their diet with a wide variety of mammals, birds, eggs, reptiles, amphibians, invertebrates, fish, mollusks, and plant material
- · Coyotes and badgers have been observed together when hunting. This may look like a 'hunting partnership', but the coyote is actually just waiting for a rodent or other small mammal to escape from the digging badger, so that it can catch them instead. As a result, the coyote can consume prey at higher rates, and with less traveling, than when hunting alone.
- By hunting in association with coyotes, badgers also increase their hunting success because the proximity of coyotes deters escape of ground squirrels from the burrow system.
- When hunting alone, badgers sometimes plug openings of tunnels from which prey might escape.

#### REPRODUCTION

Badgers mate in late summer, usually August or September. After the eggs are fertilized, their development is arrested for several months until implantation into the uterus occurs. The embryos resume their development beginning in mid-February (when male and female adults are in torpor, so could not mate at this time!). The young are born about 5 weeks later, arriving between the end of March and early June. This complex reproductive system helps ensure that young arrive at the time of year when food is abundant. Badgers have only one litter per year. The usual litter size is 2 or 3,

At birth, young badgers have fur but are blind. Their eyes open at 4-6 weeks of age. They stay in and around their home burrow until autumn. They are suckled for 6 to 8 weeks or longer, after which the mother will introduce them to solid food by bringing dead rodents and other small mammals to the den.

The young may disperse soon after weaning. They then seek out home ranges of their own, and their journeys may take them as far as 100 km away from where they were born.

#### **CONSERVATION**

The North American badger is the only species of badger that occurs on this continent. Distributed throughout Southern Alberta, they are found most often in open, treeless habitats with an available food source.

#### **Declining Population Numbers:**

- The decline of this species is apparent when the 18 000 badger pelts harvested in 1928 are compared to the current population estimate of only 10 000.
- Badgers have few natural predators. Coyotes, other badgers, and golden eagles occasionally kill badgers, usually before the badgers reach maturity, but the major threat comes from man.
- · Badger numbers have declined dramatically since settlers introduced livestock, intensified agricultural practices and increased trapping. Badgers are also often killed by vehicles, poisoned, or shot.
- Loss of essential prey species like Richardson's ground squirrel is also thought to have a detrimental affect on badger populations.

As a result, the North American badger is ranked as a "Sensitive" species in Alberta: not currently at risk, but may require special attention or protection to maintain a healthy population and prevent it from becoming at risk of extirpation or extinction.

#### ACTIVITY

- Badgers hunt primarily at night and remain underground during the day. However, the young of the year tend to be active during daylight hours.
- Badgers do not hibernate in their burrows during winter but enter into torpor - a period of reduced activity in response to cold weather. They are usually not active at temperatures below -150 C, or during periods of reduced prey availability.
- · Home range size varies with season, and may range from as little as 2 ha in winter, to as much as 600 ha in summer. Most are in the 100-300 ha range

# Much of the information within this factsheet came, with permission, from:

Scobie, D. 2002. Status of the American Badger (Taxidea taxus) in Alberta. Alberta Sustainable Resource Development, Fish and Wildlife Division, and Alberta Conservation Association, Wildlife Status Report No. 43, Edmonton, AB. 17 pp.

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