

Badgers and Ground Squirrels

American badgers and Richardson's ground squirrels are controversial species due to their tunnelling and foraging behaviour on agricultural lands. Mounds and holes potentially create problems for machinery and livestock while competition for grain and forage frustrates producers. However, these two species are native to the grasslands and they play a vital role in the prairie ecosystem. Their burrows are critical for providing homes for other wildlife and they help create fertile soil. Badgers and ground squirrels are also a vital food source for many other animals.

Importance

- **Provide burrows** for species at risk such as burrowing owls (endangered), prairie rattlesnakes (data deficient) and swift fox (endangered) as well as other reptiles and even native bumblebees that are important pollinators.
- Richardson's ground squirrels are the **main food source** for ferruginous hawks (endangered) and prairie falcons (special concern). Snakes, coyotes, red foxes, long-tailed weasels and other raptors (Swainson's hawks, red tailed hawks, bald eagles, great horned owls) also eat them.
- Badgers **control rodent populations** including mice and ground squirrels.
- Badger and ground squirrel tunnels aerate soil, **promote formation of organic matter** and allow water to reach deeper soil layers.

Keeping woody areas, such as lone trees, provides habitat for raptors to nest and feed on rodents, like this ferruginous hawk.



American badger

- Alberta status is *data deficient*.
- Are a keystone species on the prairies because they provide burrows and food for other animals.
- Have very large home ranges (30-50km²) and often stay in one place for only 1-2 days before moving on.
- Prey on ground squirrels and other rodents. When in an area can eat up to 50% of the local ground squirrel population.
- Not aggressive unless provoked with no means of escape.



Richardson's ground squirrel

- Are a keystone species on the prairies because they provide burrows and food for other species.
- Ferruginous hawks and prairie falcons rely on them for 75-90% of their diet.
- Prefer flat areas with short grasses for visibility.

Beneficial Management Practices

- Tolerate ground squirrels and badgers if they are not causing excessive damage.
- Allow them to live on marginally productive land and use control methods only in highly productive areas.
- In problem areas, try letting the vegetation grow taller and they may leave.
- Avoid using poison as it may harm or kill beneficial species of grassland birds, snakes, hawks, eagles, owls and other raptors that eat the carcasses or have access to the bait.
- If control is necessary, shooting is the preferred method.

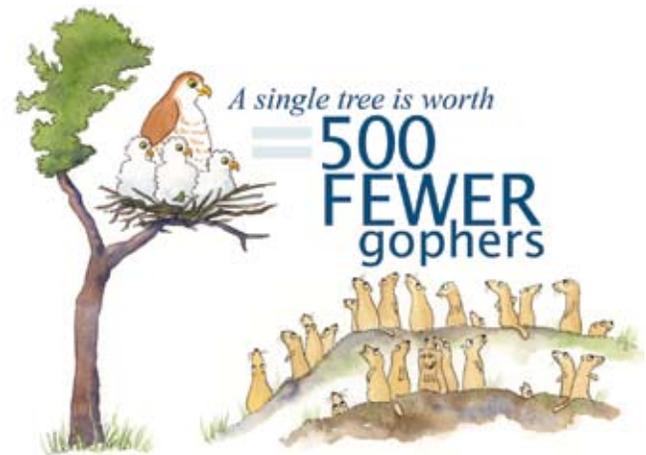
If poisoning is absolutely necessary:

- Use a proper bait box so that non-target species do not have access to the poisoned bait.
- Dispose of carcasses afterward so predators will not eat their poisoned meat.
- Carefully follow package directions. A stronger concentration is not necessary and dramatically increases the likelihood of poisoning non-target animals.

Poisons & non-target animals

- The number one reason for accidental poisoning of non-target animals is not following directions and failure to use a bait box.
- Grassland songbirds, birds of prey and game birds are often killed by baiting programs. In one baiting study, horned lark (a small grassland bird) populations were reduced by 61%.
- Large raptors are often poisoned by eating infected meat or bait. This is a major concern in Alberta.
- Control methods reduce food supplies for hawks, owls, eagles, falcons and snakes.

Try restricting control to areas of high concern and leaving marginal lands to natural processes.



Control: Is it worth it?

- A survey of producers and livestock veterinarians in British Columbia indicated livestock injury and machinery problems due to badgers were extremely rare (1 case of injury to a cow in 200 people surveyed).
- Studies involving prairie dogs (a much larger rodent not found in Alberta) showed it would take 300 prairie dogs to eat as much as one cow-calf pair and that steers showed no difference in weight when living with or without prairie dogs.
- Given the high cost and dangers of dealing with acute toxins, the time investment to control these native species and the tendency of other ground squirrels to take over empty burrows, producers may find control is not an effective way to spend their resources.
- Encouraging natural predators like hawks, falcons and snakes may be a more effective control method.
- See MULTISAR's *Raptors* and/or *Reptiles* BMP factsheets for information on how to enhance habitat for those species.

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