



SARA Species at Risk Act

The Species at Risk Act is a Federal Legislation intended to protect fish, wildlife and plants list as endangered, threatened or at risk

Known Species at Risk in the Skeetchestn Boundary













Lewis's Woodpecker





Scarlet Globe-Mallow







Species at Risk in Skeetchestn Territory

- •American Badger
- American Bittern
- Awned Cyprus
- Bobolink
- Booths Willow
- •Bristly Mouse Tail
- •Canyon Wren
- Dotted Smart weed
- Drummond's Campion
- Dwarf Groundsmoke
- •Fammulated Owl
- •Gopher Snake
- Great Basin Spadefoot
- •Great Blue Heron
- •Grizzly Bear
- Lark Sparrow
- Lewis's Woodpecker
- Long-Billed Curlew

- •Okanogan Fameflower
- •Prairie Falcon
- Racer
- Rough Dropseed
- •Sandhill Crane
- Scarlet Globe-mallow
- Sharp-Tailed Grouse
- •Silvery Oradhe
- Silvery Sagebrush
- Small-flowered Ipomopsis
- •<u>Spotted Bat</u>
- Swainson's Hawk
- •Tall Beggartichs
- •Thyme-leaved Spurge
- Western Low Hawksbeard
- <u>Western Rattle Snake</u>
- •Western Small-footed Myotis
- •Western Toad

American Badger jeffersonii subspecies *Taxidea saxus jeffersonii* Last COSEWIC designation: May 2000 SARA risk category: Endangered

Reason for Designation: Small population, perhaps less than 600 individuals.



Fragmented and at risk from roadkills and human development.

Status History: The species was considered a single unit and assigned a status of Not at Risk in 1979. Each subspecies was given a separate designation in May 2000.

<u>Description</u>: The American Badger is a heavy-bodied, short-legged and short-tailed member of the weasel family. The head has a distinctive pattern: the muzzle, crown and back of the neck are dark black-brown with a mid-dorsal stripe that runs from the nose over the top of the head to the shoulders.

Distribution and Population: In Canada, the subspecies can only be found in the dry interior of southern British Columbia. The population had been estimated at 250 to 600 individuals, but at fewer than 200 in the year 2000. Overall the population is apparently continuing to decline.

<u>Habitat</u>: Open habitats, whether natural (deserts, grasslands, forest clearings, alpine areas) or man-made (agricultural fields, road right-of-ways, golf courses, clearcuts), are generally used. Suitable habitat in British Columbia is limited and fragmented, has significantly decreased in quality (including reduction in ground squirrel numbers) and quantity, and much of the remaining habitat is threatened by urbanization and intense agriculture (orchards). <u>Biology:</u> Badgers are mostly nocturnal, but can be active during the day, particularly in the mornings. Their home ranges vary from 2 to 500 square kilometers; males usually have much larger home ranges than females. Burrows are at the centre of a badger's daily activities, and suitable burrows are frequently re-used. Badgers are adapted to capturing small burrowing mammals; however, they are opportunistic feeders and supplement their diet with a wide variety of mammals, birds, eggs, reptiles, amphibians, invertebrates and even plants. Like most members of the weasel family, badgers are fierce fighters when cornered or attacked. In southern British Columbia, they have few predators (bears and cougars), other than humans, however they suffer from fairly high mortality rates, especially as a result of farming operations and collisions with vehicles on roads.

<u>Threats:</u> Primary limiting factors include habitat fragmentation, an increase in agriculture (annual crop production, conversion of natural habitat to orchards and clearing of residual native vegetation), reduction in prey, control of badgers as nuisance animals, invasion of open habitat by trees and shrubs because of fire suppression, and roadkills.

<u>Protection:</u> The American Badger jeffersonii subspecies is protected under the federal Species at *Risk Act* (SARA). There is no legal harvest of American Badgers jeffersonii subspecies in British Columbia except for nuisance animals. *All My Relations: Species at Risk and the Secwepemc*



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Spotted Bat Euderma maculatum Last COSEWIC designation: April 1988 SARA risk category: Special Concern



<u>Reason for Designation</u>: Numbers are low, but there is no evidence of recent decline. This species reaches the northern edge of its range in south central British Columbia, where it is at risk from human activities such as rock climbing near roost sites.

Status History: Designated Special Concern in April 1988.

Description: The Spotted Bat is a medium-sized bat with huge ears. Its body is black with three large white spots - one on the rump and one on each shoulder. Adults have a wingspan of about 35 cm and weigh 13 to 20 g.

<u>Distribution and Population:</u> The Spotted Bat is considered rare throughout its range, which extends from Mexico to the western states of the U.S. In Canada, the species is found only in the extremely southern edge of British Columbia. There is no estimate of the size of the Canadian population, but this population is thought to be very small. <u>Habitat:</u> The Spotted Bat is found in the Ponderosa pine-bunchgrass vegetation zone of southwestern North America, where the summers are hot and the winters are mild. The bat prefers habitats along waterways, where there are nearby cliffs or steep hillsides. Spotted bats are solitary; they roost on cliff faces.

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<u>Biology:</u> The age at which Spotted Bats reach sexual maturity is unknown. Females give birth to one young per year.

Threats: Spotted Bats feed on insects; the use of pesticides can thus be detrimental to these bats. Human disturbances can also be a limiting factor for this bat. <u>Protection:</u> Species that were designated at risk by COSEWIC prior to October 1999 must be reassessed against revised criteria before they can be considered for addition to Schedule 1 of the Species at Risk Act (SARA). In Canada, the Spotted Bat is protected under the British Columbia Wildlife Act.

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Western Toad Bufo boreas Last COSEWIC designation: November 2002 SARA risk category: Special Concern



<u>Reason for Designation</u>: Dependent upon oligotrophic and fishless ponds and small lakes for breeding, it is also sensitive to habitat deterioration, introduced exotic predators and competitors, and disease.

Status History: Designated Special Concern in November 2002. Assessment based on a new status report.

<u>Description</u>: The Western Toad has dry bumpy skin, horizontal pupils, and a distinctive white or cream-coloured stripe down its back. The toad varies in colour from olive-green to reddish-brown to almost black. Males can be 6 to 11 cm long, while females commonly reach 12.5 cm.

<u>Distribution and Population:</u> The species has an extensive range in British Columbia and Alberta, and there are five separate populations known in the Liard River Basin in the Yukon. Overall, it appears to be doing relatively well; however, recent records indicate that the species may have declined in certain areas.

<u>Habitat:</u> The Western Toad will breed in an impressive range of natural and artificial aquatic habitats - from the shallow margins of lakes to roadside ditches. Adult toads can be found in forested areas, wet shrublands, avalanche slopes, and meadows. They appear to favour dense shrub cover, perhaps because it provides protection from desiccation and predators. The habitat requirements of hibernation sites for the Western Toad in Canada are not known.

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Biology: Western Toads hibernate for three to six months of the year, depending on location. Western Toads return to the same breeding sites year after year, even when other potential sites are available. At breeding sites, males can outnumber females 20 to 1. It is suspected that the energetic cost of laying eggs is so high that females can only breed every few years. The life expectancy of the Western Toad is 9 to 11 years. The Western Toad is frequently nocturnal (active at night). However, it is known to be active during the day when nighttime temperatures are cooler, such as in the spring and fall or at higher elevations, or when its main source of food is active during the day. The Western Toad secretes a mild poison from its paratoid glands and warts, but is nonetheless hunted by coyotes, raccoons, skunks, foxes, ravens, and some snakes. <u>Threats</u>: The practice of stocking lakes where fish do not occur naturally may be one of the biggest threats to the Western Toad. The fish do not eat this species, but they do carry diseases to which the tadpoles and toads are susceptible. Other threats associated with development and agriculture includes road traffic, pesticides, and contaminants. Predation or competition with introduced species such as bullfrogs and stocked fish are also a concern.

Protection: The Western Toad is also protected under the British Columbia Wildlife Act. The toads cannot be killed, collected, or held in captivity without a permit.





<u>Western Rattlesnake</u> Crotalus oreganus Last COSEWIC designation: May 2004 SARA risk category: Threatened



<u>Reason for Designation:</u> Their distribution range in BC is confined to dry valleys of the southern interior. Because of this restricted range the Western Rattlesnake has a small population in BC. This combined with human developments that decrease habitat and directly cause mortality contribute to the decline of the Western Rattlesnake. Status History: Designated Threatened in May 2004. Assessment based on a new status report.

<u>Description:</u> One of BC's largest snakes; adults are from 60 to 150 cm in length. Background colour is brown, tan, olive or grey, overlaid by large dark-brown blotches along the back and smaller blotches along the sides. The under-parts are usually yellowish-white. The end of the tail has a rattle4ike structure that gives this snake its name.

Distribution and Population: Distribution is currently limited to those areas that represent northward extensions of the Great Basin desert. These areas occur within the Thompson-Okanagan Plateau, in the Ponderosa Pine and Bunchgrass biogeoclimatic zones. Areas include the Okanagan north to Kamloops, west to the Fraser River and in the Nicola valley. Actual population not known, suspected decline due to significant habitat loss.

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<u>Habitat</u>: Restricted to habitats characterized by bluebunch wheatgrass grasslands and open Douglas-fir and ponderosa pine parklands. The warmest and driest portions of the province in summer.

Biology: Only venomous snake in BC. Sexually mature at 5 - 7 years of age, though many females are older when they produce their first litter. Females reproduce at most, every second year, and produce a litter of an average of 5 young.

<u>Threats:</u> Many of the warm southern valleys have become heavily settled. Farms, subdivisions, highways, and other developments have destroyed some rattlesnake dens and foraging areas, and many snakes are killed by highway traffic. These treats will become more serious as land development and human populations increase. Due to predation they have a low annual survivorship, combined with a low rate of reproduction means that populations can increase only slowly in size.

<u>Protection:</u> Considered for Threatened status under the Species at Risk Act. Legally protected under the BC Wildlife Act, which prohibits capture or killing of the species.

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Long-billed Curlew Numenius americanus Last COSEWIC designation: November 2002 SARA risk category: Special Concern



Reason for Designation: The species is associated with prairie habitat that has declined and is projected to decline further. The global population is in decline. Status History: Designated Special Concern in April 1992. Status re-examined and confirmed in November 2002. Last assessment based on an update status report. Description: The Long-billed Curlew is the largest shorebird in Canada. It has a very long, slender and downcurved bill. Its upper parts are brownish and its lower parts are pinky-buff. Its long legs are grey.

Distribution and Population: In Canada, the Long-billed Curlew has been extirpated from southern Manitoba and southeastern Saskatchewan; the population in southwestern Saskatchewan has been declining; the southern Alberta and British Columbia populations have also been declining. There is no estimate of the total Canadian population of Long-billed Curlews because of the fact that the populations are dispersed in small pockets of available habitat over a very large territory. Habitat: The Long-billed Curlew is usually found in grasslands, where there is bare ground, shade and abundant invertebrate preys. Nests are built in short-grass and midgrass prairies and in grassy meadows, on flat sites that are located close to wetter areas. Long-billed Curlews will use areas that have been lightly or moderately grazed. During migration and in wintering areas, Longbilled Curlews are usually found along beaches and mudflats, although some are also found in prairie environments during the migration. NEXT PAGE **Biology:** In British Columbia, Long-billed Curlews usually arrive from the wintering areas in early March to early April, while they return to Saskatchewan from early to mid-April. Breeding pairs are often found in loose colonies. Long-billed Curlews often use the same territories year after year. Egg-laying usually begins by mid to late May in British Columbia. Both adults share in the incubation of the eggs. Incubation lasts from 27 to 30 days. In British Columbia, the return migration begins in July, with some flocks remaining until mid-August. Long-billed Curlews can live 8 to 10 years. The mortality of chicks is high and reproduction is thus low.

Threats: Agriculture is a limiting factor for Long-billed Curlews, since their habitat has been and is being reduced by cultivation. Use of pesticides in the breeding areas may be contributing to the species' low reproduction, since eggshell-thinning and mortality from lethal residues have been found.

Protection: Species that have been designated at risk by COSEWIC since the Species at Risk Act (SARA) was written must be added to Schedule 1 through a regulatory amendment. The Longbilled Curlew is protected under the federal Migratory Birds Convention Act of 1917.

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<u>Grizzly Bear</u> Ursus arctos Northwestern population Last COSEWIC designation: May 2002 SARA risk category: Special Concern



Reason for Designation: Its behavior frequently brings it into conflict with people, leading to increased mortality where human activities expand. The future of several populations that are either completely or mostly isolated is highly uncertain and dependent on conservation.

Status History: The species was considered a single unit and assigned a status of Not at Risk in April 1979. Split into two populations in April 1991 (Prairie population and Northwestern population). Northwestern population designated Special Concern in April 1991. The status was re-examined and confirmed in May 2002. Last assessment based on an update status report.

Description: In contrast to American black bears, grizzlies have a prominent shoulder hump, concave facial profile, and long front claws. Fur colour ranges from blonde through shades of brown to nearly black.

<u>Distribution</u>: The grizzly bear in Canada currently occupies an estimated area of 2,574,000 km2, or about 26% of the country's land mass. Grizzlies are found in parts of Alberta, British Columbia, Yukon, Northwest Territories, and Nunavut.



<u>Habitat</u>: Grizzlies can be found from sea level to high-elevation alpine environments. In Canada they occupy habitats as diverse as temperate coastal rain forests and semidesert Arctic tundra. Most grizzly bears eat primarily vegetation, and their habitat associations are therefore strongly seasonal and typically reflect local plant development.

Biology: Although they have a carnivore's feeding and digestive anatomy, grizzly bears are omnivorous and many are primarily herbivorous. In some areas, however, grizzlies are effective predators of moose and caribou, and coastal populations feed heavily on spawning salmon. Longevity is around 20 years, although bears as old as 34 have been recorded. Grizzly bears are not territorial, but use home ranges of up to 8,000 km2, although in richer environments they use much smaller areas.

Population Size and Trends: British Columbia has the largest Grizzly population, with at least 14,000 bears. About 6,000 to 7,000 grizzlies live in the Yukon, 5,100 live in the Habitat: Grizzlies can be found from sea level to high-elevation alpine environments. In Canada they occupy habitats as diverse as temperate coastal rain forests and semi-desert Arctic tundra. Most grizzly bears eat primarily vegetation, and their habitat associations are therefore strongly seasonal and typically reflect local plant development.



<u>Threats</u>: There is some natural mortality in bear populations, but most grizzlies die from human activities. The development of roads and other linear features into grizzly bear habitat is a particular threat. Roads themselves pose little harm, but their use by humans reduces habitat effectiveness in a buffer zone around the roads.

Protection: About 8.3% of the range currently occupied by grizzly bears in Canada is classified as "protected". However, hunting and activities that may degrade habitat quality for grizzly bears are permitted in some "protected" areas. All provinces and territories have restrictions on hunting that include closed seasons, limited entry permits, harvest quotas, and protection for females and cubs. Bait is not allowed when hunting for grizzly bears, and trade in bear parts is prohibited.



Lewis's Woodpecker Melanerpes lewis Last COSEWIC designation: November 2001 SARA risk category: Special Concern



Reason for Designation: Population is relatively small and part of the Canadian range has been lost. Required breeding habitat-large trees in open habitats-is under pressure from urban and agricultural developments.

Status History: Designated Special Concern in April 1999. Status re-examined and confirmed in November 2001. Last assessment based on an existing status report.

<u>Description</u>: Lewis's Woodpecker is a medium-sized (26-28 cm) woodpecker with greenish-black head, back, wings, and tail, and a distinctive pinkish-red belly. It has a dark red face patch and prominent silvery gray collar and upper breast.

Distribution and Population: In British Columbia, Lewis's Woodpeckers are most common in the Okanagan Valley and Thompson Basin areas, both within the Kamloops Forest Region of the southern interior. The species also regularly nests in areas such as Kamloops, Grand Forks, Midway and Rock Creek, but generally in small numbers. Breeding birds in Canada migrate south for the winter, except for a small number that overwinter in the Okanagan Valley. There are an estimated 600 pairs breeding in British Columbia.

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Habitat: The most common breeding habitats of Lewis's Woodpecker are open, mature ponderosa pine forests; riparian black cottonwood stands adjacent to open areas; and recently logged or burned coniferous forests with standing snags. Essential habitat features are large, standing dead or dying trees (snags) for nesting cavities, and relatively open areas for feeding. Suitable breeding habitat in Canada is restricted to lower mountain slopes and valley bottoms in southern interior British Columbia. **Biology**: Lewis's Woodpeckers tend to form long-term or permanent mating pairs, and return to the same nesting sites year after year. Compared to most woodpeckers, the species has a large clutch size (5-9 eggs). As an opportunistic feeder, Lewis's Woodpecker feeds on a wide variety of insects, fruits and nuts, depending on local availability.





<u>Threats</u>: Widespread clearing of ponderosa pine forests is likely responsible for much of the species' decline in this century. Fire suppression in ponderosa pine forests is common practice in the province, and results in the development of dense stands which are entirely unsuitable for Lewis's Woodpecker. Management of these forests will be the main factor in deciding the future of the species in Canada.

Protection: The Lewis's Woodpecker is protected under the federal Species at Risk Act (SARA). Lewis's Woodpecker is also protected under the Migratory Birds Convention Act of 1917, which prohibits the collecting of eggs or nests and the killing of birds. In British Columbia, it is protected from direct unlawful persecution under the province's Wildlife Act of 1982.





Flammulated Owl Otus flammeolus Last COSEWIC designation: November 2001 SARA risk category: Special Concern

Reason for Designation: Population is relatively small and patchily distributed; preferred breeding habitat is Douglas-fir/ponderosa pine forest with old-growth characteristics; cavity nest sites and foraging habitat vulnerable to habitat alteration by forest harvest. Status History: Designated Special Concern in April 1988. Status re-examined and confirmed Special Concern in April 1999 and in November 2001. Last assessment based on an existing status report. **Description:** This is a small owl with short ear tufts. The Flammulated Owl has grey and red colour phases; the reddish phase is commonest in the south part of the owl's range (where Ponderosa pine predominates) and the grayish phase, heavily streaked with brown, is more common in the north (where Douglas-fir predominates). **Distribution and Population:** The Flammulated Owl breeds as high as the interior plateau of south central British Columbia to the highlands of Mexico and Guatemala. Nesting in Canada has been confirmed as far north as Skull Mountain, near Barrier, north of Kamloops. The highest density of nesting Flammulated Owls in B.C. (0.11 nests/40 ha) was found on Wheeler Mountain in 1995. This secretive, nocturnal owl is very difficult to census, but it may be locally abundant in some districts.



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<u>Habitat:</u> In British Columbia, the species is found primarily in the dry Interior Douglas-fir biogeoclimatic zone, and secondarily in the Ponderosa pine zone. Breeding Flammulated Owls prefer old-growth stands (in B.C., trees > 141 years old), where there are snags containing nesting cavities. The understory is typically comprised of grasses and low shrubs.

Biology: Flammulated Owls nest in abandoned woodpecker holes, especially those of flickers. They produce only one brood per season. The number of eggs in a clutch varies from 1 to 5 (usually *3* or 4). They eat insects, spiders and other arthropods, which they capture during flight or by gleaning the bark of trees. The species is strictly nocturnal. **Threats:** Flammulated Owl breeding habitat in British Columbia is affected primarily by forest and livestock management activities. The owls leave areas where clear-cut logging or other practices have eliminated or reduced the availability of suitable habitat. **Protection:** The Flammulated Owl is protected under the federal Species at Risk Act (SARA). Under the British Columbia Wildlife Act (Section *34*, 1982), it is an offence to destroy the eggs, nesting adults and active nests of this species.

The locations of many known nest sites are housed in a database at the British Columbia Forest Service, so that individual nest sites may be protected from I ogging. Flammulated Owl habitat is subject to special management provisions under the Forest Practices Code of British Columbia of 1995.



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<u>Great Basin Gophersnake</u> Pituophis catenifer deserticola Last COSEWIC designation: May 2002 SARA risk category: Threatened

Reason for Designation: There has been a significant loss of habitat as more agricultural land is converted from range land and shrub-steppe to orchards, vineyards and houses. There has been increased mortality through intentional and accidental killings in agricultural areas.



Status History: Designated Threatened in May 2002. Assessment based on a new status report.

Description: This species of snake (P. catenifer) is relatively large, with a moderately long tail; adults in the northwestern part of the range can reach 1.8 m. On the Great Basin Gophersnake, the dorsal blotches toward the front of the body are connected to each other. The belly is cream-colored with black or brown spots on the sides of the body. Males and females are not :significantly different in size, and the young resemble the adults in colour.

Distribution and Population: The Great Basin Gophersnake is distributed throughout the western United States and reaches its northern limit in southern British Columbia. There are five separate populations within the interior of the province, four of which are connected to populations south of the Canada-United States border. The most northerly population, however, has become completely isolated from the remainder of the range; there are no population estimates available. NEXT PAGE <u>Habitat</u>: Canadian populations of the Great Basin Gophersnake inhabit grasslands, shrub steppes, and open forests. Summers in the Okanagan Valley are hot and dry; and the winters are comparatively mild with little snow. In the United States, studies in Utah revealed that the Great Basin Gophersnake typically uses the abandoned burrows of mammals as nesting sites. These sites usually are on south-facing slopes, with no perennial vegetation.

Biology: Great Basin Gophersnakes are constrictors, squeezing prey with their coils until it suffocates. They feed mostly on small mammals, birds, birds' eggs, and other snakes. Nesting sites often are shared with other snakes of the same or different species. When agitated, Gophersnakes will hiss loudly and may flatten their heads and vibrate their tails. This behavior sometimes results in these snakes being mistaken for rattlesnakes and killed.

Threats: Suitable habitat is present in only a very small area in the province, where it is being rapidly destroyed by urbanization and cultivation. Protection: Species that have been designated at risk by COSEWIC since the Species at Risk Act (SARA) was written must be added to Schedule 1 through a regulatory amendment



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<u>Spadefoot, Great Basin</u> Spea intermontana Last Examination and Change: November 2001 (Uplisted) Canadian Occurrence: BC



Reason for Designation: This toad has a restricted distribution in Canada and is experiencing a loss and alteration of critical habitats and breeding sites. Status History: Designated Special Concern in April 1998. Status re-examined and uplisted to Threatened in November 2001. Last assessment based on an existing status report.

Description: This is a small toad reaching 40 to 64 mm in length from snout to vent. It has short limbs and a blunt snout. Adults are grey-green with brown or reddish tubercles and spots. The species owes its common English name to the presence of a black keratinous spade on the sole of each hind foot. The toads have vertical lens-shaped pupils and a glandular bump between the eyes. The mating call of the males is a loud but low, grating "gwaah" repeated over and over.

Distribution and Population: This species reaches the northern limit of its distribution in the dry valleys of southern Interior British Columbia (especially the Okanagan Valley). The distribution in Canada is highly clumped. Total numbers are probably higher than 10,000. Population trends are unknown.



<u>Habitat:</u> Great Basin Spadefoot Toads are found in a variety of semi-arid to acid grassland and open woodland habitats, from valley floors up to 800 m or more. Typically they use temporary pools for breeding and development.

Biology: The males of the Great Basin Spadefoot Toad attract mates with their characteristic call for a week to a month in the spring. The 300-800 black eggs are laid mostly in May. The larvae hatch after 2 to 7 days and complete metamorphosis in 6 to 8 weeks; they scavenge on algae, plants and dead animal matter. The young toads become sexually mature during their second or third summer. Adults forage on humid nights, while the day is spent in a burrow. Their diet is made of a variety of invertebrates, such as insects and earthworms. Adult Great Basin Spadefoot Toads are eaten by snakes, Burrowing Owls and other predators; tadpoles fall prey to aquatic birds and turtles. Hibernation takes place in burrows 0.5 to 1.0 m in depth, from October until April. Threats: The dry grassland area of southern Interior British Columbia is one of Canada's most endangered ecosystems. It is under pressure from agriculture and housing development. The latter has an impact on the abundance of underground water reserves which in turn impacts on the availability of suitable breeding ponds. The intensification of road traffic increases toad mortality, especially when numerous toad lets emerge from the water at one time.

The presence of cattle at pools may disturb toad breeding, and soil compacted by cattle becomes less suitable for foraging. <u>Protection:</u> The Great Basin Spadefoot is protected under the federal Species at Risk Act (SARA).

