



## SPECIES AT RISK IN ALBERTA

### Identification & Information Guide





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# Edmonton and Area Land Trust



The Edmonton and Area Land Trust works to conserve and steward our natural heritage for present and future generations. We are the only conservancy whose focus is to protect natural areas and rural landscapes in the Edmonton region. We do this to enhance residents' quality of life and sense of place, for wildlife and their habitat, and to maintain the economic, health, and community benefits of natural areas. We also work to educate the public on the importance of conserving natural areas and wildlife. Visit our website, [www.ealt.ca](http://www.ealt.ca), for more information.

## Why This Booklet is Important

Humans have drastically changed the habitats and lands that are home to the animal and plant species that play important roles in ecosystems that support life. Species at Risk are those animals and plants that are particularly vulnerable, and in danger of disappearing.

The images and information in this guide are designed to help you identify Species at Risk and contribute to important conservation and recovery efforts.

Note that not all Species at Risk in Alberta are included in this booklet, and that the status of a species may change. For more information on the Species at Risk in Alberta and Canada, including their general and legal status, visit:

Alberta Environment and Parks' website

(<http://aep.alberta.ca/fish-wildlife/species-at-risk/default.aspx>)

or Canada's Species at Risk Website (<http://www.sararegistry.gc.ca>)

### This booklet is also available online!

Visit [www.ealt.ca/resources](http://www.ealt.ca/resources) to view, download, or print an electronic version of this guide.



# What You Can Do to Help



© EALT

- Learn to recognize Species at Risk.
- Understand the threats and share your knowledge with family and friends.
- Take action to reduce your own environmental impacts.
- Volunteer with EALT to protect and steward places where Species at Risk live.
- Support EALT's conservation work with a donation to protect habitat.
- Report sightings of a Species at Risk by contacting Alberta Environment and Parks at 310-3773 or [ESRD.Info-Centre@gov.ab.ca](mailto:ESRD.Info-Centre@gov.ab.ca). Make note of the location where you saw the species, and if possible, take a photograph.

## Ecosystems of Alberta



© NATIONAL RESOURCES CANADA

### BOREAL FOREST

The boreal forest is Alberta's largest natural region, covering over half of the province. Wetlands intersperse with immense deciduous, mixedwood, and coniferous forests.



© BETTY FISHER

### ASPEN PARKLAND

The aspen parkland is the transitional region between the boreal forest and the grasslands. Stands of trembling aspen with mixed-tall shrubs, productive wetlands and irregular grasslands characterize its native state. Urban and agricultural developments surround remaining natural areas of the region.

# Ecosystems of Alberta



© COLLEEN RAYMOND

## GRASSLAND

Alberta's grasslands consist of large rolling fields of grasses, herbs, and flowers, interspersed with cultivated lands, and are home to a high diversity of plants and animals.



© LAURIE KINGDON

## ROCKY MOUNTAINS

This region consists of mountains, deep glacial valleys, and high foothills. Coniferous forests are dominant at lower elevations, but trees cannot survive at the highest elevations where only herbs and shrubs grow.



© MIKE BEAUREGARD

## FOOTHILLS

This region runs adjacent to the mountains and consists of gently undulating to rolling hills, with mixedwood and deciduous forests at lower elevations. At higher elevations, closer to the mountains, the hills roll more strongly, and steep slopes with coniferous forests are prevalent.



© STEPHANIE WEIZENBACH



## CANADIAN SHIELD

The Canadian Shield covers only a small portion of Alberta in the northeast corner. It is characteristically rocky, with a thin soil covering in some areas. Jackpine forests cover isolated spots of the region with unique undergrowth of pale reindeer lichens, dusty green sage, and bearberry.



# Species at Risk Designations

There are hundreds of Species at Risk in Canada. Their status is assessed by scientists and confirmed by federal and provincial governments, and are based on the *Species at Risk Act (SARA)* and the *Alberta Wildlife Act*, as well as other provincial wildlife acts. Depending on the legislation, designations may be slightly different, but usually follow these labels:

Jurisdiction	Legislation	Assessment Body	Status Categories
Canada 	<i>Species at Risk Act (SARA)</i>	Committee On the Status of Endangered Wildlife in Canada (COSEWIC)	Extinct Extirpated Endangered Threatened Special Concern Not at Risk Data Deficient
Alberta 	Alberta Wildlife Act	Endangered Species Conservation Committee	

- EXTINCT No longer exists
- EXTIRPATED No longer exists in the wild in Alberta but occurs elsewhere
- ENDANGERED Severely at risk of becoming extinct if threats are not addressed
- THREATENED Likely to become endangered if threats are not addressed
- SPECIAL CONCERN May become threatened or endangered because of sensitivity to human activities or natural events
- NOT AT RISK Not at risk of extinction
- DATA DEFICIENT Not enough information is available to make an assessment

## Species Potentially Found on Edmonton and Area Land Trust lands



Species that can be found on Edmonton Area Land Trust lands are marked with this symbol in the following section.

# Grizzly Bear



*Ursus arctos*



© BARB EGLINSKI

## Description

Grizzly Bears range in colour from light to dark brown, sometimes with silvery tips, giving them a 'grizzled' appearance. They have canine teeth and molars suited for their varied diet, and have long claws and powerful shoulder muscles for digging, which gives them their characteristic shoulder hump.

STATUS	
 NOT LISTED	 THREATENED

## Habitat

Their habitat includes mountains, foothills and boreal forests. They have a higher risk of mortality because often the areas they are attracted to for food put them at risk from human caused disturbances. They may also be found in areas that are not the best habitat, but which are safer.

## Threats

The greatest threat to the Grizzly Bear is the loss or degradation of its natural habitat as a result of human disturbances to the landscape. Increased human activity in grizzly habitat reduces their ability to move throughout their large home ranges without coming into conflict with humans.

# Swift Fox



*Vulpes velox*



© GERALD ROMANCHUK

## Description

The Swift Fox is smaller and lighter in colour than the Red Fox, and has orange to yellow fur, a black tip on its tail and pointed ears. It is a primarily nocturnal, opportunistic predator that consumes a variety of prey including mammals, invertebrates, small birds and carrion.

STATUS	
 THREATENED	 ENDANGERED

## Habitat

The Swift Fox's habitat is short and mixed-grass prairie regions with flat to gently rolling terrain. The declines for this species began in the 1800s when native grasslands began to be converted to agricultural lands.

## Threats

The main threat to the Swift Fox is loss of habitat from the conversion of native grasslands to agricultural lands. The Swift Fox was extirpated in Alberta but now estimates of up to 100 animals have been re-established due to a major breeding and reintroduction program.

# American Badger

*Taxidea taxus*





© DOROTHY MONTEITH

## Description

The American Badger is thick set, broad, squat and muscular, and has short and powerful legs. It has short ears, a short tail, pointed nose and a broad triangular head. Its coat is yellowish gray with a white strip that runs from its nose back to its shoulders. Badgers are opportunistic feeders, mainly preying on small mammals such as Richardson's Ground Squirrels and Northern Pocket Gophers.

## Habitat

The American Badger can be found in a wide variety of habitats, including open prairie, marsh areas and tree stands. They create burrows for shelter and denning, which provide key habitats for Burrowing Owls and the Swift Fox. They are found throughout southern Alberta.

STATUS	
 NOT LISTED	 DATA DEFICIENT

## Threats

Historical trapping of American Badgers contributed to a noticeable reduction in the population. This, combined with habitat loss and declines in their main food sources, are contributing to the decline of this species. Currently the badger has no legal status, but its general status in Alberta is considered Sensitive.

# Black-footed Ferret



*Mustela nigripes*



© J MICHAEL LOCKHART USFWS

## Description

This large weasel has strong legs, a short furry tail, and oval shaped ears. Their fur is mostly white, with black tips over part of its body, and a dark brown mask, feet and end of the tail. These ferrets are primarily nocturnal have well-developed sense of smell, hearing and vision.

STATUS	
 EXTIRPATED	 NOT LISTED

## Habitat

Black-footed Ferrets mainly live in short-grass prairies alongside their main prey, prairie dogs, and actually inhabit prairie dog burrows for protection. They are extirpated from Alberta, and in Canada, are only found in Saskatchewan.

## Threats

Prairie dogs and ground squirrels, the ferret's main prey, were widely poisoned in the early 20th century. This, combined with habitat loss, has contributed to the Black-footed Ferret's decline. Reintroduction programs are ongoing in Canada and the United States.

# Ord's Kangaroo Rat

*Dipodomys ordii*



© RANDOMTRUTH

## Description



This species is a medium-sized, nocturnal desert rodent that is well adapted for survival in arid environments. It mainly feeds on seeds and collects food and nest material in its external, fur-lined cheek pouches. Its large hind limbs and feet enable their hopping movement, similar to kangaroos.

## Habitat

They require sandy habitats in arid grasslands, which are uncommon and fragmented within this species' range in Canada. It is important that their habitat is sparsely vegetated with workable soils in order for them to burrow into the soil and to easily move around their range.

## Threats

Their dependence on rare and unique habitats makes them particularly sensitive to human activities, land use changes and natural events. Fire suppression and changes in grazing regimes since human settlement have resulted in accelerated vegetation encroachment on their specialized habitat.

STATUS	
 ENDANGERED	 ENDANGERED

# Wood Bison



*Bison bison athabasca*



© GERALD ROMANCHUK

## Description

The Wood Bison has a massive triangular head, large shoulders with a high hump and dense shaggy dark brown and black hair. It is the largest terrestrial animal in North America and it provides an important source of food for wolves and other animals that scavenge their carcasses.

STATUS	
 THREATENED	 ENDANGERED

## Habitat

Free-ranging Wood Bison only exist in Wood Buffalo National Park in Alberta. Bison graze on grasses and sedges found in the small prairies of the boreal forest.

## Threats

At the end of the 19th century, the Wood Bison population was almost destroyed by hunting. This in combination with the expansion of agriculture into boreal regions, disease and uncertain effects of climate change in sensitive northern regions, threaten the ability of this species to survive.

# Woodland Caribou



*Rangifer tarandus caribou*



© JIM WINSTEAD

## Description

The Woodland Caribou's coat is mostly brown in summer, with white cream coloured patches. Both males and females have antlers. They are up to 1.2 metres high at shoulder height, and may weigh up to 200 kg or more.

STATUS	
 THREATENED	 THREATENED

## Habitat

They require old-growth forest to provide a winter habitat, with large areas of forests and peat lands which contain lichen. Lichen is the primary food for caribou in the winter and the mature forests provide a refuge from predators.

## Threats

Habitat alteration and disturbances from human activities, especially resource extraction, has reduced habitat suitability for caribou. Wolf predation is one of the greatest threats, which is exacerbated by the increase in human disturbances (e.g. roads) in the landscape.



# Northern Bat

*Myotis septentrionalis*





© T. TRAVIS BROWN



© AL HICKS/NYDEC

## Description

The Northern Bat, also called Northern Myotis, is distinguished by its long ears, which extend past its nose when laid forward. They have a wingspan of 23 to 26 centimetres. It has dark brown hair on its back and lighter brown hair on the front of its body. Northern Bats are nocturnal and use echolocation to navigate through the dark and glean insects from leaves in the forest canopy.

STATUS	
 ENDANGERED	 DATA DEFICIENT

## Habitat

These bats are found in Northern Alberta. In the summer, they mainly roost in cracks or cavities in large old trees in the Boreal Forest, but sometimes roost in buildings. In the winter, they roost in crevices near the openings of caves or mines.

## Threats

Their main threat is white-nose syndrome - a fungus that grows on the nose and mouth of the bat and other areas of the body during hibernation. The fungus irritates the bat and wakes it up; in search of food, the bat either dies of starvation or exposure to the cold elements. Another threat includes habitat loss, due to the harvest of trees where the bats roost.

# Little Brown Bat



*Myotis lucifugus*



© USFWS/ANN FROSCHAUER

## Description

The Little Brown Bat, also called Little Brown Myotis, is covered in brown fur, which is darker on their back and lighter on the front side. Their wingspan is up to 20 centimetres wide. It is insectivorous, eating almost only flying insects. Little Brown Bats use echolocation to find their prey and navigate flying in the dark.

STATUS	
 ENDANGERED	 NOT LISTED

## Habitat

They can be found all over Alberta but are most common centrally. In the summer, they roost in colonies in buildings such as barns, sheds, houses, schools, and office towers. When not near cities, the Little Brown Bats will roost in trees. Over the winter months, the bats roost in caves or mines.

## Threats

Their main threat is also white-nose syndrome - a fungus that irritates the nose and mouth of the bat, causing it to wake up during the winter, leaving them vulnerable. Humans, domestic cats, and wind turbines have a significant effect on bat populations as well.

# Trumpeter Swan



*Cygnus buccinator*



© DON DELANEY

## Description

The Trumpeter Swan is the largest of all North American waterfowl. They are white with a long, straight neck and black face and bill. Juveniles have dirty white plumage with gray-pink legs and gray-black bill.

STATUS	
 NOT LISTED	 SPECIAL CONCERN

## Habitat

Prefers lakes and large wetlands, and often nests on muskrat or beaver lodges and sometimes on shores. Like some waterfowl, they return to the same wetlands year after year. They prefer quiet wetlands with lots of vegetation.

## Threats

Trumpeter Swans were hunted almost to extinction in early 20th century for their feathers and meat. A breeding population survived in Alberta and families were transplanted to other parts of the species' former range with the hope of continued recovery.

# White-winged Scoter



*Melanitta fusca*



© RIC MCARTHUR

## Description

The White-winged Scoter is a large, stocky diving duck with a white wing patch. Males are black with a white comma-shaped patch around eyes. Females are brown and may have some white facial patches.

STATUS	
 NOT LISTED	 SPECIAL CONCERN

## Habitat

They breed on lakes and large, permanent wetlands from southern prairies to the taiga plains of North America, nesting inland on shrub-covered islands. They winter along the Pacific and Atlantic Coasts.

## Threats

Threats to their survival include degradation of habitat from increased human use, including in coastal habitats, and resource extraction pressure. Hunting, predation of ducklings by gulls and bioaccumulation of toxins also negatively impact this species.

# Harlequin Duck



*Histrionicus histrionicus*



© GEORGE MASON

## Description

The Harlequin Duck is a small sea duck. Males are slate blue with reddish-brown sides and white streaks on head and body. Females are plain brownish grey with white patches in the eye area.

STATUS	
 SPECIAL CONCERN	 SPECIAL CONCERN

## Habitat

They prefer coastal marine environments for most of the year, but move inland to breed along fast-flowing turbulent rivers in the Rocky Mountains.

## Threats

Habitat alteration and disturbances to nesting ducks are the most important threats to this species.

# Greater Sage - Grouse *urophasianus* subspecies

*Centrocercus urophasianus urophasianus*





## Description

The Greater Sage-Grouse is the largest grouse in North America. Adult males have a white band on a black throat and a large ruff of white feathers concealing yellowish air sacs that inflate during their elaborate courtship displays. Males also have fleshy combs above the eye. Both sexes have a black patch on the belly and a long spiked tail.



© STEVE KNIGHT

STATUS	
 ENDANGERED	 ENDANGERED

## Habitat

This grouse is found in southeastern Alberta. Courting grounds, called leks, are generally clear areas with little vegetation, although they are sometimes found in altered landscapes such as cultivated fields, gravel pits and roads. Most nests are located under silver sagebrush, which also provides the grouse with food.

## Threats

The main threat to the population is habitat loss, due largely to loss of grasslands and human activities such as agriculture and industrial developments, resulting in disturbances to the leks and low survival rates of chicks. In 2012, only 40 grouse were estimated to be left in Alberta, and this species is a high priority for recovery efforts.

# Western Grebe



*Aechmophorus occidentalis*



© DAVE PRESCOTT

## Description

Western Grebes are large waterbirds with a long, slender neck, black upperparts, and white underparts extend through cheek, chin, and belly. They have black feathers on their face, surrounding red eyes.

STATUS	
 NOT LISTED	 THREATENED

## Habitat

They breed and nest in large lakes where aquatic vegetation and floating plants are available for nesting material.

## Threats

Habitat loss, particularly the loss of shoreline vegetation where they nest, is the main threat to this species. Recreational use of power boats also threatens this species by disturbing nest sites. Natural threats include changing water levels, high wind storms and depredation of eggs, all of which are exacerbated by habitat loss.

# Ferruginous Hawk



*Buteo regalis*



© DON DELANEY

## Description

A large hawk, with broad, round-tipped wings, fan-shaped tail, large head and beak. They have rusty-coloured plumage, with white and brown streaked underparts. May sometimes be mistaken for a Golden Eagle.

STATUS	
 ENDANGERED	 ENDANGERED

## Habitat

They live in prairies and open grasslands, generally in areas where over 30% of the land is cultivated and grass is less than 30 cm high. Their range coincides with the habitat of its preferred prey, the Richardson's Ground Squirrel.

## Threats

Degradation, fragmentation, and destruction of natural prairie habitat are the main threats to their survival. Decreased prey abundance, and competition from other hawks such as Swainson's and Red-tailed are also threatening factors.



# Prairie Falcon



*Falco mexicanus*



© DON DELANEY

## Description

Prairie Falcons have brown upperparts and light, brown-spotted underparts, with dark, narrow "moustache" stripes on a light face. They have pointed wings and rapid wingbeats.

STATUS	
 NOT LISTED	 SPECIAL CONCERN

## Habitat

Found in dry Alberta prairies along rivers and streams. They forage and breed in canyons, grasslands, cultivated prairies, valleys, foothills and alpine tundra.

## Threats

Loss and alteration of habitat from the cultivation of grasslands into cropland negatively affects an important food source, the Richardson's Ground Squirrel. Reproductive failure from the presence of humans around nesting sites and pesticide use are also detrimental.

# Peregrine Falcon

*Falco peregrinus anatum/tundrius*





© REBECCA ELLIS



© DON DELANEY

## Description

Peregrine Falcons fly at record speeds with long, pointed wings. They have a blackish facial stripe under each eye that gives a long “moustache” effect. They have dark bluish-grey upperparts and paler underparts. Females are larger than males.

STATUS	
 SPECIAL CONCERN	 THREATENED

## Habitat

This species is widespread, and habitat varies from coastal areas, Arctic tundra, boreal forest, prairies to urban centres. They usually nest on cliff crevices or ledges, 50 to 200 metres high, and sometimes use tall building or bridge ledges that are near good foraging areas

## Threats

Exposure to organochlorine pesticides (DDT) in the 1970s caused egg shells to thin and break during incubation and the consequential reproductive failure is the main factor for the historic decline in population. Human disturbances at nesting sites is also a threat, but captive breeding and reintroduction programs have so far been successful in increasing populations.

# Whooping Crane



*Grus americana*



© BETTY FISHER

## Description

The Whooping Crane is the tallest bird in North America, about 1.5 metres high. Adults are white, with black wing tips visible when outstretched, and red, black and grey marks the head and face. Juveniles are greyish-white. Their long legs and neck are fully extended in flight.

STATUS	
 ENDANGERED	 ENDANGERED

## Habitat

They prefer marshes, bogs and shallow lakes while breeding, and stop at various wetlands and croplands during migration. They winter in marshes and salt flats.



© GERALD ROMANCHUK

## Threats

Habitat loss and hunting resulted in the Whooping Crane becoming endangered, and continued habitat degradation, especially of wetlands along migration routes, still threatens this species. Like all waterfowl, they are vulnerable to water contamination, as well as major storm events. Major recovery efforts have improved this species' numbers, from 14 birds in 1941 to now over 400.

# Piping Plover



*Charadrius melodus circumcinctus*



© GERALD ROMANCHUK

## Description

This small bird is sandy coloured with a white rump and underparts, bright orange legs, and distinctive black marks of a black collar, black band above the white forehead, and a partially black tail. The bill is short, stout, and orange with a black tip that turns completely black in winter.

STATUS	
 ENDANGERED	 ENDANGERED

## Habitat

Nesting habitat in Alberta includes areas just above the normal high-water mark on exposed, sparsely vegetated, sandy or gravelly beaches of shallow, alkaline or saline lakes and larger prairie lakes. Foraging habitat in Alberta is exposed, sparsely vegetated beaches along those lakes.

## Threats

The main threats are loss of habitat due to use of beaches by humans, nest site and young disturbance by dogs, cats, and livestock, and changing water levels due to seasonal storms, industrial or recreational activities, and dams.

# Mountain Plover



*Charadrius montanus*



© SEABAMIRUM

## Description

This plover is pale sandy brown overall with white underparts. It also has a black frontal bar on the crown, and a white forehead and eyebrow that contrast with a narrow black line extending between the eyes and base of the bill.

STATUS	
 ENDANGERED	 ENDANGERED

## Habitat

Contrary to its name and to popular belief, this plover does not live in montane areas or along shorelines but in the short mixed-grass prairies where natural disturbances occur. Nesting habitat is located in the extreme southeast portion of Alberta and is characterized by short grasses in flat grasslands with some bare ground.

## Threats

The biggest threat is breeding and wintering habitat loss and degradation. Improper range management, natural and human disturbance, weather, climate, and pesticides and other contaminants are other major threats.

# Long-billed Curlew



*Numenius americanus*



© GERALD ROMANCHUK

## Description

The Long-billed Curlew is the largest of the North American shorebirds. The slender, down-curved bill itself can be up to 21 cm. They are buff-coloured, tinged with cinnamon or pink on the neck, breast and belly. Cinnamon underwings distinguish it from the shorter-billed and smaller Whimbrel.

STATUS	
 SPECIAL CONCERN	 SPECIAL CONCERN

## Habitat

Found mainly in southern Alberta, they prefer, open, sparse grassland with flat to rolling topography and nest in irregular clumps where it blends in well. Once eggs have hatched, they will often move to taller, denser grass. Habitats with trees or tall shrubs are generally avoided.

## Threats

Their habitat has been altered and fragmented by industry, livestock overuse, fire control and the invasion of exotic plants. Human disturbance, such as ATV use near breeding sites, can result in nest abandonment or loss of chicks. Hunting was a major contributor to their decline in the early part of the 20th century.

# Short-eared Owl



*Asio flammeus*



© DON DELANEY

## Description

This owl is medium-sized with a large, round head and small tufts of feathers that resemble ears. They have a light coloured chest that is streaked brown. Identifiable by its irregular flight, like a foraging moth.

STATUS	
 SPECIAL CONCERN	 NOT LISTED

## Habitat

They are found in open habitats such as arctic tundra, sand-sage areas, peat bogs, and old pastures, and prefer to nest on the ground in grasslands and tundra.

## Threats

Threats include habitat loss and urban development. Intensive livestock grazing over remaining pastures interfere with preferred nesting sites. Increased nest predation and a decrease in abundance of prey due to habitat changes are also threatening factors.

# Barred Owl



*Strix varia*



© DAWNE COLWELL

## Description

A large owl with dark eyes and no ear tufts. They have horizontal streaking around the neck and upper breast, belly has vertical streaking.

STATUS	
 NOT LISTED	 SPECIAL CONCERN

## Habitat

They prefer mixed conifer-deciduous forests, often in riparian and wetland areas. Large trees with large cavities are required for nesting.

## Threats

Habitat loss and alteration through harvesting of large trees, which are necessary for nesting, is a major threat. Increased competition and predation by Great Horned owls due to forest clearing also threatens this species.



# Burrowing Owl



*Athene cunicularia*



© DON DELANEY

## Description

A small owl with round head, no ear tufts, long thin legs and short tail. Adults are smaller than a pigeon. They have yellow eyes and bill, and brown and white plumage.

STATUS	
 ENDANGERED	 ENDANGERED

## Habitat

They prefer flat, open terrain with little vegetation and no trees, such as livestock pastures. They nest underground, often using the burrows made by ground squirrels and other mammals. They tend to forage closer to their nests during the day, but may venture farther at night.

## Threats

Conversion of grassland to cropland and extermination of ground squirrels reduces suitable burrows that provide nesting sites and shelter from harsh weather conditions and predators. The use of pesticides to control insects such as grasshoppers reduces an important food source. This may force the Burrowing Owl to forage farther from its nest thereby increasing the chance of becoming prey itself.

# Olive-sided Flycatcher



*Contopus cooperi*



© DON DELANEY

## Description

This squat, migratory, large-headed flycatcher has dark brownish olive sides and flanks, distinctive white rump side tufts and a white throat extending to the belly. The song is a loud unmistakable whistled *quick THREE BEERS*, and the call is a loud rapidly repeated *pip*.

STATUS	
 THREATENED	 NOT LISTED

## Habitat

They live in open coniferous or mixedwood forests containing tall trees or snags for perching, such as natural and manmade forest openings, forest edges near openings, burned forests, or open to semi-open mature forest stands.

## Threats

Habitat loss and alteration due to fire suppression may be one of the most important threats to this species. Like other insectivores, reductions in insect prey populations may also be threatening this species.

# Loggerhead Shrike *excubitorides* subspecies



*Lanius ludovicianus excubitorides*



© GERALD ROMANCHUK

## Description

A predatory songbird, slightly smaller than a robin. Their black facial mask completely covers the eyes, and they have a dark grey back, hind quarters, and top of the head, with whitish lower body with barely visible stripes. They have a hooked, black bill, and often impale their prey on thorns or barbed wire.

STATUS	
 THREATENED	 SPECIAL CONCERN

## Habitat

Found in grassland, sagebrush stands, agricultural areas, pastures, thinly wooded areas with shrubs and small trees to nest and feed. Choices are poorly understood, because many seemingly suitable sites are not used.

## Threats

Threats include habitat loss by conversion of native grasslands to agricultural land and degradation of remaining grasslands. Pesticide accumulation from key food source such as grasshoppers, as well as collisions with motor vehicles and increased predation rate also threaten this species.

# Sprague's Pipit

*Anthus spragueii*



© STEVE KNIGHT

## Description



A small ground-nesting songbird that resembles a sparrow, with brown plumage and a thin, short bill. Its upperparts are buff with dark streaking, with a white chin, throat and underparts. Its distinctive tail pattern has white outer feathers contrasting with brown inner feathers. Territorial males perform a long flight display.

## Habitat

Found in the grasslands of southern and central Alberta, they prefer native grassland but avoid areas with even a low density of shrubs, and are rarely found on cultivated lands or in areas where native grasses have been replaced by introduced forage.

## Threats

Cultivation of land leads to habitat loss and fire suppression encourages the encroachment of woody vegetation and promotes the excessive growth of vegetation. Brown-headed Cowbirds parasitize (lay their eggs in) up to 25% of pipit nests.

STATUS	
 THREATENED	 SPECIAL CONCERN

# Black-throated Green Warbler



*Dendroica virens*



© DON DELANEY

## Description

A small songbird, with a black throat that extends as stripes on sides of chest. They have a yellow face, olive green crown and back, and a white belly and wing bars.

STATUS	
 NOT LISTED	 SPECIAL CONCERN

## Habitat

They breed in the Boreal forest and Foothills of Alberta. They require forest stands of white spruce, trembling aspen or balsam poplar that are at least 80 years old or older.

## Threats

Forestry and energy sector activities result in loss of habitat. Although populations in Canada are thought to have remained stable over the past 30 years, evidence suggests numbers will decrease in disturbed areas.

# Chestnut-collared Longspur



*Calcarius ornatus*



© DAVID CREE

## Description

A medium sized songbird with a long slender claw on its hind toe, a black triangular patch in the centre of the tail, and white outer tail feathers. Males have a deep chestnut collar. Breeding females are grayish buff and sometimes have a dull chestnut collar as well. Males perform a distinctive aerial display.

STATUS	
 THREATENED	 NOT LISTED

## Habitat

A native prairie grassland specialist, their typical breeding habitat is arid, short-to mixed-grass prairie that has been recently grazed or mowed. Historically, the Chestnut-collared Longspur bred at sites recently grazed by bison or disturbed by fire.

## Threats

Habitat loss and fragmentation from agriculture and industrial developments are the largest threat to this species. They are less likely to be found in overgrazed areas or those with resource extraction disturbances.

# Northern Leopard Frog



*Lithobates pipiens*



© DOUGLAS WILHELM HARDER

## Description

The Northern Leopard Frog has powerful hind legs and extensively webbed hind feet that are well adapted for jumping and swimming. A key identifying characteristic of the Northern Leopard Frog is a pair of continuous white or cream coloured ridges that extend from behind its eye to the lower back.

STATUS	
 SPECIAL CONCERN	 THREATENED

## Habitat

They prefer shallow standing water such as semi-permanent wetlands and dugouts for breeding. A preference for relatively fresh to saline water suggests they may be more sensitive to acidic conditions than other frogs. In summer, they prefer open areas with short vegetation, and require deep ponds for overwintering.

## Threats

They were historically widespread through the Grassland, Foothills and Parkland Regions but are now extirpated over most of western and central Alberta, making protection of remnant breeding areas essential. Threats may include drought, disease, climate extremes and habitat fragmentation.

# Great Plains Toad



*Anaxyrus cognatus*



© DAVE GINSBERG

## Description

The Great Plains Toad is moderately large and is distinguished from other toads by large glands and cranial crests that come together between the eyes. It is dusky olive with pairs of dark green patches on its back, has a white abdomen, and spends most of its time in burrows.

STATUS	
 SPECIAL CONCERN	 DATA DEFICIENT

## Habitat

Their habitat is dry open grasslands that have coarse sandy soils that allow for burrowing to avoid the dry conditions during summer and to hibernate during winter. Breeding sites are found in temporary clear shallow pools ranging from small puddles to large wetlands. Most sightings occur during high spring precipitation events which initiate breeding activity.

## Threats

Threats include habitat alteration or destruction, pesticides, predation, roadway mortality and disturbances from agriculture or oil and gas developments. They require clean water for breeding which can be disturbed through intensive livestock use of breeding area ponds.



# Western Toad



*Anaxyrus boreas*



© WALTER SIEGMUND

## Description

This toad, also called the Boreal Toad, is the largest of Alberta's toads and is distinguished from other toads by the absence of cranial crests between its eyes. It is green or brown with a light coloured stripe down the back and reddish warts surrounded by black. Unlike many toads, they tend to walk rather than hop. When threatened, they inflate themselves with air and rise up on their legs.

STATUS	
 SPECIAL CONCERN	 NOT LISTED

## Habitat

Their habitat is mainly the boreal forest and subalpine environments in central and western Alberta. It is found near ponds, lakes and streams and feeds primarily on insects, slugs and worms. As little long term monitoring has been done, the distribution of this toad may be more extensive in northern areas.

## Threats

Threats include pollution, pesticides, disease and climate change. Western Toad populations are disappearing elsewhere but there is still little known about the Alberta populations which seem to have been healthy and widespread in the past.

# Greater Short-horned Lizard



*Phrynosoma hernandesi*



© GREG SCHECHTER

## Description

The Greater Short-horned Lizard is well-camouflaged and has a rotund shape and short legs which makes locomotion through thicker vegetation difficult. Because of this, it prefers areas with short or mid-height native grasses.

STATUS	
 ENDANGERED	 ENDANGERED

## Habitat

Their habitat includes sparsely vegetated slopes of coulees and badlands of the Dry Mixed Grass Natural Subregion, and they are generally found in areas that are free of human disturbances. Over winter, they burrow underground in fine soils. Its range includes Alberta, Saskatchewan and Western United States.

## Threats

Threats from human activities come from destruction of habitat because of urbanization, motorized traffic, agricultural operations, and oil and gas development. Pesticides used to kill grasshoppers may also impact the population by reducing the number of grasshoppers available for prey.

# Prairie Rattlesnake



*Crotalus viridis*



© STEVE KNIGHT

## Description

The Prairie Rattlesnake is large and heavy, a broad heart-shaped head, and ranges from yellow-green to brown in colour, with dark brown irregular blotches and spots down its back and sides. It scares off predators with the buzzing noise created by the vibrations of its tail. The primary source of food for the Prairie Rattlesnake are ground squirrels, mice, songbirds and voles.

STATUS	
 NOT LISTED	 DATA DEFICIENT

## Habitat

The Prairie Rattlesnake is found in south eastern Alberta, in semi-arid areas which have low rainfall, and near rivers and coulee bottoms or sandy soils near boulders or rock outcrops. A limiting factor for the Prairie Rattlesnake is the availability of hibernacula for overwintering, such as rock outcrops, mammal burrows and south facing slopes which provide maximum sunlight and protection from winds.

## Threats

Threats include habitat alteration, including intense agricultural or resource extraction activity. These snakes have a low reproduction potential so it is more difficult for the species to recover from declines. Intentional killing, destruction of dens and attraction to the heat of roads are also causes of mortality.

# Lake Sturgeon



*Acipenser fulvescens*



© EALT

## Description

Lake Sturgeon are a large fish, shaped like a torpedo, and are equipped with five rows of spike armoured bony plates along its body. The largest sturgeon reported in Alberta was 155 centimetres long and weighed 48 kilograms. These river monsters have the longest life span of any creature in Alberta's waters, living up to 100 years.

STATUS	
 NOT LISTED	 THREATENED

## Habitat

They are found in large rivers in the North Saskatchewan and South Saskatchewan River Basins, including North and South Saskatchewan, Red Deer, Bow and Oldman Rivers. Lake Sturgeon feed along shallow margins of deep pools and spawn in the river current every 5 years, once they are 15-25 years of age.

## Threats

Threats to the population include habitat degradation and fragmentation. Overfishing in the late 19th century to the mid-20th century is responsible for the initial plunge in Lake Sturgeon populations.

# Bull Trout



*Salvelinus confluentus*



© EALT

## Description

Bull Trout are Alberta's provincial fish. These trout are long and slender with a large head in relation to the body. They have an olive-green to tan body with pale yellow, pink or red spots. One of their most distinguishable features is that they lack black markings on their dorsal fin.

STATUS	
 NOT LISTED	 THREATENED

## Habitat

Bull Trout are found in river systems that stem from mountain headwaters, in clear, cold pools and backwater areas. Their distribution used to span the province but has shrunk with the decline in population numbers. They spawn in small creeks and bury their eggs in gravel.

## Threats

Bull Trout population declines have resulted from overfishing. Additionally, Bull Trout face threats from habitat degradation, habitat fragmentation by blockages to fish passage (e.g. improperly installed culverts), and competition from introduced fish species.

# Yucca Moth



*Tegeticula yuccasella*



© SHERWIN CARLQUIST

## Description

Yucca Moths are small white moths with a wingspan of 18-27.5 mm. They are known by their mutually beneficial association with Soapweed (family Agavaceae), and have specialized mouth parts with which to actively pollinate their host species.

STATUS	
 ENDANGERED	 IN PROCESS

## Habitat

Yucca Moths are restricted to Soapweed populations in Canada. Soapweed occupies well-drained, sparsely vegetated, south-facing coulee slopes on the Milk River drainage in southeastern Alberta. In the more central and southern parts of the species' range, Soapweed flourishes on flat prairie grasslands.

## Threats

Yucca Moths are the sole pollinators of the Soapweed plant. Temperature in the northern part of its range in Alberta may be an important limiting factor for the moth. Factors that reduce the number of Soapweed plants also indirectly influence Yucca moth populations. A recovery project is being developed to re-locate Yucca Moth populations from sites with fruiting Soapweed plants to areas where the plants are not reproducing properly.

# Weidemeyer's Admiral



*Limenitis weidemeyerii*



© PAUL ASMAN & JILL LENOBLE

## Description

Weidemeyer's Admiral is a large Alberta butterfly species, with a wingspan in the range of 55 mm to 72 mm. The dorsal wing surface is predominantly black with prominent wide, white bands on both wings. The overall ventral appearance is whitish, with reddish spots and bluish crescents.

STATUS	
 SPECIAL CONCERN	 SPECIAL CONCERN

## Habitat

In Alberta, this species is generally reported to use riparian areas with deciduous trees or taller shrubs, which are an important food source for the caterpillars.

## Threats

The primary limiting factor at the landscape scale is the very small area of shrubby and treed habitat that naturally occurs as small patches within the prairie landscape in Alberta. Severe droughts may reduce the quantity and quality of larval food resources as well as nectar sources for adults.

# Monarch



*Danaus plexippus*



© DON DELANEY

## Description

Monarch butterflies are bright orange with heavy black veins and wide black borders containing two rows of white spots (10 cm wingspan). Larvae are striped yellow, black, and white, and are 5 cm long. Its gold-green chrysalis (cocoon) typically hangs from a milkweed leaf or branch.

STATUS	
 SPECIAL CONCERN	 NOT LISTED

## Habitat

Monarchs can be found wherever wildflowers flourish, such as open fields, meadows, and along roadsides. The presence of milkweed is important, as Monarchs only lay their eggs on its leaves. Wildflowers such as goldenrods and asters are important nectar sources. Adults migrate to Mexico in the fall and form dense congregations on forested mountaintops.

## Threats

Threats to the Monarch include unfavourable weather, intentional removal of milkweed, pesticide use, loss of breeding and staging habitat in Canada and the USA, and logging, human disturbance and predation in the wintering grounds in Mexico.



# Limber Pine



*Pinus flexilis*



© GERALD ROMANCHUK

## Description

This short tree has a wide trunk and several stems at the base, with light grey to dark brown and very cracked bark. The cone is large, and needles form in bunches of 5. In severely windswept sites, this tree forms a “krumholz” growth form, meaning it grows horizontally along the ground with bent stems instead of growing vertically.

STATUS	
 NOT LISTED	 ENDANGERED

## Habitat

In Alberta, it is found on exposed, windswept, dry sites in the montane and lower subalpine regions of the eastern slopes of the Rocky Mountains.

## Threats

It is threatened in Alberta by poor regeneration, suppression of fire, climate change, drought, Mountain Pine Beetle, and high death rates from an exotic fungus called White Pine Blister Rust.

# Soapweed



*Yucca glauca*



© TOP: CLIFF WALLIS; BOTTOM: DREW AVERY

## Description

This long-lived grassland species has a broad crown of leaves emerging from a woody base. The leaves are stiff, narrow and pointed and measure 20-50 cm in length. The 50-100 cm flower stalk emerges from the middle of the plant and is topped by a cluster of creamy white 5 cm flowers.

STATUS	
 THREATENED	 ENDANGERED

## Habitat

Southern Alberta marks the northern edge of this plant's range. There are two confirmed population sites along the Milk River and its tributary, the Lost River. It is found in shallow, alkaline, well-drained soil on coulee slopes.

## Threats

Soapweed plants are threatened by pesticide use, changes in grazing patterns and off-road travel. They are also dependent on Yucca Moths for pollination. Alberta populations of Soapweed are isolated from those in the United States and most of the intervening habitat has been destroyed. A recovery project is being developed to re-locate Yucca Moth populations from sites with fruiting Soapweed plants to areas where the plants are not reproducing properly.

# Western Blue Flag

*Iris missouriensis*



© JUSTIN JOHNSEN

## Description

This iris is a perennial herb with a thick dark rhizome, blue-green tufts of leaves 30 to 60 cm long and 3 to 8 cm wide, and two to four showy pale blue, deep blue, lavender, or, rarely, white flowers. The 2 to 5 cm long seed capsule is oblong. It flowers in Alberta from mid-June to early July.





© CLIFF WALLIS

## Habitat

In Alberta, this iris grows on the southeastern side of the Rocky Mountains in the foothills fescue and parkland regions. Within these regions, it is found in moist meadows where the soil becomes drier in late summer. It cannot live in permanently wet soils.

## Threats

Habitat removal and degradation, such as altering the hydrology of the moist meadows, is one of the largest threats. Other threats include competition by exotic plants, grazing intensity, and collection of plants and/or seeds.

STATUS	
 SPECIAL CONCERN	 SPECIAL CONCERN

# Whitebark Pine



*Pinus albicaulis*



© RAY BOUKNIGHT

## Description

This small to medium-sized 5-needled pine grows 5-20 m tall and has a rounded to irregular crown. The bark on younger trees is smooth light grey to white. Cones remain closed at maturity and stay on the tree unless removed by animals, particularly Clark's Nutcracker.

STATUS	
 ENDANGERED	 ENDANGERED

## Habitat

In Alberta, this pine is usually found on steep southwestern slopes above 1500 m. It is relatively shade intolerant and usually grows in acidic soil with high water-holding capacity.

## Threats

The Whitebark Pine's biggest threat is White Pine Blister Rust. The increase in Mountain Pine Beetle activity is also becoming a threat, especially to trees already weakened by blister rust infection. Fire suppression and warmer temperatures due to climate change allows vegetation to compete with this tree species.

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# PHOTO CREDITS

## Front Cover

Don Delaney - *Burrowing Owl, Monarch Butterfly*

Douglas Wilhelm Harder - *Northern Leopard Frog*

Gerald Romanchuk - *Piping Plover, Swift Fox, Wood Bison*

## Back Cover

Don Delaney - *Trumpeter Swan*

Dorothy Monteith - *American Badger*

Gerald Romanchuk - *Loggerhead Shrike*

Steve Knight - *Sprague's Pipit*

# THANK YOU TEAM!

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# NOTES

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*"This is a great introduction to the many species at risk in Alberta. The Edmonton Area Land Trust (EALT) is helping by conserving habitats for native species in the Edmonton area. Becoming better informed and supporting conservation organizations like the EALT helps protect our species at risk."*

**Cliff Wallis**, V.P. of the Alberta Wilderness Association and national award-winning conservationist



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