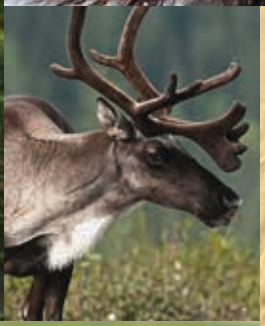
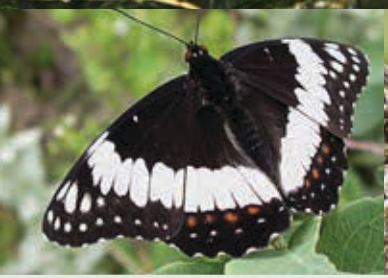


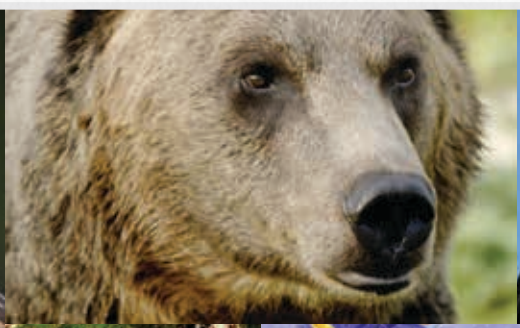



SPECIES AT RISK

ALBERTA

A Guide to Endangered and Threatened Species, and Species of Special Concern in Alberta.

Version 2, 2015


Alberta Government

A Guide to Endangered and Threatened Species,
and Species of Special Concern in Alberta. Version 2.

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Contributors: Lisa Wilkinson, Andre Lemay, Brenda Eeglon, Carly Steiger, Robin Gutsell, Sue Cotterill, Dave Prescott, Brandy Downey, Jenny Earle, Cindy Kemper, Terry Clayton, Nyree Sharp, Hannah McKenzie.

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For copies of this report, visit:
esrd.alberta.ca/fish-wildlife/species-at-risk

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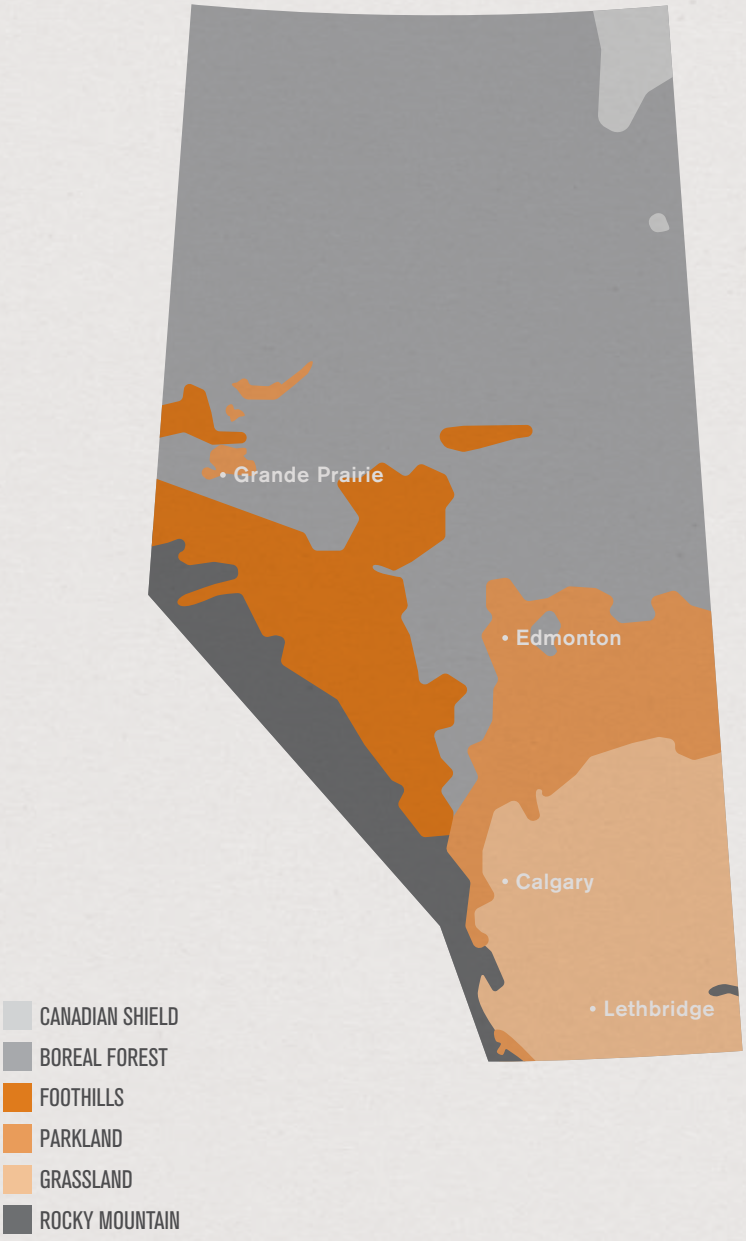
NATURAL REGIONS



ALBERTA HAS AN AMAZING VARIETY OF WILD SPECIES; HOWEVER, SOME OF THESE SPECIES ARE AT RISK OF DISAPPEARING FROM THE PROVINCE.

Species at risk are those that are at risk of extinction or extirpation (we call them endangered or threatened), or are in need of special management to prevent them from becoming at risk.

The Alberta government has six strategies in place to identify, recover and prevent species at risk from becoming extinct or extirpated. Using a science-based approach, these strategies allow for the incorporation of social and economic values, are cooperative and collaborative, and are supported by the provincial Wildlife Act.

CATEGORIES OF SPECIES AT RISK

Species at risk are listed in one of the five following categories. These definitions are consistent with those used by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).

Extinct: a species that no longer exists anywhere in the world.

Extripated: a species that no longer exists in the wild in Alberta, but exists elsewhere.

Endangered*: a species that is at immediate risk of extirpation or extinction.

Threatened*: a species likely to become endangered if limiting factors are not reversed.

Species of Special Concern: a species that is particularly sensitive to human activities or natural events.

Data Deficient: a species for which there is insufficient information to support status designation.

*Legal status designation under Alberta's Wildlife Act.

This guide focuses on species listed as Endangered, Threatened or Species of Special Concern within Alberta. (as of March 2014)

Species at risk are the most vulnerable components of Alberta's biodiversity and require special attention to maintain and recover their populations and habitats.

STEWARDSHIP AND SPECIES AT RISK

Stewardship is the care and responsible management of our land, air, water and biodiversity. It is an action, an attitude and a choice whereby citizens, industry, communities and governments work together to responsibly care for and manage Alberta's natural resources and the environment.

All Albertans can take responsibility to become stewards of species at risk. This guide will help with the first step, which is learning about species at risk and their habitats Knowing how to identify your local species at risk and understanding why they are at risk will help you to support conservation in Alberta.

For more information on Alberta's species risk, visit: ***www.esrd.alberta.ca***

To find ways to help Alberta's species at risk and Alberta's environment, visit: ***www.onesimpleact.alberta.ca***

Barred Owl

SPECIES AT RISK STRATEGIES

1 **GENERAL STATUS ASSESSMENT:** This is the first step in a continuing process of evaluating and reporting on the biological status of wild species in Alberta. It provides an initial assessment of the well-being of wild species populations to determine conservation and management priorities. Species include birds, mammals, amphibians, reptiles, fish, plants, and some invertebrates.

2 **DETAILED STATUS ASSESSMENT:** Detailed status reports are prepared for species suspected to be at risk (based primarily on the general status assessment). These reports help to determine whether species are considered for designation as:

Endangered: a species that may soon become extirpated (disappear from Alberta), or extinct.

Threatened: a species likely to become endangered if certain factors are not reversed.

Species of Special Concern: a species with characteristics that make it particularly sensitive to human activities or natural events.

Data Deficient: a species for which there is insufficient scientific information to support status designation.

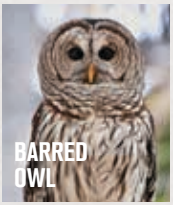
3 **LEGAL DESIGNATION:** Species that receive a detailed status of Threatened or Endangered are listed as such under the provincial Wildlife Act through a regulation amendment. Listing provides protection for the species and requires initiation of a recovery planning process.

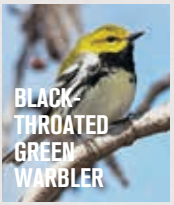
4 **RECOVERY PLANNING:** Recovery plans are developed for species that are designated as Threatened or Endangered, with an overall goal to ensure their long-term survival in the wild. Recovery plans are prepared by a recovery team composed of species experts and stakeholders.

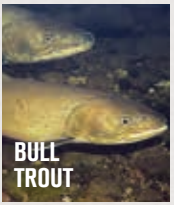
5 **PREVENTION:** The prevention program includes the development of management plans for Species of Special Concern. These plans emphasize strategies which can be employed to prevent the species from becoming Threatened or Endangered. Inventory and research are done on Data Deficient species to compile information useful for status determination.

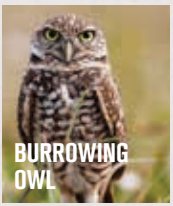
6 **IMPLEMENTATION:** The implementation phase of species at risk protection in Alberta is the execution of recommended actions that are provided in a particular species' recovery or management plan. These actions are carried out by various groups, including government, non-government organizations and private individuals.


ARCTIC
GRAYLING


BARRED
OWL

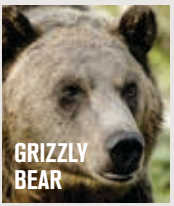

BLACK-
THROATED
GREEN
WARBLER

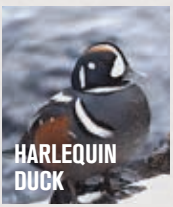

BULL
TROUT


BURROWING
OWL

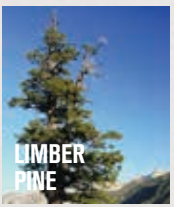

FERRUGINOUS
HAWK


GREATER
SAGE-GROUSE

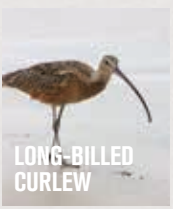

GRIZZLY
BEAR


HARLEQUIN
DUCK


LAKE
STURGEON


LIMBER
PINE


LOGGERHEAD
SHRIKE


LONG-BILLED
CURLEW


LONG-TOED
SALAMANDER


MOUNTAIN
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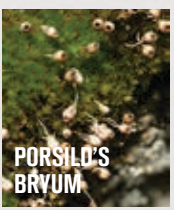
NORTHERN
LEOPARD
FROG


ORD'S
KANGAROO
RAT


PEREGRINE
FALCON


PIPING
PLOVER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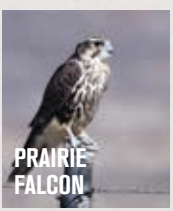
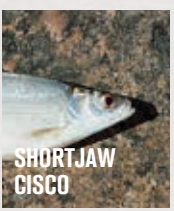
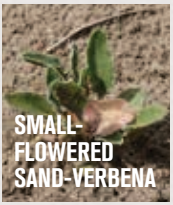

PRAIRIE
FALCON


ROCKY
MOUNTAIN
SCULPIN

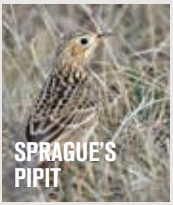

SHORT-HORNED
LIZARD


SHORTJAW
CISCO

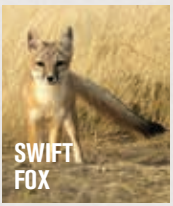

SLENDER MOUSE-EAR-CRESS


SMALL-FLOWERED SAND-VERBENA

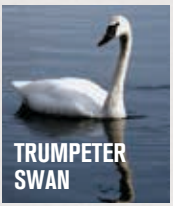

SOAPWEED


SPRAGUE'S PIPIT


STONECAT

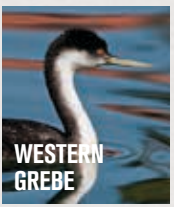

SWIFT FOX


TINY CRYPTANTHA

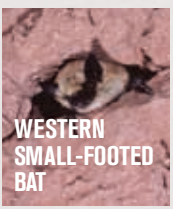

TRUMPETER SWAN


WEIDEMEYER'S ADMIRAL

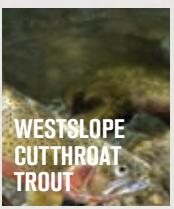

WESTERN BLUE FLAG

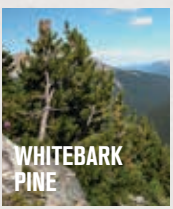

WESTERN GREBE

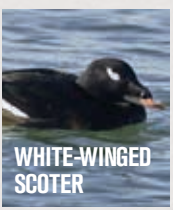

WESTERN SILVERY MINNOW

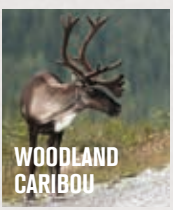

WESTERN SMALL-FOOTED BAT


WESTERN SPIDERWORT


WESTSLOPE CUTTHROAT TROUT


WHITEBARK PINE


WHITE-WINGED SCOTER


WOODLAND CARIBOU

Alberta
Government

ARCTIC GRAYLING	THYMALLUS ARCTICUS
SPECIAL CONCERN	

SPECIES DESCRIPTION

- One of the most colourful native fish of Alberta, Arctic grayling are dark bluish along their top and iridescent greenish-grey or bronze along their sides, and dark blue along the midline of the back. Their large, brightly coloured dorsal fin is distinctive.
- They have large scales, and brown or black spots on the body behind their head.
- The average body length for adults ranges from 30 to 40 cm.

HABITAT

- Typically found in cool, clear streams and rivers, Arctic grayling are naturally found in the Athabasca, Hay and Peace River drainage systems of Alberta.
- A small population can also be found in the Belly River of the Oldman River drainage in southwestern Alberta and a small number of mountain ponds in southwestern Alberta have been stocked with Arctic grayling.

THREATS

- Habitat fragmentation, as a result of road construction, culvert barriers, natural resource extraction and recreational activities.
- Intensive livestock grazing and clearing of stream bank vegetation, which result in increased sedimentation of the streambed, loss of shade, and increased water temperatures.
- Climate change, which could result in range contraction and additional limitations to the distribution of Arctic grayling because of their dependence on cool water to survive.

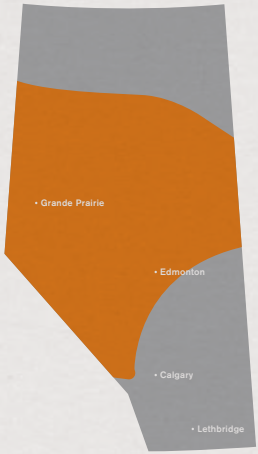
DID YOU KNOW?

- Males use their large, brightly coloured dorsal fin in courtship displays during spring spawning.

HOW CAN YOU HELP?

- Know how to identify Arctic grayling from other fish species in Alberta.
- Keep off-highway vehicles out of creeks and streams, and use bridges for stream crossings.
- Avoid clearing bankside vegetation and use fencing to keep livestock away from the streambed and banks.
- Report hanging culverts and off-highway vehicles driving in streams to your nearest ESRD office.
- Contact fisheries management staff at your nearest ESRD office to discuss ways you can help monitor populations or assist in the recovery of this species.
- Support conservation groups and programs that work to conserve and maintain healthy aquatic ecosystems.

BARRED OWL	STRIX VARIA
SPECIAL CONCERN	



SPECIES DESCRIPTION

- Considered a large owl, adult barred owls can reach approximately 52 cm in length.
- Tail, back, wings and head are dark greyish brown with white bars, undersides are white.
- Barred owls are the only owls in Alberta with brown eyes—all others have yellow eyes.

HABITAT

- Barred owls reside in the Rocky Mountain, Parkland, Foothills and Boreal Forest natural regions of our province.
- Barred owls rely on old growth, mixed-wood forests. They are also associated with wetlands and riparian areas.
- Cavities in large, old trees are essential for nesting and rearing young. In Alberta, most barred owl nests have been found in hollow snags of balsam poplar or aspen that average 74 cm in diameter at breast height.

THREATS

- Habitat loss (i.e., loss of old large trees and snags), from human development, oil and gas activities and forest harvest.
- Reducing forest age and structure can create challenges such as fewer potential nesting sites and increased competition from great horned owls residing in some of the same areas.

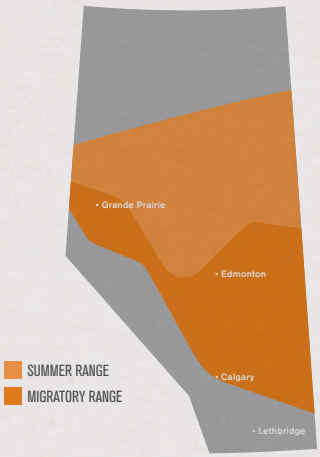
DID YOU KNOW?

- Scientists have discovered that barred owls, which are adapted to life in old forests, often select trees over 100 years old for nesting.
- Barred owls are among the largest cavity nesters in North America.
- Barred owls are known for their distinctive call that sounds like; “who cooks for you, who cooks for you all”.

HOW CAN YOU HELP?

- Avoid disturbing nesting sites (mid-March – mid-July).
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can help monitor populations or assist in the recovery of this species.
- Support conservation groups and programs that work toward the conservation and maintenance of healthy forest ecosystems.

BLACK-THROATED GREEN WARBLER	DENDROICA VIRENS
SPECIAL CONCERN	



SPECIES DESCRIPTION

- Male black-throated green warblers have a bright yellow face, black throat and upper breast, an olive green crown, back and wings, and a black tail. Abdomen is usually white.
- Females are duller in appearance. The throat and breast are mottled with black and yellow rather than the solid black seen in males.
- Adults are approximately 11 to 12 cm long.

HABITAT

- This neotropical migrant breeds in the Boreal Forest and Foothills natural regions of our province. It arrives in Alberta in May and leaves for its wintering grounds in mid-August to mid-September.
- A forest specialist, black-throated green warblers occur in mixed-wood forests of trembling aspen, balsam poplar and white spruce.
- Older forest stands (80 to 130 years) appear to be preferred habitat for this songbird, which tends to avoid disturbed and edge habitats as well as small forest patches.

THREATS

- Habitat loss, alteration and fragmentation from human development, and forestry and oil and gas activities.
- Loss of wintering habitat in Central America may also be affecting populations.

DID YOU KNOW?

- The black-throated green warbler's song is a distinctive, buzzy "zeeee-zee-zee-zoo-zeeee".
- During the breeding season, these songbirds sing continually, sometimes up to 466 times in an hour.

HOW CAN YOU HELP?

- Contact wildlife management staff at your nearest ESRD office to discuss ways you can help monitor populations or assist in the recovery of this species.
- Support conservation groups and programs that work to conserve and maintain boreal forest habitats.

BULL TROUT	SALVELINUS CONFLUENTUS
THREATENED	

SPECIES DESCRIPTION

- The bull trout is a long, slim fish with a large head and prominent jaws.
- The back of a bull trout is olive-green to grey. Its sides are silvery and marked with pale yellow to red spots, its belly is white, and its lower fins have white leading edges.
- There are NO black spots on the dorsal fin.
- Average length for adults is 30 to 70 cm; they can sometimes reach weights of 10 kg.

HABITAT

- Bull trout live in cold mountain headwaters and foothill streams.

THREATS

- Historically, over-fishing led to a decline in population numbers.
- Populations remain low because of habitat loss and degradation (such as sediments in streams) from industrial activity, especially roads.
- Barriers, such as hanging culverts, fragment habitat and prevent fish from reaching spawning areas.
- Protection from over-harvest is no longer adequate to recover bull trout across its native range.

DID YOU KNOW?

- The bull trout is Alberta's provincial fish.
- Bull trout can live up to 20 years of age.
- Bull trout are slow to mature and have very specific habitat needs.

HOW CAN YOU HELP?

- Know how to identify bull trout from other fish species in Alberta. The key to correctly identifying them is the absence of black spots on the dorsal fin. If you catch one, you cannot keep it. Remember the slogan, "No black, put it back".
- Keep off-highway vehicles out of creeks and streams, and use bridges for stream crossings.
- Report hanging culverts and off-highway vehicles driving in streams to your nearest ESRD office.
- Contact fisheries management staff at your nearest ESRD office to discuss ways you can help monitor populations or assist in the recovery of this species.
- Support conservation groups and programs that work to conserve and maintain healthy aquatic ecosystems.

BURROWING OWL	ATHENE CUNICULARIA
ENDANGERED	

SPECIES DESCRIPTION

- Burrowing owls are light brown with white streaks on the crown and spots on the back and wings.
- The tail is short and legs are long.
- Average adult size is 24 cm long.

HABITAT

- Burrowing owls inhabit the Grassland region of the province. They are migratory, arriving in Alberta in April and returning to their wintering grounds in September.
- Nesting habitat requirements include an open area with available burrows to nest in, surrounded by short or sparse vegetation.
- Foraging habitat requirements include abundant prey—insects and small mammals—and adequate cover (taller vegetation) from predators.

THREATS

- Decreasing abundance of prey species within burrowing owl habitat.
- Habitat loss and alteration from oil and gas exploration and development, cultivation of grasslands, and expansion of human settlement.
- Human disturbance in burrowing owl habitat, especially near nests.
- Increased risk of predation because of changes to habitat.

DID YOU KNOW?

- Burrowing owls do not dig their own burrows, relying instead on burrows that have been excavated and later abandoned by animals such as foxes, badgers, and coyotes.
- Cultivation of grasslands for agriculture destroys burrows and reduces hunting territory.
- Burrowing owls catch large bugs mid-air with their feet, or hover close to the ground before diving at prey.
- Burrowing owls eat voles, grasshoppers and many other pests.
- Burrowing owls collect cow dung, dried plants and feathers to line their burrows. These items offer insulation, attract insects for food and may provide protection from predators by masking burrowing owl smell.

HOW CAN YOU HELP?

- If you are a landowner, visit ***www.multisar.ca*** to learn about beneficial management practices and other ways to conserve this species.
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can minimize your impact and help monitor populations or assist in the recovery of this species.
- Support conservation groups and programs that work to conserve and maintain native grassland habitats.

FERRUGINOUS HAWK	BUTEO REGALIS
ENDANGERED	

SPECIES DESCRIPTION

- Ferruginous hawks have two colour variations – a 'dark phase' and a 'light phase'.
- Dark phase birds have a dark brown/red body with brown/red on their back and wings.
- Light phase birds have brown/red legs, a white chest and neck and brown/red on their back and wings.
- Average length is about 58 cm.

HABITAT

- Ferruginous hawks arrive in Alberta in late March, nest and raise their young from mid-April to late July, and migrate southwards in September and October.
- Ferruginous hawks are found in the Grassland region of the province, in areas of uncultivated pastureland or prairie.
- They nest in lone trees, on hoodoos, or on cliffs near native grasslands. If trees are scarce, they will nest on the ground.
- They may nest on artificial nest poles, which have been designed to assist in the recovery of this species.

THREATS

- Habitat loss and alteration from agriculture, urban and rural expansion, and oil and gas activities.
- Competition from other species such as Swainson's and red-tailed hawks.
- Ferruginous hawks are very sensitive to human disturbance, particularly during nesting and incubation. Human disturbance can lead to nest abandonment.

DID YOU KNOW?

- Ferruginous hawks are the largest of the soaring hawks of North America.
- While raising their young, one pair of ferruginous hawks consumes an average of 480 ground squirrels. Encouraging them to nest on rural property is an effective method to keep ground squirrel populations under control.

HOW CAN YOU HELP?

- Maintain woody areas including dead trees, shelterbelts, and lone trees. Replace fallen trees with native tree species such as cottonwoods.
- Avoid nesting areas during the months of mid-April to late July.
- Tolerate Richardson's ground squirrels (gophers) if they are not causing excessive damage.
- For information on how to provide nesting habitat for ferruginous hawks and on recovery of this species, visit ***www.multisar.ca***
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can modify activity to minimize impacts on this species, and ways you can help monitor populations or assist in the recovery of this species.
- Support conservation groups and programs that work to conserve native grassland habitats.

GREATER SAGE-GROUSE	CENTROCERCUS UROPHASIANUS
ENDANGERED	

SPECIES DESCRIPTION

- The largest of North American grouse, males average 65 to 75 cm in length, and weigh about 2 kg. Females average 48 to 58 cm in length and weigh about 1 kg.
- Males have a black belly and bib, and a white breast. Tail feathers are long and spiked.
- Females have a black belly and mottled brown plumage on the rest of the body.

HABITAT

- In Alberta, greater sage-grouse are found only in the extreme southeastern corner of the province, east of the Milk River and south of Cypress Hills.
- Suitable habitat includes native grasslands containing extensive sagebrush communities.

THREATS

- Habitat loss through the conversion of sagebrush and grassland to croplands is the primary reason for declining numbers in Alberta.
- Overgrazing by cattle may reduce habitat suitability, or increase the exposure of birds to predators and extreme weather.
- Oil and gas exploration and development can fragment and reduce the availability of suitable habitat and disrupt breeding activities.
- High predator numbers, a lack of connectivity to populations in the United States, and human disturbance from recreational activity also play a role in the decline of this species.
- An emerging threat is West Nile Virus. It is thought that greater sage-grouse may be susceptible to this virus.

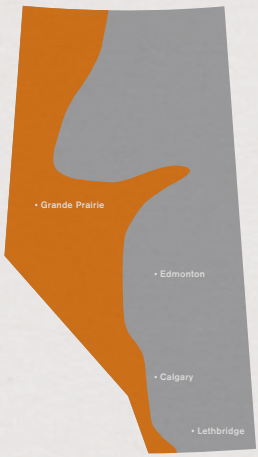
DID YOU KNOW?

- Adults depend almost entirely on sagebrush for diet and protective cover. Sage grouse lack a gizzard necessary for grinding seeds and other hard foods.
- Greater sage-grouse have developed a special adaptation allowing them to deal with toxic chemicals found in sagebrush.
- In spring, groups of greater sage grouse gather at traditional courtship leks or dancing grounds. Males inflate air sacs on their upper chests, puff out their white chest feathers, spread their pointed tail feathers and strut—booming as they go—to intimidate other males and attract females.
- This is one of Alberta's most imperiled species.

HOW CAN YOU HELP?

- Do not disturb sage-grouse when they are on their leks.
- If you are a landowner, visit ***www.multisar.ca*** for more information on how you can take action to conserve this species.
- Contact your nearest ESRD office to discuss ways you can take action to conserve this species.
- Support conservation groups and programs that work to conserve and maintain native grassland ecosystems.

GRIZZLY BEAR	URSUS ARCTOS
THREATENED	



SPECIES DESCRIPTION

- The grizzly bear's snout rises sharply into a broad "dished" face, its ears are rounded and noticeable but not prominent, and there is a pronounced shoulder hump.
- Colour varies from tawny brown to black. Fur is often "grizzled" in appearance (silver-tipped).
- Claws of front feet are long and sometimes have a white streak.

HABITAT

- Because of a combination of social and ecological requirements, grizzly bears require large areas of land on an annual and lifetime basis.
- In the spring, dry, steep subalpine grasslands are the favoured habitat for grizzlies in the mountain regions, whereas stream banks and channels are preferred by grizzlies in the boreal forest.
- In the summer, grizzlies use a variety of habitats such as meadows, forests, disturbed areas, and avalanche slopes.
- In the winter, grizzlies usually dig dens on a slope where the ground is stabilized by root systems of trees and shrubs and where accumulation of snow adds insulation.

THREATS

- People sometimes kill grizzlies in self-defense, illegally, or by mistaking them for black bears while hunting.
- Human/bear conflicts can result in bears being relocated or, in extenuating circumstances, euthanized.
- Some bears are killed every year in collisions with vehicles while crossing roads, and also by trains, often while feeding on grain spilled on tracks by grain cars.
- Habitat loss and degradation also threaten the recovery of this species.

DID YOU KNOW?

- Grizzly bears play a vital role in habitat maintenance through seed dispersal and soil aeration. As a keystone species, their presence ensures the survival of many other plants and animals.
- Grizzly bears are omnivores, meaning they eat both plants and animals. The diet of a grizzly can include: berries, fish, grasses, ground squirrels, insects, mice, roots, and ungulates.
- A grizzly bear's diet changes with the seasons. In early spring, the diet is primarily plant based. By summer, the diet includes more sources of meat, and in the fall, bears consume large quantities of berries prior to hibernation.

HOW CAN YOU HELP?

- Avoid conflicts with grizzly bears by being BearSmart. For more information on Alberta's BearSmart program see: ***www.esrd.alberta.ca/recreation-public-use/alberta-bear-smart***
- Learn how to distinguish grizzly bears from black bears.
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can take action to conserve this species.

HARLEQUIN DUCK	HISTRIONICUS HISTRIONICUS
SPECIAL CONCERN	

SPECIES DESCRIPTION

- Male harlequin ducks are vibrantly coloured with the following distinguishing characteristics:
  - White crescent in front of the eye and a white patch near the ear.
  - Slate blue body plumage with chestnut sides and flanks.
  - Dark head, with a black stripe on the crown and a chestnut stripe on either side.
- Females are duller in appearance, with dark brown body plumage, a white belly, and white patches behind, below and in front of the eye.

HABITAT

- Harlequins arrive in the Rocky Mountains from the west coast in late April or early May. Males return to the coast in mid-June or early July. Females and their young return to the coast in mid-August to mid-September.
- In Alberta, harlequin ducks nest along swiftly flowing, clear, quiet mountain streams that have plenty of cover on islands or along the banks.

THREATS

- Human disturbance such as recreational activities can cause females to abandon nests or young.
- Habitat alteration to streams and adjacent vegetation can leave them unsuitable for nesting.
- Sediments in streams from industrial activities can decrease availability of food (aquatic invertebrates).

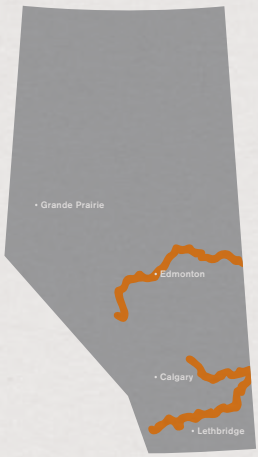
DID YOU KNOW?

- Harlequin ducks are considered “sea ducks” and spend their winters on the Pacific Northwest coast.

HOW CAN YOU HELP?

- When in known harlequin duck habitat, be mindful of the needs of this species and avoid disturbing nesting sites.
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can take action to conserve this species.
- Support conservation groups that work toward conserving and maintaining healthy aquatic ecosystems.

LAKE STURGEON	ACIPENSER FULVESCENS
THREATENED	



SPECIES DESCRIPTION

- Lake sturgeon are torpedo-shaped, with a greyish-brown body, a shark-like upturned tail and a pointed snout with four barbels (whisker-like tissue filaments) for finding food.
- Average length is 0.75 to 1 m, with older fish attaining much larger sizes (up to 1.7 m and weighing over 40 kg).
- Instead of scales, lake sturgeon have tough, leather-like tissue and five rows of bony plates on their bodies.

HABITAT

- Lake sturgeon live in the North and South Saskatchewan river systems in Alberta.
- Important habitat for lake sturgeon includes clean rivers with adequate flow for spawning, and enough depth for over-winter survival.

THREATS

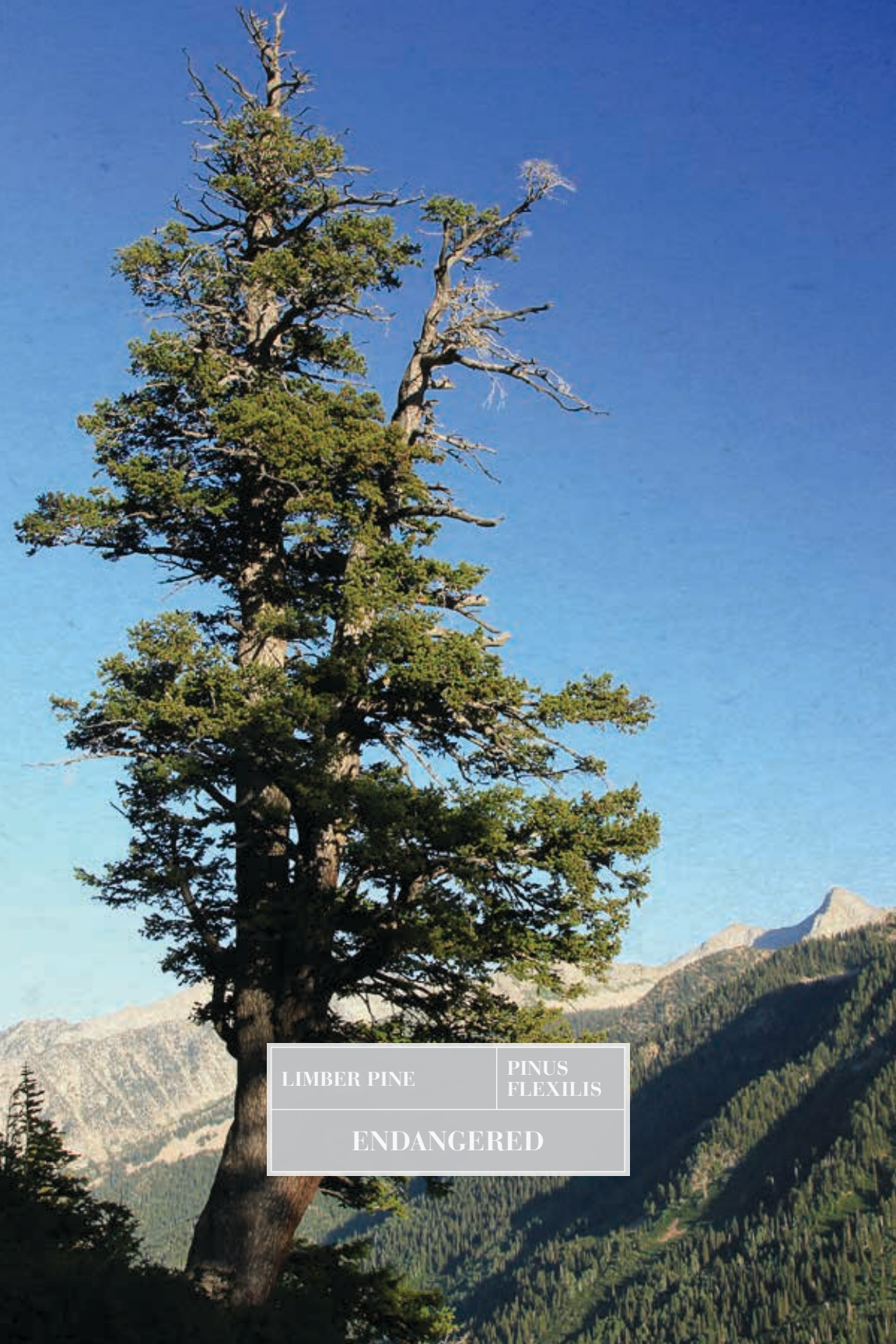
- Irrigation associated with agriculture and the construction and operation of dams result in habitat alteration, degradation and fragmentation.
- Males do not spawn until they are about 15 to 20 years old, and females do not spawn until they are about 20 to 25 years old. This late age of maturity limits the reproductive potential of the species, making recovery more difficult.
- Populations are at or below critical levels for sustainability, having been over-fished in the past.

DID YOU KNOW?

- This fish is known as a living dinosaur because it has been around for millions of years.
- Females do not build a nest, but deposit their eggs in the river current. Males swim close to females during egg deposition to fertilize the eggs. Large females can produce up to 500,000 eggs at one time.
- Lake sturgeon can live up to 80 years—the longest life span of Alberta's cool-water fishes.
- Instead of having a skeleton made of bone, lake sturgeon have a cartilaginous skeleton—like sharks and rays.

HOW CAN YOU HELP?

- Lake sturgeon are at risk; if you catch one, you cannot keep it. Know how to identify lake sturgeon from other fish species in Alberta.
- Keep off-highway vehicles out of creeks and streams, and use bridges for stream crossings.
- Contact fisheries management staff at your nearest ESRD office to discuss ways you can help monitor populations or assist in the recovery of this species.
- Support conservation groups and programs that work to conserve and maintain healthy aquatic ecosystems.



LIMBER PINE	PINUS FLEXILIS
ENDANGERED	

SPECIES DESCRIPTION

- The shape and size of limber pine will vary greatly depending on the harshness of the site. In some locations they appear as a small tree with a rapidly spreading trunk and broad crown, while in other locations they are shrub-like with a wide spreading crown and twisted, gnarled branches.

HABITAT

- In Alberta, limber pine occurs within montane and lower subalpine areas. Almost all of these sites are harsh, exposed and wind-swept.

THREATS

- Limber pine is very susceptible to white pine blister rust, an introduced fungus that can kill the tree.
- The increased presence of mountain pine beetle in Alberta is a threat to limber pine.
- Cattle grazing can have a negative impact on regeneration of limber pine.
- Warming temperatures threaten the cool, high elevation habitats required by limber pine.

DID YOU KNOW?

- Limber pine is a pioneer species, so-called because individuals colonize disturbed sites and live in harsh environments.
- A very long-lived tree, the oldest recorded limber pine in Alberta is 642 years old.
- The large, nutritious seeds from limber pine are an important food source for a wide variety of animals.
- Limber pine relies on Clark's nutcrackers for seed dispersal.

HOW CAN YOU HELP?

- Learn to identify five-needle pines and avoid cutting them for firewood or Christmas trees.
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can take action to conserve this species.
- Support conservation groups and programs that work to conserve and maintain montane, subalpine and alpine habitats.

LOGGERHEAD SHRIKE	LANIUS LUDOVICIANUS
SPECIAL CONCERN	

SPECIES DESCRIPTION

- Loggerhead shrikes are medium-sized songbirds (slightly smaller than a robin).
- Their plumage is grey on upper-parts and white below.
- A black mask runs from behind the shrike's eyes to the beak and across the forehead.

HABITAT

- Loggerhead shrikes arrive in southern Alberta during the first week of May and begin their return journey south by the end of August.
- The loggerhead shrike requires a combination of open, grazed areas adjacent to nesting and perching sites, and dense vegetation that provides habitat for potential prey.
- Abandoned farmsteads, roadsides, shelterbelts and railway rights-of-way provide suitable habitat.

THREATS

- Conversion of native grasslands for agricultural practices and excessive grazing can degrade and fragment habitat for loggerhead shrike.

DID YOU KNOW?

- The "face mask" of the loggerhead shrike acts to reduce glare that may impair the bird's ability to see prey in bright sunlight.
- Lacking the strong raptorial feet of hawks and owls, shrikes sometimes impale prey on thorny trees, shrubs and barbed wire.

HOW CAN YOU HELP?

- If you are a landowner, visit ***www.multisar.ca*** for more information on how you can take action to conserve this species.
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can help monitor populations or assist in the recovery of this species.
- Support conservation groups and programs that conserve native grassland habitats.

LONG-BILLED CURLEW	NUMENIUS AMERICANUS
SPECIAL CONCERN	

SPECIES DESCRIPTION

- The bill on the long-billed curlew is long, thin and curves downwards.
- Plumage is brown and mottled on the back, and buff underneath.
- Legs are long. Adult size ranges from 51 to 66 cm.

HABITAT

- Long-billed curlew are migratory. They arrive in Alberta in late April and depart in late August.
- Long-billed curlews require undisturbed, moderately grazed, native grasslands and fescue prairie, generally where grasses are relatively short.

THREATS

- Hunting pressures in the past (late 1800s to early 1900s) dramatically reduced long-billed curlew population numbers.
- Loss of habitat as a result of conversion and fragmentation of native prairie habitat for agriculture, oil and gas activities and human recreation.
- Long-billed curlew nests are built on the ground, making them more vulnerable to predators.
- Climate change can induce severe weather events such as drought and flooding. Events such as these could be very detrimental for this species.

DID YOU KNOW?

- The long-billed curlew is the largest shorebird in North America.
- Common call is a loud, whistling “cur-lee, cur-lee, cur-lee” or an extended “cuurrleeeuuu”.

HOW CAN YOU HELP?

- If you are a landowner, visit ***www.multisar.ca*** for more information on how you can take action to conserve this species.
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can help monitor populations or assist in the recovery of this species.
- Support conservation groups and programs that work to conserve and maintain native grassland habitats.

LONG-TOED SALAMANDER	AMBYSTOMA MACRODACTYLUM
SPECIAL CONCERN	

SPECIES DESCRIPTION

- The long-toed salamander is brown-grey to black in colour.
- The stripe on its back varies from yellow to orange, and may be indistinct, appearing broken or as flecks.
- The long-toed salamander can reach a total length of 140 mm.

HABITAT

- Long-toed salamanders usually live in close vicinity to breeding ponds, which are typically permanent, shallow, and lack predatory fish.
- Adult long-toed salamanders live primarily in forests that provide cover and protection. The northern populations may be found in more open habitats.

THREATS

- Human activities in and around ponds, such as use of off-highway vehicles, can destroy eggs and habitat.
- Loss of forest habitat from industrial, residential or agricultural development;
- Loss or contamination of breeding ponds.
- Introduction of fish into breeding ponds.

DID YOU KNOW?

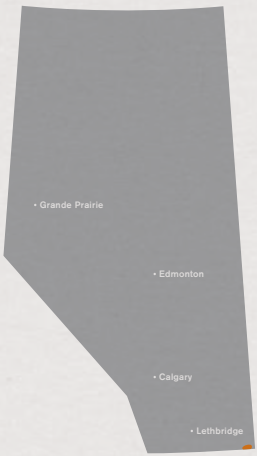
- Long-toed salamanders have the ability to regenerate lost toes and their tail.
- They are nocturnal and spend most of their time in underground burrows.

HOW CAN YOU HELP?

- Maintain wetlands and do not pollute the water.
- Do not disturb ponds in early summer and never drive through wetlands.
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can take action to conserve this species.
- Support conservation groups and programs that work to conserve and maintain healthy wetland ecosystems.

MOUNTAIN PLOVER	CHARADRIUS MONTANUS
ENDANGERED	

Photo: Gordon Court



SPECIES DESCRIPTION

- The mountain plover is a medium-sized bird (similar to a robin) with a buff-grey back and wings, and white plumage underneath.
- Breeding birds have a white forehead with black on top of the head, and a thin black “eyeline”. Non-breeding and juvenile birds lack these black markings.

HABITAT

- Mountain plovers are migratory. They arrive in our province in April to mid-May, and migrate south in the fall.
- In Alberta, mountain plovers rely on burned or thoroughly grazed, shortgrass prairie for breeding.
- Mountain plovers are found in just two locations in southeastern Alberta, both very close to the Montana border.

THREATS

- Habitat loss through the conversion of native grasslands to croplands is the principle threat facing this species.

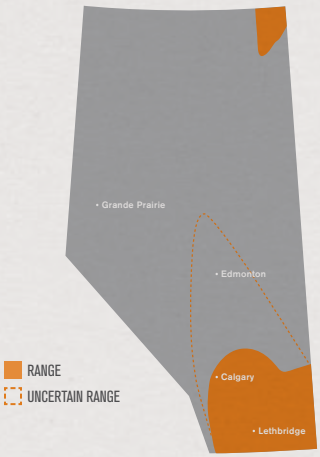
DID YOU KNOW?

- Mountain plovers are habitat specialists, meaning they thrive in a very narrow range of environmental conditions.
- Once native grassland is cultivated, the original habitat is essentially lost forever. This is because replacement grasses that take hold are not the original, native species.
- Contrary to their name, mountain plovers do not inhabit montane areas, nor do they frequent shorelines like most other shorebirds.
- Mountain plovers are often associated with livestock, which attract and stir up insects for them to eat.

HOW CAN YOU HELP?

- If you are a landowner, visit ***www.multisar.ca*** for more information on how you can take action to conserve this species.
- Limit recreational activity or avoid mountain plover breeding areas during the nesting period.
- Contact wildlife management staff at the nearest ESRD office to discuss ways you can minimize impacts and how you can help monitor populations or assist in the recovery of this species.
- Support conservation groups and programs that work toward conserving and maintaining healthy native grassland ecosystems.

NORTHERN LEOPARD FROG	RANA PIPIENS
THREATENED	



SPECIES DESCRIPTION

- Adult frogs range from 50 to 130 mm in length; females are often larger than males.
- Colouration ranges from green (most common) to brown, with a pale white belly. A rare golden form also occurs in parts of Alberta.
- Large, dark spots bordered with pale rings cover the body.

HABITAT

- Leopard frogs prefer clear, clean water in open or lightly wooded areas.
- They are often found along the edges of permanent water bodies such as ponds, marshes, streams, rivers and lakes.

THREATS

- Draining wetlands removes important habitat for this species (and other amphibians). Frogs lay eggs in water, and their larvae (tadpoles) live in water.
- Chemicals (such as pesticides) used around wetlands can lead to illness, deformities, and sometimes death of frogs.
- Frogs are vulnerable to diseases that have decimated amphibian populations in other parts of the world. Limited by their small population size and fragmented habitat, small populations can be vulnerable to even minor disturbances in their habitat.

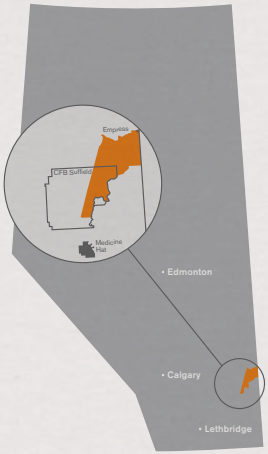
DID YOU KNOW?

- Northern leopard frogs began mysteriously disappearing in Alberta and other parts of western Canada around 1979. There is a global decline in amphibian populations.
- Northern leopard frogs are the largest frogs found in Alberta.
- In Alberta, northern leopard frogs are rarely found more than 10 m from a water source.
- Northern leopard frogs are well adapted to cold temperatures and life in Canada. Unlike most other frogs, they hibernate under water at the bottom of ponds and rivers.

HOW CAN YOU HELP?

- Protect wetlands and keep them clean—they are home to the northern leopard frog and many other plant and animal species.
- Contact wildlife management staff at the nearest ESRD office to discuss ways you can take action to conserve this species.
- Support conservation groups and programs that work to conserve and maintain healthy wetland ecosystems.

ORD'S KANGAROO RAT	DIPODOMYS ORDII
THREATENED	



SPECIES DESCRIPTION

- The Ord's kangaroo rat has large hind legs and feet, and an extremely long tail.
- It measures on average 20 to 28 cm from the tip of its nose to the end of its tail (most of the length is the tail).

HABITAT

- Canadian populations are found in southeastern Alberta and southwestern Saskatchewan.
- Dependent on open, sparsely vegetated active sand dunes, the kangaroo rat needs loose, open, sandy soils to dig burrows and open ground to hop quickly across to escape from predators.

THREATS

- Ord's kangaroo rats are at the northern end of their range in our province. Hard winters can reduce the population to just a few hundred individuals.
- Populations of Ord's kangaroo rats tend to be isolated. Extremely small populations are particularly vulnerable to extirpation from natural or human disturbance.
- Active sand dunes are becoming rare, fragmented and altered as a result of natural and human-imposed landscape changes. Sand dune habitat is degraded by the encroachment of native and non-native vegetation, industrial activities such as oil and gas development, and agricultural activities.
- Military activity could alter habitat (this species is found on the Canadian Forces Base Suffield).

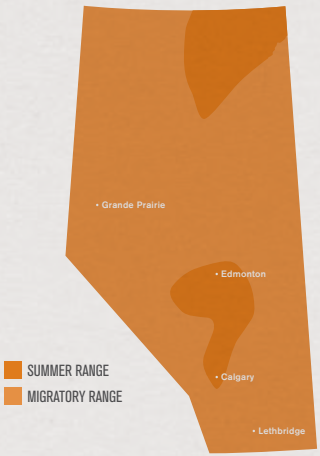
DID YOU KNOW?

- Nocturnal and secretive, this little rodent avoids predators by relying on its good sense of hearing and escaping into underground burrows. Historically, prairie wildfires and large mammals such as bison kept vegetation from over-growing in sandy areas.
- Ord's kangaroo rats limit above-ground activity to nights that are on or around the new moon. Artificial lighting may deter foraging and ultimately leave individuals without enough stored food and fat to survive the long, cold winters.
- Ord's kangaroo rats store vast amounts of food in cheek pouches to carry back to their burrows.
- When predators approach, kangaroo rats first stomp, then kick sand in the assailant's face as they flee.

HOW CAN YOU HELP?

- Turn off any bright night-time lights where Ord's kangaroo rats may be active.
- If you are a landowner, visit ***www.multisar.ca*** for more information on how you can take action to conserve this species.
- Contact wildlife management staff at the nearest ESRD office for information on how you can take action to conserve this species.
- Support conservation groups and programs that work to conserve and maintain native grassland ecosystems.

PEREGRINE FALCON	FALCO PEREGRINUS
THREATENED	



SPECIES DESCRIPTION

- Considered a large falcon, adult peregrine falcons are on average about 45 cm long. Females are larger than males.
- They are easily identified by a black moustache patch and a dark crown, hind neck and face.

HABITAT

- Peregrines arrive in Alberta in mid- to late April. They migrate south between late August to October.
- The habitat feature that is most important to peregrine falcons is the availability of suitable nest sites. They typically nest on cliffs close to riparian or marsh habitats, and on stone cliffs and cutbanks of major rivers and streams.
- In urban areas, peregrines nest on buildings and other man-made structures.

THREATS

- In the 1950s to the 1970s widespread use of organochlorine pesticides, especially DDT, led to concentrations of DDT in peregrines (the chemicals are passed up through the food chain). This resulted in thin-shelled eggs, and fewer eggs survived to hatching.
- DDT was banned in North America in 1972; however it is still used in parts of Latin America where Alberta peregrines overwinter.
- Birds eaten by peregrines in both the winter and summer may contain harmful levels of these chemicals.

DID YOU KNOW?

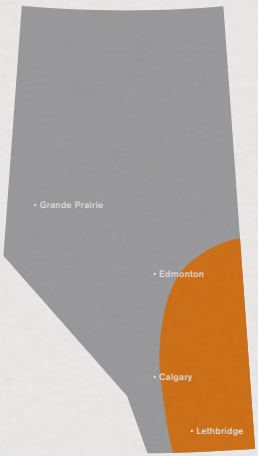
- Intensive management and a reintroduction program have helped to bring the Alberta peregrine falcon population close to its recovery goal.
- The peregrine falcon is the fastest animal in the world. In a dive, individuals can reach speeds of over 300 km/h.
- Peregrines do not build nests. They usually use a shallow dip in some rocks, scrape a depression in the soil on the ledge of a cliff, or even use the ledge of a building. Once they find a good site to raise their young, they will return to it year after year.

HOW CAN YOU HELP?

- Contact wildlife management staff at the nearest ESRD office to discuss ways you can modify activity to minimize impacts on this species and ways that you can help monitor populations or assist in the recovery of this species.
- Support conservation groups and organizations that work towards the conservation and maintenance of healthy riparian habitats.

PIPING PLOVER	CHARADRIUS MELODUS
ENDANGERED	

Photo: Gordon Court



SPECIES DESCRIPTION

- Piping plovers have a characteristic black stripe across the forehead from eye to eye, a long white stripe above each eye, and a single black band around their neck or across their chest.
- Plumage is pale brown to greyish black on the head, neck and wings, and white on the underside.
- Adult size is 18 to 19 cm long.

HABITAT

- Piping plovers are migratory and reside in Alberta from late April to early August.
- Piping plovers have a patchy distribution within the Parkland and Grassland natural regions of southeastern Alberta.
- They live and nest on sparsely vegetated sand and gravel beaches adjacent to hyper-saline or alkali water bodies.

THREATS

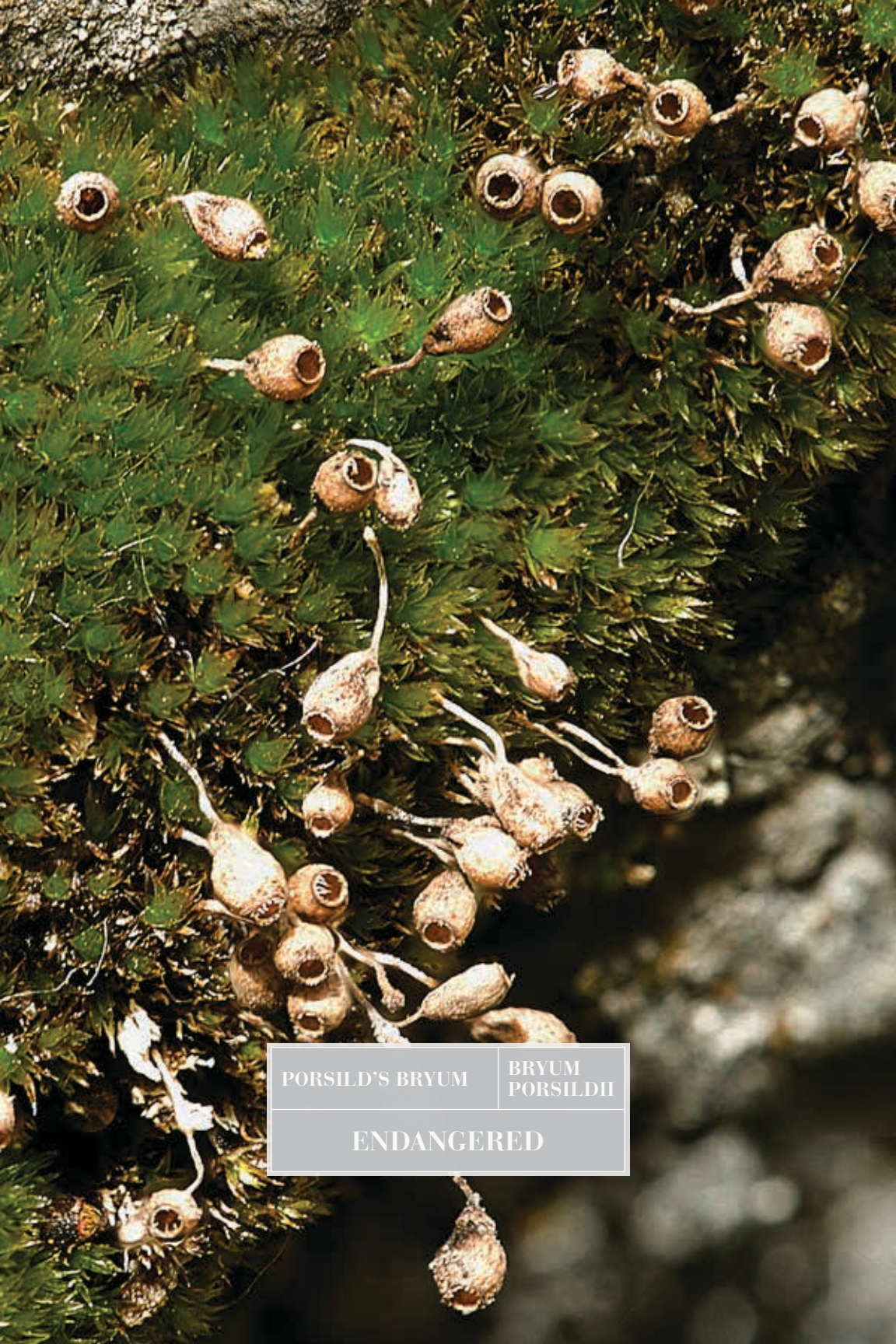
- Human activity, particularly off-highway vehicle use on the shores of breeding beaches, can destroy nests and disrupt nesting behaviours.
- Water level fluctuations are critical for maintaining piping plover habitat, as they keep encroaching vegetation from covering breeding habitat on beaches. Stabilization of water levels for recreation and other human uses can interfere with this natural cycle.
- Increased number of predators affects survival of adults, young and eggs.
- Threats to piping plovers and their habitat on their wintering grounds compound the problems in breeding areas.

DID YOU KNOW?

- Piping plover nests look like shallow bowls lined with pebbles.
- To protect themselves from danger, piping plover chicks crouch motionless in the sand so that they are almost impossible to see.
- If a predator approaches a piping plover nest, the adult will lure the predator away while flapping as though they have a broken wing.
- Predator exclosures around nests have helped bring the Alberta population close to its recovery goal.

HOW CAN YOU HELP?

- Obey all posted signs to keep off piping plover breeding beaches during the nesting period.
- Adopt grazing management practices that avoid livestock use of breeding beaches during the breeding period.
- Facilitate access for ESRD staff and partners to monitor and manage this species.
- Contact your nearest ESRD office to discuss ways you can minimize your impact and help monitor populations or assist in the recovery of this species.
- Support conservation groups and programs that work towards the conservation and maintenance of healthy riparian ecosystems.



PORSILD'S BRYUM	BRYUM PORSILDII
ENDANGERED	

SPECIES DESCRIPTION

- Porsild's bryum is a small, bright-green cushion-forming moss.

HABITAT

- Porsild's bryum is found in the Rocky Mountain Natural Region in Alberta.
- Porsild's bryum grows on shaded, vertical or undercut rock faces that are often showered by flowing water.

THREATS

- Porsild's bryum has narrow habitat requirements and can not survive if environmental conditions do not meet these requirements.
- Human activity, such as scrambling on rock faces, has the potential to destroy moss.
- Dust from roads with heavy vehicle use could degrade habitat of nearby populations.
- Changes in water chemistry and turbidity upstream of this moss (e.g., from industrial or recreational activities) can degrade habitat.

DID YOU KNOW?

- Canada's largest population of Porsild's bryum grows in Alberta. This moss is very rare, both nationally and globally.
- Some colonies are very old. In Greenland, there was a colony on record from 1898 to 1977.
- Porsild's bryum has large, thin-walled leaf cells that reflect light, giving the moss a sparkly gleam.
- In 2006, frost reduced what was Canada's largest population in Newfoundland from hundreds of colonies, to just nine colonies.

HOW CAN YOU HELP?

- Learn more about Alberta's plants, especially those at risk. Remember that plants need specific habitats, just as fish and wildlife do.
- Contact wildlife management staff at your nearest ESRD office to discuss ways that you can take action to conserve this species.
- Support conservation groups and programs that work toward the conservation and maintenance of healthy montane ecosystems.

PRAIRIE FALCON	FALCO MEXICANUS
SPECIAL CONCERN	

SPECIES DESCRIPTION

- Considered a large falcon, the prairie falcon can be up to 45 cm long. As with all falcons, females are larger than males.
- Adults have light brownish-grey plumage above and white or cream streaked with dark brown on their underside.

HABITAT

- Prairie falcons are found in the Grassland and Foothills regions of our province, where they inhabit hills, canyons and mountains of arid grasslands and shrub-steppes.
- Prairie falcons nest on cliffs.

THREATS

- Habitat loss and alteration from cultivation of native grasslands, industrial activity and human settlement.
- Richardson's ground squirrels ("gophers") are a key component of this falcon's diet. Excessive use of ground squirrel poisons could decrease prey availability for prairie falcons.

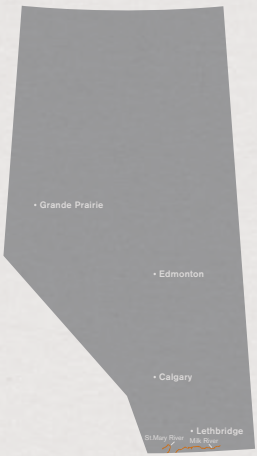
DID YOU KNOW?

- Prairie Falcons consume large numbers of Richardson's ground squirrels every year. Having prairie falcons near or on your property is very beneficial because they act as a natural form of pest control.
- Small-scale agricultural development can benefit this species when it provides habitat for their prey.

HOW CAN YOU HELP?

- If you are a landowner, visit ***www.multisar.ca*** for more information on how you can take action to conserve this species.
- Contact wildlife management staff at your nearest ESRD office for information on ways you can minimize impacts on the prairie falcon and take action to conserve this species.
- Support conservation groups and programs that conserve native grassland habitats.

ROCKY MOUNTAIN SCULPIN	COTTUS SP.
THREATENED	



SPECIES DESCRIPTION

- Rocky mountain sculpins are small, have very large pectoral fins, and a large flattened head.
- The size of this sculpin species is about 90 to 105 mm.

HABITAT

- In Alberta, this species is found in the St. Mary River system and the upper Milk and North Milk rivers.
- This bottom dweller resides in cool streams with rock, gravel or cobble substrate.

THREATS

- Habitat loss or degradation as a result of dam construction and operation.
- Changes to water flow from groundwater and surface water extraction for agriculture.
- Drought and/or flooding which could increase with climate change.
- Competition from exotic or invasive species.

DID YOU KNOW?

- This species is a well-adapted bottom-dweller. Rocky Mountain sculpins do not have an air bladder, and their flattened head helps them remain on the bottom.
- Rocky Mountain sculpins are nocturnal; they remain under cover during the day and come out at night to feed.

HOW CAN YOU HELP?

- Keep off-highway vehicles out of creeks and streams, and use bridges for stream crossings.
- Know how to identify Rocky Mountain sculpin from other fish species in Alberta. They are at risk; if you catch one, you cannot keep it.
- Contact fisheries management staff at your nearest ESRD office to discuss ways you can minimize your impact and help monitor populations or assist in the recovery of this species.
- Support conservation groups and programs that work to conserve and maintain healthy aquatic ecosystems.

SHORT-HORNED LIZARD	PHRYNOSOMA HERNANDESI
ENDANGERED	

SPECIES DESCRIPTION

- When fully grown, short-horned lizards measure 6 to 8 cm in length and weigh between 10 to 18 g. Females are larger than males.
- Its “horns” are actually a crown of short pointed scales on the back of its head.
- Their colouration acts as camouflage, and ranges from yellow to grey depending on the surroundings.

HABITAT

- The range of this species is from northern Mexico up to southern Alberta.
- In Alberta, short-horned lizards are found in scattered locations in the southeast corner of the province, on sparsely vegetated, south-facing slopes along coulees, badlands and canyons.
- They will occasionally inhabit open grassland areas.
- Short-horned lizards require fine soils into which they can burrow for overwintering.

THREATS

- Habitat loss and alteration from oil and gas exploration and development, roads, and for some populations, urban development.
- Vehicles on roads, and off-highway vehicles, may run over lizards.
- Short-horned lizards are at the northern limit of their range in Alberta; so are vulnerable to climatic and habitat changes.
- Short-horned lizards are patchily distributed; therefore, habitat destruction of a key area may cause the elimination of an entire population.

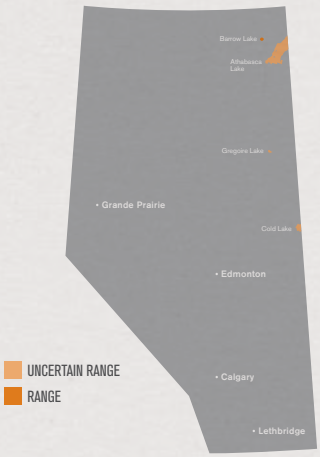
DID YOU KNOW?

- The short-horned lizard is the only lizard species that occurs naturally in Alberta.
- To survive Alberta’s harsh winters, short-horned lizards dig a shallow burrow in a south-facing slope to hibernate.
- Females do not lay eggs; their young are born live, as with most reptiles in Alberta.
- There are 15 species of horned lizard, all of which are endemic to (or found only in) North America.

HOW CAN YOU HELP?

- If you are a landowner, visit ***www.multisar.ca*** for more information on how you can take action to conserve this species.
- Contact wildlife management staff at your nearest ESRD office for information on ways you can take action to conserve this species.
- Support conservation groups and programs that work to conserve and maintain native grassland habitats.

SHORTJAW CISCO	COREGONUS ZENITHICUS
THREATENED	



SPECIES DESCRIPTION

- The shortjaw cisco is a silver, shiny trout-like fish with an olive or tan back and a white belly.
- Standard length is 27.5 cm.

HABITAT

- This species is generally found in the depths of deep, cold, large lakes; however, the Alberta population has adapted to living in shallower waters in a lake called Barrow Lake.

THREATS

- In Alberta, shortjaw cisco are naturally isolated to just one lake. This makes the population particularly vulnerable to human and natural disturbance.
- Competition and interbreeding with the closely related lake herring pose a potential threat for this fish species.

DID YOU KNOW?

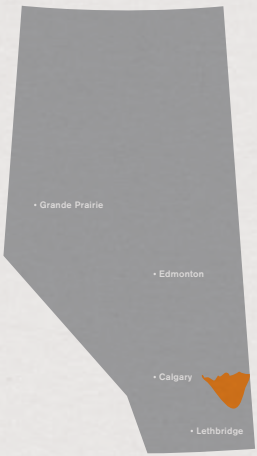
- Shortjaw cisco are filter feeders. Their diet consists of plankton and crustaceans (especially opossum shrimp).

HOW CAN YOU HELP?

- Know how to identify shortjaw cisco from other fish species in Alberta. They are at risk; if you catch one, you cannot keep it.
- Contact fisheries management staff at your nearest ESRD office to discuss ways you can minimize your impact and help monitor populations or assist in the recovery of this species.
- Support conservation groups and programs that work to conserve and maintain healthy aquatic ecosystems.

SLENDER MOUSE-EAR-CRESS	HALIMOLOBOS VIRGATA
ENDANGERED	

Photo: Cheryl Bradley



SPECIES DESCRIPTION

- The growth-form of slender mouse-ear-cress varies considerably, from tall, full and highly branched to short, single-stemmed and thin.
- Distinguishing features to look for are long, straight, simple or forked hairs (trichomes) on the upper stem mixed with shorter, freely branching hairs, and very slender, toothed leaves that are largest at their base.
- Small white flowers with four petals each can be seen in the flowering period from late May to early June.

HABITAT

- In Alberta, this species grows in silty or sandy soil within mixed-grass, native prairie grasslands.
- The slender mouse-ear-cress prefers areas with sand dunes, where vegetation is sparse.

THREATS

- Habitat loss and degradation from cultivation, incompatible grazing, off-highway vehicles, industrial activity, residential development, and military activity (this species is found on the Canadian Forces Base Suffield).
- Under normal circumstances, sand dune habitat is very dynamic (always changing), and slender-mouse-ear-cress is adapted to this. When sand dunes become stable (not dynamic), the habitat becomes less suitable for this species. This is caused by encroachment of native and non-native vegetation, and a variety of human land use activities.

DID YOU KNOW?

- Active sand dunes are becoming increasingly rare in Alberta because natural sources of disturbance have declined. Historically, prairie wildfires and large mammals such as bison kept vegetation from over-growing in sandy areas.

HOW CAN YOU HELP?

- Learn more about Alberta's plants, especially those at risk. Remember that plants need specific habitats, just as fish and wildlife do.
- If you are a landowner, visit ***www.multisar.ca*** for more information on how you can take action to conserve this species.
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can take action to conserve this species.
- Support conservation groups and programs that work to conserve and maintain native grassland ecosystems.

SMALL-FLOWERED SAND-VERBENA	TRYPTEROCALYX MICRANTHUS

ENDANGERED

Photo: Darcy Henderson, Environment Canada.

SPECIES DESCRIPTION

- Growing close to the ground, the small-flowered sand-verbena has trailing stems up to 60 cm long.
- The leaves are elliptically shaped and the flowers are a greenish-white colour.
- Flowering occurs in mid-June in Alberta.

HABITAT

- In Alberta, the small-flowered sand-verbena is found primarily in sand dune or sand hill habitats of the Mixedgrass Natural Subregion.
- This species requires disturbed or fluctuating substrates such as sand dunes, or soils otherwise altered by grazing ungulates, fire, wind and water erosion or appropriately managed human disturbance.

THREATS

- Habitat loss and degradation from cultivation, incompatible grazing, off-highway vehicles, industrial activity, residential development, and military activity (this species is found on the Canadian Forces Base Suffield).
- Under normal circumstances, sand dune habitat is very dynamic (always changing), and small-flowered sand-verbena is adapted to this. When sand dunes become stable (not dynamic), the habitat becomes less suitable for this species. This is caused by encroachment of native and non-native vegetation, and a variety of human land use activities.

DID YOU KNOW?

- Small-flowered sand-verbena is a member of the four o'clock family—so named because the flowers in this family tend to open in the late afternoon.
- Seeds of the small-flowered sand-verbena can lie dormant for several years until favourable moisture conditions are available.

HOW CAN YOU HELP?

- Learn more about Alberta's plants, especially those at risk. Remember that plants need specific habitats, just as fish and wildlife do.
- If you are a landowner, visit ***www.multisar.ca*** for more information on how you can take action to conserve this species.
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can take action to conserve this species.
- Support conservation groups and programs that work to conserve and maintain native grassland ecosystems.

SOAPWEED	YUCCA GLAUCA
ENDANGERED	

SPECIES DESCRIPTION

- Soapweed resembles the top of a pineapple. The leaves are long and thin, and radiate from the base of stem. They are sharp and hard at the tips and can be frayed with whitish margins.
- In Alberta, soapweed flowers from May to July. Flowers are bell-shaped, cream to greenish-white in colour, and grow on stalks in clusters of 25 to 30.
- Soapweed grows to the height of 1 m from the base.

HABITAT

- Soapweed is typically found on dry, eroded and exposed slopes with sparse vegetation. It prefers well-drained, sandy or gravelly soil.
- Soapweed is at the northernmost limit of its range in Alberta and is found in only two locations in the southern part of our province.

THREATS

- The success of soapweed is highly dependent upon the success of the yucca moth population, because yucca moths are the sole pollinator for soapweed.
- Yucca moth numbers in Alberta are low and variable from year to year. Along with the soapweed, the yucca moth has been recommended for listing as *Endangered* under the *Wildlife Act*.
- Habitat fragmentation as a result of agricultural activity;
- Loss of soapweed plants to high winds and grazing by cattle and wild ungulates;
- Harvesting of plants for horticultural and medicinal uses.

DID YOU KNOW?

- Soapweed and the yucca moth have an obligate mutualistic relationship with each other. This means that neither can survive and reproduce without the other. Yucca moth larvae depend upon the seeds of the soapweed for food, and soapweed is dependent upon the yucca moth for pollination.
- Soapweed flowers open during the evening and are almost always closed on bright, sunny days.

HOW CAN YOU HELP?

- If you are a landowner, visit ***www.multisar.ca*** for more information on how you can take action to conserve this species.
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can take action to conserve this species.
- Support conservation groups and programs that work to conserve and maintain healthy native grassland ecosystems.

SPRAGUE'S PIPIT	ANTHUS SPRAGUEII
SPECIAL CONCERN	

Photo: Gordon Court

SPECIES DESCRIPTION

- The Sprague's pipit has greyish-brown upper parts with buff streaks, and lighter under parts with faint streaks on the breast. Its outer tail feathers are white.
- Adult size ranges from 16 to 17 cm in length.

HABITAT

- In Alberta, this bird is found almost exclusively on moderately to non-grazed native prairie grasslands.

THREATS

- Loss of habitat through conversion and fragmentation of native prairie habitat for agriculture, oil and gas activities, and human recreation.
- Sprague's pipit nests are built on the ground, making them more vulnerable to predators.
- Climate change can induce severe weather events such as drought and flooding. These events could be very detrimental for this species.

DID YOU KNOW?

- Sprague's pipits do not do well in cultivated landscapes.
- This bird feeds and nests exclusively on the ground.
- The call of this bird is a loud 'squeet'.

HOW CAN YOU HELP?

- If you are a landowner, visit ***www.multisar.ca*** for more information on how you can take action to conserve this species.
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can help monitor populations or assist in the recovery of this species.
- Support conservation groups and programs that work to conserve and maintain native grassland habitats.

STONECAT	NOTURUS FLAVUS
THREATENED	

SPECIES DESCRIPTION

- Considered a small catfish, stonecats rarely exceeds 20 cm in length.
- The back and sides of the stonecat range from purplish-grey to yellowish-brown; the belly tends to be light cream in colour.
- Around the mouth are sensory barbels, used for finding food.

HABITAT

- In Alberta, the stonecat is found in only one river system—the Milk River.
- Stonecats are nocturnal, bottom-dwelling fish that require cobble or boulders to hide in and under during the day. Most commonly, they live in deep boulder pools or over rocky bottoms.

THREATS

- Drought and/or flooding; conditions that may increase as a result of climate change.
- Habitat loss or degradation as a result of dam construction, and operation;
- Changes to water flow from groundwater and surface water extraction for agriculture.

DID YOU KNOW?

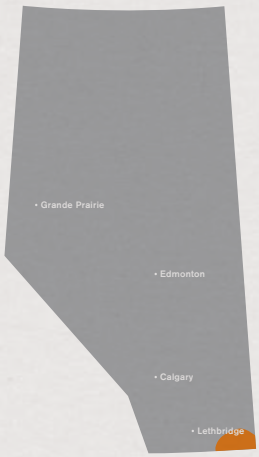
- For defense, stonecats have a venom gland connected to the pectoral spine that can inflict a wasp-like sting.
- The Milk River is unique in Alberta in that it is the only river system connected to the Missouri River, and therefore contains some fish species, including the stonecat, with a very limited range in Alberta.
- The stonecat is Alberta's only native member of the catfish family.

HOW CAN YOU HELP?

- Keep off-highway vehicles out of creeks and streams, and use bridges for stream crossings.
- Know how to identify stonecats from other fish species in Alberta. They are at risk; if you catch one, you cannot keep it.
- Contact fisheries management staff at your nearest ESRD office to discuss ways you can help monitor populations or assist in the recovery of this species.
- Support conservation groups and programs that work to conserve and maintain healthy aquatic ecosystems.

SWIFT FOX	VULPES VELOX
ENDANGERED	

Photo: Gordon Court



SPECIES DESCRIPTION

- Swift fox are the smallest of the North American wild dogs, about the size of a large house cat. When fully grown, they weigh between 2 to 3 kg.

HABITAT

- Swift fox live in the short, mixed grasslands in southern Alberta, where they are able to see a long way and move without restriction.
- Underground burrows or dens are used throughout the year for protection.

THREATS

- Swift fox do not do well in cultivated landscapes. Conversion of native grasslands to cropland alters key habitat components and creates habitat fragmentation.
- Weather patterns such as severe winters and drought can negatively affect prey species of swift fox.
- Accidental trapping and poisoning pose a risk to Alberta's swift fox population.

DID YOU KNOW?

- Until recently, swift fox were extirpated from Canada. A small, reintroduced population now resides in Alberta and Saskatchewan.
- Swift fox escape from predators by using their speed, and can reach speeds of over 50 km/h.
- Swift fox spend more time underground than any other member of the dog family. Pairs usually have a number of burrows within their home range and may use up to 13 different dens throughout the year.

HOW CAN YOU HELP?

- Support conservation groups and programs that work to conserve and maintain native grassland habitats.
- If you are a landowner, visit ***www.multisar.ca*** for more information on how you can take action to conserve this species.
- Contact wildlife management staff within ESRD for information on ways you can take action to conserve this species.

TINY CRYPTANTHA	CRYPTANTHA MINIMA
ENDANGERED	

SPECIES DESCRIPTION

- The tiny cryptantha has a branched stem, and bristly-haired stems and leaves that are a distinguishing feature of this rare plant.
- It has white, tube-like flowers and grows up to 20 cm tall.

HABITAT

- In Alberta, the tiny cryptantha occurs in mixed, dry grasslands associated with river valleys.
- It prefers areas with sand dunes.

THREATS

- Habitat loss and degradation from cultivation, incompatible grazing, off-highway vehicles, industrial activity, residential development, and military activity (this species is found on the Canadian Forces Base Suffield).
- Under normal circumstances, sand dune habitat is very dynamic (always changing), and tiny cryptantha is adapted to this. When sand dunes become stable (not dynamic), the habitat becomes less suitable for this species. This is caused by encroachment of native and non-native vegetation, and a variety of human land use activities.

DID YOU KNOW?

- Active sand dunes are becoming increasingly rare in Alberta because natural sources of disturbance have declined. Historically, prairie wildfires and large mammals such as bison kept vegetation from over-growing in sandy areas.

HOW CAN YOU HELP?

- Learn more about Alberta's plants, especially those at risk. Remember that plants need specific habitats, just as fish and wildlife do.
- If you are a landowner, visit ***www.multisar.ca*** for more information on how you can take action to conserve this species.
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can take action to conserve this species.
- Support conservation groups and programs that work to conserve and maintain native grassland ecosystems.

TRUMPETER SWAN	CYGNUS BUCCINATOR
SPECIAL CONCERN	

SPECIES DESCRIPTION

- The largest of all North-American waterfowl, trumpeter swans range in length from 150 to 183 cm from bill to tail. The wingspan is about 2.5 m.
- The trumpeter swan's plumage is white, and its bill and feet are black.
- Its neck is unusually long, and held with a kink at the base when standing or swimming. Its head and neck often have a rusty-orange stain as a result of feeding in iron-rich lake water.

HABITAT

- Trumpeter swans are migratory. They arrive in Alberta in mid-April and return to their wintering habitat in mid-October.
- Trumpeter swans require quiet, unpolluted wetlands with enough emergent vegetation to allow them to safely raise their young.

THREATS

- Habitat loss as a result of wetland drainage, water diversion, agricultural and industrial activities, and permanent loss of emergent vegetation along shorelines.
- Disturbance at breeding sites from human activities such as loud vehicle traffic, boating and off-highway vehicle use, urban expansion and industrial development.
- Collisions with power lines and electrocution.

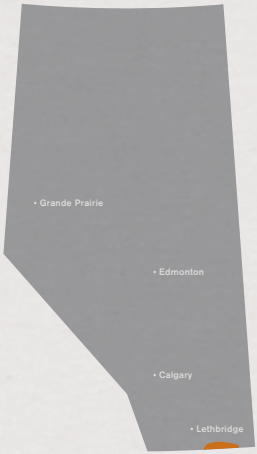
DID YOU KNOW?

- Historically, the trumpeter swan bred throughout Alberta, but was near extinction by the early 1900s because of over-hunting and habitat degradation. The trumpeter swan population has gradually increased in Alberta, since hunting was banned and habitat has been protected.
- The trumpeter swan is the rarest swan in the world.
- Trumpeter swans are very sensitive to loud noises, including low-level aircrafts.

HOW CAN YOU HELP?

- Do not disturb swan nesting areas and limit your recreational activity on and around breeding ponds.
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can take action to conserve this species.
- Support conservation groups that work to conserve and maintain wetland ecosystems.

WEIDEMEYER'S ADMIRAL	LIMENITIS WEIDEMEYERII
SPECIAL CONCERN	



SPECIES DESCRIPTION

- The Weidemeyer's admiral's wings are black with a wide white band running across them. The undersides are whitish, with bands of reddish spots and bluish crescents near the margins of the wings.
- One of Alberta's larger butterfly species, the Weidemeyer's admiral has a wingspan in the range of 55 to 72 mm.

HABITAT

- Adult butterflies have been observed in Alberta between early June and late July.
- Weidemeyer's admirals rely on woody habitats along the banks of rivers and streams.
- In Alberta, this butterfly commonly frequents trees and shrubs including: cottonwood species, Saskatoon, white virgin's bower and thorny buffalo berry.

THREATS

- Habitat alteration and loss from agriculture, increased grazing intensity, and development projects.
- Habitat for this species is naturally limited in Alberta and occurs as small patches within the Milk River Basin making them vulnerable to habitat changes.
- Climate change has the ability to produce severe weather events such as flooding and drought. Events such as these could be detrimental to an already limited area of suitable habitat for this butterfly.

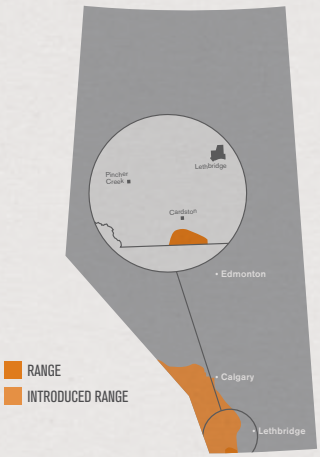
DID YOU KNOW?

- If you have ever watched two butterflies fluttering around each other, you may have been watching an aerial contest. This is one of the ways male butterflies protect their territory.
- Butterflies are very important pollinators, including for human food crops.

HOW CAN YOU HELP?

- If you are a landowner, visit ***www.multisar.ca*** for more information on how you can take action to conserve this species.
- Support conservation groups and programs that work to conserve native grassland habitats.
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can take action to conserve this species.

WESTERN BLUE FLAG	IRIS MISSOURIENSIS
SPECIAL CONCERN	



SPECIES DESCRIPTION

- Western blue flag is a member of the iris family.
- The plant is approximately 30 to 60 cm tall, with pale blue-green leaves that are 10 to 40 cm long and 5 to 10 mm wide.

HABITAT

- Found in the Foothills Fescue and Foothills Parkland natural regions.
- Western blue flag grows best on narrow banks between permanent wetlands and dry uplands. These conditions provide damp soil that is well-drained in the spring, but dry later in the summer.
- Commonly occurring from southern Alberta down to Mexico, western blue flag it is at the northern edge of its range in southwestern Alberta. It is considered common through much of its U.S. range.

THREATS

- Very specific habitat requirements mean that this plant is vulnerable to habitat changes from human or natural disturbances.
- Habitat loss from human activities includes cultivation of native grasslands, draining adjacent wetlands, and possibly excessive grazing.
- Natural disturbances include drought and/or flooding.
- Competition from invasive plant species may pose a threat.
- Herbicides used for range management have the potential to harm western blue flag.

DID YOU KNOW?

- Darker colour patterns on western blue flag petals are “traffic signs” from nature. They advertise that nectar is within and pollinators are welcome.
- Alberta contains the only known populations of this species in Canada.
- All known native sites in Alberta occur within 10km of the USA border.
- Research is being conducted on western blue flag to investigate its possible antiviral and anticancer properties.

HOW CAN YOU HELP?

- Contact wildlife management staff at your nearest ESRD office to discuss ways you can take action to conserve this species.
- Support conservation groups and programs that work to conserve and maintain healthy wetland ecosystems.

WESTERN GREBE	AECHMOPHORUS OCCIDENTALIS
THREATENED	

SPECIES DESCRIPTION

- The western grebe is distinguished by its long, curved neck, contrasting black and white colouration, red eyes and a thin, sharp bill.
- Adults can reach up to 64 cm in length; they are North America's largest grebe species.

HABITAT

- Western grebes arrive in Alberta in late April and early May and migrate back to their wintering grounds in late August through to mid-October.
- Western grebes need the following habitat elements: emergent vegetation for nesting and protection of nests from wind and flooding; sufficient water depth at nest sites for diving; access to open, weed-free water with adequate fish populations for food; and freedom from human disturbance.
- This species breeds on large, inland lakes and wetlands, and migrates to the Pacific Coast to over-winter.

THREATS

- The colonial nesting behaviour of this species can expose it to single, localized events that could be detrimental to entire populations, such as a severe weather event that floods all nests in a colony.
- Draining of wetlands and small water bodies for residential, industrial or agricultural expansion.
- Removal and degradation of shoreline vegetation from cattle grazing, recreational activities, and residential development.
- Human activities (e.g., boating near colonies) can create enough disturbance to cause breeding pairs to abandon a nest site.
- Water level changes can affect the amount of emergent vegetation necessary for nesting, and can reduce the amount of fish available for food.

DID YOU KNOW?

- Western grebes build floating nests anchored to emergent or floating vegetation such as cattails, rushes or willows. These nests are usually built close to one another in colonies numbering from a few into the thousands.
- Western grebes are known for their unique and elaborate courtship displays. They perform two ritual "dances", the first is a "rushing ceremony" and the second is known as the "weed dance".

HOW CAN YOU HELP?

- Limit your recreation activities around nesting colonies. When boating, stay at least 100 m away from colonies and turn off motors.
- Do not clear shoreline vegetation.
- Support conservation groups and programs that conserve wetland and riparian habitats.
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can take action to conserve this species.

WESTERN SILVERY MINNOW	HYBOGNATHUS ARGYRITIS
THREATENED	

SPECIES DESCRIPTION

- The western silvery minnow is a small fish with silver sides, a blue tinge on its dorsal surface, a white belly and a faint, broad, mid-dorsal stripe.
- Adults can grow to 140 mm in length.

HABITAT

- Found only in the Milk River of southern Alberta.
- Western silvery minnow prefer lower velocity waters such as backwaters and areas behind sand bars, and in rivers having sandy, muddy or debris-covered bottoms.

THREATS

- Habitat loss and degradation from increased flood frequency, river flow changes, increased siltation, introduced pollutants and drought are possible threats to this species.
- Western silvery minnows are found in a very limited range and, as a result, any change to their existing habitat could have a significant impact on overall population numbers.

DID YOU KNOW?

- Alberta is the only place in Canada where the western silvery minnow is found. The Milk River is connected to the Missouri River and contains some fish species found nowhere else in Alberta.

HOW CAN YOU HELP?

- Know how to identify western silvery minnow from other fish species in Alberta. They are at risk; if you catch one, you cannot keep it.
- Keep off-highway vehicles out of creeks and streams, and use bridges for stream crossings.
- Contact fisheries management staff at your nearest ESRD office to discuss ways you can minimize your impact and help monitor populations or assist in the recovery of this species.
- Support conservation groups and programs that work to conserve and maintain healthy aquatic ecosystems.

WESTERN SMALL-FOOTED BAT	MYOTIS CILIOLABRUM
SPECIAL CONCERN	

Photo: © Merlin D. Tuttle, Bat Conservation International, www.batcon.org

SPECIES DESCRIPTION

- A small bat, the length of the western small-footed bat is about 8.3 cm, with a wingspan of 22 cm. The average weight is 4.6 g.
- Its upper fur is dark to light buff in colour, and underparts are pale cream to white.

HABITAT

- Western small-footed bats live in arid and semi-arid areas of Alberta where they roost along rivers in badlands and clay cutbanks with appropriate sized crevices.
- In our province, the highest concentration of western small-footed bats is found along the Red Deer, South Saskatchewan and Milk rivers.
- Habitat requirements for this bat are very specific. They need shallow crevices that are heated by the sun for maternity roosts, and deeper, frost-free crevices for hibernation.
- Cottonwood trees appear to be used for foraging; therefore, healthy riparian cottonwood stands are also a requirement for this species.

THREATS

- Very specific habitat requirements naturally limit the distribution of this species and, as such, protection of habitat is essential for western small-footed bat survival.
- Clearing of cottonwood stands.
- Dam construction and operation can destroy roosting habitat and cottonwood stands.
- A fungal disease known as white-nose syndrome, has killed over 5 million bats in eastern North America since 2006. It is slowly moving west, and although it is unknown whether western small-footed bats are susceptible to the disease, it is important to monitor and protect bat populations and their habitats.

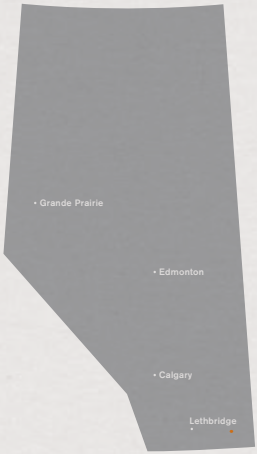
DID YOU KNOW?

- Female western small-footed bats usually have only one offspring per year.
- Bats provide natural pest control—they can eat over 600 mosquitoes per hour.
- Bats are the only mammals capable of true flight.

HOW CAN YOU HELP?

- Do not disturb bats during hibernation.
- If you are a landowner, maintain riparian cottonwood stands. Visit ***www.multisar.ca*** for more information on how you can take action to conserve this species.
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can take action to conserve this species.
- Support conservation groups and programs that work to conserve and maintain healthy riparian habitats.

WESTERN SPIDERWORT	TRADESCANTIA OCCIDENTALIS
ENDANGERED	



SPECIES DESCRIPTION

- Western spiderwort flowers every July. The flowers are rose to dark blue, with petals arranged in groups of three.
- The plant is 10 to 50 cm in height, and leaves can be up to 30 cm long.

HABITAT

- In Alberta, this plant occurs in only one small area of the southeastern part of the province—the Pakowki Lake sand hills.
- Western spiderwort prefers areas with sand dunes and sparse vegetation.

THREATS

- Under normal circumstances, sand dunes are extremely fluid (always changing), and western spiderwort is adapted to this. When sand dunes become stable, habitat is less suitable for this species.
- Recreational activities such as off-highway vehicle use can damage habitat.

DID YOU KNOW?

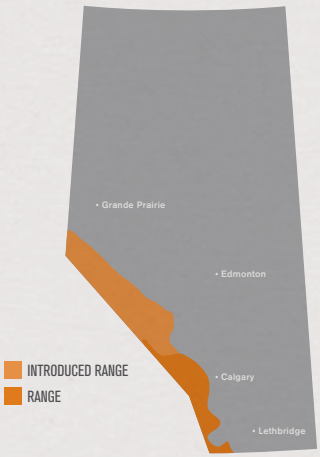
- The unusual name of this plant comes from a soft, stringy material that can be pulled from the broken ends of the stem. Once exposed to air, this material hardens into 'threads' that look very similar to cobwebs.
- Active sand dunes are becoming increasingly rare in Alberta because natural sources of disturbance have declined. Historically, prairie wildfires and large mammals such as bison kept vegetation from over-growing in sandy areas.
- Flowers last for only one day.

HOW CAN YOU HELP?

- Learn more about Alberta's plants, especially those at risk. Remember that plants need specific habitats, just as fish and wildlife do.
- If you are a landowner, visit ***www.multisar.ca*** for more information on how you can take action to conserve this species.
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can take action to conserve this species.
- Support conservation groups and programs that work to conserve and maintain native grassland ecosystems.

WESTSLOPE CUTTHROAT TROUT	ONCORHYNCHUS CLARKII LEWISI
THREATENED	

Photo: Pat Clayton



SPECIES DESCRIPTION

- The body colour of the westslope cutthroat trout ranges from silver to yellowish-green with prominent large dark body spots along the fish's upper sides. The lower sides and belly are reddish to bright red.
- The species gets its name from the bright orange/red streak that is found under either side of the jaw.
- Typically between 25 to 30 cm in length, but can grow much larger.

HABITAT

- Westslope cutthroat trout require cold, clean water and varied forms of vegetation or boulders for shade and cover.
- Stream temperature is important. This species is sensitive to changes in water temperature and is not usually found in waters where temperatures repeatedly exceed 22 °C.
- In Alberta, this species is considered native to the Bow and South Saskatchewan river drainages and has been introduced into portions of the Peace, Athabasca, North Saskatchewan and Red Deer river drainages.

THREATS

- The introduction of non-native fish species has negative effects through increased competition and/or interbreeding.
- Habitat fragmentation, as a result of road construction, culvert barriers, natural resource extraction and recreational activities.
- Climate change is a potential threat because westslope cutthroat trout prefer cooler water temperatures than do other trout species.

DID YOU KNOW?

- Females lay their eggs in a nest called a redd. They build this nest by scooping out gravel with their tails, depositing their eggs (which are immediately fertilized by the male) in the pit and re-filling it with gravel from immediately upstream of the redd.

HOW CAN YOU HELP?

- Know how to identify westslope cutthroat trout from other fish species in Alberta. They are at risk; if you catch one, you cannot keep it.
- Keep off-highway vehicles out of creeks and streams, and use bridges for stream crossings.
- Contact fisheries management staff at your nearest ESRD office to discuss ways you can minimize your impact and help monitor populations or assist in the recovery of this species.
- Support conservation groups and programs that work to conserve and maintain healthy aquatic ecosystems.

WHITEBARK PINE	PINUS ALBICAULIS
ENDANGERED	

SPECIES DESCRIPTION

- The shape and size of whitebark pine varies greatly depending on the conditions of the site.
- In some locations they take the form of a small tree with a rapidly spreading trunk and broad crown. In harsher, more exposed locations they can be shrub-like with a wide spreading crown and twisted, gnarled branches.

HABITAT

- Whitebark pine is found on rocky outcrops in mixed sub-alpine forests. This high-elevation tree grows and thrives in some of Alberta's harshest environments.

THREATS

- Whitebark pine is very susceptible to white pine blister rust, an introduced fungus that can kill the tree.
- The increased presence of mountain pine beetle in Alberta is a threat to whitebark pine.
- Warming temperatures threaten the cool, high elevation habitats required by limber pine.

DID YOU KNOW?

- As a keystone species, whitebark pine helps high-elevation plant communities by stabilizing soil on rocky outcrops and providing shelter for others species. This is why they are sometimes called "nurse trees."
- The species also plays an important role in watershed protection by moderating snow-melt runoff.
- Whitebark pine seeds are an important food source for a wide variety of animals such as red squirrels, bears and Clark's nutcrackers.
- Whitebark pine relies on Clark's nutcrackers for seed dispersal.

HOW CAN YOU HELP?

- Learn to identify five-needle pines and avoid cutting them for firewood or Christmas trees.
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can take action to conserve this species.
- Support conservation groups and programs that work to conserve and maintain montane, subalpine and alpine habitats.

WHITE-WINGED SCOTER	MELANITTA FUSCA DEGLANDI
SPECIAL CONCERN	

SPECIES DESCRIPTION

- White-winged scoter males have black plumage with a small white, teardrop-shaped patch around the eye. Their bill is orange with a black hump at the base.
- Females have dark brown plumage and a pale belly. Variable amounts of white on their head can appear as spots. Their bills are black.

HABITAT

- White-winged scoters are migratory. They arrive in Alberta in mid-May and migrate back to the coast in mid- to late September.
- In Alberta, white-winged scoters nest on large, permanent wetlands and lakes from the southern prairies up to the boreal forest.
- Dense vegetation is required for nesting cover and protection.

THREATS

- Habitat loss and alteration as a result of drainage of wetlands and clearing of vegetation for agriculture, industry or recreation.
- Human activity, such as boating, near nesting sites can disturb breeding pairs and decrease nesting success. Pairs may abandon the nesting site permanently.

DID YOU KNOW?

- White-winged scoters are considered "sea ducks". They come to Alberta to breed, but return to coastal areas for the rest of the year.
- Females will return each year to nest near the area they were hatched. This can create problems if the habitat has been altered or lost.
- Female white-winged scoters usually lay 8-10 eggs, and often abandon the nest after hatching. Remaining females end up looking after large numbers of ducklings.

HOW CAN YOU HELP?

- In known white-winged scoter habitat, be mindful of the needs of this species and avoid disturbing nesting sites along the shorelines of wetlands.
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can take action to conserve this species.
- Support conservation groups and programs that work to conserve and maintain healthy wetland ecosystems.

WOODLAND CARIBOU	RANGIFER TARANDUS
THREATENED	

Photo: Chris Kolaczan

SPECIES DESCRIPTION

- The woodland caribou is a medium-sized member of the deer family.
- The body is brown with a cream-coloured neck, mane, tail and rump area.
- Both males and females grow antlers.

HABITAT

- Woodland caribou require habitat that supports their primary winter food—lichen. Lichen is slow growing and is most abundant in older conifer forests and peatlands.
- Caribou require large areas of undisturbed habitat.
- Woodland caribou in Alberta are classified into two ecotypes - mountain and boreal. Most mountain caribou are migratory, spending the summer in the mountains and the winter in the upper foothills. Boreal caribou are not migratory, but do move across large areas between seasons.

THREATS

- Human land use activities, including roads, seismic lines, clear cuts and oil and gas development, result in the loss, fragmentation and degradation of caribou habitat.
- Increased predation from wolves. Altered habitats (younger forests) attract other prey species such as deer and moose, which in turn attract more wolves. Also, wolves can travel more easily in a landscape with many roads and other linear disturbances.
- Human disturbance and vehicle collisions.

DID YOU KNOW?

- Lichen that caribou require for food grow in forests that are 80 to 150 years old.
- Large, crescent-shaped hooves and long legs help woodland caribou travel over muskeg and through snow.
- As an adaptation to avoid predation, caribou live in small herds and will avoid habitats used by other ungulates. This is because predators are drawn to areas where prey is abundant.
- Adapted to withstand harsh winter temperatures, this species has a well-insulated coat and small extremities (ears, tail).

HOW CAN YOU HELP?

- Limit off-highway vehicle use in caribou habitat, especially during calving season.
- Contact wildlife management staff at your nearest ESRD office to discuss ways you can take action to conserve this species.
- Support conservation groups and programs that work to conserve and maintain boreal forest ecosystems.













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