

THE GENERAL STATUS OF

ALBERTA WILD SPECIES

2000



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For copies of this report, contact:

Information Centre – Publications  
Alberta Environment/Alberta Sustainable Resource Development  
Main Floor, Great West Life Building  
9920 - 108 Street  
Edmonton, Alberta, Canada T5K 2M4

Telephone: (780) 422-2079

OR

Information Service  
Alberta Environment/Alberta Sustainable Resource Development  
#100, 3115 - 12 Street NE  
Calgary, Alberta, Canada T2E 7J2

Telephone: (403) 297-3362

OR

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# preface

Alberta has long enjoyed the legacy of abundant wild species. These same species are important environmental indicators. Their populations reflect the health and diversity of the environment.

Alberta Sustainable Resource Development has designated as one of its core business goals the promotion of fish and wildlife conservation. The status of wild species is one of the performance measures against which the department determines the effectiveness of its policies and service delivery.

Central to achieving this goal is the accurate determination of the general status of wild species in the province. Knowing the status of wild species helps wildlife managers develop and implement sound management and habitat conservation programs. A report on the status of wild species in Alberta is published by the provincial government every five years. This document assists the provincial government in determining the need for, and direction of, further action.

*The General Status of Alberta Wild Species 2000* presents a system for evaluating the general status of all wild species in Alberta—one that is identical to that used by other provinces and territories throughout Canada. It is the first step in a continuing process of evaluating and reporting on the biological status of Alberta's wild species. Those species that "May Be At Risk" receive a detailed status assessment.

The preparation and distribution of this report is designed to achieve four objectives:

1. To provide information on, and raise awareness of, the current status of wild species in Alberta;
2. To stimulate broad public input in more clearly defining the status of individual species;
3. To produce a list of candidate species for more detailed status evaluations; and
4. To provide a reference for provincial government agencies in the development of wild species conservation and management programs.

The 2000 edition of the *General Status of Alberta Wild Species* represents a substantial improvement in the knowledge base of wild species in Alberta. Preliminary status assessments were prepared for 4 735 species of birds, mammals, herpetiles (amphibians and reptiles), freshwater fish, molluscs (gastropods and bivalves), odonates (dragonflies and damselflies), lepidopterans (butterflies and skippers), vascular plants, nonvascular plants and fungi in Alberta. Of these groups, Alberta, along with all other provinces and territories, agreed to report on eight to Environment Canada so that a

national evaluation could be undertaken (see *Background of the Present General Status Evaluation Exercise*). These groups included the birds, mammals, reptiles, amphibians, freshwater fish, butterflies, orchids and ferns. The status of species in these categories is provided here.

Alberta Sustainable Resource Development will continue to evaluate the status of wild species on an ongoing basis. In the future, the general status of other species groups will be included. The status evaluation process may be refined

and improved, but it will continue to be compatible with that used by other provinces and territories. If all jurisdictions continue to use the same method of evaluation, then it will be possible to compare status ranks across the country and gain a national perspective of how well a species is doing.

Thank you for your interest in Alberta's wild species.



SAGE GROUSE | gordon court



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# acknowledgements

The general status exercise has been refined since the 1996 document, *The Status of Alberta Wildlife*, and is now the same as that done by other provinces and territories in Canada. In the 2000 assessment, preliminary status evaluations were carried out on 4 735 species of 12 species groups using the new methodology; those groups included birds, mammals, herpetiles (amphibians and reptiles), freshwater fish, molluscs (gastropods and bivalves), odonates (dragonflies and damselflies), lepidopterans (butterflies and skippers), vascular plants, nonvascular plants and fungi. Of these groups, eight are discussed in this report, including orchids and ferns, the first vascular plants to be reported on in the general status exercise.

Draft status scores for the birds, mammals, reptiles, amphibians, freshwater fish and

butterflies were compiled by the staff of the Fish and Wildlife Service, Alberta Sustainable Resource Development, in Edmonton; those of the ferns and orchids were compiled by the Parks and Protected Areas Division, Alberta Community Development, also in Edmonton.

For the purposes of this assessment, draft documents were sent to professional biologists from government and industry, along with wild species experts from the natural history community. The comments and suggestions made by these individuals were compiled and discussed. The final scores and rankings, however, remain the sole responsibility of the Fish and Wildlife Service, Alberta Sustainable Resource Development. The Service is grateful to the following individuals who participated in the process:

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Dick Mann  
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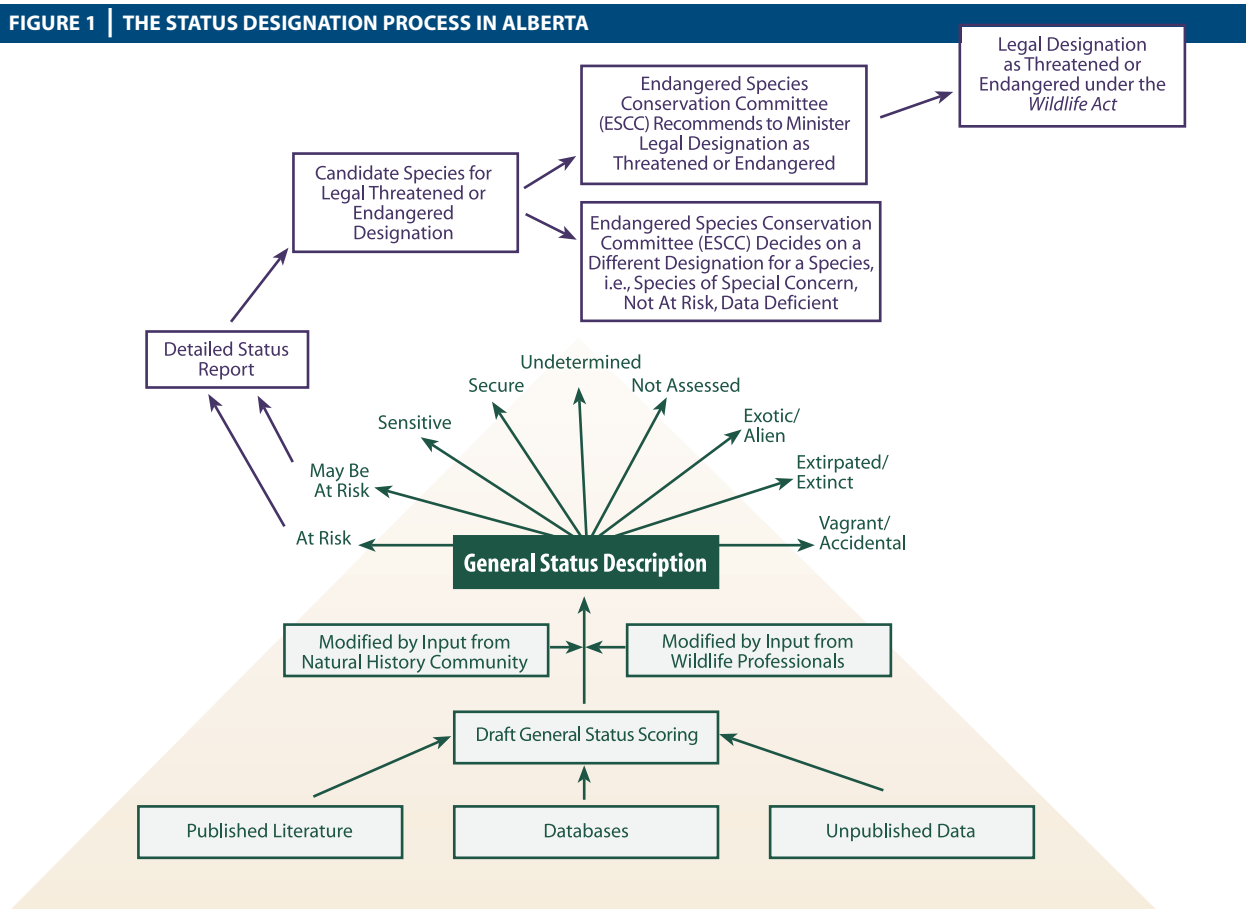


## Why Rank the General Status of All Wild Species?

This document is part of the process that evaluates the well-being, or soundness, of wild species populations in Alberta. A clear understanding of status for individual species is a key element in species conservation. It permits sound planning and decision-making for conservation and protection programs, and it provides a critical step in setting wild species management priorities. Moreover, this initial general status determination acts as an important first step in determining which species “May Be At Risk” and therefore need detailed status evaluations (see *Figure 1*).

The detailed status evaluations are used by the Alberta Endangered Species Conservation Committee (ESCC) to assess whether there is reason to recommend to the Minister of Alberta Sustainable Resource Development that a species be given legislative status as “Endangered” or “Threatened” under Alberta’s *Wildlife Act* (see *Figure 1*).

**FIGURE 1 | THE STATUS DESIGNATION PROCESS IN ALBERTA**





# past status

## Evaluation Exercises

Throughout the history of wildlife management in Alberta, information on population status and trends has been used to manage game species. More recently, the identification and restoration of species at risk has been based largely on understanding and attempting to improve population status. As interest in wildlife has grown and broadened, and our understanding of the value and need to maintain undisrupted and diverse ecosystems has increased, the need to understand the biological status of *all* wild species has become essential. Determining status is the first step in the process of effective management. It provides the base from which management and other conservation initiatives can be planned and assessed.

The Wildlife Management Division, Alberta government, began a status evaluation process in 1985 with *A Policy for the Management of Threatened Wildlife in Alberta*. This document provided a summary of the status of selected high priority species and initiated the use of an objective evaluation system with which to summarize and compare status information. However, only a portion of Alberta's wild species was reviewed.

In 1991, the Wildlife Management Division, Alberta government, produced *The Status of Alberta Wildlife* report that evaluated the biological status of all non-fish vertebrate wildlife species that occur in Alberta. This document implemented a system that was used to evaluate the current and projected status of populations and their habitats, sort species into lists based on similar status, and provide a brief summary of current status and background information for species at risk and for those species that may require special management. A similar process was used five years later in the 1996 *The Status of Alberta Wildlife* report.



# background

## of the Present General Status Evaluation Exercise

The *Accord for the Protection of Species at Risk in Canada* was signed in 1996 by most provincial, territorial and federal government Ministers responsible for wildlife (including Alberta's). The Accord commits signatories to preventing species in Canada from becoming extinct as a consequence of human activity. It requires that all provincial and territorial signatories have a general status evaluation system that is similar and comparable. Alberta Sustainable Resource Development has been a lead agency in developing the procedure that is now a national standard.

The new general status evaluation process that was used in Alberta provides an initial

assessment of wild species as to whether they are "At Risk" of extinction, "May Be At Risk" of extinction, are "Sensitive" to human activities or natural events, or are considered "Secure." The process also has other categories under which species can be classified, as follows: "Undetermined," "Not Assessed," "Exotic/Alien," "Extirpated/Extinct" and "Accidental/Vagrant" (see *Table 1*).

Refining the status rankings for each species is an ongoing task for the Fish and Wildlife Service. The status document is updated every five years. As our knowledge base improves and wild species populations change, status lists will also change.

**TABLE 1 | DEFINITIONS OF GENERAL STATUS CATEGORIES**

<b>RANK (2000)</b>	<b>EQUIVALENT PREVIOUS RANK (1996)</b>	<b>DEFINITIONS (2000)</b>
At Risk	Red	Any species known to be "At Risk" after formal detailed status assessment and designation as "Endangered" or "Threatened" in Alberta.
May Be At Risk	Blue	Any species that "May Be At Risk" of extinction or extirpation, and is therefore a candidate for detailed risk assessment.
Sensitive	Yellow	Any species that is not at risk of extinction or extirpation but may require special attention or protection to prevent it from becoming at risk.
Secure	Green	A species that is not "At Risk," "May Be At Risk" or "Sensitive."
Undetermined	Status Undetermined	Any species for which insufficient information, knowledge or data is available to reliably evaluate its general status.
Not Assessed	n/a	Any species that has not been examined for this report.
Exotic/Alien	n/a	Any species that has been introduced as a result of human activities.
Extirpated/Extinct	n/a	Any species no longer thought to be present in Alberta ("Extirpated") or no longer believed to be present anywhere in the world ("Extinct").
Accidental/Vagrant	n/a	Any species occurring infrequently and unpredictably in Alberta, i.e., outside its usual range. (These species may be in Alberta due to unusual weather occurrences, an accident during migration, or unusual breeding behaviour by a small number of individuals. If a species appears in Alberta with increasing predictability and more frequently, it may eventually be given a different rank. Changes in "Accidental/Vagrant" species may be a good indicator of general ecosystem or climatic changes.)

Updating and improving the status document will require that existing information from both knowledgeable individuals and published sources is utilized fully each time status determinations are re-assessed. This process will continue to highlight information needs for species whose status currently cannot be determined. Filling the data gaps will require a concerted effort by government agencies, non-governmental groups and committed individuals.

It should be recognized that wild species populations can change relatively rapidly, particularly in areas affected by human land use. There is a continuing need to monitor these changes to ensure populations remain viable and to anticipate the effects of changing habitat conditions.





## Status Evaluation System

As noted earlier, the general status evaluation system provides an initial assessment of the status of a species within a jurisdiction. An evaluated species may be put into one of nine status categories (see *Table 1*).

The evaluation process involves three steps:

- a) Compiling and assessing the biological attributes and indicators of each species;
- b) Considering the status of the species elsewhere; and
- c) Assigning a general status category.

These steps are described in greater detail below.

After provincial ranks are assigned, each province or territory submits their ranks and comments to be compiled into a single national

rank. Although preliminary assessments were carried out on 4 735 vertebrate, invertebrate, plant and fungi species in Alberta, only those species included in the national assessment are discussed here. Those species come from eight groupings: birds, mammals, reptiles, amphibians, freshwater fish, butterflies and skippers, orchids and ferns.

### A | COMPILING AND ASSESSING THE BIOLOGICAL ATTRIBUTES AND INDICATORS

In this evaluation, all relevant current data, information and knowledge available were summarized for vertebrate, invertebrate, plant and fungi species in Alberta using seven criteria (see *Table 2* and *Table 3*). Sources included published books and documents; unpublished government and industry reports; databases such as the BSOD (Biodiversity/Species

**TABLE 2 | CRITERIA AND RATING SCALE FOR RANKING THE GENERAL STATUS OF ALL WILD SPECIES**

	CRITERIA	RATING SCALE			
		A	B	C	D
ABUNDANCE & DISTRIBUTION	Population Size	Very small (<1 000)	Small (1 001-3 000)	Medium (3 001 - 10 000)	Large (>10 000)
	Number of Occurrences	Very small (≤5)	Small (6-20)	Medium (21-100)	Large (>100)
	Distribution	Very restricted (<3% of jurisdiction)	Restricted (3-10% of jurisdiction)	Regional (11-50% of jurisdiction)	Widespread (>50% of jurisdiction)
TREND	Trend in Population	Rapid decline (>50% in 10 years)	Decline (>20% in 10 years)	Stable (natural fluctuations included)	Increasing
	Trend in Distribution	Rapid decline (>50% in 20 years)	Decline (>20% in 20 years)	Stable (natural fluctuations included)	Increasing
THREAT	Threats to Populations	Extreme	Moderate	Limited	None
	Threats to Habitat	Extreme	Moderate	Limited	None

Observations Database), the BBS (Breeding Bird Survey) and ANHIC (Alberta Natural Heritage Information Centre); and observations and opinions of species specialists (both contract review and personal communications). The same system was used to rank all the species examined.

The seven key criteria are as follows: population size, number of occurrences, distribution, trend in population size, trend in distribution, threats to population, and threats to habitat (see *Table 2 and Table 3*). Each criterion was rated on a scale of "A" to "D," in which "A" is of the most concern and "D" the least (see *Table 2*).

An example of a species ranking form is provided on page 8. The "Comments" provided with each letter code on these data sheets

were important in the decision-making process because they provided information on actual numbers, levels of confidence, search intensity, actual types and levels of threats, actual types and levels of protection, and the reference citations in the literature. Such ranking forms were completed for each species listed in this report.

## B | STATUS OF SPECIES ELSEWHERE

The biological status of a species outside of Alberta, especially in neighbouring jurisdictions was also reviewed. This information helped to determine the proportion of the North American population for which Alberta is responsible and may have affected the status of a species. Examples of status categories used included those from the Committee on the Status of

**TABLE 3 | SUMMARY OF CRITERIA (based on *Wild Species 2000: The General Status of Species in Canada*)**

CRITERIA	DEFINITIONS
Population Size	The current estimate of the total number of mature individuals capable of reproduction. In cases in which populations are characterized by natural fluctuations, the minimum number is used. Likewise, if the population is characterized by biased breeding sex ratios, lower estimates are used for the number of mature individuals to take this into account. For many species, a figure of fewer than 1 000 individuals is an appropriate guideline for what constitutes a small population. The figures in Table 2 are presented as general guidelines because it is impossible to give numerical values that can be applied to all species.
Number of Occurrences	Estimated sites where the species currently persists. Ecologically, a site occurrence is a habitat that sustains or otherwise contributes to the survival of a population. It will be defined differently for different species depending on their natural history. When a species' distribution is extremely limited and there are very few site occurrences, the species is very susceptible to any number of ecological disturbances, both predictable and unpredictable. This criterion is, therefore, the single most important factor influencing overall rank when the number of occurrences is few.
Distribution	The current range; the area within the shortest continuous imaginary boundary drawn to encompass all known, inferred or projected sites of occurrence, not including cases of vagrancy and significant areas where the species does not occur. For migratory animals, the geographic distribution is the smallest area essential at any stage for the survival of the species.
Population Trend	An estimate of the change in the number of mature individuals over time. See Table 2 for how trends are ranked. Natural fluctuations are not normally counted as part of a decline, and an observed decline is not considered part of a natural fluctuation unless there is evidence for it.
Distribution Trend	An estimate of the changes in geographic distribution of a species over time. See Table 2 for how distribution trends are ranked.
Threats to Population	Observed, inferred or projected factors affecting individuals or populations (e.g., direct exploitation, harassment, ecological interactions with predators, competitors, pathogens or parasites) that may result in population declines. See Table 2 for rankings of Threats to Population. "Extreme" threats are significant, affect more than half the population and are unmitigated. "Moderate" threats are also serious but affect less than half the population or are mitigated by some level of human protection. "Limited" threats are less significant to population viability or are being mitigated through protective measures.
Threats to Habitat	Observed, inferred or projected habitat alterations (e.g., loss, conversion, degradation or fragmentation) that may result in population declines. See Table 2 for rankings of Threats to Habitat. "Extreme" threats are significant, affect more than half the population and are unmitigated. "Moderate" threats are also serious but affect less than half the population or are mitigated by some level of human protection. "Limited" threats are less significant to population viability or are being mitigated through protective measures.

Endangered Wildlife in Canada (COSEWIC) and various provinces or states, as well as those prepared by Conservation Data Centres (CDCs; for more information on CDCs, see *Linkages*).

It is important to identify species whose range extends only a short distance into Alberta but which have large, secure populations elsewhere. These are called “peripheral species.” Peripheral species are often only at risk in the province because of small population size. In such cases, if the Alberta population receives a high level of immigration from a healthy population in a neighbouring jurisdiction, the level of risk in Alberta may actually be lower than it appears based only on population size.

## C | ASSIGNING A STATUS CATEGORY

### Preliminary Assessment Process

All seven criteria in Table 2 (see *Table 3* for definitions) were considered in order to place the species in one of nine status categories (see *Table 1*). Species with a large number of “A”

scores were at the highest risk of extinction or extirpation, and species with a large number of “D” scores were demonstrably secure.

All seven criteria are important, but depending on the species being assessed and the circumstances involved, some criteria were given greater weight than others in the final ranking. If necessary, the status category assigned to a species was modified by consideration of the “Status Elsewhere” section. For example, a peripheral species with large, healthy populations outside Alberta may have been moved from the “May Be At Risk” to the “Sensitive” category (see “B” above).

### Final Assessment Process

Preliminary status assessments, including letter scores, comments and general status rank were sent out for review by species specialists in the province. These experts included professional biologists, university researchers, naturalists and consultants (see *Acknowledgements*). The status assessment group consulted with these specialists, and their comments and suggestions were compiled. These comments were added to the summaries, and a final status category was assigned to a species.



## Example of a Species Ranking Form

Species: Black-throated Green Warbler ( <i>Dendroica virens</i> )		
Criteria	Letter Code	Data, Comments, and References
Population Size	B-C	Relative abundance data from the BBS <sup>1</sup> indicates this species is uncommon in Alberta. In mature white spruce or mixedwood, Black-throated Green Warblers have a density of approximately 1 pair/5ha. There are easily > 10 000 individuals in the province. <sup>55</sup>
Number of Occurrences	D	> 100 breeding occurrences in the province.
Distribution	C	Most sources <sup>1,2,3,4,6</sup> indicate this species is scattered through the boreal forest and foothills natural regions. This species can be found in the Peace River drainage (British Columbia to Wood Buffalo National Park); also the lower Athabasca River drainage, and east to Cold Lake. <sup>102</sup> A single, recent record from Fort Chipewyan documents the species' presence in the Wood Buffalo region, <sup>102</sup> but it does not regularly breed in the extreme northwest. <sup>2,3,103</sup> Its breeding range includes approximately 75% of the province. <sup>13</sup> The distribution of this species within the boreal forest is considered localized.
Trend in Population	C	BBS <sup>1</sup> sets are too limited in Alberta to assess any population trends for this species, although the trend map suggests stable populations.
Trend in Distribution	C	Unknown.
Threat to Population	D	No direct threats to population. This species is an uncommon Brown-headed Cowbird host. <sup>18</sup>
Threat to Habitat	B	The Black-throated Green Warbler is associated with mature and old mixed and coniferous stands. <sup>2,3,4,7,102,104,105</sup> It prefers high heterogeneity in the canopy, <sup>7</sup> and avoids disturbed habitat, <sup>106</sup> openings <sup>107</sup> and edges. <sup>106,108</sup> Several sources <sup>22,102,109</sup> suggest that this species is threatened by habitat loss and fragmentation resulting from forestry and energy sector exploration in the province. A simulation study of the effects of timber harvest suggests that, even under the most effective habitat management scenarios, available optimal habitat for the Black-throated Green Warbler would be reduced by 75% in 100 years. <sup>104</sup> This species is an obligate neotropical migrant; <sup>11,109</sup> however, it appears relatively tolerant of disturbed habitat during the non-breeding season. <sup>102</sup>

**Ranking:** Sensitive

**Reasons:** An uncommon, regionally distributed species with moderate threats to its habitat, although its population appears stable. The Alberta range of this species comprises 18% of its range in Canada, and Alberta's supervisory responsibility is high.<sup>13</sup> Canadian vulnerability and concern are moderately high.<sup>11</sup> The Natural Heritage Element Rarity Rank for Alberta is S3S4B.<sup>14</sup>

**Status Elsewhere:** This species breeds in northern Alberta, across central and southeastern Canada, and the northeastern United States.<sup>1,4,15</sup> The British Columbia CDC<sup>45</sup> includes this species on the provincial Red list, and there have been concerns over population declines in Saskatchewan.<sup>110</sup> BBS data<sup>1</sup> indicate a Canada-wide, significant increase of 21% (p=0.013) in the 10-year period 1986-1996.

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# status ranks

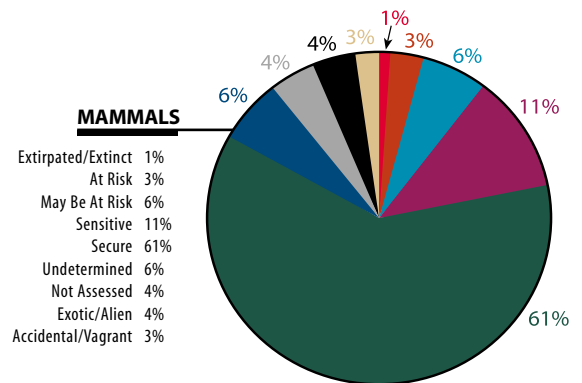
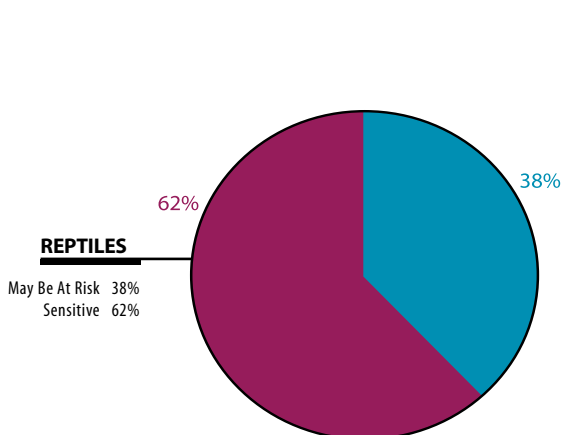
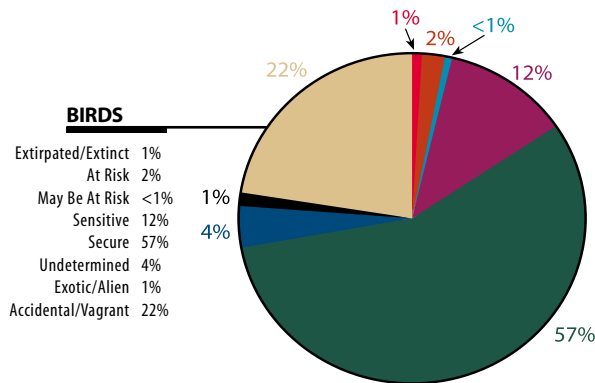
The assessment process results in lists of species with status ranks. The ranks of all the species examined within the eight groupings—the birds, mammals, reptiles, amphibians, freshwater fish, butterflies and skippers, ferns and orchids—are summarized on pages 11 through 33. The common name and scientific name of each species are given, along with its particular ranking; the taxonomic order is also provided. The birds, mammals, reptiles, amphibians and freshwater fish are arranged in taxonomic order. The butterflies and skippers, orchids and ferns are organized alphabetically by Genus name.

Common names in the list match those used in the national general status report; common names used in Alberta are also included where different.

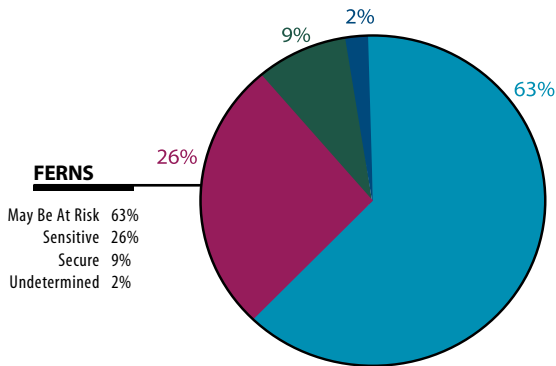
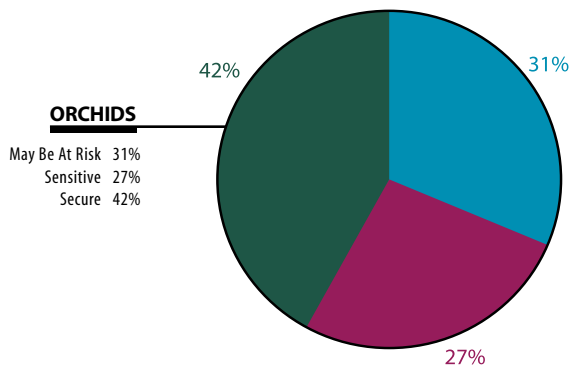
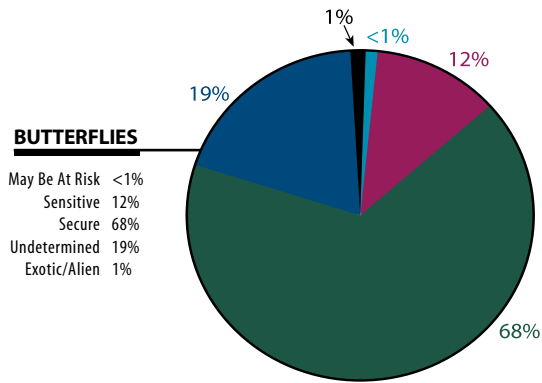
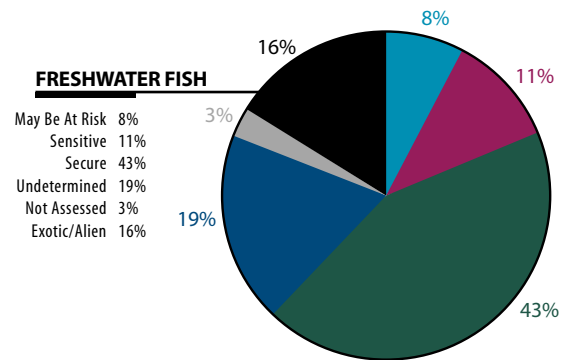
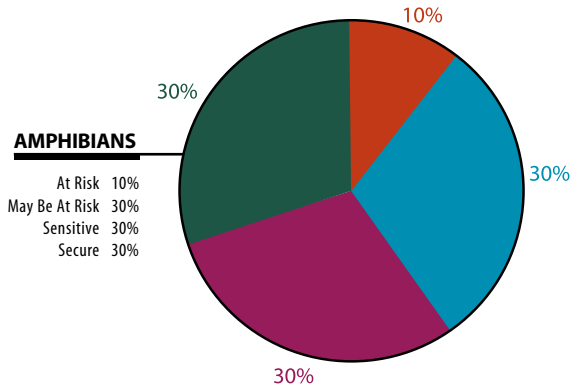
Before listing the individual species with their status rank, it is important to have some sense of what proportion of Alberta's species reported on here are included in each status category. This information is provided below in *Figure 2*.

**FIGURE 2 | THE PROPORTION OF ALBERTA'S SPECIES IN EACH STATUS CATEGORY**

- Extirpated/Extinct
- At Risk
- May Be At Risk
- Sensitive
- Secure
- Undetermined
- Not Assessed
- Exotic/Alien
- Accidental/Vagrant



- Extirpated/Extinct
- At Risk
- May Be At Risk
- Sensitive
- Secure
- Undetermined
- Not Assessed
- Exotic/Alien
- Accidental/Vagrant





There are 402 known species of birds in Alberta. Of these species, 90 are not seen regularly and are outside their normal range in Alberta (“Accidental/Vagrant”). Detailed status assessments have been completed for five of seven “At Risk” species, including the Burrowing Owl, Trumpeter Swan, Greater Sage-Grouse, Piping Plover and Peregrine Falcon, as well as one “May Be At Risk” species, the Long-billed Curlew. A captive breeding program for Peregrine Falcons in Alberta resulted in the successful re-establishment of its population in the early 1990s. The restrictions on use of pesticides also helped the population of this species recover. It is now likely that, in the near future, the Peregrine Falcon will no longer be designated as a “Threatened” species under Alberta’s *Wildlife Act*. Note that the name of the Oldsquaw has been changed to Long-tailed Duck.

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
<b>LOONS • GAVIIFORMES</b>		
Red-throated Loon	<i>Gavia stellata</i>	Secure
Common Loon	<i>Gavia immer</i>	Secure
Yellow-billed Loon	<i>Gavia adamsii</i>	Accidental/Vagrant
Pacific Loon	<i>Gavia pacifica</i>	Secure
<b>GREBES • PODICEPIFORMES</b>		
Pied-billed Grebe	<i>Podilymbus podiceps</i>	Sensitive
Horned Grebe	<i>Podiceps auritus</i>	Sensitive
Red-necked Grebe	<i>Podiceps grisegena</i>	Secure
Eared Grebe	<i>Podiceps nigricollis</i>	Secure
Western Grebe	<i>Aechmophorus occidentalis</i>	Sensitive
Clark’s Grebe	<i>Aechmophorus clarkii</i>	Sensitive
<b>PELICANS AND CORMORANTS • PELECANIFORMES</b>		
American White Pelican	<i>Pelecanus erythrorhynchos</i>	Sensitive
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	Secure
<b>HERON-LIKE BIRDS • CICONIFORMES</b>		
American Bittern	<i>Botaurus lentiginosus</i>	Sensitive
Great Blue Heron	<i>Ardea herodias</i>	Sensitive
Great Egret	<i>Ardea alba</i>	Accidental/Vagrant
Snowy Egret	<i>Egretta thula</i>	Accidental/Vagrant
Little Blue Heron	<i>Egretta caerulea</i>	Accidental/Vagrant
Tricolored Heron	<i>Egretta tricolor</i>	Accidental/Vagrant
Cattle Egret	<i>Bubulcus ibis</i>	Accidental/Vagrant
Green Heron	<i>Butorides virescens</i>	Accidental/Vagrant
Yellow-crowned Night-Heron	<i>Nyctanassa violacea</i>	Accidental/Vagrant
Black-crowned Night-Heron	<i>Nycticorax nycticorax</i>	Sensitive
White-faced Ibis	<i>Plegadis chihi</i>	Sensitive

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
<b>SWANS, GEESE AND DUCKS • ANSERIFORMES</b>		
Tundra Swan	<i>Cygnus columbianus</i>	Secure
Trumpeter Swan	<i>Cygnus buccinator</i>	At Risk
Greater White-fronted Goose	<i>Anser albifrons</i>	Secure
Snow Goose	<i>Chen caerulescens</i>	Secure
Ross's Goose	<i>Chen rossii</i>	Secure
Brant	<i>Branta bernicla</i>	Accidental/Vagrant
Canada Goose	<i>Branta canadensis</i>	Secure
Wood Duck	<i>Aix sponsa</i>	Secure
American Green-winged Teal	<i>Anas crecca</i>	Secure
American Black Duck	<i>Anas rubripes</i>	Secure
Mallard	<i>Anas platyrhynchos</i>	Secure
Northern Pintail	<i>Anas acuta</i>	Secure
Garganey	<i>Anas querquedula</i>	Accidental/Vagrant
Blue-winged Teal	<i>Anas discors</i>	Secure
Cinnamon Teal	<i>Anas cyanoptera</i>	Secure
Northern Shoveler	<i>Anas clypeata</i>	Secure
Gadwall	<i>Anas strepera</i>	Secure
Eurasian Wigeon	<i>Anas penelope</i>	Accidental/Vagrant
American Wigeon	<i>Anas americana</i>	Secure
Canvasback	<i>Aythya valisineria</i>	Secure
Redhead	<i>Aythya americana</i>	Secure
Ring-necked Duck	<i>Aythya collaris</i>	Secure
Tufted Duck	<i>Aythya fuligula</i>	Accidental/Vagrant
Greater Scaup	<i>Aythya marila</i>	Secure
Lesser Scaup	<i>Aythya affinis</i>	Secure
King Eider	<i>Somateria spectabilis</i>	Accidental/Vagrant
Common Eider	<i>Somateria mollissima</i>	Accidental/Vagrant
Harlequin Duck	<i>Histrionicus histrionicus</i>	Sensitive
Long-tailed Duck	<i>Clangula hyemalis</i>	Secure
Black Scoter	<i>Melanitta nigra</i>	Accidental/Vagrant
Surf Scoter	<i>Melanitta perspicillata</i>	Secure
White-winged Scoter	<i>Melanitta fusca</i>	Sensitive
Common Goldeneye	<i>Bucephala clangula</i>	Secure
Barrow's Goldeneye	<i>Bucephala islandica</i>	Secure
Bufflehead	<i>Bucephala albeola</i>	Secure
Hooded Merganser	<i>Lophodytes cucullatus</i>	Secure
Common Merganser	<i>Mergus merganser</i>	Secure
Red-breasted Merganser	<i>Mergus serrator</i>	Secure
Ruddy Duck	<i>Oxyura jamaicensis</i>	Secure
<b>BIRDS OF PREY • FALCONIFORMES</b>		
Turkey Vulture	<i>Cathartes aura</i>	Secure
Osprey	<i>Pandion haliaetus</i>	Sensitive
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Sensitive
Northern Harrier	<i>Circus cyaneus</i>	Secure
Sharp-shinned Hawk	<i>Accipiter striatus</i>	Secure
Cooper's Hawk	<i>Accipiter cooperii</i>	Secure
Northern Goshawk	<i>Accipiter gentilis</i>	Sensitive
Broad-winged Hawk	<i>Buteo platypterus</i>	Sensitive
Swainson's Hawk	<i>Buteo swainsoni</i>	Sensitive
Red-tailed Hawk	<i>Buteo jamaicensis</i>	Secure

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
Ferruginous Hawk	<i>Buteo regalis</i>	At Risk
Rough-legged Hawk	<i>Buteo lagopus</i>	Secure
Golden Eagle	<i>Aquila chrysaetos</i>	Sensitive
American Kestrel	<i>Falco sparverius</i>	Secure
Merlin	<i>Falco columbarius</i>	Secure
Peregrine Falcon	<i>Falco peregrinus</i>	At Risk
Gyr Falcon	<i>Falco rusticolus</i>	Secure
Prairie Falcon	<i>Falco mexicanus</i>	Sensitive

#### GROUSE-LIKE BIRDS • GALLIFORMES

Gray Partridge	<i>Perdix perdix</i>	Exotic/Alien
Ring-necked Pheasant	<i>Phasianus colchicus</i>	Exotic/Alien
Spruce Grouse	<i>Falcapennis canadensis</i>	Secure
Blue Grouse	<i>Dendragapus obscurus</i>	Secure
Willow Ptarmigan	<i>Lagopus lagopus</i>	Secure
White-tailed Ptarmigan	<i>Lagopus leucurus</i>	Secure
Ruffed Grouse	<i>Bonasa umbellus</i>	Secure
Greater Sage-Grouse	<i>Centrocercus urophasianus</i>	At Risk
Greater Prairie-Chicken	<i>Tympanuchus cupido</i>	Extirpated/Extinct
Sharp-tailed Grouse	<i>Tympanuchus phasianellus</i>	Sensitive
Wild Turkey	<i>Meleagris gallopavo</i>	Exotic/Alien

#### CRANE-LIKE BIRDS • GRUIFORMES

Yellow Rail	<i>Coturnicops noveboracensis</i>	Undetermined
Virginia Rail	<i>Rallus limicola</i>	Undetermined
Sora	<i>Porzana carolina</i>	Secure
American Coot	<i>Fulica americana</i>	Secure
Sandhill Crane	<i>Grus canadensis</i>	Sensitive
Common Crane	<i>Grus grus</i>	Accidental/Vagrant
Whooping Crane	<i>Grus americana</i>	At Risk

#### SHOREBIRDS, GULLS AND TERNS • CHARADRIIFORMES

Pacific Golden-Plover	<i>Pluvialis fulva</i>	Accidental/Vagrant
Black-bellied Plover	<i>Pluvialis squatarola</i>	Secure
American Golden-Plover	<i>Pluvialis dominica</i>	Secure
Mongolian Plover	<i>Charadrius mongolus</i>	Accidental/Vagrant
Snowy Plover	<i>Charadrius alexandrinus</i>	Accidental/Vagrant
Spotted Redshank	<i>Tringa erythropus</i>	Accidental/Vagrant
Semipalmated Plover	<i>Charadrius semipalmatus</i>	Secure
Piping Plover	<i>Charadrius melodus</i>	At Risk
Killdeer	<i>Charadrius vociferus</i>	Secure
Mountain Plover	<i>Charadrius montanus</i>	Sensitive
Black-necked Stilt	<i>Himantopus mexicanus</i>	Sensitive
American Avocet	<i>Recurvirostra americana</i>	Secure
Greater Yellowlegs	<i>Tringa melanoleuca</i>	Secure
Lesser Yellowlegs	<i>Tringa flavipes</i>	Secure
Solitary Sandpiper	<i>Tringa solitaria</i>	Secure
Willet	<i>Catoptrophorus semipalmatus</i>	Secure
Wandering Tattler	<i>Heteroscelus incanus</i>	Accidental/Vagrant
Spotted Sandpiper	<i>Actitis macularia</i>	Secure
Upland Sandpiper	<i>Bartramia longicauda</i>	Sensitive
Eskimo Curlew	<i>Numenius borealis</i>	Extirpated/Extinct

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
Black Turnstone	<i>Arenaria melanocephala</i>	Accidental/Vagrant
American Whimbrel	<i>Numenius phaeopus</i>	Secure
Long-billed Curlew	<i>Numenius americanus</i>	<b>May Be At Risk</b>
Hudsonian Godwit	<i>Limosa haemastica</i>	Secure
Marbled Godwit	<i>Limosa fedoa</i>	Secure
Ruddy Turnstone	<i>Arenaria interpres</i>	Secure
Surfbird	<i>Aphriza virgata</i>	Accidental/Vagrant
Red-necked Stint	<i>Calidris ruficollis</i>	Accidental/Vagrant
Little Stint	<i>Calidris minuta</i>	Accidental/Vagrant
Red Knot	<i>Calidris canutus</i>	Secure
Sanderling	<i>Calidris alba</i>	Secure
Semipalmated Sandpiper	<i>Calidris pusilla</i>	Secure
Western Sandpiper	<i>Calidris mauri</i>	Secure
Least Sandpiper	<i>Calidris minutilla</i>	Secure
White-rumped Sandpiper	<i>Calidris fuscicollis</i>	Secure
Baird's Sandpiper	<i>Calidris bairdii</i>	Secure
Pectoral Sandpiper	<i>Calidris melanotos</i>	Secure
Sharp-tailed Sandpiper	<i>Calidris acuminata</i>	Accidental/Vagrant
Dunlin	<i>Calidris alpina</i>	Secure
Curlew Sandpiper	<i>Calidris ferruginea</i>	Accidental/Vagrant
Stilt Sandpiper	<i>Calidris himantopus</i>	Secure
Spoonbill Sandpiper	<i>Euryornhynchus pygmeus</i>	Accidental/Vagrant
Buff-breasted Sandpiper	<i>Tryngites subruficollis</i>	Secure
Ruff	<i>Philomachus pugnax</i>	Accidental/Vagrant
Short-billed Dowitcher	<i>Limnodromus griseus</i>	Undetermined
Long-billed Dowitcher	<i>Limnodromus scolopaceus</i>	Secure
Common Snipe	<i>Gallinago gallinago</i>	Secure
Wilson's Phalarope	<i>Phalaropus tricolor</i>	Secure
Red-necked Phalarope	<i>Phalaropus lobatus</i>	Secure
Red Phalarope	<i>Phalaropus fulicaria</i>	Accidental/Vagrant
Pomarine Jaeger	<i>Stercorarius pomarinus</i>	Accidental/Vagrant
Parasitic Jaeger	<i>Stercorarius parasiticus</i>	Accidental/Vagrant
Long-tailed Jaeger	<i>Stercorarius longicaudus</i>	Accidental/Vagrant
Franklin's Gull	<i>Larus pipixcan</i>	Secure
Little Gull	<i>Larus minutus</i>	Accidental/Vagrant
Bonaparte's Gull	<i>Larus philadelphia</i>	Secure
Mew Gull	<i>Larus canus</i>	Secure
Ring-billed Gull	<i>Larus delawarensis</i>	Secure
California Gull	<i>Larus californicus</i>	Secure
Herring Gull	<i>Larus argentatus</i>	Secure
Thayer's Gull	<i>Larus thayeri</i>	Secure
Iceland Gull	<i>Larus glaucoides</i>	Accidental/Vagrant
Lesser Black-backed Gull	<i>Larus fuscus</i>	Accidental/Vagrant
Glaucous-winged Gull	<i>Larus glaucescens</i>	Accidental/Vagrant
Slaty-backed Gull	<i>Larus schistisagus</i>	Accidental/Vagrant
Glaucous Gull	<i>Larus hyperboreus</i>	Secure
Great Black-backed Gull	<i>Larus marinus</i>	Accidental/Vagrant
Black-legged Kittiwake	<i>Rissa tridactyla</i>	Accidental/Vagrant
Ivory Gull	<i>Pagophila eburnea</i>	Accidental/Vagrant
Sabine's Gull	<i>Xema sabini</i>	Secure
Caspian Tern	<i>Sterna caspia</i>	Sensitive
Common Tern	<i>Sterna hirundo</i>	Secure

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
Arctic Tern	<i>Sterna paradisaea</i>	Secure
Forster's Tern	<i>Sterna forsteri</i>	Sensitive
Black Tern	<i>Chlidonias niger</i>	Sensitive
Black Guillemot	<i>Cepphus grylle</i>	Accidental/Vagrant
Long-billed Murrelet	<i>Brachyramphus perdix</i>	Accidental/Vagrant
Ancient Murrelet	<i>Synthliboramphus antiquus</i>	Accidental/Vagrant
<b>DOVE-LIKE BIRDS • COLUMBIFORMES</b>		
Rock Dove	<i>Columba livia</i>	Exotic/Alien
Band-tailed Pigeon	<i>Columba fasciata</i>	Accidental/Vagrant
White-winged Dove	<i>Zenaida asiatica</i>	Accidental/Vagrant
Mourning Dove	<i>Zenaida macroura</i>	Secure
Passenger Pigeon	<i>Ectopistes migratorius</i>	Extirpated/Extinct
<b>CUCKOOS • CUCULIFORMES</b>		
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	Undetermined
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	Accidental/Vagrant
<b>OWLS • STRIGIFORMES</b>		
Barn Owl	<i>Tyto alba</i>	Accidental/Vagrant
Eastern Screech-Owl	<i>Otus asio</i>	Accidental/Vagrant
Western Screech-Owl	<i>Otus kennicottii</i>	Accidental/Vagrant
Great Horned Owl	<i>Bubo virginianus</i>	Secure
Snowy Owl	<i>Nyctea scandiaca</i>	Secure
Northern Hawk Owl	<i>Surnia ulula</i>	Secure
Northern Pygmy-Owl	<i>Glaucidium gnoma</i>	Sensitive
Burrowing Owl	<i>Athene cucularia</i>	<b>At Risk</b>
Barred Owl	<i>Strix varia</i>	Sensitive
Great Gray Owl	<i>Strix nebulosa</i>	Sensitive
Long-eared Owl	<i>Asio otus</i>	Secure
Short-eared Owl	<i>Asio flammeus</i>	<b>May Be At Risk</b>
Boreal Owl	<i>Aegolius funereus</i>	Secure
Northern Saw-whet Owl	<i>Aegolius acadicus</i>	Secure
<b>NIGHTJARS • CAPRIMULGIFORMES</b>		
Common Nighthawk	<i>Chordeiles minor</i>	Sensitive
Common Poorwill	<i>Phalaenoptilus nuttallii</i>	Undetermined
<b>SWIFTS AND HUMMINGBIRDS • APODIFORMES</b>		
Black Swift	<i>Cypseloides niger</i>	Undetermined
Vaux's Swift	<i>Chaetura vauxi</i>	Accidental/Vagrant
White-throated Swift	<i>Aeronautes saxatalis</i>	Accidental/Vagrant
Green Violet-ear	<i>Colibri thalassinus</i>	Accidental/Vagrant
Ruby-throated Hummingbird	<i>Archilochus colubris</i>	Secure
Black-chinned Hummingbird	<i>Archilochus alexandri</i>	Accidental/Vagrant
Anna's Hummingbird	<i>Calypte anna</i>	Accidental/Vagrant
Costa's Hummingbird	<i>Calypte costae</i>	Accidental/Vagrant
Calliope Hummingbird	<i>Stellula calliope</i>	Secure
Rufous Hummingbird	<i>Selasphorus rufus</i>	Secure
<b>KINGFISHERS • CORACIFORMES</b>		
Belted Kingfisher	<i>Ceryle alcyon</i>	Secure

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
<b>WOODPECKERS • PICIFORMES</b>		
Lewis's Woodpecker	<i>Melanerpes lewis</i>	Secure
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	Accidental/Vagrant
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>	Secure
Red-breasted Sapsucker	<i>Sphyrapicus ruber</i>	Accidental/Vagrant
Williamson's Sapsucker	<i>Sphyrapicus thyroideus</i>	Accidental/Vagrant
Red-naped Sapsucker	<i>Sphyrapicus nuchalis</i>	Undetermined
Downy Woodpecker	<i>Picoides pubescens</i>	Secure
Hairy Woodpecker	<i>Picoides villosus</i>	Secure
Three-toed Woodpecker	<i>Picoides tridactylus</i>	Secure
Black-backed Woodpecker	<i>Picoides arcticus</i>	Sensitive
Northern Flicker	<i>Colaptes auratus</i>	Secure
Pileated Woodpecker	<i>Dryocopus pileatus</i>	Sensitive
<b>PERCHING BIRDS • PASSERIFORMES</b>		
Olive-sided Flycatcher	<i>Contopus cooperi</i>	Secure
Western Wood-Pewee	<i>Contopus sordidulus</i>	Secure
Yellow-bellied Flycatcher	<i>Empidonax flaviventris</i>	Undetermined
Alder Flycatcher	<i>Empidonax alorum</i>	Secure
Willow Flycatcher	<i>Empidonax traillii</i>	Secure
Least Flycatcher	<i>Empidonax minimus</i>	Secure
Hammond's Flycatcher	<i>Empidonax hammondii</i>	Secure
Dusky Flycatcher	<i>Empidonax oberholseri</i>	Secure
Pacific-slope Flycatcher	<i>Empidonax difficilis</i>	Undetermined
Cordilleran Flycatcher	<i>Empidonax occidentalis</i>	Undetermined
Eastern Phoebe	<i>Sayornis phoebe</i>	Secure
Say's Phoebe	<i>Sayornis saya</i>	Secure
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	Sensitive
Western Kingbird	<i>Tyrannus verticalis</i>	Secure
Eastern Kingbird	<i>Tyrannus tyrannus</i>	Secure
Gray Flycatcher	<i>Empidonax wrightii</i>	Accidental/Vagrant
Scissor-tailed Flycatcher	<i>Tyrannus forficatus</i>	Accidental/Vagrant
Horned Lark	<i>Eremophila alpestris</i>	Secure
Purple Martin	<i>Progne subis</i>	Sensitive
Tree Swallow	<i>Tachycineta bicolor</i>	Secure
Violet-green Swallow	<i>Tachycineta thalassina</i>	Secure
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	Secure
Bank Swallow	<i>Riparia riparia</i>	Secure
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>	Secure
Barn Swallow	<i>Hirundo rustica</i>	Secure
Gray Jay	<i>Perisoreus canadensis</i>	Secure
Steller's Jay	<i>Cyanocitta stelleri</i>	Secure
Blue Jay	<i>Cyanocitta cristata</i>	Secure
Clark's Nutcracker	<i>Nucifraga columbiana</i>	Secure
Black-billed Magpie	<i>Pica hudsonia</i>	Secure
American Crow	<i>Corvus brachyrhynchos</i>	Secure
Common Raven	<i>Corvus corax</i>	Secure
Black-capped Chickadee	<i>Poecile atricapilla</i>	Secure
Mountain Chickadee	<i>Poecile gambeli</i>	Secure
Boreal Chickadee	<i>Poecile hudsonica</i>	Secure
Chestnut-backed Chickadee	<i>Poecile rufescens</i>	Accidental/Vagrant
Red-breasted Nuthatch	<i>Sitta canadensis</i>	Secure



COMMON NAME	SCIENTIFIC NAME	STATUS RANK
White-breasted Nuthatch	<i>Sitta carolinensis</i>	Secure
Pygmy Nuthatch	<i>Sitta pygmaea</i>	Accidental/Vagrant
Brown Creeper	<i>Certhia americana</i>	Undetermined
Rock Wren	<i>Salpinctes obsoletus</i>	Secure
Carolina Wren	<i>Thryothorus ludovicianus</i>	Accidental/Vagrant
House Wren	<i>Troglodytes aedon</i>	Secure
Winter Wren	<i>Troglodytes troglodytes</i>	Secure
Sedge Wren	<i>Cistothorus platensis</i>	Sensitive
Marsh Wren	<i>Cistothorus palustris</i>	Secure
American Dipper	<i>Cinclus mexicanus</i>	Secure
Golden-crowned Kinglet	<i>Regulus satrapa</i>	Secure
Ruby-crowned Kinglet	<i>Regulus calendula</i>	Secure
Blue-gray Gnatcatcher	<i>Poliophtila caerulea</i>	Accidental/Vagrant
Northern Wheatear	<i>Oenanthe oenanthe</i>	Accidental/Vagrant
Eastern Bluebird	<i>Sialia sialis</i>	Secure
Western Bluebird	<i>Sialia mexicana</i>	Secure
Mountain Bluebird	<i>Sialia currucoides</i>	Secure
Townsend's Solitaire	<i>Myadestes townsendi</i>	Secure
Veery	<i>Catharus fuscescens</i>	Secure
Gray-cheeked Thrush	<i>Catharus minimus</i>	Undetermined
Swainson's Thrush	<i>Catharus ustulatus</i>	Secure
Hermit Thrush	<i>Catharus guttatus</i>	Secure
Wood Thrush	<i>Hylocichla mustelina</i>	Accidental/Vagrant
Bendire's Thrasher	<i>Toxostoma bendirei</i>	Accidental/Vagrant
Curve-billed Thrasher	<i>Toxostoma curvirostre</i>	Accidental/Vagrant
American Robin	<i>Turdus migratorius</i>	Secure
Varied Thrush	<i>Ixoreus naevius</i>	Secure
Gray Catbird	<i>Dumetella carolinensis</i>	Secure
Northern Mockingbird	<i>Mimus polyglottos</i>	Secure
Sage Thrasher	<i>Oreoscoptes montanus</i>	Undetermined
Brown Thrasher	<i>Toxostoma rufum</i>	Secure
American Pipit	<i>Anthus rubescens</i>	Secure
Sprague's Pipit	<i>Anthus spragueii</i>	Sensitive
Bohemian Waxwing	<i>Bombycilla garrulus</i>	Secure
Cedar Waxwing	<i>Bombycilla cedrorum</i>	Secure
Northern Shrike	<i>Lanius excubitor</i>	Secure
Loggerhead Shrike	<i>Lanius ludovicianus</i>	Sensitive
European Starling	<i>Sturnus vulgaris</i>	Exotic/Alien
Blue-headed Vireo	<i>Vireo solitarius</i>	Secure
Warbling Vireo	<i>Vireo gilvus</i>	Secure
Philadelphia Vireo	<i>Vireo philadelphicus</i>	Secure
Red-eyed Vireo	<i>Vireo olivaceus</i>	Secure
Cassin's Vireo	<i>Vireo cassinii</i>	Undetermined
Tennessee Warbler	<i>Vermivora peregrina</i>	Secure
Orange-crowned Warbler	<i>Vermivora celata</i>	Secure
Nashville Warbler	<i>Vermivora ruficapilla</i>	Secure
Northern Parula	<i>Parula americana</i>	Accidental/Vagrant
Yellow Warbler	<i>Dendroica petechia</i>	Secure
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>	Secure
Magnolia Warbler	<i>Dendroica magnolia</i>	Secure
Cape May Warbler	<i>Dendroica tigrina</i>	Sensitive
Blue-winged Warbler	<i>Vermivora pinus</i>	Accidental/Vagrant

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
Golden-winged Warbler	<i>Vermivora chrysoptera</i>	Accidental/Vagrant
Black-throated Blue Warbler	<i>Dendroica caerulescens</i>	Accidental/Vagrant
Yellow-rumped Warbler	<i>Dendroica coronata</i>	Secure
Black-throated Gray Warbler	<i>Dendroica nigrescens</i>	Accidental/Vagrant
Townsend's Warbler	<i>Dendroica townsendi</i>	Secure
Black-throated Green Warbler	<i>Dendroica virens</i>	Sensitive
Blackburnian Warbler	<i>Dendroica fusca</i>	Sensitive
Pine Warbler	<i>Dendroica pinus</i>	Accidental/Vagrant
Palm Warbler	<i>Dendroica palmarum</i>	Secure
Bay-breasted Warbler	<i>Dendroica castanea</i>	Sensitive
Blackpoll Warbler	<i>Dendroica striata</i>	Secure
Black-and-white Warbler	<i>Mniotilta varia</i>	Secure
American Redstart	<i>Setophaga ruticilla</i>	Secure
Ovenbird	<i>Seiurus aurocapillus</i>	Secure
Northern Waterthrush	<i>Seiurus noveboracensis</i>	Secure
Kentucky Warbler	<i>Oporornis formosus</i>	Accidental/Vagrant
Connecticut Warbler	<i>Oporornis agilis</i>	Secure
Mourning Warbler	<i>Oporornis philadelphia</i>	Secure
MacGillivray's Warbler	<i>Oporornis tolmiei</i>	Secure
Common Yellowthroat	<i>Geothlypis trichas</i>	Secure
Hooded Warbler	<i>Wilsonia citrina</i>	Accidental/Vagrant
Wilson's Warbler	<i>Wilsonia pusilla</i>	Secure
Canada Warbler	<i>Wilsonia canadensis</i>	Sensitive
Yellow-breasted Chat	<i>Icteria virens</i>	Secure
Summer Tanager	<i>Piranga rubra</i>	Accidental/Vagrant
Scarlet Tanager	<i>Piranga olivacea</i>	Accidental/Vagrant
Western Tanager	<i>Piranga ludoviciana</i>	Sensitive
Green-tailed Towhee	<i>Pipilo chlorurus</i>	Accidental/Vagrant
Eastern Towhee	<i>Pipilo erythrophthalmus</i>	Accidental/Vagrant
Northern Cardinal	<i>Cardinalis cardinalis</i>	Accidental/Vagrant
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	Secure
Black-headed Grosbeak	<i>Pheucticus melanocephalus</i>	Secure
Lazuli Bunting	<i>Passerina amoena</i>	Secure
Indigo Bunting	<i>Passerina cyanea</i>	Accidental/Vagrant
Painted Bunting	<i>Passerina ciris</i>	Accidental/Vagrant
Dickcissel	<i>Spiza americana</i>	Accidental/Vagrant
Spotted Towhee	<i>Pipilo maculatus</i>	Secure
Cassin's Sparrow	<i>Aimophila cassinii</i>	Accidental/Vagrant
Field Sparrow	<i>Spizella pusilla</i>	Accidental/Vagrant
American Tree Sparrow	<i>Spizella arborea</i>	Secure
Chipping Sparrow	<i>Spizella passerina</i>	Secure
Clay-colored Sparrow	<i>Spizella pallida</i>	Secure
Brewer's Sparrow	<i>Spizella breweri</i>	Sensitive
Vesper Sparrow	<i>Poecetes gramineus</i>	Secure
Lark Sparrow	<i>Chondestes grammacus</i>	Secure
Black-throated Sparrow	<i>Amphispiza bilineata</i>	Accidental/Vagrant
Lark Bunting	<i>Calamospiza melanocorys</i>	Sensitive
Savannah Sparrow	<i>Passerculus sandwichensis</i>	Secure
Baird's Sparrow	<i>Ammodramus bairdii</i>	Sensitive
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	Sensitive
Le Conte's Sparrow	<i>Ammodramus leconteii</i>	Secure

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
Nelson's Sharp-tailed Sparrow	<i>Ammodramus nelsoni</i>	Secure
Fox Sparrow	<i>Passerella iliaca</i>	Secure
Song Sparrow	<i>Melospiza melodia</i>	Secure
Lincoln's Sparrow	<i>Melospiza lincolni</i>	Secure
Swamp Sparrow	<i>Melospiza georgiana</i>	Secure
White-throated Sparrow	<i>Zonotrichia albicollis</i>	Secure
Golden-crowned Sparrow	<i>Zonotrichia atricapilla</i>	Secure
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>	Secure
Harris's Sparrow	<i>Zonotrichia querula</i>	Secure
Dark-eyed Junco	<i>Junco hyemalis</i>	Secure
McCown's Longspur	<i>Calcarius mccownii</i>	Secure
Lapland Longspur	<i>Calcarius lapponicus</i>	Secure
Smith's Longspur	<i>Calcarius pictus</i>	Secure
Chestnut-collared Longspur	<i>Calcarius ornatus</i>	Secure
Snow Bunting	<i>Plectrophenax nivalis</i>	Secure
Bobolink	<i>Dolichonyx oryzivorus</i>	Sensitive
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	Secure
Eastern Meadowlark	<i>Sturnella magna</i>	Accidental/Vagrant
Western Meadowlark	<i>Sturnella neglecta</i>	Secure
Yellow-headed Blackbird	<i>Xanthocephalus xanthocephalus</i>	Secure
Rusty Blackbird	<i>Euphagus carolinus</i>	Secure
Brewer's Blackbird	<i>Euphagus cyanocephalus</i>	Secure
Common Grackle	<i>Quiscalus quiscula</i>	Secure
Brown-headed Cowbird	<i>Molothrus ater</i>	Secure
Baltimore Oriole	<i>Icterus galbula</i>	Secure
Bullock's Oriole	<i>Icterus bullockii</i>	Undetermined
Brambling	<i>Fringilla montifringilla</i>	Accidental/Vagrant
Gray-crowned Rosy-Finch	<i>Leucosticte tephrocotis</i>	Secure
Pine Grosbeak	<i>Pinicola enucleator</i>	Secure
Purple Finch	<i>Carpodacus purpureus</i>	Secure
Cassin's Finch	<i>Carpodacus cassinii</i>	Secure
House Finch	<i>Carpodacus mexicanus</i>	Secure
Red Crossbill	<i>Loxia curvirostra</i>	Secure
White-winged Crossbill	<i>Loxia leucoptera</i>	Secure
Common Redpoll	<i>Carduelis flammea</i>	Secure
Hoary Redpoll	<i>Carduelis hornemanni</i>	Secure
Pine Siskin	<i>Carduelis pinus</i>	Secure
American Goldfinch	<i>Carduelis tristis</i>	Secure
Evening Grosbeak	<i>Coccothraustes vespertinus</i>	Secure
House Sparrow	<i>Passer domesticus</i>	Exotic/Alien





# mammals

Alberta is home to 95 species of mammals,<sup>1</sup> the second highest number of mammals within any Canadian province or territory (B.C. has the highest number). The Black-footed Ferret and the Plains Bison (a subspecies) have been extirpated from Alberta. Swift Fox reintroduction efforts over the last 20 years have been successful; the species is no longer extirpated in Alberta. The Swift Fox is still “At Risk,” as are the Woodland Caribou (a subspecies) and the Wood Bison (a subspecies). The biological status of the Ord’s Kangaroo Rat, Red-tailed Chipmunk, Wolverine and Woodland Caribou has been assessed in detail. The status of four “May Be At Risk” species—the Vagrant Shrew, Long-tailed Weasel, Grizzly Bear and Northern Myotis—still requires detailed assessment.

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
<b>INSECTIVORES • INSECTIVORA</b>		
Masked Shrew	<i>Sorex cinereus</i>	Secure
Vagrant Shrew/Wandering Shrew	<i>Sorex vagrans</i>	May Be At Risk
Dusky Shrew	<i>Sorex monticolus</i>	Secure
Water Shrew	<i>Sorex palustris</i>	Secure
Arctic Shrew	<i>Sorex arcticus</i>	Secure
Pygmy Shrew	<i>Sorex hoyi</i>	Secure
Hayden’s Shrew/Prairie Shrew	<i>Sorex haydeni</i>	Secure
<b>BATS • CHIROPTERA</b>		
Little Brown Myotis	<i>Myotis lucifugus</i>	Secure
Long-eared Myotis	<i>Myotis evotis</i>	Secure
Long-legged Myotis	<i>Myotis volans</i>	Undetermined
Western Small-footed Myotis	<i>Myotis ciliolabrum</i>	Sensitive
Northern Myotis/Northern Long-eared Bat	<i>Myotis septentrionalis</i>	May Be At Risk
Silver-haired Bat	<i>Lasionycteris noctivagans</i>	Secure
Big Brown Bat	<i>Eptesicus fuscus</i>	Secure
Eastern Red Bat	<i>Lasiurus borealis</i>	Accidental/Vagrant
Hoary Bat	<i>Lasiurus cinereus</i>	Secure
<b>RABBITS, HARES AND PIKAS • LAGOMORPHA</b>		
American Pika	<i>Ochotona princeps</i>	Secure
Mountain Cottontail/Nuttall’s Cottontail	<i>Sylvilagus nuttallii</i>	Secure
Snowshoe Hare	<i>Lepus americanus</i>	Secure
White-tailed Jack Rabbit	<i>Lepus townsendii</i>	Secure

1. Two of these species, the American Bison and Caribou, were each divided into two subspecies in Alberta’s general status exercise.

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
<b>RODENTS • RODENTIA</b>		
Least Chipmunk	<i>Tamias minimus</i>	Secure
Yellow-pine Chipmunk	<i>Tamias amoenus</i>	Secure
Red-tailed Chipmunk	<i>Tamias ruficaudus</i>	Sensitive
Woodchuck	<i>Marmota monax</i>	Secure
Yellow-bellied Marmot	<i>Marmota flaviventris</i>	Secure
Hoary Marmot	<i>Marmota caligata</i>	Secure
Richardson's Ground Squirrel	<i>Spermophilus richardsonii</i>	Secure
Columbian Ground Squirrel	<i>Spermophilus columbianus</i>	Secure
Thirteen-lined Ground Squirrel	<i>Spermophilus tridecemlineatus</i>	Undetermined
Franklin's Ground Squirrel	<i>Spermophilus franklinii</i>	Undetermined
Golden-mantled Ground Squirrel	<i>Spermophilus lateralis</i>	Secure
Eastern Gray Squirrel	<i>Sciurus carolinensis</i>	Exotic/Alien
Red Squirrel	<i>Tamiasciurus hudsonicus</i>	Secure
Northern Flying Squirrel	<i>Glaucomys sabrinus</i>	Secure
Northern Pocket Gopher	<i>Thomomys talpoides</i>	Secure
Olive-backed Pocket Mouse	<i>Peroignathus fasciatus</i>	Sensitive
Ord's Kangaroo Rat	<i>Dipodomys ordii</i>	<b>May Be At Risk</b>
American Beaver	<i>Castor canadensis</i>	Secure
Western Harvest Mouse	<i>Reithrodontomys megalotis</i>	Undetermined
Deer Mouse	<i>Peromyscus maniculatus</i>	Secure
Northern Grasshopper Mouse	<i>Onychomys leucogaster</i>	Secure
Bushy-tailed Woodrat	<i>Neotoma cinerea</i>	Secure
Southern Red-backed Vole	<i>Clethrionomys gapperi</i>	Secure
Heather Vole	<i>Phenacomys intermedius</i>	Secure
Meadow Vole	<i>Microtus pennsylvanicus</i>	Secure
Long-tailed Vole	<i>Microtus longicaudus</i>	Secure
Taiga Vole	<i>Microtus xanthognathus</i>	Undetermined
Prairie Vole	<i>Microtus ochrogaster</i>	Undetermined
Water Vole	<i>Microtus richardsoni</i>	Sensitive
Sagebrush Vole	<i>Lemmyscus curtatus</i>	Secure
Muskrat	<i>Ondatra zibethicus</i>	Secure
Brown Lemming	<i>Lemmus sibiricus</i>	Undetermined
Northern Bog Lemming	<i>Synaptomys borealis</i>	Secure
Black Rat	<i>Rattus rattus</i>	Exotic/Alien
Norway Rat	<i>Rattus norvegicus</i>	Exotic/Alien
House Mouse	<i>Mus musculus</i>	Exotic/Alien
Meadow Jumping Mouse	<i>Zapus hudsonius</i>	Secure
Western Jumping Mouse	<i>Zapus princeps</i>	Secure
Common Porcupine	<i>Erethizon dorsatum</i>	Secure
<b>CARNIVORES • CARNIVORA</b>		
Coyote	<i>Canis latrans</i>	Secure
Gray Wolf	<i>Canis lupus</i>	Secure
Arctic Fox	<i>Alopex lagopus</i>	Accidental/Vagrant
Red Fox	<i>Vulpes vulpes</i>	Secure
Swift Fox	<i>Vulpes velox</i>	<b>At Risk</b>
Common Gray Fox	<i>Urocyon cinereoargenteus</i>	Accidental/Vagrant
Black Bear	<i>Ursus americanus</i>	Secure
Grizzly Bear	<i>Ursus arctos</i>	<b>May Be At Risk</b>
Common Raccoon	<i>Procyon lotor</i>	Secure
American Marten	<i>Martes americana</i>	Secure

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
Fisher	<i>Martes pennanti</i>	Sensitive
Ermine	<i>Mustela erminea</i>	Secure
Least Weasel	<i>Mustela nivalis</i>	Secure
Long-tailed Weasel	<i>Mustela frenata</i>	May Be At Risk
Black-footed Ferret	<i>Mustela nigripes</i>	Extirpated/Extinct
Mink	<i>Mustela vison</i>	Secure
Wolverine	<i>Gulo gulo</i>	May Be At Risk
American Badger	<i>Taxidea taxus</i>	Sensitive
Striped Skunk	<i>Mephitis mephitis</i>	Secure
Northern River Otter	<i>Lutra canadensis</i>	Secure
Mountain Lion/Cougar	<i>Felis concolor</i>	Sensitive
Canada Lynx	<i>Lynx canadensis</i>	Sensitive
Bobcat	<i>Lynx rufus</i>	Sensitive
Feral Dog	<i>Canis familiaris</i>	Not Assessed
Feral Cat	<i>Felis catus</i>	Not Assessed

#### EVEN-TOED UNGULATES • ARTIODACTYLA

Wapiti/Elk	<i>Cervus elaphus</i>	Secure
Mule Deer	<i>Odocoileus hemionus</i>	Secure
White-tailed Deer	<i>Odocoileus virginianus</i>	Secure
Moose	<i>Alces alces</i>	Secure
Caribou <sup>2</sup>	<i>Rangifer tarandus</i>	At Risk
Pronghorn	<i>Antilocapra americana</i>	Sensitive
American Bison <sup>3</sup>	<i>Bos bison</i>	At Risk
Mountain Goat	<i>Oreamnos americanus</i>	Secure
Mountain Sheep/Bighorn Sheep	<i>Ovis canadensis</i>	Secure
Wild Boar	<i>Sus scrofa</i>	Not Assessed

#### ODD-TOED UNGULATES • PERISSODACTYLA

Feral Horse	<i>Equus caballus</i>	Not Assessed
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2. There are two subspecies of Caribou listed in Alberta.

The Barren-ground Caribou (*Rangifer tarandus tarandus*) is listed as "Accidental/Vagrant." The Woodland Caribou (*Rangifer tarandus caribou*) is listed as "At Risk" and is considered a "Threatened" species under Alberta's *Wildlife Act*.

3. There are two subspecies of American Bison listed in Alberta. The Plains Bison (*Bos bison bison*) is listed as "Extirpated/Extinct." The Wood Bison (*Bos bison athabasca*) is listed as "At Risk" and is considered "Endangered" under Alberta's *Wildlife Act*.



GRIZZLY BEAR | gordon court



# reptiles

There are eight reptile species known to Alberta. The status of one “May Be At Risk” reptile, the Western Rattlesnake, has been assessed in detail. The two other reptiles that “May Be At Risk”—the Western Hognose Snake and the Short-horned Lizard—await detailed assessment. Like the amphibians, reptile species are going through a global decline. This decline is reflected in the status ranks of Alberta’s reptiles.

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
<b>TURTLES • TESTUDINES</b>		
Painted Turtle	<i>Chrysemys picta</i>	Sensitive
<b>LIZARDS AND SNAKES • SQUAMATA</b>		
Short-horned Lizard	<i>Phrynosoma hernandesi</i>	<b>May Be At Risk</b>
Western Hognose Snake	<i>Heterodon nasicus</i>	<b>May Be At Risk</b>
Bullsnake	<i>Pituophis catenifer</i>	Sensitive
Western Terrestrial Garter Snake/ Wandering Garter Snake	<i>Thamnophis elegans</i>	Sensitive
Plains Garter Snake	<i>Thamnophis radix</i>	Sensitive
Common Garter Snake/ Red-sided Garter Snake	<i>Thamnophis sirtalis</i>	Sensitive
Western Rattlesnake/Prairie Rattlesnake	<i>Crotalus viridis</i>	<b>May Be At Risk</b>





Ten amphibian species are found in Alberta. The status of two “May Be At Risk” species, the Great Plains Toad and Canadian Toad, has been assessed in detail. In light of an apparent global decline in amphibian populations, it is not surprising that a high proportion of amphibian species are considered “May Be At Risk” or “Sensitive” in Alberta. Biologists in the province have responded to this problem with a large-scale, long-term amphibian monitoring program to track population trends over time. In response to the vanishing of the population of Northern Leopard Frogs in the province, a successful reintroduction program was initiated in 1999. This “At Risk” species is listed as “Threatened” under Alberta’s *Wildlife Act*.

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
<b>SALAMANDERS • CAUDATA</b>		
Long-toed Salamander	<i>Ambystoma macrodactylum</i>	Sensitive
Tiger Salamander	<i>Ambystoma tigrinum</i>	Secure
<b>FROGS AND TOADS • ANURA</b>		
Western Toad	<i>Bufo boreas</i>	Sensitive
Great Plains Toad	<i>Bufo cognatus</i>	<b>May Be At Risk</b>
Canadian Toad	<i>Bufo hemiophrys</i>	<b>May Be At Risk</b>
Plains Spadefoot	<i>Spea bombifrons</i>	<b>May Be At Risk</b>
Boreal Chorus Frog	<i>Pseudacris maculata</i>	Secure
Northern Leopard Frog	<i>Rana pipiens</i>	<b>At Risk</b>
Wood Frog	<i>Rana sylvatica</i>	Secure
Columbia Spotted Frog	<i>Rana luteiventris</i>	Sensitive



CANADIAN TOAD | wayne lynch





# freshwater fish

Alberta's lakes, rivers and streams contain 63 species of fish. Relative to other taxa, a high proportion (16 percent) of these species are not native to Alberta ("Exotic/Alien"). One extinct subspecies of the Longnose Dace, the Banff Longnose Dace, was originally known from hot springs in Banff, Alberta. One "May Be At Risk" fish, the Pygmy Whitefish, has been assessed in detail. Plans are currently in place for detailed assessment of the other species that "May Be At Risk" (the Shorthead Sculpin, Spoonhead Sculpin, Shortjaw Cisco and Western Silvery Minnow). Note that the name of the Northern Squawfish has been changed to Northern Pikeminnow.

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
<b>LAMPREYS • PETROMYZONTIFORMES</b>		
Arctic Lamprey	<i>Lampetra japonica</i>	Secure
<b>SCULPINS • SCORPAENIFORMES</b>		
Prickly Sculpin	<i>Cottus asper</i>	Not Assessed
Mottled Sculpin	<i>Cottus bairdi</i>	Not Assessed
Slimy Sculpin	<i>Cottus cognatus</i>	Secure
Shorthead Sculpin	<i>Cottus confusus</i>	May Be At Risk
Spoonhead Sculpin	<i>Cottus ricei</i>	May Be At Risk
Deepwater Sculpin	<i>Myoxocephalus thompsoni</i>	Undetermined
<b>STURGEONS • ACIPENSERIFORMES</b>		
Lake Sturgeon	<i>Acipenser fulvescens</i>	Undetermined
<b>MOONEYES • OSTEOGLOSSIFORMES</b>		
Goldeye	<i>Hiodon alosoides</i>	Secure
Mooneye	<i>Hiodon tergisus</i>	Secure
<b>PIKE AND TROUT-LIKE FISHES • SALMONIFORMES</b>		
Cisco	<i>Coregonus artedi</i>	Secure
Lake Whitefish	<i>Coregonus clupeaformis</i>	Secure
Shortjaw Cisco	<i>Coregonus zenithicus</i>	May Be At Risk
Golden Trout	<i>Oncorhynchus aguabonita</i>	Exotic/Alien
Cutthroat Trout	<i>Oncorhynchus clarki</i>	Secure
Rainbow Trout	<i>Oncorhynchus mykiss</i>	Secure
Sockeye Salmon/Kokanee	<i>Oncorhynchus nerka</i>	Exotic/Alien
Pygmy Whitefish	<i>Prosopium coulteri</i>	May Be At Risk
Round Whitefish	<i>Prosopium cylindraceum</i>	Undetermined
Mountain Whitefish	<i>Prosopium williamsoni</i>	Secure
Brown Trout	<i>Salmo trutta</i>	Exotic/Alien
Bull Trout	<i>Salvelinus confluentus</i>	Sensitive
Brook Trout	<i>Salvelinus fontinalis</i>	Exotic/Alien
Dolly Varden	<i>Salvelinus malma</i>	Exotic/Alien

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
Lake Trout	<i>Salvelinus namaycush</i>	Sensitive
Arctic Grayling	<i>Thymallus arcticus</i>	Sensitive
Northern Pike	<i>Esox lucius</i>	Secure

#### SUCKERS AND MINNOWS • CYPRINIFORMES

Lake Chub	<i>Couesius plumbeus</i>	Secure
Western Silvery Minnow	<i>Hybognathus argyritis</i>	May Be At Risk
Brassy Minnow	<i>Hybognathus hankinsoni</i>	Undetermined
Emerald Shiner	<i>Notropis atherinoides</i>	Secure
River Shiner	<i>Notropis blennius</i>	Undetermined
Spottail Shiner	<i>Notropis hudsonius</i>	Secure
Northern Redbelly Dace	<i>Phoxinus eos</i>	Sensitive
Finescale Dace	<i>Phoxinus neogaeus</i>	Undetermined
Fathead Minnow	<i>Pimephales promelas</i>	Secure
Northern Pikeminnow	<i>Ptychocheilus oregonensis</i>	Sensitive
Longnose Dace	<i>Rhinichthys cataractae</i>	Secure
Redside Shiner	<i>Richardsonius balteatus</i>	Secure
Pearl Dace	<i>Margariscus margarita</i>	Undetermined
Flathead Chub	<i>Platygobio gracilis</i>	Secure
Quillback	<i>Carpionodes cyprinus</i>	Undetermined
Longnose Sucker	<i>Catostomus catostomus</i>	Secure
White Sucker	<i>Catostomus commersoni</i>	Secure
Largescale Sucker	<i>Catostomus macrocheilus</i>	Sensitive
Mountain Sucker	<i>Catostomus platyrhynchus</i>	Secure
Silver Redhorse	<i>Moxostoma anisurum</i>	Undetermined
Shorthead Redhorse	<i>Moxostoma macrolepidotum</i>	Secure

#### BULLHEAD CATFISHES • SILURIFORMES

Stoneyhead	<i>Noturus flavus</i>	Undetermined
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#### TROUT-PERCHES • PERCOPSIFORMES

Trout-perch	<i>Percopsis omiscomaycus</i>	Secure
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#### COD • GADIFORMES

Burbot	<i>Lota lota</i>	Secure
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#### LIVEBEARERS • CYPRINODONTIFORMES

Mosquitofish	<i>Gambusia affinis</i>	Exotic/Alien
Sailfin Molly	<i>Poecilia latipinna</i>	Exotic/Alien

#### STICKLEBACKS • GASTEROSTEIFORMES

Brook Stickleback	<i>Culaea inconstans</i>	Secure
Threespine Stickleback	<i>Gasterosteus aculeatus</i>	Exotic/Alien
Ninespine Stickleback	<i>Pungitius pungitius</i>	Undetermined

#### PERCHES AND CICHLIDS • PERCIFORMES

Smallmouth Bass	<i>Micropterus dolomieu</i>	Exotic/Alien
Iowa Darter	<i>Etheostoma exile</i>	Secure
Logperch	<i>Percina caprodes</i>	Undetermined
Yellow Perch	<i>Perca flavescens</i>	Secure
Sauger	<i>Stizostedion canadense</i>	Sensitive
Walleye	<i>Stizostedion vitreum</i>	Secure
African Jewelfish	<i>Hemichromis bimaculatus</i>	Exotic/Alien



# butterflies

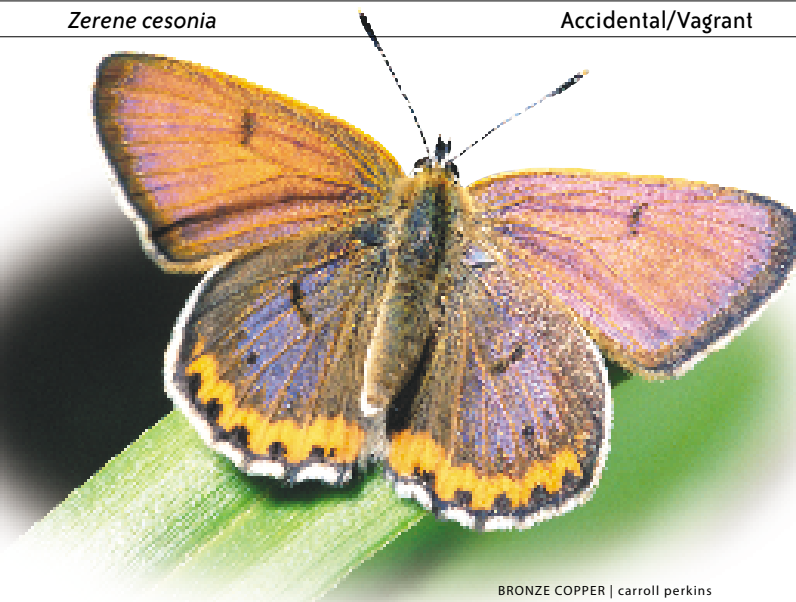
There are 162 butterfly and skipper species recognized in Alberta. The only species that was ranked as “May Be At Risk” in the province, the Weidemeyer’s Admiral, requires detailed assessment of its biological status. The status of approximately 20 percent of Alberta’s butterflies and skippers could not be determined during the general status exercise in 2000, so more data on these species needs to be collected before a status can be assigned.

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
<b>BUTTERFLIES AND SKIPPERS - LEPIDOPTERA</b>		
Large-Spotted Blue	<i>Agriades aquilo</i>	Secure
Arctic Blue	<i>Agriades glandon</i>	Secure
Oslar’s Roadside Skipper	<i>Amblyscirtes oslari</i>	Undetermined
Common Roadside Skipper	<i>Amblyscirtes vialis</i>	Secure
Delaware Skipper	<i>Anatrytone logan</i>	Undetermined
Least Skipper	<i>Ancyloxypha numitor</i>	Undetermined
Stella Orangetip	<i>Anthocaris stella</i>	Undetermined
Alberta Fritillary	<i>Boloria alberta</i>	Secure
Astarte Fritillary	<i>Boloria astarte</i>	Secure
Meadow Fritillary	<i>Boloria bellona</i>	Secure
Arctic Fritillary	<i>Boloria chariclea</i>	Secure
Western Meadow Fritillary	<i>Boloria epithore</i>	Undetermined
Bog Fritillary	<i>Boloria eunomia</i>	Secure
Freija Fritillary	<i>Boloria freija</i>	Secure
Frigga Fritillary	<i>Boloria frigga</i>	Secure
Dingy Fritillary	<i>Boloria improba</i>	Undetermined
Mountain Fritillary	<i>Boloria napaea</i>	Sensitive
Silver-Bordered Fritillary	<i>Boloria selene</i>	Secure
Brown Elfin	<i>Callophrys augustinus</i>	Secure
Western Pine Elfin	<i>Callophrys eryphon</i>	Secure
Moss’ Elfin	<i>Callophrys mossii</i>	Sensitive
Eastern Pine Elfin	<i>Callophrys niphon</i>	Secure
Hoary Elfin	<i>Callophrys polia</i>	Secure
Sheridan’s Hairstreak	<i>Callophrys sheridanii</i>	Sensitive
Thicket Hairstreak	<i>Callophrys spinetorum</i>	Undetermined
Arctic Skipper	<i>Carterocephalus palaemon</i>	Secure
Spring Azure	<i>Celastrina ladon</i>	Secure
Small Wood-Nymph	<i>Cercyonis oetus</i>	Secure
Common Wood-Nymph	<i>Cercyonis pegala</i>	Secure
Sagebrush Checkerspot	<i>Chlosyne acastus</i>	Sensitive
Gorgone Checkerspot	<i>Chlosyne gorgone</i>	Sensitive

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
Northern Checkerspot	<i>Chlosyne palla</i>	Secure
Rockslide Checkerspot	<i>Chlosyne whitneyi</i>	Secure
Common Ringlet	<i>Coenonympha tullia</i>	Secure
Queen Alexandra's Sulphur	<i>Colias alexandra</i>	Undetermined
Canada Sulphur	<i>Colias canadensis</i>	Undetermined
Christina Sulphur	<i>Colias christina</i>	Secure
Orange Sulphur	<i>Colias eurytheme</i>	Secure
Giant Sulphur	<i>Colias gigantea</i>	Secure
Pink-Edged Sulphur	<i>Colias interior</i>	Secure
Mead's Sulphur	<i>Colias meadii</i>	Secure
Labrador Sulphur	<i>Colias nastes</i>	Secure
Palaeno Sulphur	<i>Colias palaeno</i>	Undetermined
Pelidne Sulphur	<i>Colias pelidne</i>	Secure
Clouded Sulphur	<i>Colias philodice</i>	Secure
Monarch	<i>Danaus plexippus</i>	Sensitive
Northern Pearly Eye	<i>Enodia anthedon</i>	Undetermined
Silver-Spotted Skipper	<i>Epargyreus clarus</i>	Undetermined
Red-Disked Alpine	<i>Erebia discoidalis</i>	Secure
Common Alpine	<i>Erebia epipsodea</i>	Secure
Magdalena Alpine	<i>Erebia magdalena</i>	Undetermined
Taiga Alpine	<i>Erebia mancinus</i>	Secure
Ross's Alpine	<i>Erebia rossii</i>	Undetermined
Afranius Duskywing	<i>Erynnis afranius</i>	Sensitive
Dreamy Duskywing	<i>Erynnis icelus</i>	Secure
Persius Duskywing	<i>Erynnis persius</i>	Secure
Large Marble	<i>Euchloe ausinodes</i>	Secure
Northern Marble	<i>Euchloe creusa</i>	Secure
Olympia Marble	<i>Euchloe olympia</i>	Secure
Rocky Mountain Dotted Blue	<i>Euphilotes ancilla</i>	Sensitive
Variable Checkerspot	<i>Euphydryas chalcedona</i>	Secure
Edith's Checkerspot	<i>Euphydryas editha</i>	Secure
Gillette's Checkerspot	<i>Euphydryas gillettii</i>	Sensitive
Variiegated Fritillary	<i>Euptoieta claudia</i>	Secure
Western Tailed Blue	<i>Everes amyntula</i>	Secure
Silvery Blue	<i>Glaucoopsyche lygdamus</i>	Secure
Arrowhead Blue	<i>Glaucoopsyche piasus</i>	Sensitive
Plains Skipper	<i>Hesperia assiniboia</i>	Secure
Common Branded Skipper	<i>Hesperia comma</i>	Secure
Nevada Skipper	<i>Hesperia nevada</i>	Sensitive
Uncas Skipper	<i>Hesperia uncas</i>	Sensitive
Boisduval's Blue	<i>Icaricia icarioides</i>	Sensitive
Lupine Blue	<i>Icaricia lupini</i>	Secure
Shasta Blue	<i>Icaricia shasta</i>	Sensitive
Viceroy	<i>Limenitis archippus</i>	Secure
White Admiral	<i>Limenitis arthemis</i>	Secure
Lorquin's Admiral	<i>Limenitis lorquini</i>	Sensitive
Weidemeyer's Admiral	<i>Limenitis weidemeyerii</i>	May Be At Risk
Northern Blue	<i>Lycaeides idas</i>	Secure

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
Melissa Blue	<i>Lycaeides melissa</i>	Secure
Lustrous Copper	<i>Lycaena cuprea</i>	Secure
Gray Copper	<i>Lycaena dione</i>	Sensitive
Dorcas Copper	<i>Lycaena dorcas</i>	Secure
Purplish Copper	<i>Lycaena helloides</i>	Secure
Blue Copper	<i>Lycaena heteronea</i>	Undetermined
Bronze Copper	<i>Lycaena hyllus</i>	Secure
Maniposa Copper	<i>Lycaena mariposa</i>	Secure
American Copper	<i>Lycaena phlaeas</i>	Secure
Ruddy Copper	<i>Lycaena rubida</i>	Undetermined
Ridings' Satyr	<i>Neominois ridingsii</i>	Sensitive
Pine White	<i>Neophasia menapia</i>	Undetermined
Mourning Cloak	<i>Nymphalis antiopa</i>	Secure
California Tortoiseshell	<i>Nymphalis californica</i>	Undetermined
Milbert's Tortoiseshell	<i>Nymphalis milberti</i>	Secure
Compton Tortoiseshell	<i>Nymphalis vaualbum</i>	Secure
Garita Skipperling	<i>Oarisma garita</i>	Secure
Woodland Skipper	<i>Ochlodes sylvanoides</i>	Undetermined
Alberta Arctic	<i>Oeneis alberta</i>	Sensitive
White-Veined Arctic	<i>Oeneis bore</i>	Undetermined
Chryxus Arctic	<i>Oeneis chryxus</i>	Secure
Jutta Arctic	<i>Oeneis jutta</i>	Secure
Macoun's Arctic	<i>Oeneis macounii</i>	Secure
Melissa Arctic	<i>Oeneis melissa</i>	Secure
Polixenes Arctic	<i>Oeneis polixenes</i>	Secure
Uhler's Arctic	<i>Oeneis uhleri</i>	Secure
Canadian Tiger Swallowtail	<i>Papilio canadensis</i>	Secure
Pale Swallowtail	<i>Papilio eurymedon</i>	Undetermined
Old World Swallowtail	<i>Papilio machaon</i>	Sensitive
Two-Tailed Swallowtail	<i>Papilio multicaudatus</i>	Undetermined
Anise Swallowtail	<i>Papilio zelicaon</i>	Secure
Clodius Parnassian	<i>Parnassius clodius</i>	Secure
Rocky Mountain Parnassian	<i>Parnassius smintheus</i>	Secure
Tawny Crescent	<i>Phyciodes batesii</i>	Secure
Northern Crescent	<i>Phyciodes cocyta</i>	Secure
Field Crescent	<i>Phyciodes pratensis</i>	Secure
Pearl Crescent	<i>Phyciodes tharos</i>	Secure
Margined White	<i>Pieris marginalis</i>	Secure
Mustard White	<i>Pieris oleracea</i>	Undetermined
Cabbage White	<i>Pieris rapae</i>	Exotic/Alien
Greenish Blue	<i>Plebejus saepiolus</i>	Secure
Hobomok Skipper	<i>Poanes hobomok</i>	Undetermined
Draco Skipper	<i>Polites draco</i>	Secure
Long Dash Skipper	<i>Polites mystic</i>	Secure
Peck's Skipper	<i>Polites peckius</i>	Secure
Rhesus Skipper	<i>Polites rhesus</i>	Undetermined
Tawny-Edged Skipper	<i>Polites themistocles</i>	Undetermined
Green Comma	<i>Polygonia faunus</i>	Secure

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
Hoary Comma	<i>Polygona gracilis</i>	Secure
Question Mark	<i>Polygona interrogationis</i>	Accidental/Vagrant
Oreas Comma	<i>Polygona oreas</i>	Undetermined
Gray Comma	<i>Polygona progne</i>	Secure
Satyr Comma	<i>Polygona satyrus</i>	Secure
Western White	<i>Pontia occidentalis</i>	Secure
Checkered White	<i>Pontia protodice</i>	Secure
Spring White	<i>Pontia sisymbrii</i>	Undetermined
Grizzled Skipper	<i>Pyrgus centaureae</i>	Secure
Common Checkered Skipper	<i>Pyrgus communis</i>	Secure
Two-Banded Checkered Skipper	<i>Pyrgus ruralis</i>	Undetermined
Small Checkered Skipper	<i>Pyrgus scriptura</i>	Undetermined
Acadian Hairstreak	<i>Satyrium acadicum</i>	Undetermined
Sooty Hairstreak	<i>Satyrium fuliginosum</i>	Secure
Striped Hairstreak	<i>Satyrium liparops</i>	Undetermined
Coral Hairstreak	<i>Satyrium titus</i>	Secure
Eyed Brown	<i>Satyrodes eurydice</i>	Undetermined
Aphrodite Fritillary	<i>Speyeria aphrodite</i>	Secure
Atlantis Fritillary	<i>Speyeria atalantis</i>	Secure
Callippe Fritillary	<i>Speyeria callippe</i>	Secure
Great Spangled Fritillary	<i>Speyeria cybele</i>	Secure
Edwards' Fritillary	<i>Speyeria edwardsii</i>	Sensitive
Northwestern Fritillary	<i>Speyeria hesperis</i>	Secure
Hydaspe Fritillary	<i>Speyeria hydaspe</i>	Secure
Mormon Fritillary	<i>Speyeria mormonia</i>	Secure
Zerene Fritillary	<i>Speyeria zerene</i>	Secure
Gray Hairstreak	<i>Strymon melinus</i>	Secure
Northern Cloudywing	<i>Thorybes pylades</i>	Secure
European Skipper	<i>Thymelicus lineola</i>	Exotic/Alien
Cranberry Blue	<i>Vacciniina optilete</i>	Undetermined
West Coast Lady	<i>Vanessa annabella</i>	Secure
Red Admiral	<i>Vanessa atalanta</i>	Secure
Painted Lady	<i>Vanessa cardui</i>	Secure
American Lady	<i>Vanessa virginiensis</i>	Secure
Southern Dogface	<i>Zerene cesonia</i>	Accidental/Vagrant



BRONZE COPPER | carroll perkins

# orchids



Twenty-six species of orchids are found in Alberta, occurring in a variety of habitats. Despite their general popularity, many orchids are not well studied and need detailed assessment of their biological status.

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
<b>ORCHIDALES</b>		
Small Round-Leaved Orchis/Round-Leaved Orchid	<i>Amerorchis rotundifolia</i>	Secure
Calypso/Venus'-Slipper	<i>Calypso bulbosa</i>	Secure
Spotted Coral-Root/Spotted Coralroot	<i>Corallorhiza maculata</i>	Sensitive
Striped Coral-Root/Striped Coralroot	<i>Corallorhiza striata</i>	Sensitive
Early Coral-Root/Pale Coralroot	<i>Corallorhiza trifida</i>	Secure
Pink Lady's-Slipper/Stemless Lady's-Slipper	<i>Cypripedium acaule</i>	May Be At Risk
Mountain Lady's-Slipper	<i>Cypripedium montanum</i>	May Be At Risk
Yellow Lady's-Slipper	<i>Cypripedium parviflorum</i>	Sensitive
Sparrow's-Egg Lady's-Slipper	<i>Cypripedium passerinum</i>	Secure
Long-Bracted Orchid/Bracted Bog Orchid	<i>Dactylorhiza viridis</i>	Secure
Menzies' Rattlesnake-Plantain/Rattlesnake Plantain	<i>Goodyera oblongifolia</i>	Sensitive
Lesser Rattlesnake-Plantain	<i>Goodyera repens</i>	Secure
Northern Twayblade	<i>Listera borealis</i>	Secure
Western Twayblade	<i>Listera caurina</i>	May Be At Risk
Broad-Leaved Twayblade/Broad-Lipped Twayblade	<i>Listera convallarioides</i>	May Be At Risk
Heart-Leaved Twayblade	<i>Listera cordata</i>	Secure
White Adder's-Mouth	<i>Malaxis monophylla</i>	May Be At Risk
Bog Adder's-Mouth	<i>Malaxis paludosa</i>	May Be At Risk
Alaskan Orchid/Alaska Bog Orchid	<i>Piperia unalascensis</i>	Sensitive
Tall Northern Green Orchid/Northern Green Bog Orchid	<i>Platanthera aquilonis</i>	Secure
White Bog-Orchid/Tall White Bog Orchid	<i>Platanthera dilatata</i>	Sensitive
Blunt-Leaf Orchid/Blunt-Leaved Bog Orchid	<i>Platanthera obtusata</i>	Secure
Small Round-Leaved Orchid/Round-Leaved Bog Orchid	<i>Platanthera orbiculata</i>	Sensitive
Slender Bog-Orchid	<i>Platanthera stricta</i>	May Be At Risk
Slender Ladies'-Tresses/Northern Slender Ladies' Tresses	<i>Spiranthes lacera</i>	May Be At Risk
Hooded Ladies'-Tresses	<i>Spiranthes romanzoffiana</i>	Secure



YELLOW LADY'S-SLIPPER | wayne lynch



There are 46 species of ferns found throughout Alberta. These species occupy a wide range of habitats in the province, including the grasslands, mountains, foothills, boreal forest and Canadian Shield. Many ferns require detailed assessment of their biological status.

COMMON NAME	SCIENTIFIC NAME	STATUS RANK
<b>MARSILEALES</b>		
Hairy Water Fern/Hairy Pepperwort	<i>Marsilea vestita</i>	May Be At Risk
<b>OPHIOGLOSSALES</b>		
Upward-Lobed Moonwort/Ascending Grape Fern	<i>Botrychium ascendens</i>	May Be At Risk
Boreal Moonwort/Northern Grape Fern	<i>Botrychium boreale</i>	May Be At Risk
Prairie Dunewort/Field Grape Fern	<i>Botrychium campestre</i>	May Be At Risk
Crenulate Moonwort	<i>Botrychium crenulatum</i>	May Be At Risk
Western Moonwort/Western Grape Fern	<i>Botrychium hesperium</i>	May Be At Risk
Lance-Leaved Moonwort/Lance-Leaved Grape Fern	<i>Botrychium lanceolatum</i>	May Be At Risk
Moonwort Grape-Fern/Moonwort	<i>Botrychium lunaria</i>	Secure
Mingan's Moonwort	<i>Botrychium minganense</i>	May Be At Risk
Leathery Grape-Fern	<i>Botrychium multifidum</i>	May Be At Risk
Peculiar Moonwort/Paradoxical Grape Fern	<i>Botrychium paradoxum</i>	May Be At Risk
Stalked Moonwort	<i>Botrychium pedunculosum</i>	May Be At Risk
Northern Moonwort	<i>Botrychium pinnatum</i>	May Be At Risk
Least Grape-Fern/Dwarf Grape Fern	<i>Botrychium simplex</i>	May Be At Risk
Spoon-Leaf Moonwort	<i>Botrychium spatulatum</i>	May Be At Risk
Rattlesnake Fern/Virginia Grape Fern	<i>Botrychium virginianum</i>	Secure
<b>FILICALES (POLYPODIALES)</b>		
Aleutian Maidenhair-Fern/Maidenhair Fern	<i>Adiantum aleuticum</i>	May Be At Risk
Green Spleenwort	<i>Asplenium viride</i>	Sensitive
Alpine Lady Fern/Alpine Spleenwort	<i>Athyrium distentifolium</i>	May Be At Risk
Slender Lip Fern	<i>Cheilanthes feei</i>	Sensitive
Lace Lip Fern/Lace Fern	<i>Cheilanthes gracillima</i>	May Be At Risk
American Rock-Brake/Parsley Fern	<i>Cryptogramma acrostichoides</i>	Sensitive
Fragile Rock-Brake/Steller's Rock Brake	<i>Cryptogramma stelleri</i>	May Be At Risk
Fragile Fern/Fragile Bladder Fern	<i>Cystopteris fragilis</i>	Secure
Mountain Bladder Fern	<i>Cystopteris montana</i>	May Be At Risk
Spinulose Shield Fern/Narrow Spinulose Shield Fern	<i>Dryopteris carthusiana</i>	Secure
Crested Shield Fern	<i>Dryopteris cristata</i>	May Be At Risk
Shield Fern/Broad Spinulose Shield Fern	<i>Dryopteris expansa</i>	Sensitive
Male Fern	<i>Dryopteris filix-mas</i>	May Be At Risk
Fragrant Cliff Wood Fern/Fragrant Shield Fern	<i>Dryopteris fragrans</i>	Sensitive



COMMON NAME	SCIENTIFIC NAME	STATUS RANK
Western Oak Fern	<i>Gymnocarpium disjunctum</i>	Undetermined
Oak Fern	<i>Gymnocarpium dryopteris</i>	Secure
Nahanni Oak Fern/Northern Oak Fern	<i>Gymnocarpium jessoense</i>	<b>May Be At Risk</b>
Ostrich Fern	<i>Matteuccia struthiopteris</i>	Sensitive
Gastony's Cliff-Brake	<i>Pellaea gastonyi</i>	<b>May Be At Risk</b>
Smooth Cliff-Brake	<i>Pellaea glabella</i>	<b>May Be At Risk</b>
Northern Beech Fern	<i>Phegopteris connectilis</i>	<b>May Be At Risk</b>
Western Polypody	<i>Polypodium hesperium</i>	<b>May Be At Risk</b>
Siberian Polypody	<i>Polypodium sibiricum</i>	<b>May Be At Risk</b>
Rock Polypody	<i>Polypodium virginianum</i>	<b>May Be At Risk</b>
Northern Holly Fern	<i>Polystichum lonchitis</i>	Sensitive
Bracken Fern	<i>Pteridium aquilinum</i>	Sensitive
Smooth Woodsia	<i>Woodsia glabella</i>	<b>May Be At Risk</b>
Rusty Woodsia	<i>Woodsia ilvensis</i>	Sensitive
Oregon Woodsia	<i>Woodsia oregana</i>	Sensitive
Mountain Cliff Fern/Mountain Woodsia	<i>Woodsia scopulina</i>	Sensitive

## STATUS AND BACKGROUND OF AT RISK, MAY BE AT RISK AND SENSITIVE SPECIES IN ALBERTA

TABLE 4 | BIRDS

SPECIES	POPULATION NOTES	BACKGROUND
<b>AT RISK</b>		
Burrowing Owl	Alberta estimated to have 700 to 900 breeding pairs (1995) and declining.	Populations declining dramatically in prairie habitats across Canada. Local threats include destruction of habitat and loss of ground squirrels. Designated as “Threatened” under Alberta’s <i>Wildlife Act</i> .
Ferruginous Hawk	Estimated that there are 730 pairs in Alberta, down from an estimate of 1 700 in 1992.	Recent declines in surveyed zones are a cause for concern. Research on ground squirrel prey base required. Designated as “Threatened” under the <i>Wildlife Act</i> .
Greater Sage-Grouse	Population declining in a very restricted area of unique habitat. In Canada, found only in Alberta and Saskatchewan.	Population recovery depends on the availability of sage brush-grassland habitat. Any degradation of this unique habitat complex will be detrimental to the population. Causes of the rapid decline are under study. Designated as “Endangered” under the <i>Wildlife Act</i> .
Peregrine Falcon	Fewer than 60 breeding pairs in Alberta.	Continued provincial recovery of this species is being fueled by declining pesticide levels in prey. Protection of wetland feeding areas is important. Designated as “Threatened” under the <i>Wildlife Act</i> .
Piping Plover	Estimated to be 100 to 150 breeding pairs in Alberta.	“Threatened” or “Endangered” throughout North America. Recovery requires protection from human disturbance and management of key shoreline nesting habitats. Designated as “Endangered” under Alberta’s <i>Wildlife Act</i> .
Trumpeter Swan	Breeding population now over 400 pairs.	Critical shortage of key winter habitat in the Tri-State area (Idaho, Montana, Wyoming) still limiting population growth. Existing breeding habitat carefully managed and relatively secure. Efforts underway to expand wintering areas. Designated as “Threatened” under the <i>Wildlife Act</i> .
Whooping Crane	Wild population less than 200 individuals.	All nesting sites protected in Wood Buffalo National Park. Conservation of migratory habitats and potential breeding habitats in Alberta is required. Designated as “Endangered” under the <i>Wildlife Act</i> .
<b>MAY BE AT RISK</b>		
Long-billed Curlew	Population low, possibly declining.	Relies on native prairie grassland and is thought to be declining throughout its Canadian range. Alberta inventory data presently insufficient to allow effective management. Recommended as a “Species of Special Concern” in Alberta.
Short-eared Owl	Unknown. Declines in all prairie provinces and in other parts of North American breeding range.	Causes of population decline unknown. Relies on maintenance of edges of larger wetland habitats. Irruptive nature of population makes population trend assessments extremely difficult.
<b>SENSITIVE</b>		
American Bittern	Unknown. Suspected declines in some areas of the province.	Relies on permanent to semi-permanent wetlands with well-developed emergent vegetation. Drainage, consolidation and cultivation of these wetlands are continuing threats.
American White Pelican	Estimated that there are more than 6 000 pairs in the province. Number of nesting pairs increasing.	Population increasing but the number of active colonies is decreasing. Comprehensive colony protection essential. Concern of possible disease risk. Drought across other parts of prairies may have contributed to the increase in Alberta.

BIRDS | SENSITIVE . . . CONTINUED

Baird's Sparrow	Population information poor. Some concern over population declines in parts of Alberta.	Concern over apparent population decline throughout Canadian range, possibly as a result of alteration of key prairie habitats.
Bald Eagle	Population recovering over most of range.	A species once at risk throughout much of its North American range, now recovering. Low density in Alberta. Nests vulnerable to human disturbance.
Barred Owl	Uncommon; probably fewer than 1 000 breeding pairs in Alberta.	This interior forest species requires larger blocks of mature dense woodland. Forest fragmentation is detrimental. Forest management plans need to ensure breeding habitat is retained.
Bay-breasted Warbler	Unknown. Declining over parts of North American range.	Dependent on old-growth forest. Forest management plans need to ensure retention of breeding habitat.
Black-backed Woodpecker	Unknown.	Maintenance of mature coniferous forests important. Standing dead trees (snags) required for nesting.
Blackburnian Warbler	Unknown; 6-20 breeding occurrences in the province. Species was never common in Alberta.	Considered peripheral with a very restricted distribution in Alberta. Preference for mature mixedwood forests suggests it may be vulnerable to forestry operations.
Black-crowned Night-Heron	Population has increased in Alberta over past 20 years.	Colonial species reliant on marsh habitat. Requires special management.
Black-necked Stilt	Small local populations.	Very localized distribution makes populations vulnerable to wetland disturbances or loss.
Black Tern	Unknown. Documented declines in Saskatchewan and over large parts of North American breeding range.	Causes of population decline unknown. Relies on maintenance of larger marsh/wetland habitats.
Black-throated Green Warbler	Uncommon.	Dependent on old coniferous forest; the maintenance of breeding habitat in forest harvest areas will be challenging. Recommended as a "Species of Special Concern" in Alberta.
Bobolink	Small numbers (fewer than 500 breeding pairs in Alberta).	Dependent on tall-grass meadows. Very local in distribution.
Brewer's Sparrow	Uncertain, but population decline suspected.	The prairie population of the species relies on availability of natural sage brush.
Broad-winged Hawk	Uncommon. Decline noted throughout parkland zone, particularly around urban areas.	Requires large stands of mature to old-growth forest in the parkland and southern boreal forest. Careful woodlot management by agricultural and forest operations required to maintain breeding habitat.
Canada Warbler	Unknown.	Requires old mixedwood stands with very dense understory, often adjacent to riparian areas.
Cape May Warbler	Unknown.	Dependent on old-growth forest for breeding. Serious loss of neotropical wintering habitat.
Caspian Tern	Very rare. Locally distributed.	Protection of breeding sites is necessary to ensure viable population.
Clark's Grebe	Extremely localized. Fewer than 20 breeding pairs in Alberta.	Peripheral species in Alberta, but small local populations are important for the biodiversity of the province.
Common Nighthawk	Alberta population is considered large. More than 100 breeding occurrences in the province.	Occurs in every natural region in Alberta. Apparent decline requires investigation. Food supply may be affected by pesticide use in urban and suburban areas.
Forster's Tern	Rare. Breeding locations very local.	Protection of breeding sites important.
Golden Eagle	Rare and local breeder. Populations stable; estimated 100 to 250 breeding pairs in Alberta.	Very low population spread over broad areas. Site-specific nest site protection is appropriate. Large numbers of northern breeders migrate through Alberta.

BIRDS | SENSITIVE . . . CONTINUED

Grasshopper Sparrow	Uncommon with a restricted distribution in Alberta.	Prime natural sandhill habitats may be vulnerable to overgrazing, although this species may be able to inhabit tame grassland and pastures.
Great Blue Heron	Size and number of colonies declining in Alberta.	Entire Alberta population is dependent on fewer than 100 known nesting colonies. Management of these key habitats and protection from human disturbance is essential.
Great Crested Flycatcher	Unknown; probably less than 300 breeding pairs.	Scarce species. Apparently not sensitive to habitat fragmentation, but brushing activities in parkland may be degrading habitat.
Great Gray Owl	Unknown.	A naturally scarce species, widely distributed in foothill and boreal habitats. Requires stands of mature forest for nesting.
Harlequin Duck	Unknown. Restricted distribution in province. Population appears stable.	Site-specific mitigation of disturbances may be necessary.
Horned Grebe	Declining throughout range in Alberta.	Drought-related disappearance of small ponds affects this species. Breeding Bird Survey data show sharp decline in the last two decades.
Lark Bunting	Breeding Bird Survey indicates this species is relatively common in the southeastern part of the province and uncommon throughout the rest of its range in Alberta. More than 100 breeding occurrences.	Locally distributed in southern Alberta with naturally irruptive populations. Limited threats to its habitat have been identified.
Loggerhead Shrike	Population low, poorly understood and probably has declined in recent years.	Concern over known population decline in much of Canada. Conservation of prairie shrub nest habitat and improved information on population status and trend are necessary. Recommended as a “Species of Special Concern” in Alberta.
Mountain Plover	Four to six pairs known to breed in the province.	Extreme northern limit of breeding range occurs in Alberta (a peripheral species). Requires native grassland management to provide preferred open nest sites.
Northern Goshawk	Unknown.	Maintenance of mature forest breeding habitat needs to be incorporated into forest planning on both public and private lands.
Northern Pygmy-Owl	Uncommon species. More information needed on population size. Estimated there are 21-100 breeding occurrences in Alberta.	Local populations in boreal forest, foothills and Rocky Mountains. Forest management plans need to ensure breeding habitat is maintained.
Osprey	Unknown.	Continued monitoring and protection of specific nest sites desirable.
Pied-billed Grebe	Declining throughout range in Alberta.	Drought-related disappearance of small ponds affects this species. Breeding Bird Survey data from Alberta suggest declining numbers over the last two decades.
Pileated Woodpecker	Probably stable.	Requires mature to old-growth trees for nesting. Abandoned nest cavities provide essential habitat for several other forest species. Maintenance of breeding habitat needs to be incorporated into forest management on both public and private lands.
Prairie Falcon	Unclear. Historic range reduced in northern areas.	Core range in southern Alberta dependent on availability of secure nest sites and adequate ground squirrel prey base.
Purple Martin	Uncommon. Restricted to the parkland and southern boreal forest. Local in east central Alberta. More than 100 breeding occurrences in the province.	Concern over loss of nest sites and competition from House Sparrows and European Starlings. Neotropical wintering grounds are under threat.

**BIRDS | SENSITIVE . . . CONTINUED**

Sandhill Crane	Unknown population size.	Sparsely distributed through boreal and foothill bogs and marshes. Sensitive to human disturbance. Land use planning needs to incorporate the maintenance of breeding habitat.
Sedge Wren	Local and uncommon in Alberta.	Drought conditions combined with drainage of wetlands have degraded nesting habitats.
Sharp-tailed Grouse	Relatively common throughout the grassland, central parkland and Peace River parkland.	Population dependent on open grassland/shrubland during breeding season. Farming intensification has decreased habitat availability in central Alberta.
Sprague’s Pipit	Dramatic population declines documented in recent decades.	Breeding Bird Survey data show very large declines in this native grassland-dependent species. Recommended as a “Species of Special Concern” in Alberta.
Swainson’s Hawk	Sharp declines in prairie population over the last decade.	Expansion in urban and semi-urban habitats. Adult population subject to mass poisoning on winter range. Dependent on healthy ground squirrel population.
Upland Sandpiper	Unknown.	Population probably has declined with loss of native prairie grassland nesting areas. Appears to have relatively narrow habitat requirements.
Western Grebe	Local and uncommon in Alberta. Population believed stable.	Nesting colonies located in emergent vegetation.
Western Tanager	Unknown. Declines observed in other parts of North American range.	Prefers old coniferous and mixedwood forest. Obligate neotropical migrant.
White-faced Ibis	Fewer than 20 pairs. Very local in distribution.	Peripheral species in Alberta. Population disjunct from populations to the south. A relatively new and important addition to Alberta’s biodiversity.
White-winged Scoter	Uncommon breeder in Alberta. Waterfowl breeding population surveys for 1999 report over 11 000 birds in the province.	Found at most large lakes in Alberta, except in the Rocky Mountain and foothills regions. Waterfowl breeding population surveys indicate a significant long-term decline.

**TABLE 5 | MAMMALS**

<b>SPECIES</b>	<b>POPULATION NOTES</b>	<b>BACKGROUND</b>
<b>AT RISK</b>		
Swift Fox	Approximately 100 animals estimated to have re-established in Alberta.	Was extirpated. Major breeding and reintroduction program now complete in Alberta. Ability to maintain population in prairie Canada is uncertain, but recent census data are encouraging. Designated as “Endangered” under the <i>Wildlife Act</i> .
Wood Bison	Free-ranging animals in Alberta exist only in the Hay-Zama area of northern Alberta and in Wood Buffalo National Park.	Restoration of this species in Alberta depends on resolution of disease concerns in northern Canada. Certain bison are designated as “Endangered” under the <i>Wildlife Act</i> .
Woodland Caribou	Population stable to declining. Population estimates range from 3 600 to 6 700 individuals in the province.	Concern over maintenance of old-growth forest to provide critical winter habitat. Improved population monitoring and habitat protection are being addressed. Designated as “Threatened” under the <i>Wildlife Act</i> .

MAMMALS . . . CONTINUED

**MAY BE AT RISK**

Grizzly Bear	Numbers appear stable outside the national parks since 1980.	Found in the mountains, foothills and boreal forests of Alberta. Currently sustaining its population under a very restrictive sport hunting regime. Greatest threat is loss and degradation of wilderness habitats through resource extraction and recreational development.
Long-tailed Weasel	Disappearing from some habitats.	Habitat lost through some agricultural activities. Population trend extremely difficult to monitor.
Northern Myotis	Population unknown. Uncommon over known range.	Poorly known species that relies on large, early decay trees for roosting. Need to incorporate habitat requirements into forest management.
Ord's Kangaroo Rat	Stable but very localized in sandhill and sand plain habitats of southeastern Alberta.	Maintenance of this rare species depends on availability and management of sand dunes and loose sand areas suitable for burrows.
Vagrant Shrew	Extremely rare. Population size unknown but estimated at fewer than 100 breeding individuals.	Known from only seven verified records in West Castle area.
Wolverine	Population unknown.	Harvest of wolverine is reduced from 1985 level, but population status remains unknown. Subject of intensified research in province over the last two years.

**SENSITIVE**

American Badger	Locally distributed. Opinions vary as to population trend.	Badgers are dependent on ground squirrel populations. Badger burrows provide a key habitat element for Burrowing Owls.
Bobcat	Perhaps fewer than 1 000 individuals.	Harvest of Bobcats is very low, but population presumed to be stable.
Canada Lynx	Cyclic species. Estimate less than 8 000 individuals at bottom of the cycle.	Population decreasing in recent years, and some concern exists over habitat loss. Harvest now set by quota.
Fisher	Perhaps fewer than 10 000 breeding individuals. Population status is unknown.	Fisher harvest has continued to decline since 1985.
Mountain Lion	Population appears stable outside the national parks.	Primarily in southern mountains and foothills, but occasionally ranges into other areas. North of the Bow River, populations may be limited by prey availability.
Olive-backed Pocket Mouse	Likely a relatively large and stable population.	Restricted to the grasslands of southeastern Alberta. Observations of a few dense local populations in secure habitat are not sufficient to justify "Secure" classification.
Pronghorn	Population levels fluctuate depending on winter and summer climatic conditions.	Found mainly in the southeastern portion of the province.
Red-tailed Chipmunk	Population low; trend unknown.	Population localized in Waterton-West Castle area and is vulnerable to habitat loss.
Water Vole	Population estimated at between 1 000 and 5 000 individuals. Trend unknown.	Extremely restricted range with most specimen records from the Bow River to Turner Valley region and Waterton area.
Western Small-footed Myotis	Unknown.	Concern for habitat security because of clumped, disjunct populations. Found only in prairie riverine habitats (cottonwoods and cliffs).

TABLE 6   REPTILES		
SPECIES	POPULATION NOTES	BACKGROUND
<b>MAY BE AT RISK</b>		
Short-horned Lizard	Rare and localized.	Population status and trend unknown. Occurs in strongly localized and isolated sandy grassland/badland/river break habitats.
Western Hognose Snake	Extremely rare. Fewer than 100 site or specimen records from Alberta.	Information on population and hibernacula is essential to properly determine status and management requirements. Current population trend unknown.
Western Rattlesnake	Relatively common in localized habitat.	Apparent population decline in similar habitat types in Saskatchewan. Maintenance in Alberta requires protection of key habitat elements such as hibernacula, and public education to reduce human-caused mortality.
<b>SENSITIVE</b>		
Bullsnake	Stable or possibly declining population.	Most vulnerable at winter dens. Requires conservation of prairie grassland summer range, protection of hibernacula, and better population information.
Common Garter Snake	Common but localized. Public perception of declining population.	Protection of key habitats and public education will ensure a stable population.
Painted Turtle	Probably fewer than 100 individuals.	Known only from specific locations in Cypress Hills, lower Milk River and Oldman River. Very low population and extremely local and limited distribution leave this species particularly vulnerable to site-specific habitat loss.
Plains Garter Snake	Common but localized. Public perception of long-term declines.	Public education combined with protection of key habitats (hibernacula) will benefit this species.
Western Terrestrial Garter Snake	Common but localized. Least abundant garter snake.	Maintenance of stable populations is dependent on habitat protection and public education.

TABLE 7   AMPHIBIANS		
SPECIES	POPULATION NOTES	BACKGROUND
<b>AT RISK</b>		
Northern Leopard Frog	Severe declines were noted in the late 1970s and early 1980s. Extirpated from North Saskatchewan River drainage basin.	Previously common and widespread species but has disappeared from most of its Alberta range. Similar but less extensive population declines have been documented throughout Canada. Protection of remnant breeding areas essential while investigations of biological needs continue. Designated as “Threatened” under the <i>Wildlife Act</i> .
<b>MAY BE AT RISK</b>		
Canadian Toad	Once common in boreal and parkland habitats.	Dramatic decline in parkland distribution. Monitoring of apparently declining population ongoing.
Great Plains Toad	Rare prairie resident. Total population unknown but apparently declining.	Critical prairie breeding habitat declining because of drought, drainage and cultivation of wetlands. Clean water, apparently required for breeding, can be compromised by intensive livestock use of breeding area ponds.
Plains Spadefoot	Population highly variable, related to annual availability of breeding ponds.	Recent extended drought in core prairie habitats appears to have lowered breeding population; associated drainage, consolidation and cultivation of basins have decreased habitat availability.

AMPHIBIANS... CONTINUED

**SENSITIVE**

Columbia Spotted Frog	Population status unknown.	Extremely limited distribution; possible population decline requires investigation.
Long-toed Salamander	Locally common. Limited number of patchy, disjunct populations.	Isolated populations focused in mountain pass riparian areas. Vulnerable to potential habitat destruction/alteration associated with industrial, recreational and transportation development. Recommended as a "Species of Special Concern" in Alberta.
Western Toad	Trend in population is unknown in Alberta. Declining in other parts of range.	Concentrated mainly in northern and western Alberta. Population requires long-term monitoring. Pollution and pesticides are threats in other parts of range.

TABLE 8 | FRESHWATER FISH

SPECIES	POPULATION NOTES	BACKGROUND
<b>MAY BE AT RISK</b>		
Pygmy Whitefish	Very rare; only eight individuals have ever been collected in the province.	Found in the upper Athabasca River and Upper Waterton Lake. Habitat inside and outside Jasper National Park could be deteriorating because of human activities.
Shorthead Sculpin	Uncommon. It has a restricted distribution in southern Alberta.	Found in the St. Mary and Milk rivers. These rivers are relatively pristine, although used heavily for irrigation.
Shortjaw Cisco	Very rare. This fish has been recorded in only one lake in northeastern Alberta.	A glacial relict species. No threats to the population or habitat are known. Listed as "Threatened" by COSEWIC; its status in Alberta needs to be reviewed.
Spoonhead Sculpin	Widely distributed in Alberta but never abundant.	Has declined downstream from the Dickson Dam on the Red Deer River, presumably as a result of habitat degradation.
Western Silvery Minnow	Moderately abundant, but its distribution is very restricted.	The only location in Canada where this species is found is the Milk River in southern Alberta.
<b>SENSITIVE</b>		
Arctic Grayling	Not abundant but very widespread in northern Alberta. Population declines noted over the past 20 to 30 years.	Increased angler access to remote streams puts pressure on this species. New legislation introduced in 1998 should protect large fish, which are the most vulnerable.
Bull Trout	Population and distribution have declined over the last 100 years; however, numbers still exceed 10 000 in Alberta. Declines caused by overharvesting.	Harvest protection legislation since 1995 has increased some populations. Competition from exotic trout and interbreeding with Brook Trout still are threats.
Lake Trout	Large numbers are only found in Waterton Lake National Park, Cold Lake and Lake Athabasca.	The major threat to this species is overharvest. Present distribution is more restricted than historical distribution.
Largescale Sucker	Numbers are likely low.	Found only in the Peace River drainage.
Northern Pikeminnow	Relatively rare. There are a small number of records from the Peace River.	The presence of the Bennett Dam and the resulting fluctuation in river flow may affect the success of this species in Alberta. It may be expanding its range to Lake Athabasca.
Northern Redbelly Dace	Locally abundant in scattered locations throughout Alberta.	Prefers relatively boggy waters that are common in the boreal forest. Local populations may be affected by human activity.
Sauger	Relatively abundant where it occurs but found in few rivers in Alberta. Little is known about Sauger biology in Alberta.	Found in lower reaches of the North Saskatchewan, Red Deer, Bow, Oldman, South Saskatchewan and Milk rivers, where it is vulnerable to habitat degradation.



TABLE 9 | BUTTERFLIES

SPECIES	POPULATION NOTES	BACKGROUND
<b>MAY BE AT RISK</b>		
Weidemeyer's Admiral	Population size unknown but estimated to be approximately 3 200 individuals. Eleven records are known in southern Alberta.	Distribution is restricted to the Milk River area. Cattle grazing may adversely affect the quality of its habitat in riparian forests and coulee bottoms. Some habitat is protected in Writing-on-Stone Provincial Park.
<b>SENSITIVE</b>		
Afranius Duskywing	Population size unknown; approximately 61 occurrences have been noted in southern Alberta.	Restricted to grassland habitat; some threats from agriculture and oil and gas activity.
Alberta Arctic	Population size unknown. There are approximately 10 records in northwestern Alberta.	The distribution of this butterfly is restricted to native grasslands in the Peace River area, where human activities modify its habitat.
Arrowhead Blue	Population size unknown. There are approximately 20 records in southern Alberta.	Found in very localized colonies. Is at the northern edge of its range in Alberta. Agriculture and grazing may adversely affect the grassland habitat of this butterfly.
Boisduval's Blue	Population size unknown. There are more than 100 records in southern Alberta.	Found in localized colonies in southwestern Alberta and the Cypress Hills. Human disturbance to grassland habitat, host plant specialization and factors altering dispersal between colonies may render populations vulnerable.
Edwards' Fritillary	Population size unknown. There are 38 records in southern Alberta.	Habitat in grasslands is under threat from agriculture. However, parks and natural areas protect habitat in the Cypress Hills and habitat areas in the foothills region.
Gillette's Checkerspot	Found in isolated populations that contain fewer than 30 adults. Total number of individuals is likely greater than 600. There are at least 65 records in southwestern Alberta.	This species has a very small range, with most of the Canadian population found in Alberta. Most of its mountainous habitat is protected in parks and recreation areas. However, fire suppression may adversely affect this butterfly by reducing the amount of early succession forest.
Gorgone Checkerspot	Population size unknown. There are 35 records within Alberta.	Habitat in the grasslands and parklands of southern Alberta is affected by agriculture. Dam building, grazing and farming may threaten habitat in the Peace River lowlands.
Gray Copper	Population size unknown. There are approximately 65 records in the southern half of the province.	Found in moist areas of grassland, parkland and southern foothills; availability of host plants may be affected by alteration of grasslands for agriculture.
Lorquin's Admiral	Population size unknown. There are 12 records in southwestern Alberta.	Some of its habitat is protected in Waterton Lakes National Park; however, forestry operations will likely impact its habitat in Crowsnest Pass area. This species may be able to tolerate low levels of human-caused disturbance.
Monarch	Population size unknown. There are 18 records in the southern half of the province.	This species' habitat is subject to modification by agriculture, forestry and oil and gas exploration; however, some research indicates that the Monarch may not be adversely affected by disturbance. Some mountain habitat is protected in national parks.
Moss' Elfin	Population size unknown. Three records are known from one location in southwestern Alberta.	It is at the northern limit of its range in Alberta. Larval host plant specialization restricts its distribution to subalpine areas, where disturbances are unlikely.
Mountain Fritillary	Population size unknown. There are 10 records in west-central Alberta.	Has a small distribution in the northern Rocky Mountains, where habitat may be affected by forestry, oil and gas operations. Some habitat is protected in Willmore Wilderness and Kakwa Wildland Provincial Parks.

**BUTTERFLIES | SENSITIVE . . . CONTINUED**

Nevada Skipper	Population size unknown; approximately 33 occurrences known in southern Alberta.	Agriculture and oil and gas activities may threaten its habitat in the grasslands and foothills.
Old World Swallowtail	Population size unknown. Subspecies occur in grasslands of southern Alberta, Peace River grasslands and in the boreal forest region.	Some subspecies with limited distributions and host plant specialization may be particularly sensitive to human disturbances (dam building, grazing, farming). Deforestation in the boreal region may increase the number and size of forest openings, thereby increasing habitat for boreal subpopulations.
Ridings' Satyr	Population size unknown. There are 48 records in southern Alberta.	Habitats include fescue, mixed- and shortgrass prairie, which are threatened by agriculture. The range of this species has contracted in the prairie provinces.
Rocky Mountain Dotted Blue	Population size unknown. There are approximately 10 records in southern Alberta.	Part of this species' habitat is protected in the Cypress Hills; however, outlying areas are subject to human pressures. There are few occurrences within a small range.
Sagebrush Checkerspot	Population size unknown. Thirty-four records are known in southern Alberta.	This species and its potential host plants have a small distribution in Alberta. Some of the badlands that provide habitat are protected in Dinosaur Provincial Park; however, agricultural activity outside of the park may threaten some habitat.
Shasta Blue	Population size unknown. Thirty-two records are known in southern Alberta.	Subalpine and alpine habitat are well protected by national parks. However, its prairie habitat may be adversely affected by agricultural activities. Maintaining connections between colonies may be important for survival of this butterfly.
Sheridan's Hairstreak	Population size unknown. There are five records in southwestern Alberta.	The habitat in Waterton Lakes National Park is protected; however, habitat in outlying areas may be threatened by agriculture and forestry.
Uncas Skipper	Population size unknown. There are approximately 67 occurrences known from southern Alberta.	Agriculture, development and oil and gas activity may threaten habitat. Canadian range may be shrinking in the shortgrass prairie region.

**TABLE 10 | ORCHIDS**

<b>SPECIES</b>	<b>POPULATION NOTES</b>	<b>BACKGROUND</b>
<b>MAY BE AT RISK</b> Bog Adder's-Mouth	Found in very small populations. Few locations known.	Distribution restricted to a portion of the boreal region. Population may be declining because of loss of habitat (bogs with <i>Sphagnum</i> ). Threats may include dessication as a result of climate change, and clearing.
Broad-Leaved Twayblade	Found in very small populations. Relatively few locations known.	Very restricted distribution in mountains and foothills of southwestern Alberta. Population may be declining because of grazing and threats to habitat (bogs, meadows) from off-road vehicles and forestry activity.
Mountain Lady's-Slipper	Found in very small populations. Few locations are known.	Very restricted distribution in mountains and foothills of southwestern Alberta. Population may be declining because of grazing and habitat loss from forestry and industrial activity in moist woods.
Pink Lady's-Slipper	Very restricted distribution in the Canadian Shield.	Population and habitat (bogs, woods, sand dunes) subject to impact by off-road vehicles, forestry and industrial activity.
Slender Bog-Orchid	Found in very small numbers. Relatively few locations known.	Distribution very restricted in southwestern Alberta. Threats include grazing and dessication of wetlands from climate change.

**ORCHIDS | MAY BE AT RISK . . . CONTINUED**

Slender Ladies'-Tresses	Found in very small populations. Only two locations known.	Very restricted distribution in extreme northeastern Alberta. No threats to population or habitat (open woods) known.
Western Twayblade	Found in very small populations. Few locations known.	Restricted distribution in mountains and foothills of southern Alberta. Habitat may be affected by grazing, forestry and industrial activity in moist woods.
White Adder's-Mouth	Found in very small populations. Relatively few locations known.	Distributed only in a portion of the boreal region. Population may be declining because of loss of habitat (damp woods and meadows, stream banks) from dessication as a result of climate change, and clearing.

**SENSITIVE**

Alaskan Orchid	Moderately abundant but found in small numbers.	Distribution limited to moist woods and meadows in the mountains and foothills. Local population threatened by grazing and, possibly, forestry and industrial activity.
Menzies' Rattlesnake-Plantain	Moderately abundant and found in numerous locations.	Restricted distribution in mountains and foothills. Limited threats from grazing, as well as forestry and mining activity in woodlands.
Small Round-Leaved Orchid	Uncommon and found in very small numbers.	Distributed within part of the foothills and boreal region. Some threat to habitat (mixedwood) from forestry and industrial activity.
Spotted Coral-Root	Moderately abundant but found in very small populations.	Population is affected by grazing and conversion of woods to cropland.
Striped Coral-Root	Uncommon and found in very small populations.	Threats to population and habitat include grazing and conversion of woodlands to cropland.
Yellow Lady's-Slipper	Moderately abundant and found in numerous locations. However, populations are small.	Found in all regions except grassland and part of boreal forest. Population may be declining through loss of native habitat (moist and dry woods, pond margins), grazing and collecting.
White Bog-Orchid	Moderately abundant but found in small numbers.	Found in the mountains, foothills and some of the boreal region. Negatively affected by grazing and, possibly, dessication of wetlands related to climate change.

**TABLE 11 | FERNS**

<b>SPECIES</b>	<b>POPULATION NOTES</b>	<b>BACKGROUND</b>
<b>MAY BE AT RISK</b>		
Aleutian Maidenhair-Fern	Population size unknown but believed to be very small. Few locations known.	Distribution restricted to southwest corner of the province, on high altitude cliffs and among boulders. No threats to habitat or population known.
Alpine Lady Fern	Population size unknown but believed to be very small. Few locations known.	Distribution restricted to the mountains, on rocky slopes and in alpine meadows. Inventory of population and assessment of threats required.
Boreal Moonwort	Currently known only from one location.	Very restricted distribution in the mountains. Found in grassy subalpine and alpine habitat.
Crenulate Moonwort	Population size unknown but believed to be very small. Known from only one location.	Very restricted distribution within Banff National Park.
Crested Shield Fern	Population small and scattered across few locations.	Distribution is restricted to the area around Elk Island National Park. Population believed to have declined in the last century through loss of native habitat (moist woods and marshes).

FERNS | MAY BE AT RISK . . . CONTINUED

Fragile Rock-Brake	Uncommon and found in very small numbers.	Distribution is restricted to mountains and foothills. Calcareous rock habitat is diminished from limestone quarrying.
Gastony's Cliff-Brake	Population size is unknown but believed to be very small and isolated. Known from few locations.	Distribution confined to montane valleys in central mountains and foothills. Dry limestone rock habitat is threatened by quarrying in the Rocky Mountains.
Hairy Water Fern	Fairly abundant but found in small populations.	Distribution restricted to a small portion of the grassland region. Local populations may be threatened by grazing, and loss of habitat (lakes and ephemeral wetlands).
Lace Lip Fern	Known to occur in only one location.	Very restricted distribution in southwest corner of Alberta.
Lance-Leaved Moonwort	Found in very small populations, in few locations.	Restricted distribution within the northern and central portion of the mountains and foothills. Known habitat in national parks is secure.
Least Grape-Fern	Population size unknown but believed to be very small. Known to occur in few locations.	Restricted distribution in southwestern Alberta and Elk Island National Park. Population believed to be in decline because of modification of habitat.
Leathery Grape-Fern	Small population. Known from a small number of locations.	Found in Canadian Shield, as well as Elk Island and Jasper National Parks.
Male Fern	Population size unknown but believed to be small. Few known locations.	Distribution restricted to mountains of southwestern Alberta. Population is affected by grazing, and loss of habitat (wooded slopes) to forestry operations.
Mingan's Moonwort	Population size unknown but believed to be very small. Known to occur in a number of locations.	Distributed within the southern portion of Alberta. Population is affected by grazing and other disturbances.
Mountain Bladder Fern	Relatively abundant but known to occur in only a few locations.	Local populations in moist forest habitat may be threatened by forestry activity.
Nahanni Oak Fern	Population is very small and known only from a few locations.	Confined mainly to a very small portion of the Canadian Shield.
Northern Beech Fern	Population small. Known from only a few locations.	Distribution restricted within mountains/foothills and part of boreal forest. Population believed to have declined.
Northern Moonwort	Population size unknown but believed to be very small. Known from only a few locations.	Distribution restricted to mountains and foothills.
Peculiar Moonwort	Very small population. Known from very few locations. Also rare outside of Alberta.	Distribution restricted to southwestern Alberta, where it may be threatened by grazing.
Prairie Dune Wort	Population size unknown but believed to be very small. May be extirpated from Alberta.	Known from only one location in the Edmonton area.
Rock Polypody	Locally abundant but occurs in few locations.	Very restricted distribution in Canadian Shield area.
Siberian Polypody	Moderately abundant but occurs in few locations.	Very restricted distribution in Canadian Shield area.
Smooth Cliff-Brake	Locally abundant but known from relatively few locations.	Distribution confined to montane valleys in central mountains and foothills. Dry limestone rock habitat is threatened by quarrying in the Rocky Mountains.
Smooth Woodsia	Known from few locations.	Distribution restricted to mountains and foothills. Some threat to habitat (moist places on calcareous rocks, shaded cliffs) from mining.
Spoon-Leaf Moonwort	Very small population. Found in few locations.	Very limited distribution in fields, sand dunes and montane grasslands.

FERNS | MAY BE AT RISK . . . CONTINUED

Stalked Moonwort	Population size unknown but believed to be very small. Known from only one location.	Distribution very restricted in southwestern Alberta. Found in brushy habitat along streams and roadsides.
Upward-Lobed Moonwort	Very small population. Currently known from only one location.	Very restricted distribution in Banff National Park.
Western Moonwort	Population size unknown but believed to be very small. Known from few locations.	Restricted distribution in southern Alberta, on grassy mountain slopes and in ditches. Local populations may be threatened by grazing.
Western Polypody	Population very small. Known from only a few locations.	Distribution restricted to southwestern Alberta (Waterton Lakes National Park).

**SENSITIVE**

American Rock-Brake	Numerous locations known.	Somewhat restricted distribution in the mountains, foothills and Canadian Shield. No threats to habitat (rock outcrops) or population known.
Bracken Fern	Often locally abundant.	Confined to a very small portion of the mountains and foothills. No threats to habitat (woods and open areas) or population known.
Fragrant Cliff Wood Fern	Population size unknown, but species believed to be moderately abundant.	Disjunct distribution with scattered records in mountains, as well as foothills and Canadian Shield regions. Possible future threats to siliceous rock habitat from mining and hydro development.
Green Spleenwort	Found in numerous small, localized populations.	Distribution restricted to mountains and foothills, including limestone rock habitat removed by quarrying in the Rocky Mountains.
Mountain Cliff Fern	Population size unknown, but species believed to be moderately abundant.	Distribution restricted to mountains and foothills. May be some local threats to rocky habitat from mining.
Northern Holly Fern	Locally abundant and known from a number of locations.	Distribution restricted to the mountains and foothills. No threats to population or habitat known.
Oregon Woodsia	Uncommon and found in small populations.	Distribution includes the mountains, foothills and Canadian Shield. Some threat to rocky habitat from mining.
Ostrich Fern	Common and found in a number of locations.	Distributed within part of boreal region, mountains and foothills. Population believed to be declining through grazing, and loss of habitat (mature woods) from forest harvest.
Rusty Woodsia	Locally common in a few locations.	Restricted to the mountains and Canadian Shield. No threats to population or habitat (cliffs and rocky slopes) known.
Shield Fern	Population size unknown, but species believed to be moderately abundant.	Distribution restricted to mountains, foothills and very small portion of boreal forest. Forestry operations in woodlands may be a threat.
Slender Lip Fern	Locally very abundant and found in numerous locations.	Somewhat restricted distribution in the mountains and foothills parkland. No threats to habitat (sandstone outcrops) or population known.



# linkages

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## Wild Species 2000: The General Status of Wild Species in Canada

The national report on the assessment of wild species in Canada, *Wild Species 2000: The General Status of Species in Canada*, is directly complementary to this document. In the national report, information has been compiled on the same groups of species for all the provinces and territories in Canada, and a national status ranking has been assigned to each species.

A website to get information about species at risk programs in Canada, including the national report is:

<[www.wildspecies.ca](http://www.wildspecies.ca)>

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## Alberta Species at Risk Program

For more information on Alberta wildlife and the Species at Risk program, link to:

<[www3.gov.ab.ca/srd/fishwl.html](http://www3.gov.ab.ca/srd/fishwl.html)>

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## Canadian Species at Risk Program (COSEWIC)

The evaluation process described in this report uses various criteria to determine whether a species is secure, or in need of a more detailed assessment. In Canada, the national body of experts that assesses the status of wild Canadian species *in detail* is called the Committee on the Status of Endangered Species in Canada (COSEWIC).

For information on COSEWIC, link to:

<[www.cosewic.gc.ca](http://www.cosewic.gc.ca)>

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## Programs in Other Provinces, Territories and Countries

The status ranking system described in this report uses criteria that are shared by all other Canadian jurisdictions. The process is also similar to methods used internationally, including the largest coordinated effort in the Americas to gather standardized information on animals, plants and ecosystems by Natural Heritage programs. Conservation Data Centres (CDCs), the active component of Natural Heritage programs, exist in all Canadian provinces but are absent from Nunavut, Yukon and the Northwest Territories. Agreements for exchanging data and information about northern species among territories and provinces are ongoing.

For information on Natural Heritage programs and CDCs, go to:

<[www.abi.org](http://www.abi.org)>

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## International Conventions and Agreements—Canadian Context

At the 1992 Conference on the Environment and Development in Rio de Janeiro (Brazil), Canada became a signatory to the United Nations Convention on Biological Diversity. In the Convention, signatories are to: “a) Identify components of biodiversity important for its conservation and sustainable use; b) Monitor...the components of biodiversity...paying particular attention to those requiring urgent conservation measures and those which offer the greatest potential for sustainable use; and c) Identify processes and categories of activities which have or are likely to have significant adverse impacts on the conservation and sustainable use of biodiversity and monitor their effects through sampling and other techniques” (Article 7).

For information about biodiversity, link to:

<[www.biodiv.org](http://www.biodiv.org)>



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