



**Species and Ecosystems at Risk in the Resort Municipality of Whistler  
2019 Update  
(EXECUTIVE SUMMARY ONLY)**

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## Executive Summary

This report presents the third annual update for the Resort Municipality of Whistler's (RMOW) list of species and ecosystems at risk first published in 2016. It combines and updates local data collated by the Whistler Biodiversity Project (including important contributions from the Whistler Naturalists' BioBlitz), the knowledge of many experts, RMOW records, and museum and government data.

Before these reports, the BC Conservation Data Centre (CDC) was the primary and sometimes sole source for information about local species at risk in the Whistler area. In spite of the important work the CDC does, it is not yet able to provide comprehensive local-scale data on which species do and do not occur within the RMOW. The CDC has limited resources for species surveys throughout BC and limited resources to assess and enter existing information. As a result, online searches at the CDC website can yield false positives (species which are unlikely or impossible in the RMOW) and, as importantly, false negatives (species which are in Whistler or could occur).

The intention of this updated report is to provide the best available information about species and ecosystems at risk within the RMOW. It is meant to be the authoritative reference for listing which species should be considered during conservation planning within the RMOW. Conservation planners, environmental consultants, and other interested parties should refer to updated lists presented here rather than lists generated by CDC searches.

This report includes the following updates since 2018:

- Updated species rankings by the BC Conservation Data Centre (CDC) including the downlisting of nine species (now ranked Yellow, or Secure) and delisting of one species.
- Updated species rankings under Federal Species At Risk (SARA) legislation.
- The addition of one (possibly two) new species previously unknown and unexpected in the RMOW.
- Reassessment of all species included in the 2018 report based on new records.

A total of 162 species at risk are considered in this report. This total includes the 10 removed in 2019 through downlisting and delisting. (New information, especially from surveys in northern BC has revealed that many species, especially lichens, are more common in BC than previously thought.) The 2018 reassessment removed 23 species from the RMOW list (mostly lichens) due to downlisting or delistings, and the 10 in 2019 continue that trend. Such work to continually reassess rankings is important because it helps planners and conservationists concentrate scarce resources on species that are truly at-risk.

As of December 31, 2019 the total number of species at risk by local status is as follows (2018 totals in parentheses):

- 50 (58) Confirmed;
- 13 (12) Likely;
- 11 (11) Migratory (bird species that have enough presence to be considered during conservation planning);
- 6 (2) Data Deficient;
- 1 (1) Extirpated;
- 22 (23) Possible;
- 31 (34) Unlikely to Not possible species;
- 18 (16) Casual and Accidental bird species (without significant or and/or annual presence); and
- 10 (23) Downlisted and Delisted.

There has been no change to the rankings of ecosystems at risk which remain at seven Red-listed and 12 Blue-listed. Almost all of these ecosystems are old forests found at lower elevations in Whistler Valley, in areas with the highest risk of development and within the scope of the Cheakamus Community Forest.

The following tables list species at risk that are Confirmed, Likely, and Migratory, that is, those that should be the highest priorities for conservation planning. (Species at risk in other categories are listed in full in Section 4 of this report.)

**Species at risk in the RMOW, updated to December 31, 2019.** Key: E (Endangered), T (Threatened), SC (Special Concern).

|           | Group 2                              | Species  | Common Name                                      | New 2019?                           | BC List | COSEWIC / SARA | BC ID Wildlife |     |
|-----------|--------------------------------------|--|--|-------------------------------------|---------|----------------|----------------|-----|
| CONFIRMED | Butterfly                            | <i>Callophrys eryphon</i> ssp. <i>sheltonensis</i>     | Western Pine Elfin, <i>sheltonensis</i> ssp.     |                                     | Blue    |                |                |     |
|           |                                      | <i>Euphyes vestris</i>                                 | Dun Skipper                                      | Yes                                 | Red     | T/T            |                |     |
|           |                                      | <i>Parnassius clodius</i> ssp. <i>pseudogallatinus</i> | Clodius Parnassian, <i>pseudogallatinus</i> ssp. |                                     | Blue    |                |                |     |
|           | Amphibian                            | <i>Anaxyrus boreas</i>                                 | Western Toad                                     |                                     | Yellow  | SC/SC          |                |     |
|           |                                      | <i>Ascaphus truei</i>                                  | Coastal Tailed Frog                              |                                     | Yellow  | SC/SC          | Yes            |     |
|           |                                      | <i>Rana aurora</i>                                     | Northern Red-legged Frog                         |                                     | Blue    | SC/SC          | Yes            |     |
|           | Bird                                 | <i>Accipiter gentilis</i> ssp. <i>laingi</i>           | Northern Goshawk, <i>laingi</i> ssp.             |                                     | Red     | T/T            | Yes            |     |
|           |                                      | <i>Ardea herodias</i> ssp. <i>fannini</i>              | Great Blue Heron, <i>fannini</i> ssp.            |                                     | Blue    | SC/SC          | Yes            |     |
|           |                                      | <i>Butorides virescens</i>                             | Green Heron                                      |                                     | Blue    |                |                |     |
|           |                                      | <i>Chordeiles minor</i>                                | Common Nighthawk                                 |                                     | Yellow  | SC/T           |                |     |
|           |                                      | <i>Coccythraustes vespertinus</i>                      | Evening Grosbeak                                 |                                     | Yellow  | SC/SC          |                |     |
|           |                                      | <i>Contopus cooperi</i>                                | Olive-sided Flycatcher                           |                                     | Blue    | SC/T           |                |     |
|           |                                      | <i>Cypseloides niger</i>                               | Black Swift                                      |                                     | Blue    | E/E            |                |     |
|           |                                      | <i>Hirundo rustica</i>                                 | Barn Swallow                                     |                                     | Blue    | T/T            |                |     |
|           |                                      | <i>Megascops kennicottii</i> ssp. <i>kennicottii</i>   | Western Screech-Owl, <i>kennicottii</i> ssp.     |                                     | Blue    | T/T            |                |     |
|           |                                      | <i>Patagioenas fasciata</i>                            | Band-tailed Pigeon                               |                                     | Blue    | SC/SC          |                |     |
|           |                                      | Fish   | <i>Salvelinus confluentus</i> pop. 28            | Bull Trout - South Coast Population |         | Blue           | SC/SC          | Yes |
|           |                                      | Mammal   | <i>Gulo gulo luscus</i>                          | Wolverine, <i>luscus</i> ssp.       |         | Blue           | SC/SC          | Yes |
|           |                                      |  | <i>Myotis lucifugus</i>                          | Little Brown Myotis                 |         | Yellow         | E/E            |     |
|           | <i>Oreamnos americanus</i>           |  | Mountain Goat                                    |                                     | Blue    |                |                |     |
|           | <i>Ursus arctos</i>                  |  | Grizzly Bear                                     |                                     | Blue    | SC/SC          | Yes            |     |
|           | Lichen                               | <i>Alectoria imshaugii</i>                             | spiny witch's hair                               |                                     | Blue    |                |                |     |
|           |                                      | <i>Nodobryoria subdivergens</i>                        | alpine redhead                                   |                                     | Blue    |                |                |     |
|           |                                      | <i>Umbilicaria decussata</i>                           | electric rocktripe                               |                                     | Blue    |                |                |     |
|           |                                      | <i>Umbilicaria krascheninnikovii</i>                   | lesser salted rocktripe                          |                                     | Blue    |                |                |     |
|           | Liverwort                            | <i>Haplomitrium hookeri</i>                            | liverwort  |                                     | Blue    |                |                |     |
|           |                                      | <i>Jungermannia atrovirens</i>                         | liverwort  |                                     | Blue    |                |                |     |
|           |                                      | <i>Nardia breidleri</i>                                | liverwort  |                                     | Blue    |                |                |     |
|           |                                      | <i>Nardia compressa</i>                                | liverwort  |                                     | Blue    |                |                |     |
|           |                                      | <i>Nardia geoscyphus</i>                               | liverwort  |                                     | Blue    |                |                |     |
|           |                                      | <i>Scapania curta</i>                                  | liverwort  |                                     | Blue    |                |                |     |
|           |                                      | <i>Scapania obscura</i>                                | liverwort  |                                     | Blue    |                |                |     |
|           |                                      | <i>Scapania scandica</i> var. <i>scandica</i>          | liverwort  |                                     | Blue    |                |                |     |
|           | Moss                                 | <i>Solenostoma confertissimum</i>                      | liverwort  |                                     | Red     |                |                |     |
|           |                                      | <i>Brachydontium olympicum</i>                         | Olympic brachydontium moss                       |                                     | Red     |                |                |     |
|           |                                      | <i>Brachythecium holzingeri</i>                        | Holzinger's brachythecium moss                   |                                     | Blue    |                |                |     |
|           |                                      | <i>Bryum pallescens</i>                                | tall-clustered thread-moss                       |                                     | Blue    |                |                |     |
|           |                                      | <i>Grimmia caespiticia</i>                             | grimmia moss                                     |                                     | Blue    |                |                |     |
|           |                                      | <i>Grimmia donniana</i>                                | Donn's grimmia                                   |                                     | Blue    |                |                |     |
|           |                                      | <i>Grimmia incurva</i>                                 | black grimmia                                    |                                     | Red     |                |                |     |
|           |                                      | <i>Homalothecium nevadense</i>                         | Nevada homalothecium moss                        |                                     | Blue    |                |                |     |
|           |                                      | <i>Hygrohypnum alpinum</i>                             | alpine hygrohypnum moss                          |                                     | Blue    |                |                |     |
|           |                                      | <i>Orthotrichum pylaisii</i>                           | Pylais' orthotrichum moss                        |                                     | Blue    |                |                |     |
|           |                                      | <i>Pohlia cardotii</i>                                 | Cardot's pohlia moss                             |                                     | Blue    |                |                |     |
|           |                                      | <i>Pseudoleskea radicata</i> var. <i>pallida</i>       | pseudoleskea moss                                |                                     | Blue    |                |                |     |
|           |                                      | <i>Racomitrium pygmaeum</i>                            | pygmy racomitrium moss                           |                                     | Blue    |                |                |     |
|           |                                      | <i>Schistidium crassipilum</i>                         | thickpoint grimmia                               |                                     | Blue    |                |                |     |
|           | <i>Tripterocladium leucocladulum</i> | tripterocladium moss                                   |  | Blue                                |         |                |                |     |
|           | Aquatic                              | <i>Utricularia ochroleuca</i>                          | ochroleucous bladderwort                         |                                     | Blue    |                |                |     |
|           | Tree                                 | <i>Pinus albicaulis</i>                                | whitebark pine                                   |                                     | Blue    | E/E            |                |     |

**Species at risk in the RMOW, updated to December 31, 2019 (cont.).** Key: E (Endangered), T (Threatened), SC (Special Concern), DD (Data Deficient).

|                           | Group 2  | Species   | Common Name                         | New 2019? | BC List | COSEWIC / SARA | BC ID Wildlife |
|---------------------------|--|---|-------------------------------------|-----------|---------|----------------|----------------|
| LIKELY                    | Bee  | <i>Bombus flavidus</i> (=B. <i>fernaldae</i> )            | Fernald's Cuckoo Bumblebee          | Yes?      | Blue    |                |                |
|                           | Snail  | <i>Pristiloma arcticum</i> ?                              | Northern Tightcoil                  |           | Blue    |                |                |
|                           | Mammal   | <i>Cervus elaphus roosevelti</i>                          | Roosevelt Elk                       |           | Blue    |                |                |
|                           | Lichen   | <i>Leptogium californicum</i>                             | midlife vinyl                       |           | Blue    |                |                |
|                           |  | <i>Peltigera gowardii</i>                                 | northwest waterfan                  |           | Red     | SC/SC          |                |
|                           | Liverwort  | <i>Marchantia alpestris</i>                               | liverwort                           |           | Blue    |                |                |
|                           | Moss   | <i>Bryum alpinum</i> ?                                    | alpine thread-moss                  |           | Red     |                |                |
|                           |  | <i>Bryum schleicheri</i> ?                                | Schleicher's thread-moss            |           | Blue    |                |                |
|                           |  | <i>Grimmia anomala</i>                                    | grimmia dry rock moss               |           | Blue    |                |                |
|                           |  | <i>Polytrichastrum sexangulare</i> var. <i>vulcanicum</i> | Polytrichum moss                    |           | Red     |                |                |
|                           |  | <i>Pseudoleskea incurvata</i> var. <i>tenuetis</i>        | brown leskea moss                   |           | Red     |                |                |
|                           |  | <i>Racomitrium affine</i> ?                               | lesser fringe-moss                  |           | Blue    |                |                |
| <i>Tortula leucostoma</i> |  | desmatodon moss   |                                     | Blue      |         |                |                |
| POSSIBLE                  | Bee  | <i>Bombus occidentalis</i> ssp. <i>occidentalis</i>       | Western Bumble Bee                  |           | Blue    | T/             |                |
|                           | Butterfly  | <i>Callophrys johnsoni</i>                                | Johnson's Hairstreak                |           | Red     |                | Yes            |
|                           |  | <i>Parnassius clodius</i> ssp. <i>claudianus</i>          | Clodius Parnassian, claudianus ssp. |           | Blue    |                |                |
|                           | Dragonfly  | <i>Tanypteryx hageni</i>                                  | Black Petaltail                     |           | Blue    |                |                |
|                           | Mollusc  | <i>Physella propinqua</i>                                 | Rocky Mountain Physa                |           | Blue    |                |                |
|                           |  | <i>Physella virginea</i>                                  | Sunset Physa                        |           | Blue    |                |                |
|                           |  | <i>Sphaerium striatinum</i>                               | Striated Fingernailclam             |           | Blue    |                |                |
|                           | Mammal   | <i>Corynorhinus townsendii</i>                            | Townsend's Big-eared Bat            |           | Blue    |                | Yes            |
|                           |  | <i>Pekania pennanti</i>                                   | Fisher                              |           | Blue    |                |                |
|                           | Reptile  | <i>Charina bottae</i>                                     | Northern Rubber Boa                 |           | Yellow  | SC/SC          |                |
|                           | Lichen   | <i>Leptogium polycarpum</i>                               | peacock vinyl                       |           | Yellow  | SC/SC          |                |
|                           |  | <i>Pannaria rubiginosa</i>                                | considerable gingerbread            |           | Red     |                |                |
|                           |  | <i>Pseudocyphellaria rainierensis</i>                     | old growth specklebelly             |           | Blue    | SC/SC          |                |
|                           | Liverwort  | <i>Frullania hattoriana</i>                               | liverwort                           |           | Blue    |                |                |
|                           | Moss   | <i>Andreaea heinemannii</i>                               | Heinemann's andreaea moss           |           | Red     |                |                |
|                           |  | <i>Atrichum tenellum</i>                                  | slender smoothcap moss              |           | Red     |                |                |
|                           |  | <i>Bryum calobryoides</i>                                 | bryum moss                          |           | Red     |                |                |
|                           |  | <i>Pohlia andalusica</i>                                  | Roth's thread-moss                  |           | Red     |                |                |
|                           |  | <i>Pohlia tundrae</i>                                     | tundra pohlia moss                  |           | Red     |                |                |
|                           | <i>Trematodon asanoi</i>                             | Boas' long-necked moss                                    |                                     | Blue      |         |                |                |
| Fern Ally                 | <i>Botrychium spathulatum</i>                        | spoon-shaped moonwort                                     |                                     | Blue      |         |                |                |
| Shrub                     | <i>Arceuthobium tsugense</i> ssp. <i>mertensiana</i> | mountain hemlock dwarf mistletoe                          |                                     | Blue      |         |                |                |
| DATA. DEFICIENT           | Bird   | <i>Riparia riparia</i>                                    | Bank Swallow                        |           | Yellow  | T/T            |                |
|                           | Fish   | <i>Oncorhynchus clarkii</i> ssp. <i>clarkii</i>           | Coastal Cutthroat Trout             |           | Blue    |                |                |
|                           | Mammal   | <i>Myotis keenii</i>                                      | Keen's Myotis                       |           | Yellow  | DD/SC          | Yes?           |
|                           | Lichen   | <i>Stereocaulon pileatum</i>                              | pixie foam                          |           | Unknown |                |                |
|                           | Liverwort  | <i>Tritomaria polita</i> ssp. <i>polita</i>               | liverwort                           |           | Unknown |                |                |
|                           | Grass  | <i>Muhlenbergia racemosa</i>                              | satin grass                         |           | Unknown |                |                |
| MIGRATORY                 | Bird   | <i>Aechmophorus occidentalis</i>                          | Western Grebe                       |           | Red     | SC/SC          |                |
|                           |  | <i>Clangula hyemalis</i>                                  | Long-tailed Duck                    |           | Blue    |                |                |
|                           |  | <i>Cygnus columbianus</i>                                 | Tundra Swan                         |           | Blue    |                |                |
|                           |  | <i>Gavia adamsii</i>                                      | Yellow-billed Loon                  |           | Blue    | NAR            |                |
|                           |  | <i>Hydroprogne caspia</i>                                 | Caspian Tern                        |           | Blue    | NAR            |                |
|                           |  | <i>Larus californicus</i>                                 | California Gull                     |           | Blue    |                |                |
|                           |  | <i>Melanitta americana</i>                                | Black Scoter                        |           | Blue    |                |                |
|                           |  | <i>Melanitta perspicillata</i>                            | Surf Scoter                         |           | Blue    |                |                |
|                           |  | <i>Numenius americanus</i>                                | Long-billed Curlew                  |           | Blue    | SC/SC          | Yes            |
|                           |  | <i>Podiceps auritus</i>                                   | Horned Grebe                        |           | Yellow  | SC/SC          |                |
|                           | <i>Podiceps nigricollis</i>                          | Eared Grebe   |                                     | Blue      |         |                |                |

**Ecosystems at Risk** in the RMOW (updated to December 31, 2019).

| Site Series             | Common Name  | Scientific Name   | BC List | BC ID Wildlife |
|-------------------------|--|---|---------|----------------|
| CWHds1/01               | Western Hemlock - Douglas-fir / Electrified Cat's-tail Moss ds1  | <i>Tsuga heterophylla</i> - <i>Pseudotsuga menziesii</i> / <i>Rhytidiadelphus triquetrus</i> ds1        | Blue    | Yes            |
| CWHms1/01               | Western Hemlock - Amabilis Fir / Step Moss                       | <i>Tsuga heterophylla</i> - <i>Abies amabilis</i> / <i>Hylocomium splendens</i>                         | Blue    |                |
| CWHds1/02               | Douglas-fir - Lodgepole Pine / Kinnikinnick Dry Submaritime      | <i>Pseudotsuga menziesii</i> - <i>Pinus contorta</i> / <i>Arctostaphylos uva-ursi</i> Dry Submaritime   | Red     |                |
| CWHms1/02               | Douglas-fir - Lodgepole Pine / Kinnikinnick Moist Submaritime    | <i>Pseudotsuga menziesii</i> - <i>Pinus contorta</i> / <i>Arctostaphylos uva-ursi</i> Moist Submaritime | Blue    |                |
| CWHds1/03;<br>CWHms1/03 | Douglas-fir - Western Hemlock / Falsebox                         | <i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Paxistima myrsinites</i>                  | Blue    |                |
| CWHds1/04               | Douglas-fir / Douglas maple / Hooker's Fairybells                | <i>Pseudotsuga menziesii</i> / <i>Acer glabrum</i> / <i>Prosartes hookeri</i>                           | Red     |                |
| CWHms1/04               | Amabilis Fir - Western Redcedar / Oak Fern                       | <i>Abies amabilis</i> - <i>Thuja plicata</i> / <i>Gymnocarpium dryopteris</i>                           | Blue    |                |
| CWHds1/05               | Western Redcedar - Douglas-fir / Vine Maple                      | <i>Thuja plicata</i> - <i>Pseudotsuga menziesii</i> / <i>Acer circinatum</i>                            | Blue    | Yes            |
| CWHds1/06               | Western Hemlock / Queen's Cup                                    | <i>Tsuga heterophylla</i> / <i>Clintonia uniflora</i>   | Red     |                |
| CWHms1/06               | Amabilis Fir - Western Redcedar / Devil's Club Moist Submaritime | <i>Abies amabilis</i> - <i>Thuja plicata</i> / <i>Oplopanax horridus</i> Moist Submaritime              | Blue    | Yes            |
| CWHds1/07               | Western Redcedar / Devil's Club                                  | <i>Thuja plicata</i> / <i>Oplopanax horridus</i>  | Blue    |                |
| CWHms1/07               | Sitka Spruce / Salmonberry Moist Submaritime                     | <i>Picea sitchensis</i> / <i>Rubus spectabilis</i> Moist Submaritime                                    | Red     |                |
| CWHds1/08               | Sitka Spruce / Salmonberry Dry                                   | <i>Picea sitchensis</i> / <i>Rubus spectabilis</i> Dry  | Red     |                |
| CWHms1/08,<br>CWHds1/09 | Black Cottonwood - Red Alder / Salmonberry                       | <i>Populus trichocarpa</i> - <i>Alnus rubra</i> / <i>Rubus spectabilis</i>                              | Blue    |                |
| CWHms1/09               | Black Cottonwood / Sitka Willow – Thimbleberry                   | <i>Populus trichocarpa</i> / <i>Salix sitchensis</i> - <i>Rubus parviflorus</i>                         | Red     |                |
| CWHds1/10               | Black Cottonwood / Willows Dry Submaritime                       | <i>Populus trichocarpa</i> / <i>Salix</i> spp. Dry Submaritime  | Blue    |                |
| CWHms1/11,<br>CWHds1/12 | Western Redcedar - Sitka Spruce / Skunk Cabbage                  | <i>Thuja plicata</i> - <i>Picea sitchensis</i> / <i>Lysichiton americanus</i>                           | Blue    |                |
| CWH/Ws51                | Sitka Willow - Pacific Willow / Skunk Cabbage                    | <i>Salix sitchensis</i> - <i>Salix lasiandra</i> var. <i>lasiandra</i> / <i>Lysichiton americanus</i>   | Red     |                |
| CWH/Wm04                | Common Spike-Rush Herbaceous Vegetation                          | <i>Eleocharis palustris</i> Herbaceous Vegetation   | Blue    |                |