

B.C. Conservation Data Centre – Data Update

2018 Taxonomy, Classification and Rank Updates

As part of standard business, the BC Conservation Data Centre annually releases updates to document changes to Conservation Status Ranks of selected species and ecological communities, additions of new species and ecological communities in B.C. and changes in species taxonomy and ecological community classification.

The 2018 CDC changes to taxonomy and Provincial Conservation Status Ranks for species, and changes in classification and Provincial Conservation Status Ranks for ecological communities are now available through [BC Species and Ecosystems Explorer](#) (BCSEE). BCSEE is the provincial standard source for scientific names, English names and species codes for animals (vertebrates and invertebrates).

Details of the 2018 changes can be found on the Conservation Data Centre [Recent Data Changes](#) web page.

Archive files of previous year's taxonomic, classification, and rank updates are available for download from our [Archive of Changes](#) web page.

The following is a brief summary of this year's changes:

Ecological Community Data

- Thirty-four ecological communities had their conservation status rank reviewed.
 - Nine new communities were added to the CDC list and ranked for the first time.
 - Fourteen communities had rank changes, mostly due to additional or better information being available (see spreadsheet for more information).
 - Eleven communities had ranks remain unchanged.
- Thirty-four Conservation Status Reports were updated.
- One ecological community was reclassified and the old one was deleted.
- Four ecological communities had scientific name changes.
- Two ecological communities had English name changes.
- 347 element occurrences were published for 20 ecological communities.

Plant and Lichen Data

Vascular Plants:

- There were 32 vascular plants added to the Flora. The majority of additions in 2018 were the result of the establishment of 21 new Exotic species
- There were 21 vascular plant taxa removed from the BC Flora. These are no longer considered part of the flora of BC due to re-identifications of herbarium specimens, misapplied names, and lack of specimens to adequately document the presence in the province.
- A total of 111 scientific names were changed. Changes included taxonomic splits and lumps, genus transfers, and relocations of infraspecific ranks (i.e. from variety to subspecies or subspecies to variety)

- Provincial conservation status ranks for 203 vascular plant taxa were reviewed and adjusted. Twenty-one were reviewed but the ranks remained the same.

Bryophytes:

- There were three moss taxa added to the Flora, all of which were new field discoveries.
- An informal review of the hornwort species of BC resulted in some updates and highlighted future work that needs to be conducted prior to refining the ranks.
- There one scientific name change in the Bryophytes: *Phaeoceros hallii* became *Paraphymatoceros hallii*.
- Provincial conservation status ranks for three hornworts were reviewed and adjusted.

Macrolichens:

- There was one macrolichen added and three removed from the lichen list for BC.
- Four scientific names were changed.
- Provincial conservation status ranks for 99 macrolichens were reviewed and adjusted. 125 were reviewed but the ranks remained the same.

Animal Data

Most of the amphibians and some populations or subspecies of birds, mammals and fish were reviewed this year. A highlight this year is the inclusion of several new invertebrate groups!

Reptiles:

B.C.'s 21 reptiles were reviewed this year and seven of them underwent rank changes. All changes were the result of refining the previous rank calculator scores based on new information from updated COSEWIC reports and other sources (e.g. new locations as a result of increased search effort; more information on trends and/or population size etc.). All of the reptiles that had changes remained on their current red or blue list.

Fish:

- B.C.'s 17 Stickleback species and populations were assessed this year, resulting in rank changes for four of them.
- The White Sturgeon (*Acipenser transmontanus*) and Bull Trout (*Salvelinus confluentus*) designatable units were adjusted to match those used by the current COSEWIC assessments (2012) and reassessed using the current data and range.

Birds:

- There were six rank changes for birds this year.
- B.C. formerly had two subspecies of Pelagic Cormorant. Hobson (2013) has reviewed the literature; measurements overlap widely and the genetic markers diverge little and therefore has lumped them all.
- The BC Conservation Data Centre follows the taxonomy and name changes as published annually by the American Ornithological Society. The list is produced by the North American Classification Committee with the list and updates for all of North America are found [here](#). There were two sets of changes this year based upon phylogenetic groupings.

Mammals:

- B.C. got new mammals this year!

- **Humboldt's Flying Squirrel:** A group of researchers looked at the mitochondrial DNA of the genus *Glaucomys* and found that instead of two species as previously thought, there are three in North America. The third is found along the Pacific coast from southern B.C. to southern California. *Glaucomys oregonensis* (Bachman, 1839), whose type locality is in Oregon, is the senior available name for this taxon.
- **Mexican (or Brazilian) Free-tailed Bat (*Tadarida brasiliensis*):** Calls were recorded during acoustic surveys in 2015 and 2016 on Salt Spring Island. Adults were detected, which suggest residents rather than post-natal dispersal from the south (Ommundsen et. al. 2017). We are retaining the "Accidental" classification until there is further evidence that they are here regularly or breeding.
- There were taxonomic revisions to the water shrews in B.C.

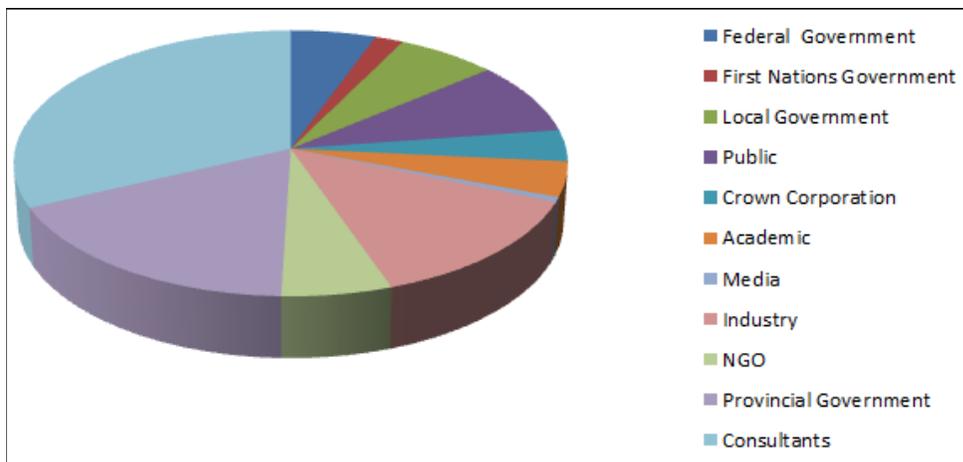
Insects:

The addition of these groups is the result of the federal General Status program which has a mandate to identify and assess the state of all of the species that occur in Canada. These lists and ranks will provide the basis for further refinement and research. For taxonomic references please download the full Recent Data Changes documents online.

- 2457 B.C. moths were added this year! Most are not ranked due to lack of information and resources.
- The known 74 species of Wasps (only from the family Vespidae) are also now being exported. They have been assigned preliminary ranks with many as SU (unknown) or a range rank.

Additional details of the 2018 taxonomy, classification and rank changes can be found on the Conservation Data Centre [Recent Data Changes](#) web page.

Did you know? The BC Conservation Data Centre responds to over 800 custom data requests annually! Questions from clients include how to use our online tools, requests for secure data and information and our methodology for ranking and mapping species and ecosystems. This year's breakdown of clients included:



We are also pleased to announce updates to our web applications!
There are new YouTube videos to help you navigate the applications

- **BC Species and Ecosystems Explorer**

BC Species and Ecosystems Explorer (BCSEE) has recently been updated to provide easier and more comprehensive access to our data and information. You no longer have to perform separate searches for Species and Ecological Communities. The groups that you are interested in can be selected and the search results will be displayed together.

<https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/conservation-data-centre/explore-cdc-data/species-and-ecosystems-explorer>

Check out the tutorial here: <https://youtu.be/t1DbQF-3xwQ>

- **CDC iMap**

CDC iMap has been upgraded with new functionality! This includes a new streamlined Spatial Query Tool and the ability to use the application across web browsers. Find links to the public and secure applications and instructions here:

<https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/conservation-data-centre/explore-cdc-data/known-locations-of-species-and-ecosystems-at-risk/cdc-imap-theme>

Check out the tutorial here: <https://youtu.be/DPEUbOAeaWY>

- [B.C. Data Catalogue](#) - Export CDC mapped element occurrences to Shapefile, Geodatabase, CSV, GeorSS or GeoJSON or connect to the WMS URL.

For more information on the above tools, and more, please visit our [Explore Data](#) web page.

If you have any questions, please don't hesitate to contact us. cdccdata@gov.bc.ca