The Vertebrates and Invertebrates of British Columbia: Scientific and English Names

Standards for Components of British Columbia's Biodiversity No. 2

Prepared by
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Preface

This publication, *The Vertebrates and Invertebrates of British Columbia: Scientific and English Names,* is one of the Standards for Components of British Columbia's Biodiversity (CBCB). This manual refers to the accepted standard nomenclature for the vertebrates and selected invertebrates of BC. As taxonomy changes frequently, these names are maintained in the BC Species and Ecosystems Explorer (BCSEE).

The precursor to this publication was entitled *The Vertebrates of British Columbia: Scientific and English Names.* The first edition was produced as a cooperative initiative by the Royal British Columbia Museum, and the Ministry of Environment, Lands and Parks, Wildlife Branch (Cannings and Harcombe 1990). Versions 2.0 and 3.0 of *The Vertebrates of British Columbia* were compiled by the Terrestrial Ecosystems Task Force, under the auspices of the Resources Inventory Committee (RIC).

This publication replaces *The Vertebrates of British Columbia: Scientific and English Names* (Version 3.0) and its accompanying errata.

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The Resources Information Standards Committee evolved from the Resources Inventory Committee which received funding from the Canada-British Columbia Partnership Agreement of Forest Resource Development (FRDA II), the Corporate Resource Inventory Initiative (CRII) and by Forest Renewal BC (FRBC), and addressed concerns of the 1991 Forest Resources Commission.

All decisions regarding standards are the responsibility of the Resources Information Standards Committee. This document was compiled by Diana Demarchi, Pauline Hubregtse, and Leah Westereng.

For further information about the Resources Information Standards Committee, please access the RISC website at:
http://www.ilmb.gov.bc.ca/risc/

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1. INTRODUCTION

British Columbia is an ecologically diverse province of about 95 million hectares, with an equally diverse range of fauna. With the increase in the number of research, management and public programs dealing with fauna, a need has evolved for a single reference for vertebrate and invertebrate species names and codes.

Taxonomy, the naming and classifying of organisms, is a dynamic science – names will change, and the BC Species and Ecosystems Explorer (BCSEE) is currently the most complete source for up-to-date and standardized taxonomy in British Columbia. This application should be used as the provincial authority and considered the Resources Information Standards Committee (RISC) standard for vertebrate and invertebrate taxonomy.[1]

[1] The names and codes used for provincial data submission may be different. Please see Section 4.2. Names and Codes for Provincial Data Submission, p. 7.

2. SPECIES NAMES

The scientific name consists of the genus and the species (e.g., *Canis lupus*). For the genus (e.g., *Canis*), the first letter is always capitalized; in the specific name (e.g., *lupus*) the first letter is always lower case. Both names are italicized.

English (common) names may vary regionally and among authors. Moreover, many species have names in languages other than English and some species lack generally accepted English names. In an attempt to establish standard English names for the province's vertebrates, a single common name is provided for each vertebrate species. Nonetheless, be aware that the "common" names for some groups and species (e.g., in fish) are contrived and are rarely used. Standard English names are not provided for all of the province's invertebrates, simply because there are too many species to provide common names for all.

Generally, all nomenclature updates are made to follow taxonomic authorities used by NatureServe. NatureServe (http://www.natureserve.org) is an organization dedicated to providing reliable information on species and ecological communities for use in conservation and land use planning.

3. SPECIES CODES

3.1. Vertebrates

Each vertebrate species code consists of five upper case letters. The first letter of the code designates the major vertebrate group: marine and freshwater fishes (F), amphibians (A), reptiles and turtles (R), birds (B) and mammals (M). The group code eliminates concerns for duplicate codes between groups. The group code is separated with a hyphen (-) from the other four letters of the species code. These letters are derived from scientific names for all groups except birds, for which the accepted English names were used.

3.1.1. Birds

Rules were modified from Klimkiewicz and Robbins (1978) to suit British Columbia species as follows:

- If the English name is a single word, the first four letters were used.
  E.g. Buffle<u>h</u>ead = B-BUFF; Bush<u>t</u>it = B-BUSH.
- If the English name consists of two words, the first two letters of the first word were combined with the first two letters of the second word.
  E.g. <u>Co</u>mmon <u>Lo</u>on = B-COLO; <u>Ba</u>ld <u>Ea</u>gle = B-BAEA
- If the English name consists of three words (with or without hyphens), the first letter of the first word was combined with the first letter of the second word and the first *two* letters of the third word.
  E.g. <u>P</u>ied-<u>b</u>illed <u>Gr</u>ebe = B-PBGR; <u>G</u>reat <u>G</u>ray <u>Ow</u>l = B-GGOW
- If the English name consists of four words (with or without hyphens), the first letter of each word was used.
  E.g. <u>B</u>lack-<u>c</u>rowned <u>N</u>ight-<u>H</u>eron = B-BCNH; <u>B</u>lack-<u>a</u>nd-<u>w</u>hite <u>W</u>arbler = B-BAWW

3.1.2. Fish, Amphibians, Reptiles, Turtles, and Mammals

Using the scientific name, the first two letters of the genus and first two letters of the species were combined.

E.g. *<u>Am</u>bystoma <u>ti</u>grinum* = A-AMTI; *<u>Ap</u>lodontia <u>ru</u>fa* = M-APRU

3.2. Invertebrates

Each invertebrate species code consists of eight upper case letters. The first letter of the code designates the element as an invertebrate and the second letter into a major invertebrate group: non-marine molluscs (IM for Mollusca); tiger beetles (IC for Cicindelidae), butterflies (IL for Lepidoptera); and dragonflies/damselflies (IO for Odonata). The group code eliminates concerns for duplicate codes between groups. The group code is separated with a hyphen (-) from the other six letters of the code. These letters are derived from the scientific name by combining the first three letters of the genus and first three letters of the species.

E.g. *Apodemia mormo* in the order Lepidoptera = IL-APOMOR

3.3. Subspecies

If only one subspecies exists in the province for a given species, then the species code is used. Subspecies codes consist of the species code followed by a hyphen (-) and two additional upper case letters. For all groups, subspecies codes are derived from the first two letters of the subspecies scientific name.

3.4. Duplicate Codes

Occasionally, the rules described above resulted in duplications of species codes, and some codes were altered. For example, B-TRSW would equal both Tree Swallow and Trumpeter Swan. The code for Trumpeter Swan was altered to B-TRUS to avoid this duplication. Some subspecies codes also had to be altered to avoid duplications. For example, M-MACA-CA would equal both subspecies *Marmota caligata caligata* and *M. caligata cascadensis.* The first duplicate alphabetically follows the rules. The second (and any subsequent duplicate) uses the next letter of the subspecies' name that makes it a unique code. Thus in the previous example, the code for *M. caligata cascadensis* was altered to M-MACA-CS.

4. SEARCH FOR NAMES AND CODES

4.1. BC Species and Ecosystems Explorer

Scientific names, English names, and codes for vertebrates and selected invertebrates are available online through the BC Species and Ecosystems Explorer (BCSEE). The BCSEE application is located at the following website:
http://www.env.gov.bc.ca/atrisk/toolintro.html.

4.2. Names and Codes for Provincial Data Submission

4.2.1. All Animals (Except Fish and Mussels)

To submit inventory data for all animals (except fish and mussels), standard species codes must be used, as per the BC Species and Ecosystems Explorer (BCSEE), available at:
http://www.env.gov.bc.ca/atrisk/toolintro.html.

Not all subspecies are listed in the BC Species and Ecosystems Explorer. Because some inventories involve subspecies not listed in BCSEE, such as subspecies of ungulates and bears, these subspecies codes are provided in Appendix 1.

For more information about wildlife species inventories, please visit:
http://www.env.gov.bc.ca/wildlife/wsi/index.htm.

4.2.2. Fish and Mussels

To submit fish or mussel inventory data, *Fish Collection/Inventory Standards* species codes must be used. These codes are available at:
http://a100.gov.bc.ca/pub/fidq/species.do

For more information about fish species inventories, please visit:
http://www.env.gov.bc.ca/fish/index.html.

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Cannings, R.A., and A.P. Harcombe (eds.). 1990. The vertebrates of British Columbia, scientific and English names. Royal B.C. Mus. Heritage Rec. 20; Wildl. Rep. No. R24. Min. Municipal Affairs, Recreation and Culture and Min. Environ. Victoria, BC. 116pp.

Klimkiewicz, M.K., and C.S. Robbins. 1978. Standard abbreviations for common names of birds. North Am. Bird Banding 3(1):16-25.

Appendix 1. Additional Subspecies Names and Codes

Bovids		
Bos bison	Bison	M-BOBI
ssp: *athabascae*	Wood Bison	M-BOBI-AT
bison	Plains Bison	M-BOBI-BI
Ovis canadensis	Bighorn Sheep	M-OVCA
ssp: *canadensis*		M-OVCA*
Ovis dalli	Thinhorn Sheep	M-OVDA
ssp: *dalli*	Dall's Sheep	M-OVDA-DA
stonei	Stone's Sheep	M-OVDA-ST
Cervids		
Alces americanus	Moose	M-ALAM
ssp: *andersoni*		M-ALAM-AN
gigas		M-ALAM-GI
shirasi		M-ALAM-SH
Dama dama	Fallow Deer	M-DADA
ssp: *dama*	European Fallow Deer	M-DADA*
Cervus canadensis	Elk	M-CECA
ssp: *nelsoni*	Rocky Mountain Elk	M-CECA-NE
roosevelti	Roosevelt Elk	M-CECA-RO
Odocoileus hemionus	Mule Deer	M-ODHE
ssp: *columbianus*	Columbian Black-tailed Deer	M-ODHE-CO
hemionus	Rocky Mountain Mule Deer	M-ODHE-HE
sitkensis	Sitka Black-tailed Deer	M-ODHE-SI
Odocoileus virginianus	White-tailed Deer	M-ODVI
ssp: *dacotensis*	Dakota White-tailed Deer	M-ODVI-DA
ochrourus	Northwestern White-tailed Deer	M-ODVI-OC
Rangifer tarandus	Caribou	M-RATA
ssp: *caribou*	Woodland Caribou	M-RATA-CA
dawsoni	Dawson Caribou	M-RATA-DA**
Bears		
Ursus americanus	Black Bear	M-URAM
ssp: *altifrontalis*		M-URAM-AL
carlottae		M-URAM-CA
cinnamomum		M-URAM-CI
*kermode*i		M-URAM-KE
vancouveri		M-URAM-VA
Ursus arctos	Grizzly Bear	M-URAR
ssp: *horribilis*		M-URAR*

*The species code is used because there is only one subspecies in British Columbia.

**This subspecies is extinct.