

2012 Zoology Summary
Conservation Status Rank Review and Changes
(Updated May 16, 2012)

Birds:

A subset of the birds was assessed this year with only a few resulting changes in status—here are a couple.

The available trend data for Red-throated Loon indicates at least short-term declines with the Coastal Waterbird Survey indicating significant declines. It is now S4 (was S5). The rank for Short-billed Dowitcher was narrowed to S2S3 rather than the very broad S2S4. There has been an increased effort in searches in the NW of the province and there still have been very few nesting locations found (two), therefore the assumption that there are *many* more may not have been correct. However it still is a large area with more places in high elevations to search, thus the remaining uncertainty between S2 and S3.

Both White-breasted Nuthatch and Calliope Hummingbirds had changes that were positive and both appear to be due to increases in numbers and range.

The Ruby-throated Hummingbird has been assessed for the first time this year. It has been in the north-east of the province for many years, but had been listed as accidental. There are breeding and possible breeding records from around Fort St. John and Dawson Creek as well as one near Fort Nelson.

Fish:

Many fish elements were assessed for the first time this year. These are species that have been divided into several populations using the methods and recommendations of Pollard (2009), available at the Ecosystems Changes webpage (<http://www.env.gov.bc.ca/atrisk/changes.htm>). The rationale for the divisions follows these guidelines and fit well in the element concept. Brassy Minnows (*Hybognathus hankinsoni*) were placed into the Pacific group or western Arctic. The Large Lake Piscivore Ecotype was split from the rest of the Rainbow Trout. Bull Trout were divided into the Coastal and Interior lineages and Dolly Varden were divided into the Northern and Southern Lineages. Arctic Grayling are assessed as being part of the Nahanni or Southern Beringean Lineage.

The Enos Lake Stickleback pair (limnetic and benthic) had been given an “extinct” status in 2010 based research by Taylor et al 2006 and Behm et al 2010 and on the recommendation of the recovery team. Since this time there has been a COSEWIC report that went through in detail the evidence that was being used to deem the two species extinct (i.e. hybridized) and the result was that there was not enough evidence to make that call.

There were a few small adjustments made to ranks as a result of ranking using the updated ranking methods. Walleye changed from S5 to S4S5 and Longfin Smelt also has a more imperilled ranking of S4, changed from S5. The smelt also had more data to use than there was at last assessment; this is not considered a real status change.

Behm, J., A. R. Ives, and J. W. Boughman. 2010. Breakdown in postmating isolation 878 and the collapse of a species pair through hybridization. *The American Naturalist* 879 175:11-26.

Pollard, S. 2009. Identifying intra-specific freshwater fish elements for tracking and ranking in BC, a proposed approach. Ministry of Environment, Victoria, BC.

Taylor, E. B., J. W. Boughman, M. Groenenboom, M. Sniatynski, D. Schluter, and J. L. Gow. 2006. Speciation in reverse: morphological and genetic evidence of the collapse of a three-spined stickleback (*Gasterosteus aculeatus*) species pair. *Molecular Ecology* 15:343-355

Mammals:

There were a few name changes to both the English and Scientific names; please see the Excel spreadsheet for details on these.

Orthoptera (Grasshoppers):

We were fortunate this year to have a list of grasshoppers and their allies pulled together courtesy of the General Status working group. Jennifer Heron then pulled together the records from the Royal British Columbia Museum and Beatty Museum and we were able to establish preliminary status ranks for many of them. Due to their preliminary nature, they have not been placed on the red or blue lists yet. We'd like to see these serve as encouragement for people to focus in on this group for surveys. Further exploration of records of specimens at other museums where BC collections reside would also benefit the assessments.

The standard followed the taxonomy of the Orthoptera is:

Vickery, V.R. and D.K. Kevan. 1985. The grasshoppers, crickets and related insects of Canada and adjacent regions. The insects and arachnids of Canada Part 14. Biosystematics Research Institute, Ottawa, Ontario, Agriculture Canada. 918 pp.

Reptiles:

The reptiles were reviewed this year resulting in a rank change for two species.

Sharp-tailed Snake (*Contia tenuis*) changed from S1 to S1S2, remaining on the red list. Previously, this snake was known from the southern tip of Vancouver Island and the Gulf Islands, with one report from MacGillivray Lake, northeast of Kamloops in 1964. In the summer of 2011 we had exciting news - a Sharp-tailed Snake was discovered in the Pemberton area, just north of Whistler! Please note that this rank change is based on new knowledge about the known range and is (likely) not a reflection of a change in actual status. Threats are still high for this species and will be re-assessed once more snakes are found.

Northern Alligator Lizard (*Elgaria coerulea*), changed from S4S5 to S4, remaining on the yellow list. The rank change is due to a re-assessment of the original information, using current ranking methodology and is also not a change in actual status.

Reptile and Amphibian Names

There are a number of changes to the English names of the reptiles and amphibians as a result of changing the standard reference used in British Columbia. The reference now being used is Crother (ed.) (2008), one that is endorsed by a number of the major North American herpetological groups. We apologize for the numerous changes and flipping around with names, however there were various recommendations by numerous people to use different sources and it was difficult to determine the one that would be the most widely accepted or "correct". Thank you for your patience.

This will be adopted as the standard, and followed with changes only occurring to match them.

Crother, B. I. (ed.). 2008. Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, pp. 1–84. SSAR Herpetological Circular 37.

(http://www.ssarherps.org/pages/comm_names/Index.php)

Spiders:

The Spiders of BC have been added as a reference list. The Conservation Status Ranks have not been assessed; therefore all have the rank of "SNR" (not ranked). The spiders have had General Status Ranks applied which can be found by exporting the list to Excel. Thanks to Robb Bennett for pulling this list together.

Taxonomy follows:

Platnick, N. I. 2012. The world spider catalog, version 12.5. American Museum of Natural History, online at <http://research.amnh.org/iz/spiders/catalog>. DOI: 10.5531/db.iz.0001.

Details of the changes listed above are on the Animal 2012 List Changes excel file located at the following website: <http://www.env.gov.bc.ca/atrisk/changes.htm> .