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# Conservation Status as a Biodiversity Trend Indicator: Recommendations from a Decade of Red-listing in British Columbia

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**Abstract:** Species conservation status is a commonly used broad-scale indicator of the state of biological diversity. In British Columbia, the provincial Red List is a measure of conservation status and involves listing species and subspecies that are considered to be Endangered or Threatened, or are being considered for Endangered or Threatened designation. In an effort to learn about how the Red List might be used to follow trends in species' status, provincial Red Lists from 1992 and 2002 were examined to see if changes in these lists reflected changes in the status of the red-listed taxa. Examination of the case histories of individual species and subspecies showed that 65% of additions to and deletions from the Red List resulted from improved knowledge of a species' status, changes in assessment procedures, and refinements in taxonomy rather than actual changes in a species' status. Examinations of NatureServe subnational rank scores for taxa that appeared on both the 1992 and 2002 Red Lists revealed changes in status that were not reflected by movement from the Red List. There are five categories of the NatureServe subnational rank compared to the three used by the provincial Conservation Data Centre (CDC) which constitute the color coding of conservation status ranks; consequently, NatureServe uses a finer scale ranking system than the CDC. Preliminary estimates of historic conservation status demonstrated some ambiguity with regard to tracking changes in Red List composition over time. Despite these compelling reasons why a list of species at risk, such as the provincial Red List, is of limited use as biodiversity trend indicator, the demand to report on biodiversity at a strategic level will likely result in the continued use of conservation lists as indicators, at least in the short term. Given this reality, we recommend the following guidelines be applied when such indicators are used:

1. Use only well known taxonomic groups.
2. Be wary of the influence of the conservation assessment procedure.
3. Consider reporting using a finer system of conservation ranking, such as NatureServe subnational ranks, rather than coarser systems, such as Red or Blue Lists.
4. Identify the nature of the indicator's baseline and its implications to the audience.
5. Clarify all assumptions and their implications.