

Relative Biodiversity

Okanagan Region Biodiversity Integration



Relative Biodiversity
The relative biodiversity map is based on a model designed to identify the areas of greatest ecological and biodiversity significance. The result is a decision support tool that identifies biodiversity 'hotspots' at a regional scale in the study area. The relative biodiversity model considers the following characteristics:

- Conservation ranking – Polygons with higher conservation rankings provide higher potential for biodiversity.
- Wetlands – Due to the importance of wetland habitats in this region, wetlands contribute to higher relative biodiversity.
- Antelope brush – antelope brush habitat contributes to higher relative biodiversity.
- Potential riparian habitat – Potential riparian habitat areas contribute to higher relative biodiversity.
- Habitat patch size (i.e., whether the area falls within a habitat reservoir or refuge) – Larger habitat patches provide higher potential for biodiversity.
- Distance to roads – Habitat areas in close proximity to roads reduce the potential for biodiversity.

Because of the intense urban and agricultural pressures at lower elevations, the data have been summarized to differentiate between valley and upland areas. The biogeodomatic ecosystem subzones and variants were used to distinguish between valley and upland areas: the Valley Area was based on a selection of BEC classes that represented wet (dry) valley bottom habitat in the study area. The zones selected were B0m1, D1Fh1, D1Fh1a, PPH1a, and PPH1a. To capture valley areas in the moister northern part of the study area, the 700 metre elevation contour was used as an upper limit – elevations less than 700m were included in the Valley Area. The Upland Area consists of the remainder of the study area.

Integration of Study Areas
The relative biodiversity for the two study areas (North & Central Okanagan and South Okanagan-Similkameen) were combined to create an integrated perspective of the entire Okanagan Region. Natural variances in the distribution and amount of certain ecosystems produce some differences in the appearance between the two study areas. For example, grasslands (which have a very high conservation ranking) are more abundant in the South Okanagan-Similkameen than the North and Central study areas.

The original analyses for the two study areas were conducted independently, using 58 datasets that incorporated different information. The North and Central Okanagan SEI data included information regarding wildlife habitat and condition values that were not available for the South Okanagan-Similkameen. This additional information moderated the conservation rankings in the North and Central study area. As a result, there are differences in rankings, and consequently variations in appearance in relative biodiversity between the two areas.

Conservation Planning
The relative biodiversity map provides a comprehensive look at the relative value of ecosystems in the Okanagan Region. Together with other maps in the series (conservation ranking, habitat connectivity, and land management class), individuals and organizations can begin to make more informed decisions on conservation and land use planning, at a region-wide scale.

Legend

- Study Area
- Regional District Boundary
- River/Stream
- Lake/Major River
- SEI Boundary

Relative Biodiversity

- Very high
- High
- Moderate
- Low
- Very low

0 5 10 15
Kilometres

Data sources:
Ministry of Forests and Range, Ministry of Environment, TRIM, Regional District of Central Okanagan, Regional District of North Okanagan, Regional District of Okanagan-Similkameen, Grasslands Conservation Council of B.C., Makonis Consulting

Scale: 1:250,000
Projection: BC Albers NAD 83
Written scales are approximate and are based on a 36 x 48 inch paper size.

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