



## Compilation Details

**Layer Name:** Bedrock Terrane

**Layer Type:** Bedrock Geology

**Feature Type:** Dataset

## General Information

**Release Date:** 2020-01-24

**Released By:** Yukon Geological Survey

**Contact Info:** geology@yukon.ca

### Summary

A geological compilation map showing the tectonostratigraphic terranes of Yukon, British Columbia, and Alaska. Intended for use by the exploration community, prospectors, and geologists.

### Description

**Last Updated:** Jan 24, 2020

#### A Digital Atlas of Terranes for the Northern Cordillera

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The framework of the Cordilleran orogen of northwestern North America is commonly depicted as a collage of terranes – crustal blocks containing records of a variety of geodynamic environments including continental fragments, pieces of island arc crust, accretionary complexes and oceanic crust. The series of maps available here are derived from a GIS compilation of terranes based on the map first published by Colpron et al. (2007) and more recently revised by Nelson et al. (2013). These maps are presented here in digital formats including ArcGIS file geodatabase (.gdb), shapefiles (.shp and related files), Google Earth (.kmz), as well as graphic files (.pdf). The GIS data includes terrane polygons and selected major Late Cretaceous and Tertiary strike-slip faults. Graphic PDF files derived from the GIS compilation were prepared for the Northern Cordillera (Alaska, Yukon and BC), the Canadian Cordillera (BC and Yukon), Yukon, and British Columbia. These maps are intended for page-size display (~1:5,000,000 and smaller). Polygons are accurate to ~1 km for Yukon and BC, ~5 km for Alaska. More detailed geological data are available from both BCGC, USGS and YGS websites. Descriptions of the terranes, their tectonic evolution and metallogeny can be found in Colpron et al. (2007), Nelson and Colpron (2007), Colpron and Nelson (2009), Nelson et al. (2013) and references therein.

The terrane map project is a collaborative effort of the BC Geological Survey and Yukon Geological Survey.

#### For more detailed geological data:

Alaska bedrock geology – [https://alaska.usgs.gov/science/geology/state\\_map/interactive\\_map/AKgeologic\\_map.html](https://alaska.usgs.gov/science/geology/state_map/interactive_map/AKgeologic_map.html)

Alberta bedrock geology – <https://geology-ags-aer.opendata.arcgis.com/datasets/bedrock-geology-of-alberta-dig-2013-0018>

British Columbia bedrock geology – <https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/british-columbia-geological-survey/geology/bcdigitalgeology>

NWT bedrock geology – <http://webapps.nwtgeoscience.ca/Html5Viewer/index.html?viewer=NTGSwebGIS2.NTGSwebGIS2>

Yukon bedrock geology – <http://data.geology.gov.yk.ca/Compilation/3>

#### References:

- Colpron, M., Nelson, J.L. and Murphy, D.C., 2007. Northern Cordilleran terranes and their interactions through time. *GSA Today*, vol. 17, no. 4/5, p. 4-10.
- Colpron, M. and Nelson, J.L., 2009. A Palaeozoic Northwest Passage: incursion of Caledonian, Baltican and Siberian terranes into eastern Panthalassa, and the early evolution of the North American Cordillera. *In: Earth Accretionary Systems in Space and Time*, P.A. Cawood and A. Kröner (eds.), Geological Society of London, Special Publications 318, p. 273-307.
- Nelson, J.L. and Colpron, M., 2007. Tectonics and metallogeny of the Canadian and Alaskan Cordillera, 1.8 Ga to present. *In: Mineral Deposits of Canada: A Synthesis of Major Deposit Types, District Metallogeny, the Evolution of Geological Provinces, and Exploration Methods*, W.D. Goodfellow (ed.), Mineral Deposit Division, Geological Association of Canada, Special Publication 5, p. 755-791.
- Nelson, J.L., Colpron, M. and Israel, S., 2013. The Cordillera of British Columbia, Yukon, and Alaska: Tectonics and metallogeny. *In: Tectonics, Metallogeny and Discovery: The North American Cordillera and Similar Accretionary Settings*, M. Colpron, T. Bissig, B.G. Rusk and J.F.H. Thompson (eds.), Society of Economic Geologists, Inc., Special Publication 17, p. 53-103.

#### Recommended citation:

Yukon Geological Survey, 2020. A Digital Atlas of Terranes for the Northern Cordillera. Yukon Geological Survey, accessed online from <http://data.geology.gov.yk.ca/Compilation/2>, [DATE].

## Downloads

Name	Location	Public	Comment
Terranes - GeoYukon	<a href="https://mapservices.gov.yk.ca/geoyukon/?&amp;LayerTheme=Geology">https://mapservices.gov.yk.ca/geoyukon/?&amp;LayerTheme=Geology</a>	Yes	GeoYukon web map for viewing Terranes layers.
Yukon Terranes 2020 - PDFs	<a href="https://ygsftp.gov.yk.ca/YGSIDS/compilations/Terranes/2020/Terranes_PDF_2020.zip">https://ygsftp.gov.yk.ca/YGSIDS/compilations/Terranes/2020/Terranes_PDF_2020.zip</a>	Yes	Yukon Terranes 2020 - PDFs
Terranes - Data	<a href="https://map-data.service.yukon.ca/GeoYukon/Geological/Terranes/">https://map-data.service.yukon.ca/GeoYukon/Geological/Terranes/</a>	Yes	Terranes - Spatial Data (GDB, SHP, KMZ)
Terranes - Metadata	<a href="https://ygsftp.gov.yk.ca/YGSIDS/metadata/Bedrock_Terranes_Metadata.zip">https://ygsftp.gov.yk.ca/YGSIDS/metadata/Bedrock_Terranes_Metadata.zip</a>	Yes	Layer files for the faults and terranes.

## Revision History

Finished Date	Comment
Jan 24, 2020	Updated to 2020 version of map.
Jul 15, 2019	Updated to latest version (2015).
Jul 15, 2019	Added layer file, and pdf maps.

## Related References

Number	Reference Type	Document Type	Title	Year	Page(s)
2011_Terranes	Yukon Geological Survey	Open File (Geological - Bedrock)	A digital atlas of terranes for the northern Cordillera	2011	