# **User Guide**

**User Guide: Species and Habitat Viewer** 

Version 3.0

For:

Government of Northwest Territories Environment and Climate Change Wildlife Management Division

Ву:

Government of Northwest Territories Centre for Geomatics

and

**Caslys Consulting Ltd.** 

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### 1.0 INTRODUCTION

### 1.1 Overview

The *Species and Habitat Map Viewer* allows users to browse current map information maintained by the GNWT Wildlife Management Division and Centre for Geomatics. This support document provides an introduction to the components of the Map Viewer and how to use them.



The Map Viewer is designed to be used with minimal technical support through intuitive and standard web mapping functions. The easiest way to familiarize yourself with the Map Viewer is to review the Quick Start Guide and various map layers that are available, as well as the toolbar tips that appear when you hover over each button. If further information is required, this user manual can be referenced for details outlining specific map functions.

The Map Viewer *Home* page is found on the left side of the map when it opens. It provides basic information about the website and an introduction to the functions and support documentation for the *Species and Habitat Map Viewer* application.

Should you have questions, concerns, or recommendations on how to improve the Map Viewer or support documents, provide feedback using the contact information available in Section 6.0.

### 1.2 Internet Browser Compatibility

Before beginning to explore the *Species and Habitat Map Viewer*, it is important to check the internet browser compatibility on the computer that will be used to launch the Map Viewer. The Map Viewer is designed for compatibility between various internet browser services including Google Chrome, Mozilla Firefox and Apple Safari. If you are using an older version of Internet Explorer and you are finding that the application does not operate as presented in this user manual, you should consider changing the Internet Explorer tools/settings for compatibility mode.

### 1.3 Quick Reference Guide

The quick reference guide on page 2 provides a simple overview of the Map Viewer layout and key functions. Keep it on hand for reference while using the Map Viewer application.

### 1.4 Website Modules

The Species and Habitat Map Viewer website includes four (4) modules with specific data and functions that are located on Toolbar tabs at the top of the viewer. These modules include:

- Species at Risk
- Boreal Caribou
- Migratory Caribou (including Barren Ground Caribou and others)
- Biodiversity

Each of these modules (or themes) includes an *About* page which provides an introduction to the specific content that is available. Press the ? icon on the left side of each tab toolbar to learn more about each individual theme.



By default all available map layers can be interactively displayed in the *Layers* list to the left of the map. Press the *Show Theme Layers* icon on each module tab to switch to a curated list of layers that pertain specifically to the module / theme of interest.

# **Quick Reference Guide**

# Toolbar Menu Tabs: Click on other menu tabs to review other toolsets and controls. Pg. 16 Toolbar Buttons:

Use these buttons to perform specific tasks and move around the map window, explore data, and mark up map for printing.

Pg. 16 - 23

### **Information Window:**

The Information Window can be toggled on/off to add space for map window.

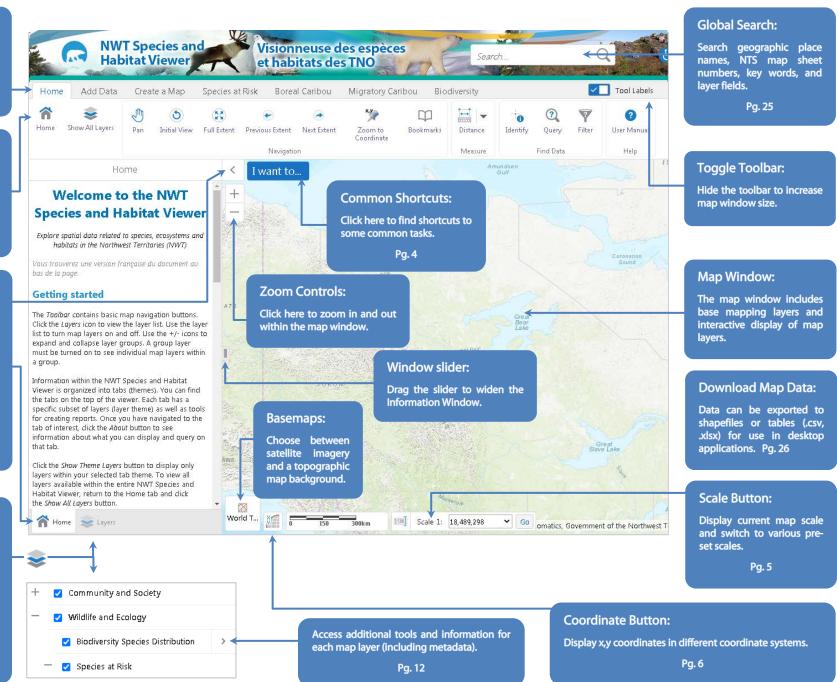
Tabs control what you see in the Information Window. By default, the Home and Layers tabs are visible. Searches will open new tabs. The new tabs can be closed via the "X" in the top right corner of the information window.

# Layer Tab:

All layers are displayed in this tab. Customize visible layers by using the check boxes to toggle on/off layers. Some layers are only visible within a certain map scale range, indicated by lighter font.

Use + and - to expand or collapse layers.

Pg. 8 - 11



### 2.0 GETTING STARTED

# 2.1 First Steps

While using the Map Viewer, explore information in the map window while also checking on/off layers of interest in the *Layers* list left of the map. Keep in mind that some layers are only visible within a certain map scale range so you may have to zoom in closer to for those data layers to appear in the map window. Also, a layer group must be checked to see individual (indented) layers. Reviewing all of the map layers is the best way to get familiar with what data is on this website. Use the Map Viewer to see maps and tables online or export tabular data and map information to common formats for use in spreadsheets, e-mail, or documents. For GIS users, functions exist to clip data to a desired extent and export map data for use in your desktop GIS applications. Each module includes tools that generate specific summary reports based on an area of interest that you define.

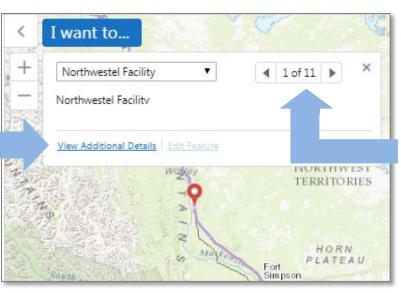
Keep in mind these common characteristics of the application to help you get started quickly:

- Read the *Home* message found left of the map window to get a quick introduction to the Species and Habitat Map Viewer and each module *About* message to further introduce each theme.
- Use the **Toolbars** and *I want to...* shortcuts to complete most tasks.
- Maximize the **Map Window** size when needed by collapsing the **Information Window** left of the map window and/or the toolbar above the map window.
- Use the tabs on the bottom-left of the Information Window to view map layers or to show the map legend and also to see various tool dialog messages or search results.



- This *User Manual* is accessible from all **Toolbar** tabs and the **Home** page.
- Hover the mouse over the tools to view Tool Tips that provide a description of each button.
- Click any feature displayed within the map window to learn more details (as illustrated below).

Press the View Additional Details option to open a new tab in the left window displaying key information for the selected feature.



Press the right or left arrows to view additional features selected.

# 2.2 Key Features

Provided are a list of key features that are available to investigate the data layers available within the Species and Habitat Map Viewer. Available features fall within four categories: search, navigation, editing/analysis, and communication.

Category	Feature	Description	Location
	Home Tab Query Tool	Query or filter a data layer by date, date range, or attributes (from a full list of map layers and data attributes.)	Query Filter
Search	Global Search	Search designed to provide an easy way to find specific data layers or places. Search for a geographic place, map sheet, or layer name.	Search Q
	Home Tab Navigation Tools	Simple tools to pan, zoom, and quickly change map extents.	Pan Initial View Full Extent
Navigation	Coordinate Button	Change the coordinate system of the map window. Navigate around the map and the coordinates will update according to the mouse location.	ž.
	Zoom Controls	Zoom in and out within the map window.	+
	Add Data Toolbar	Add map services. Upload common GIS layer formats. Browse the layer catalog.	Add Layers Upload Data
Functions	Create a Map	Export / Download a custom map as a PDF or share a link to a custom map view.	Export PDF Map Share Hyperlink
	Common Shortcuts	Various common tasks can be found on this menu on the upper left corner of the map window.	I want to

### 2.3 Common Tasks

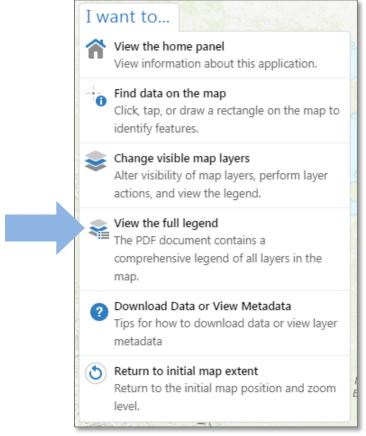
The information contained within this section outlines key ways to complete common tasks using the Species and Habitat Map Viewer.

### 2.3.1 | I Want To...

Use this menu located inside the map window to quickly find and launch common tasks.



It can be helpful to print out a copy of the full map legend (available as a .PDF file). This legend should also be printed and included with any printed map products created using the *Export PDF Map* tool



### 2.3.2 Scale

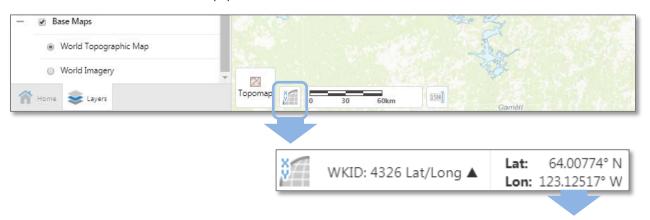
The scale bar is located in the bottom left corner of the map window. Press the scale bar icon to view the current scale or to change to one of the pre-set scale options. The selectable scales are determined by the basemap tile cache and may not be round numbers; however, exporting a PDF map allows for the selection of common scale values.



### 2.3.3 Coordinate System

Click the coordinate system button to display the current coordinate system for the map viewer. Click the black arrow to change the coordinate system to a set of predefined choices, including:

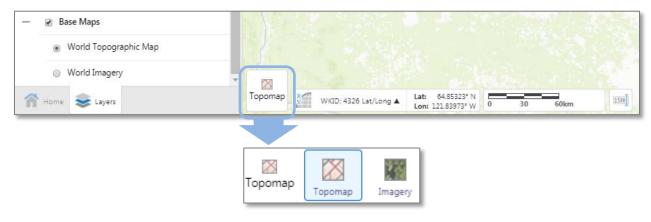
- WKID: 4326 Lat/Long
  - Name: Geographic Coordinate System, WGS 1984 datum
  - o Units: latitude/longitude in decimal degrees (DD)
- WKID: 4326 DDM
  - o Name: Geographic Coordinate System, WGS 1984 datum
  - o Units: latitude/longitude in degrees, decimal minutes (DDM)
- WKID: 4326 DMS
  - o Name: Geographic Coordinate System, WGS 1984 datum
  - Units: latitude/longitude in degrees, minutes, seconds (DMS)
- Default WKID: 102100 X/Y
  - o Name: WGS 1984 Web Mercator (Auxiliary Sphere)
  - Units: X/Y in metres (m)



Move the mouse around the map and the coordinates will dynamically change to show the current position.

### 2.3.4 Base Maps

Change base map options using the shortcut icons on the bottom left of the map window. Or you'll find base maps options (topographic map or satellite imagery) at the bottom of the layers list.



### 2.3.5 **Custom Module Tools / Reports**

The four modules or themes of this website are found on individual toolbar tabs. Tools on each module include custom reports and maps that can be generated based on your area of interest. Details about each of these reporting tools are described in Section 4.0.

# Species at Risk



Species at Risk Report

Use this tool to define an area of interest and generate a report (.pdf .xlsx .csv) that presents information about species at risk in the defined area.

# Boreal Caribou





Habitat Disturbance Report

Project Screening Tool

Habitat Disturbance Report presents key information about human disturbances and fires that impact boreal caribou in a custom defined area of interest. Project Screening Tool tabulates impacts to habitat based on an uploaded footprint of a proposed development project.

# Migratory Caribou



Bathurst Habitat Disturbance Report



Migratory Caribou Report Bathurst Habitat Disturbance Report presents key information about impacts within the Bathurst Caribou Range. Migratory Caribou Report identifies key migratory caribou herds and ranges that overlap a custom defined area of interest.

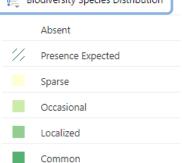
### Biodiversity





Biodiversity Report





Species Distribution tool updates the map window with the range and abundance of various wildlife species found in the NWT. Biodiversity Report generates a detailed listing of species ranges that a present within a custom defined area of interest.



Note: The Biodiversity Species Distribution map layer must be turned on in the Layers list to see the results of the Species Distribution tool.

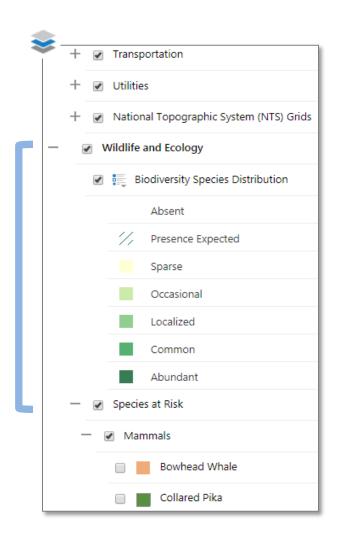
### 3.0 LAYER WINDOW

# 3.1 Map Layers

### 3.1.1 Default Map Layers

The map layers tab displays a table of contents for all data layers within the Map Viewer.

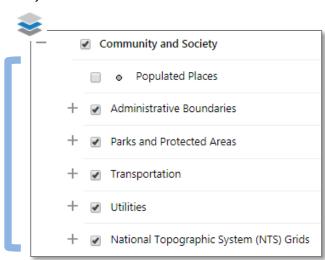
Most map layers are turned off by default. You may expand layer groups and turn on layers as needed. To turn on (make visible) or off (hide) a layer, click the checkbox. To expand or minimize a layer category, click the + or – buttons. Folder or layer groups must be turned on to activate the layers within them. Content in folder that are not turned on will appear grayed out.



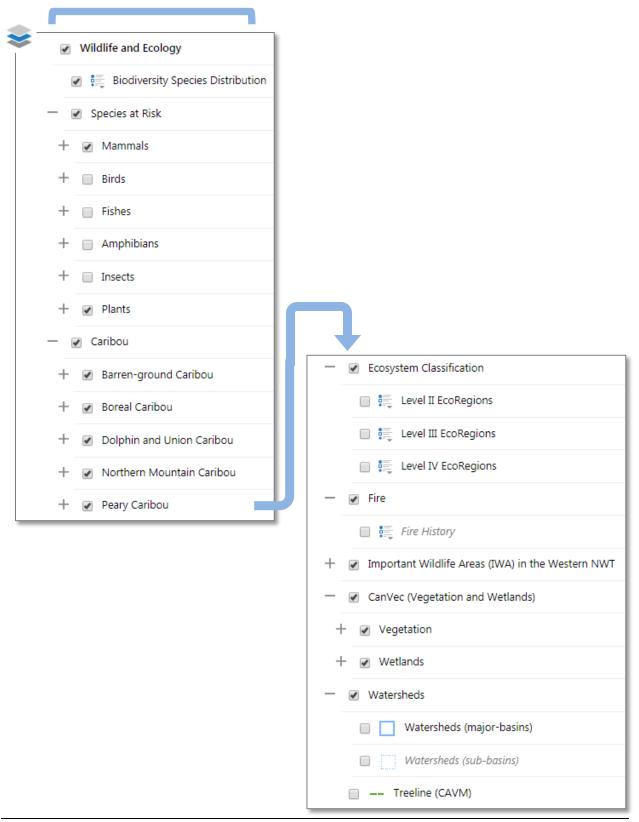
### 3.1.2 Expanded Map Layers

The map layers are grouped into three main categories: (1) Community and Society, (2) Wildlife and Ecology, and (3) Industry. Each category holds a series of relevant data layers.

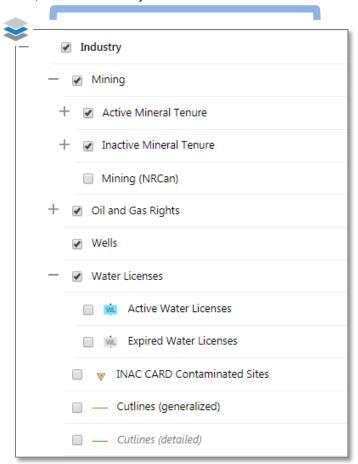
The **Community and Society** category holds a set of subcategories that include various Communities, Administrative Boundaries, Parks and Protected Areas, Transportation and Utility layers. Also, the NTS grids used to define the location of 1:50,000 and 1:250,000 scale topographic maps.



The **Wildlife and Ecology** category holds biodiversity distributions, species at risk, various caribou datasets, important wildlife areas, ecosytem classification (EcoRegions), fire, treeline, watershed and wetland layers with several layers within each category.

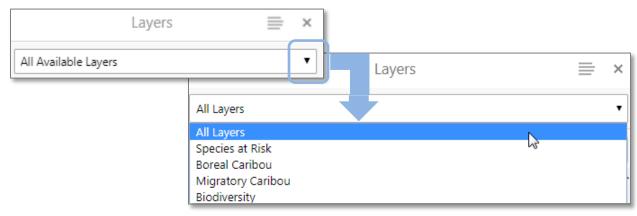


The **Industry** category holds a series of layers depicting mines, active and inactive mineral tenure, oil and gas rights, well locations, water licenses, registered contaminated sites, and seismic survey cut lines.

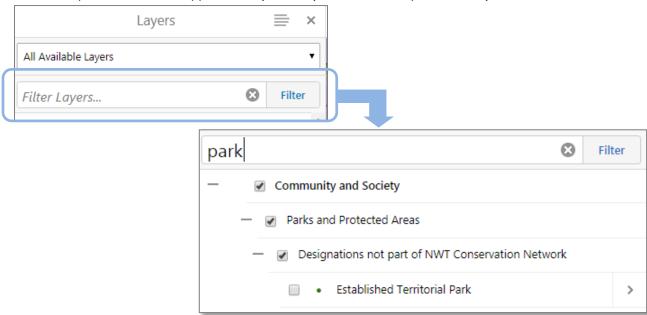


### 3.2 Layer Themes / Filters

Layer themes are used to revise the set of layers to a curated list to suit a specific module or theme (i.e., *Species at Risk, Boreal Caribou, Migratory Caribou*, or *Biodiversity*). Selecting a Layer Theme will remove un-related layers from the layer list turn on the visibility of key layers for the selected theme. To switch between layer themes, click the drop down menu (black arrow) at the top of the layer window. Select the desired category from the list to make visible all layers within the chosen theme. To return to the full data list choose the *All Layers* option.



The Filter Layers tool is used to only show certain layers in the Layer List window to the left of the map window. In the example below a filter is applied to only show layers that include 'park' in the layer name.

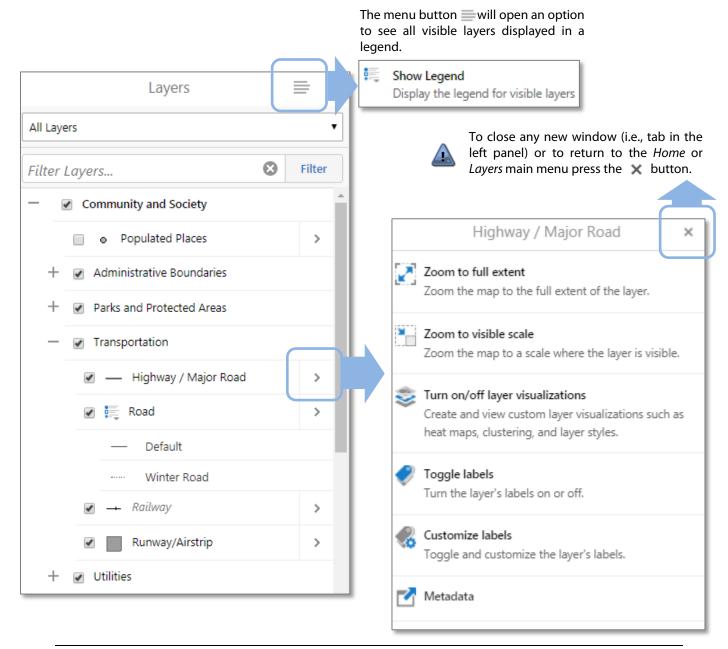


### 3.3 Layer Customization and Information

To access basic tools and to get more detailed layer information, click the  $\rightarrow$  icon next to the layer name. A new tab will open and will be titled with the selected layer name. To return to the layer main menu, click the  $\times$  button in the top right hand corner of the layer window.

The Zoom to Full Extent option will automatically zoom the features in the map window to the full extent of the layer. All features contained within the layer should be subsequently visible within the map window. However, some layers are only visible within certain scale ranges. Use the Zoom to Visible Scale tool to zoom to the visible extent of the selected layer.

Additional customization tools are discussed in Sections 3.3.1 (Turn on/off layer visualizations), 3.3.2 (Customize Labels), 3.3.3 (Toggle Labels), and 3.3.4 (Metadata).



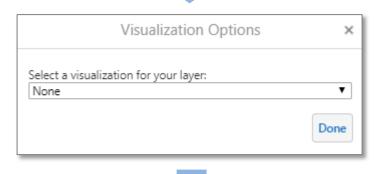
### 3.3.1 Turn On/Off Layer Visualizations

Layer visualizations tool provides a way for the user to customize how each layer is symbolized within the map viewer. Users can change the colours, line widths, or make layers semi-transparent to see other datasets more clearly.

To access layer visualizations, click the button next to the layer name and select the *Turn On/Off Layer Visualizations* button.

Turn on/off layer visualizations
Create and view custom layer visualizations such as heat maps, clustering, and layer styles.

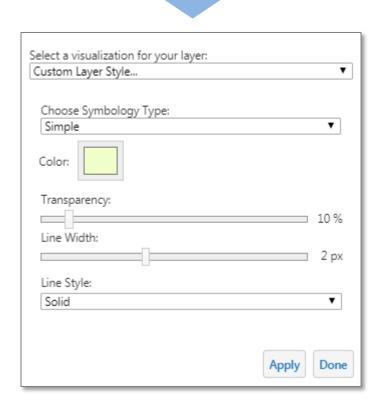
Click the black arrow to expand the drop down menu. Select custom layer style.



A layer can be symbolized using the simple or attribute symbology type selected from the drop down menu under the *Choose Symbology Type* option.

The simple symbology menu will provide options to change the colour, transparency and line style and width of the selected layer (as illustrated on the right).

The attribute symbology menu will provide a drop down list of available attributes for the selected layer. Select the attribute to be symbolized. Additional selections then become available. Adjust colour, transparency and line/marker style as necessary.



### 3.3.2 Customize Labels

Use the *Customize Labels* tool to change the font size, colour, or placement of the layer labels in the map window. The illustration below uses the Highway/ Major Road layer as an example.

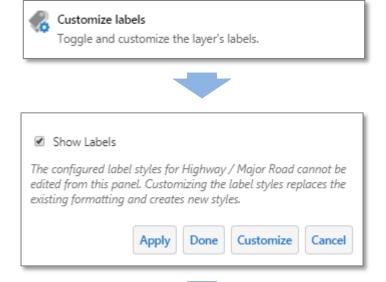
To access *Customize Labels*, click the button next to the layer name and select the *Customize Labels* button.

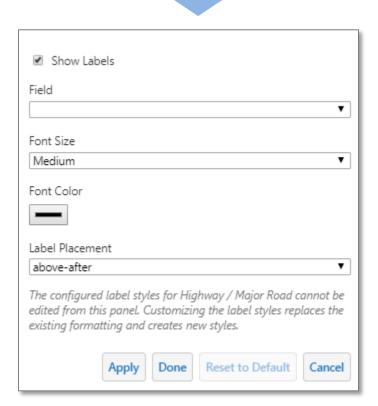
Click the *Customize* button to open the customization window.

The Show Labels toggle controls the label visibility. Check the box to make the label visible in the map window or uncheck to hide all labels.

Select the layer field (attribute) that contains the attribution of desired information.

Change font size and colour as necessary and adjust the label placement by selecting one of the options from the drop down menu.





### 3.3.3 Toggle Labels

The *Toggle Labels* feature will turn on and off the layer labels within the map window. The example below toggles the labels of the Mining layer.

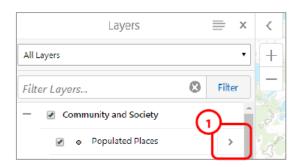


### 3.3.4 Metadata

Layer metadata contains the important information (e.g., spatial reference, description, citation, and dataset credit) associated with a particular dataset.

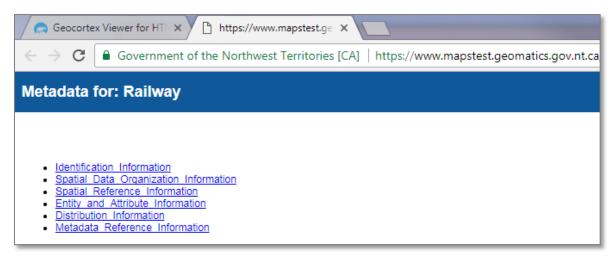
To access the metadata for a particular layer, follow these steps:

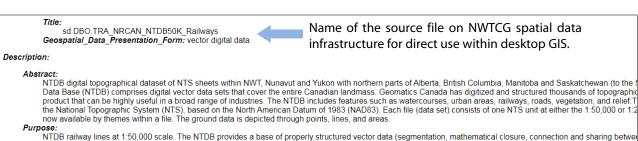
**How to Review Metadata:** Press the > icon to the right of the layer in the *Layers* window as shown below. Then (scroll down if required and) select the *Metadata* option.





When you select the *Metadata* option for a layer, a new internet browser tab displaying the metadata information will be launched. To return to the Map Viewer, click the internet browser Geocortex Viewer tab.





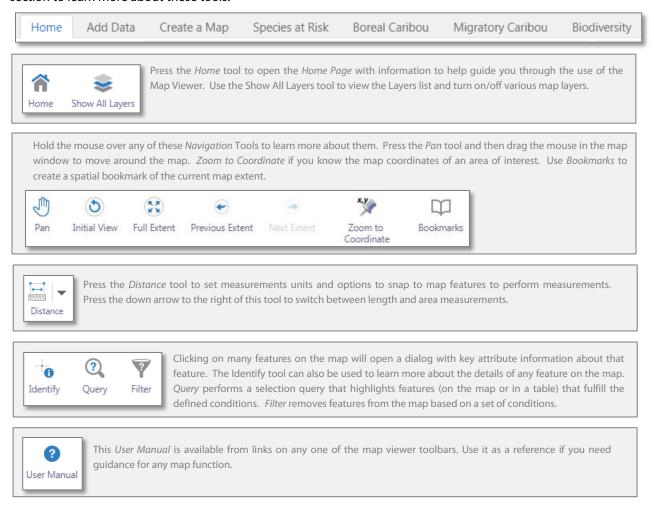
geographic information system (GIS) applications. It also can be used for preparing thematic maps. Data was downloaded from ftp site ftp://ftp2.cits.rncan.gc.ca/pub/bnd

### 4.0 TOOLBARS

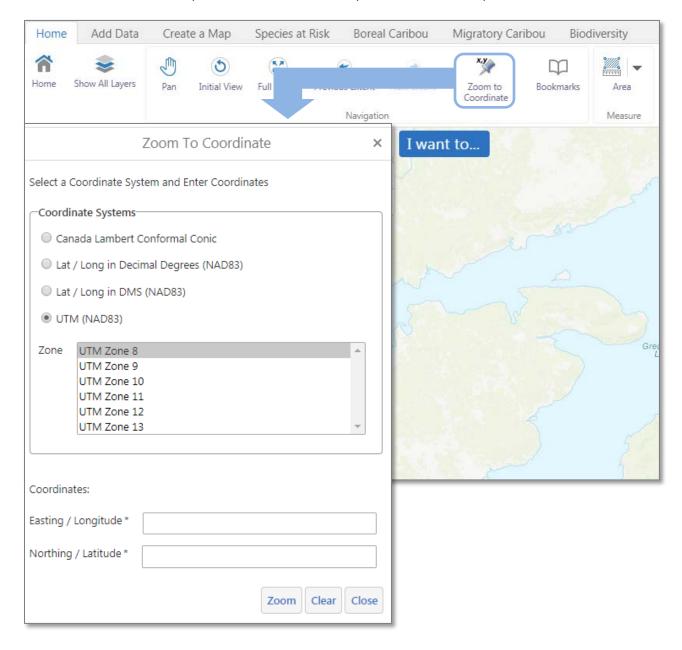
The five toolbars hold a variety of map functions, editing tools and analysis options. Hover over each tool to view a description. Select the *User Manual* button to be directed to the user manual and quick start guide.

### 4.1 Home Toolbar

The *Home Toolbar* includes several *Navigation* tools to help zoom to an area of interest, *Measure* tools to calculate distances or areas, Find Data tools to see map data attributes or locate specific map features of interest, plus a few other common tools to learn more about the NWT Species and Habitat Viewer. Review the following section to learn more about these tools.

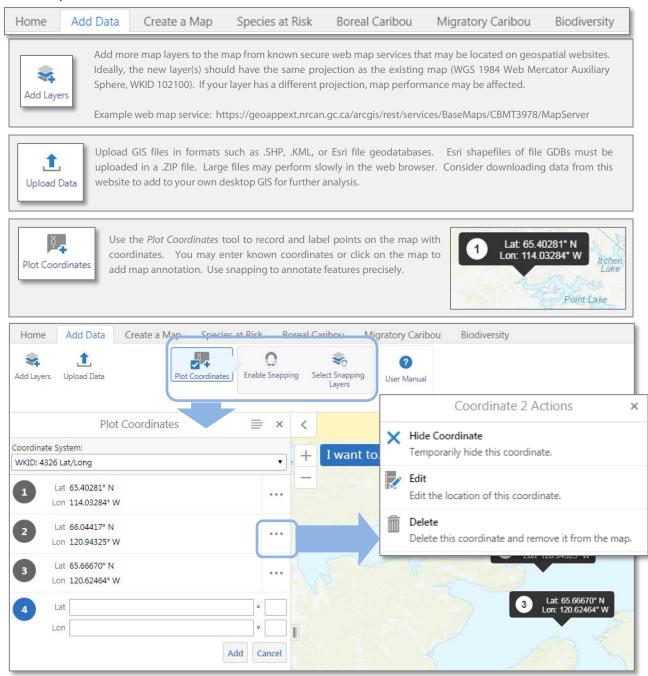


The Zoom to Coordinate tool is used to pan the map directly to a specific coordinate that is entered. Be sure to select the appropriate Spatial Reference (coordinate system) from the available choices. Then enter the pair of coordinate values and press the Zoom to complete the task.



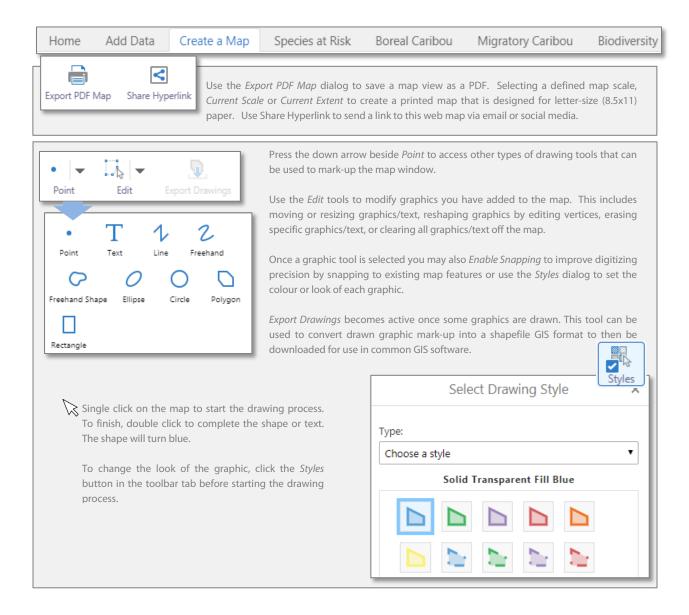
### 4.2 Add Data Toolbar

The Add Data Toolbar includes tools to bring more GIS data into the web map viewer for the duration of the current map session. These added layers will not be retained if the web browser is closed, but adding more data can help visualize other map layers along with the data that is already available in the NWT Species and Habitat Viewer Layers list.



# 4.3 Create a Map Toolbar

The Create a Map toolbar includes drawing tools to add points, lines, polygons and text annotation to the dynamic map. This can be useful to document and share details prior to exporting (printing to .PDF). You may also choose to Share a Hyperlink to provide somebody else with a link to the web map via social media. Often, drawing tools can serve to mark-up an area of interest on the map to then be shared with colleagues or other stakeholders via PDF. Graphics/text added to the map can be modified or deleted using the Edit tools in the Create a Map toolbar.



# 4.4 Species at Risk Toolbar

The *Species at Risk* Toolbar contains a series of tools that are focused on the NWT Species at Risk data and programs. Click the *About SAR* tool to learn more about the Species at Risk data and available web map tools.



Click the *About SAR* tool to learn more about the Species at Risk functions on this website and find links to other Species and Risk websites. Scroll down as required to read the full about page. Press *Show Theme Layers* to modify the *Layers* list to a curated set of information that pertains to Species at Risk.



The *Species at Risk Report* tool creates a custom report (in PDF, CSV, or XLSX formats) that highlights the species that exist within a user defined area of interest. Follow the dialog in the left window once the tool is selected. The area of interest may be drawn in the map window, uploaded from a shapefile, or defined from a list of coordinates. If you choose to draw the area of interest on the map you will be prompted to start drawing on the map by clicking each vertex and then ending the graphic by double clicking. Submit the report request and then download files once they have been generated. Downloaded files may open directly from the link or appear at the bottom of the web browser page.

### **Species Information**



Photo Credit: Gordon Court

Species: Grizzly Bear

Category: Mammal

Scientific name: Ursus arctos

Range type: Areas of increased presence

### Table 1. Status of the species under federal and territorial species at risk legislation

	Assessment	Legal List
Canada	Special Concern	Under Consideration
NWT	Special Concern	Under Consideration

### Additional Information

Date range information was last reviewed: 31-Aug-2016

Date status information was last reviewed: 6-Apr-2017

Lead agency: ENR

Authoritative website: www.nwtspeciesatrisk.ca

NWT species information page: http://www.nwtspeciesatrisk.ca/species/grizzly-bear

NWT range map: http://www.nwtspeciesatrisk.ca/sites/default/files/speciesmap\_grizzlybear.jpg

Contact for range map and shapefiles: http://www.nwtspeciesatrisk.ca/content/range-map-information-gnwt

Metadata: http://www.appstest.geomatics.gov.nt.ca/arcgis/rest/services/GNWT/BiologicEcologic\_LCC/MapServer/37

The Species at Risk Report generates a list of species at risk that are expected to occur in a user-defined Area of Interest, based on range maps. Species range maps are approximate and are not intended for legal use.

Northwest Territories Environment & Natural Resources

For more information, contact the Wildlife Biologist (Species at Risk): SARA@gov.nt.ca, (867) 767-9237 ext. 53214

### 4.5 Boreal Caribou Toolbar

The *Boreal Caribou* Toolbar contains a series of tools that are focused on the Boreal Caribou data within the NWT range (called NT1) and reporting tools that describe the level of human disturbance and fire impacts within Caribou habitat. Click the *About Boreal Caribou* tool to learn more about the Boreal Caribou data and available web map tools.



Click the *About Boreal Caribou* tool to learn more about the Boreal Caribou functions on this website and find links to other pertinent websites. Scroll down as required to read the full about page. Press *Show Theme Layers* to modify the *Layers* list to a curated set of information that pertains to Boreal Caribou.



The *Habitat Disturbance Report* tool creates a custom report (in PDF format) that highlights the overlap of a custom area of interest with past fire and human disturbances. Follow the dialog in the left window once the tool is selected. The area of interest may be drawn in the map window, uploaded from a shapefile, (or defined from a list of coordinates). If you choose to draw the area of interest on the map you will be prompted to draw a rectangle or multisided polygon. Click and drag the rectangular shape or for polygons start drawing on the map by clicking each vertex and then ending the graphic by double clicking. Download files once they have been generated. Downloaded files may open directly from the link or appear at the bottom of the web browser page.



The *Project Screening* tool creates a custom report (in PDF, CSV, or XLSX formats) that tabulates the cumulative human disturbance in NT1 range planning areas along with the new disturbance added by the proposed project footprint. The footprint must first be added to the map a as GIS file using the *Upload Data* tool on the *Add Data* toolbar. Follow the dialog in the left window once the tool is selected. The maps generated via this report illustrate the project footprint relative to existing disturbances in the vicinity. Download files once they have been generated. Downloaded files may open directly from the link or appear at the bottom of the web browser page.

# 4.6 Migratory Caribou Toolbar

The *Migratory Caribou* Toolbar contains a series of tools that are focused on the Barren-ground Caribou herds as well as the Dolphin & Union herd. Use the Show Theme Layers tool to display the various annual ranges and calving areas. Seasonal ranges are also provided and can be toggled on if required. Click the *About Migratory Caribou* tool to learn more about the Migratory Caribou data and available web map tools.



Click the *About Migratory Caribou* tool to learn more about the functions on this tab and find links to other pertinent websites. Scroll down as required to read the full about page. Press *Show Theme Layers* to modify the *Layers* list to a curated set of information that pertains to Migratory Caribou.

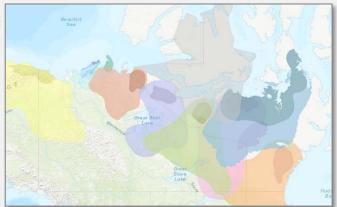


The *Bathurst Habitat Disturbance Report* tool creates a custom report (in PDF format) that provides information about human-caused land disturbance within the Bathurst Caribou Range Plan (BCRP). This report refers to Range Assessment Areas and defined management responses that depend upon disturbance thresholds within the Cumulative Land Disturbance Framework (CDLF). Follow the dialog in the left window once the tool is selected. The area of interest may be drawn in the map window, uploaded from a shapefile, (or defined from a list of coordinates). If you choose to draw the area of interest on the map you will be prompted to draw a rectangle or multi-sided polygon. Click and drag the rectangular shape or, for polygons, start drawing on the map by clicking each vertex and then ending the graphic by double clicking. Define a buffer distance to be used as a Zone of Influence for disturbance calculations or select a disturbance type from the menu which will apply a predefined buffer distance. Download (PDF, CSV, XLSX) files once they have been generated. Downloaded files may open directly from the link or appear at the bottom of the web browser page.



The Migratory Caribou Report tool creates a custom report (in PDF, CSV, or XLSX formats) based on a user defined area of interest. The report includes information about migratory caribou ranges including seasonal ranges and calving grounds that overlap the area of interest. Follow the dialog in the left window once the tool is selected. The area of interest may be drawn in the map window, uploaded from a shapefile, (or defined from a list of coordinates). If you choose to draw the area of interest on the map you will be prompted to draw a rectangle or

multi-sided polygon. Click and drag the rectangular shape or, for polygons, start drawing on the map by clicking each vertex and then ending the graphic by double clicking. Downloaded files may open directly from the link or appear at the bottom of the web browser page.

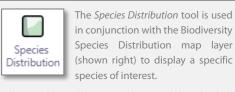


# 4.7 Biodiversity Toolbar

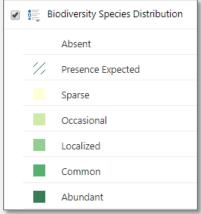
The *Biodiversity* Toolbar contains a series of tools that provide details about the full variety of species and ecosystems in the NWT. Use the Show Theme Layers tool to display related map information. Click the *About Biodiversity* tool to learn more about available data and available web map tools.



Click the *About Biodiversity* tool to learn more about the functions on this tab and find links to other pertinent websites. Scroll down as required to read the full about page. Press *Show Theme Layers* to modify the *Layers* list to a curated set of information that pertains to species and ecosystem biodiversity.



The map legend layer must have visibility checked on to display the species distribution map. The *Species Distribution* tool allows for the entry or browsing of categories to select a species of interest and update the map display.

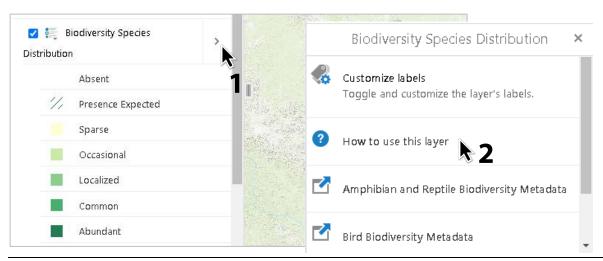






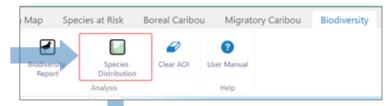
The *Biodiversity Report* tool creates a custom report (in PDF, CSV, or XLSX formats) that lists the species that are present within a user defined area of interest. The report breaks down the species by the various ecosystems (Level IV EcoRegions) that are also present. Follow the dialog in the left window once the tool is selected. The area of interest may be drawn in the map window, uploaded from a shapefile, or defined from a list of coordinates. If you choose to draw the area of interest on the map you will be prompted to start drawing on the map by clicking each vertex and then ending the graphic by double clicking. Submit the report request and then download files once they have been generated. Downloaded files may open directly from the link or appear at the bottom of the web browser page.

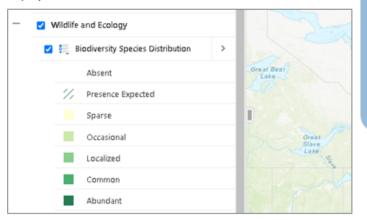
The Species Distribution tool is used to view distribution maps for a specific species of interest. Guidance for use of this tool is provided on the following page and also accessed in the website as illustrated below. Metadata is also available through the layer menu.



# How to use the Biodiversity Species Distribution Layer:

Use the Species Distribution tool found on the Biodiversity Toolbar to display one species at a time. This layer displays the expected distribution of each species and has a dialog to select the species of interest to display.





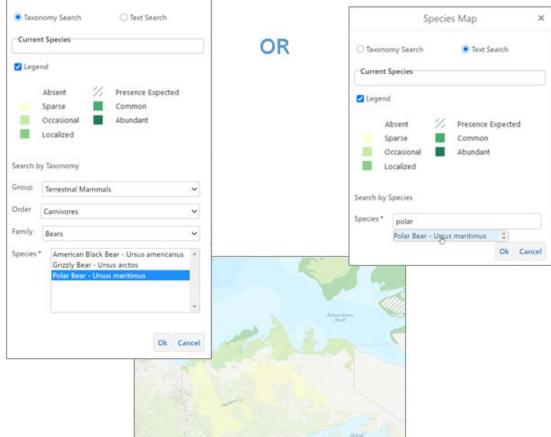
Find a species using taxonomy filters.

Find a species using a guided taxonomic search or search by text entry. Both options are illustrated below. Click the 'Ok' button to display the species distribution on the map.



Find a species by text search.

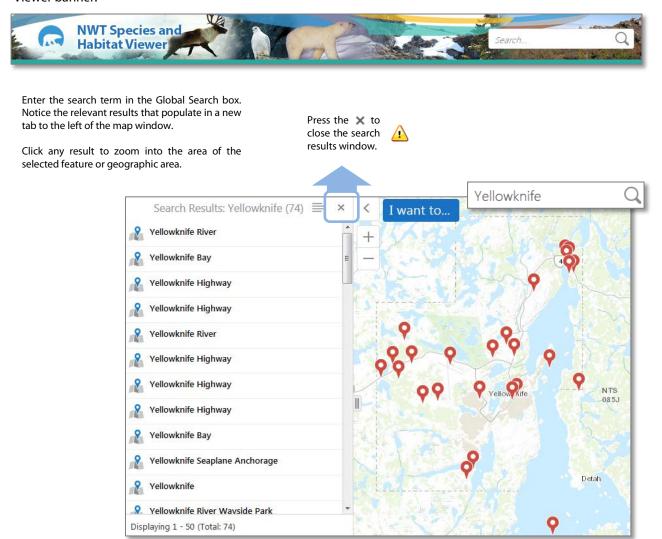
# 



### 5.0 GLOBAL SEARCH

Global Search is a simple way to zoom to a known feature or geographical region, such as the city of Yellowknife used in the example below. Place names (communities, geographic features, lakes, and rivers) and NTS Mapsheets (1:50,000 and 1:250,000) are a few of the map layers that are searchable using the Global Search Tool.

The Global Search tool is located in the top right corner of the Map Viewer, within the NWT Species and Habitat Viewer banner.



### 6.0 DOWNLOAD DATA

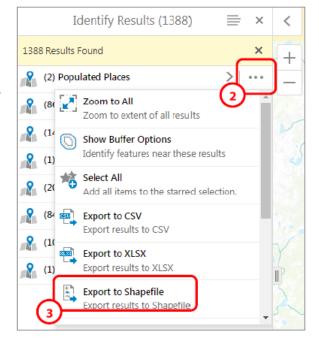
The data on this website is managed by the NWT Centre for Geomatics and is updated periodically to display current information as much as possible. If you have access to GIS software and wish to further analyse these datasets, or generate your own maps, you can download spatial data from the website.

To download a static copy of any particular map layer, follow these steps:

**How to Download Data:** The *Identify* tool is located on the *Home* toolbar. Use the *Identify* tool to select an area of interest that will be used for data download. More specifically, the *Identify* tool can be used to select one point or drag a rectangular window on the map. Optionally, you may also choose to use the *Enable Buffering* tool to select all features with a certain distance of a specific location.



Once the area of interest is identified, the layers and number of features are displayed to the left of the map window. Press the \*\*\* icon for more options and select Export to Shapefile (or perhaps one of the tabular data format options). Each layer of interest can be exported individually.



Note: If you are using GIS software, it may be feasible to connect directly to the managed map services and spatial datasets contained on this website. To browse available datasets, please visit: <a href="https://www.geomatics.gov.nt.ca/en">https://www.geomatics.gov.nt.ca/en</a>

### 7.0 WEBSITE CITATION

Information and maps derived from the NWT Species and Habitat Viewer should be cited as:

NWT Species and Habitat Viewer. [Date Accessed]. Environment and Climate Change, Government of the Northwest Territories, Yellowknife, NT. https://www.maps.geomatics.gov.nt.ca/Html5Viewer\_PROD/Index.html?viewer=NWT\_SHV

Noting the date that this information has been extracted from the website is important since many datasets are updated periodically.

### 8.0 CONTACT INFORMATION

For more information related to the NWT Species and Habitat Map Viewer contact:

NWT Centre for Geomatics NWT Wildlife Management Division

Information Systems Shared Services, Department of Environment and Climate Change

Finance 5102-50<sup>th</sup> Avenue Yellowknife, NT X1A 3S8

www.geomatics.gov.nt.ca www.ecc.gov.nt.ca/en

The map viewer has been developed with the assistance of Caslys Consulting Ltd.

### **Caslys Consulting Ltd.**

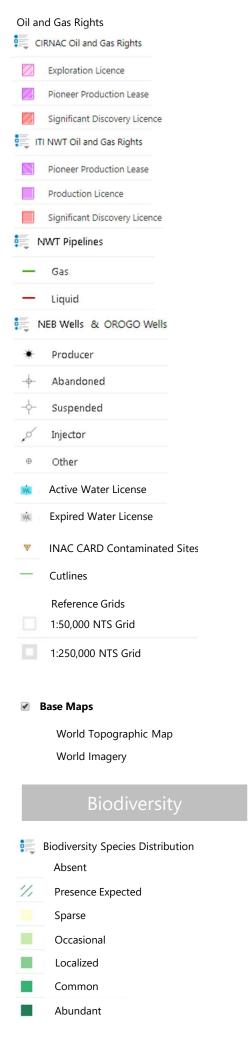
Unit 10 – 6782 Veyaness Road Saanichton, B.C., V8M 2A1

Contact: Justin McPherson

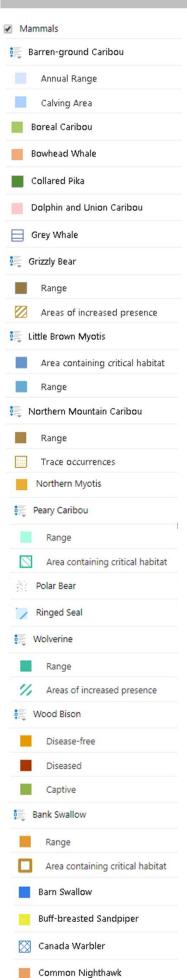
Tel: (250) 652-9268

Email: jmcpherson@caslys.ca

### **Community and Society** Viewer: **Populated Places** ECC / ITI Admin Boundary MAP LEGEND Final Land Claims Land Withdrawal Areas Subsurface Fire Surface Fire History Surface / Subsurface 2011 - 2019 Regulated Areas 2001 - 2010 1992 - 2000 Aboriginal Owned Lands 1984 - 1991 Surface / Subsurface 1976 - 1983 1965 - 1975 Federally Managed Lands Industry Subsurface Mining Surface Active Mineral Tenure Surface / Subsurface Parks and Protected Areas Active Mineral Claims Conservation / Protected Areas Active $\mathbb{Z}$ Subsurface Pending Surface Cancelled (Pending Ground Opening) Surface / Subsurface Active Mineral Leases **NWT Protected / Conservation Areas** Active Terrestrial Protected Areas Pending Marine Protected Areas Cancelled (Pending Ground Opening) Federal / Territorial Conservation Active Prospecting Permits Proposed Protected / Conservation Active Conservation zoning in a draft land use Cancelled (Pending Ground Opening) Conservation zoning (approved) Active Coal Exploration License Sahtu / Gwich'in / Tlicho land use plans Active **Established Territorial Park** Nagwichoonjik National Historic Site Pending Inactive Mineral Tenure Mackenzie Bison Sanctuary Inactive Mineral Claims Transportation and Utilities Highway / Major Road Inactive Mineral Leases Inactive Prospecting Permits Winter / Ice Road Inactive Coal Exploration License Railway Mining (NRCan) Runway / Airstrip Mines Transmission / Fibre Optic Line Northwestel Facility Past Producer NT Power Facility Producer Mining (Advanced Exploration)

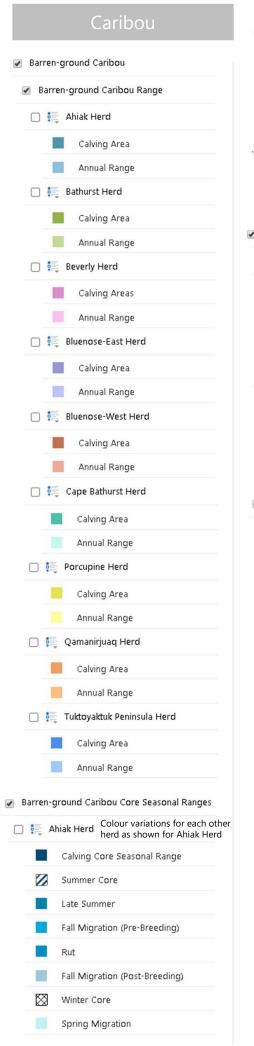


# Species At Risk



// Eskimo Curlew
Evening Grosbeak
Harris Sparrow
Horned Grebe
Hudsonian Godwit
[ Ivory Gull
Colonies
<ul> <li>Historical colonies</li> </ul>
Ivory Gull
Lesser Yellowlegs
Olive-sided Flycatcher
Peregrine Falcon
Red Knot
islandica subspecies range
rufa subspecies range
Red-necked Phalarope
Rusty Blackbird
Short-eared Owl
Whooping Crane
Range
Critical habitat
Yellow Rail
✓ Fishes
Bull Trout
Dolly Varden
Northern Wolffish
Shortjaw Cisco
Amphibians
Northern Leopard Frog
Recent range
Historical range
Western Toad

Inse	cts
<b>N</b>	Sypsy Cuckoo Bumble Bee
<b>%</b> N	AcKay's Bumble Bee
// S	uckley's Cuckoo Bumble Bee
//, 1	ransverse Lady Beetle
III Y	ellow-banded Bumble Bee
<b>⊘</b> Plan	ts
. Н	airy Braya
	Known range
<b>Ø</b>	Possible range
	Area containing critical habitat
(4)	Nahanni Aster
<b>₽</b> 0	ther Rare Plants
(4)	Drummond Bluebell - sites
	Banks Island Alkali Grass - sites
	Raup's Willow - sites
	Mackenzie Hairgrass - possible site



Range Planning Area
Range Assessment Areas
Centre of Habitation
☐ Water Crossings
Landscape Disturbance
☐ ☐ Direct Disturbance Footprint
☐ Total Human Disturbance
Boreal Caribou
Boreal Caribou Range Planning
☐ NT1 Boreal Caribou Range (GNWT 2016 version
☐ Boreal Caribou Range Planning Regions
Other Canada Boreal Caribou Range Boundaries
🗀 🚝 Wek'èezhìi Interim Boreal Caribou Range Plan
Management Class Areas
Basic
Enhanced
Intensive
Boreal Caribou Habitat Selection Model
☐ 👯 All year 👯 Calving 👯 Summer
1 - most avoided
2
3
4
5 - neutral
6
7
8
9
10 - most selected

□ □ □ Dolphin & Union Caribou Range  ✓ Northern Mountain Caribou  □ □ □ Range  ✓ Trace occurrences	✓ Landscape Disturbance	
1950 - 1979 1980 - 1989 1990 - 1999 2000 - 2009 2010 - 2019 Forty-year Fire Footprint Buffered Human Disturbance 2010 (EC) Buffered Human Disturbance 2015 (ECCC) Unbuffered Human Disturbance 2010 (EC)  Polygonal Human Disturbance 2010 Polygonal Human Disturbance 2015 Northern Mountain Caribou Range Range Trace occurrences Peary Caribou	☐ Latest Total Disturbance (Human + Fire)	
1980 - 1989  1990 - 1999  2000 - 2019  Forty-year Fire Footprint  Buffered Human Disturbance 2010 (EC)  Buffered Human Disturbance 2015 (ECCC)  Unbuffered Human Disturbance 2010 (EC)  Linear Human Disturbance 2010  Polygonal Human Disturbance 2010  Polygonal Human Disturbance 2015  Northern Mountain Caribou  Range  Range  Trace occurrences  Peary Caribou	☐ 🌉 Fire History (NBAC/CNFDB) - NT1 Range	
1990 - 1999  2000 - 2009  2010 - 2019  Forty-year Fire Footprint  Buffered Human Disturbance 2010 (EC)  Buffered Human Disturbance 2015 (ECCC)  Unbuffered Human Disturbance 2010 (EC)  Linear Human Disturbance 2010  Polygonal Human Disturbance 2010  Unbuffered Human Disturbance 2015 (ECCC)  Polygonal Human Disturbance 2015  Polygonal Human Disturbance 2015  Polygonal Human Disturbance 2015  Polygonal Human Disturbance 2015  Northern Mountain Caribou  Range  Range  Trace occurrences  Peary Caribou	1950 - 1979	
2000 - 2009  2010 - 2019  Forty-year Fire Footprint  Buffered Human Disturbance 2010 (EC)  Buffered Human Disturbance 2015 (ECCC)  Unbuffered Human Disturbance 2010 (EC)  Linear Human Disturbance 2010  Polygonal Human Disturbance 2010  Vunbuffered Human Disturbance 2015 (ECCC)  Polygonal Human Disturbance 2015  Polygonal Human Disturbance 2015  Polygonal Human Disturbance 2015  Polygonal Human Disturbance 2015  Northern Mountain Caribou  Range  Range  Trace occurrences  Peary Caribou	1980 - 1989	
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<ul> <li>✓ Unbuffered Human Disturbance 2010 (EC)</li> <li>Linear Human Disturbance 2010</li> <li>Polygonal Human Disturbance 2015 (ECCC)</li> <li>Linear Human Disturbance 2015 (ECCC)</li> <li>Polygonal Human Disturbance 2015</li> <li>Polygonal Human Disturbance 2015</li> <li>Dolphin and Union Caribou</li> <li>Dolphin &amp; Union Caribou Range</li> <li>Northern Mountain Caribou Range</li> <li>Range</li> <li>Trace occurrences</li> <li>Peary Caribou</li> </ul>	Buffered Human Disturbance 2010 (EC)	
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Polygonal Human Disturbance 2010  Unbuffered Human Disturbance 2015 (ECCC)  Linear Human Disturbance 2015  Polygonal Human Disturbance 2015  Polygonal Human Disturbance 2015  Dolphin and Union Caribou  Dolphin & Union Caribou Range  Northern Mountain Caribou Range  Range  Trace occurrences  Peary Caribou	✓ Unbuffered Human Disturbance 2010 (EC)	
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Range  // Trace occurrences  Peary Caribou	Northern Mountain Caribou	
✓ Trace occurrences   ✓ Peary Caribou	🗌 🏣 Northern Mountain Caribou Range	
✓ Peary Caribou	Range	
	//, Trace occurrences	
Peary Caribou Range	✓ Peary Caribou	
	Peary Caribou Range	

# Important Wildlife Areas

# Important Wildlife Areas (IWA) in the Western NWT ☐ Barren-ground Caribou IWA ☐ Beaver IWA ☐ Ø Grizzly Bear IWA ☐ Lynx IWA ☐ Marten IWA ☐ Moose IWA ☐ Mountain Goat IWA ☐ Mountain Woodland Caribou IWA ☐ Muskox IWA ☐ Muskrat IWA Peary and Dolphin Union Caribou IWA ☐ Polar Bear IWA ☐ Western Toad IWA ☐ Wood Bison IWA ☐ 🌉 Mineral Lick Density Unique Areas ☐ Watersheds (sub-basins)

Treeline (CAVM)

# **Ecological Regions**

Level	II EcoRegions
	Taiga Plains
	Taiga Shield
- 63	Boreal Cordillera
	Taiga Cordillera
	Tundra Cordillera
7	Southern Arctic
	Northern Arctic
Leve	el III EcoRegions
	High Arctic oceanic
-9	High Arctic
	Mid-Arctic
	Low Arctic north
	Low Arctic south
	High Subarctic
	Low Subarctic
	High Boreal
	Mid-Boreal
Leve	IV EcoRegions
	Boreal Cordillera, High Boreal
31	Boreal Cordillera, Mid-Boreal
	Taiga Cordillera, High Subarctic
	Taiga Cordillera, Low Subarctic
	Tundra Cordillera, High Subarctic
	Taiga Plains, High Boreal
	Taiga Plains, High Subarctic
	Taiga Plains, Low Subarctic
	Taiga Plains, Mid-Boreal
	Taiga Shield, High Boreal
	Taiga Shield, High Subarctic
	Taiga Shield, Low Subarctic
	Taiga Shield, Mid-Boreal
	Southern Arctic: Tundra Plains, Low Arctic south
	Southern Arctic Tundra Plains, Low Arctic north
	Northern Arctic, Low Arctic north
	Northern Arctic, Mid-Arctic
	Northern Arctic, High Arctic
	Northern Arctic, High Arctic oceanic
	CHELINA CHECH SECUL SECU