

Downloading Census Boundary Files Using Scholars GeoPortal

Map and Data Library, Summer 2016

This exercise will showcase how to use Scholars GeoPortal to extract Census Tract (CT) census geography for the Census Metropolitan Area (CMA) of Montreal using two methods:

- 1) querying the attribute table of the dataset, or
- 2) downloading based on a predefined census boundary (ex. CMAs).

1. Open Scholars GeoPortal by going to <http://geo.scholarsportal.info>
2. Use the main search box to search for census tract boundary files. You can search by phrase, keyword, title, and more.
Type in the phrase “Census Tracts 2011” and click **Search**.

Scholars GeoPortal

Search Map (0) Download Login ?

Data Place or address

Census Tracts 2011 Anywhere + Search ?

Downloadable content only

▶ Back To Results

Browse by...

Subject category ?

- Census and administrative boundaries (134)
- Environment and conservation (119)
- Transportation networks (108)
- Imagery, base maps, and land cover (65)
- Inland water resources (62)
- Geological and geophysical (43)
- Land use and planning (43)
- Utility and communication networks (43)
- Cultural, society, and demographic (40)
- Business and economic (29)

Beaufort Sea

RANGE

3. As you hover over the search results a grey boundary will appear on the map; this represents the geographic coverage of the dataset.

The screenshot displays the Scholars GeoPortal interface. At the top, there are navigation tabs for 'Search', 'Map (0)', 'Download', and 'Login'. Below these, a search bar contains the text 'Census Tracts 2011' and a dropdown menu set to 'Anywhere'. A 'Search' button is visible. Below the search bar, there is a checkbox for 'Downloadable content only' and a 'Back To Browse' link.

The main content area shows 'Found 5 results' with a 'Sort by: Relevance' dropdown. The results are listed as follows:

- Cartographic Boundary Files (CBF), 2011 Census**
Add - 0/16 Details
Producer: Statistics Canada
Date published: 2012-01-01 (publication)
Type of data layer: Vector
- Digital Boundary Files (DBF), 2011 Census**
Add - 0/14 Details
Producer: Statistics Canada
Date published: 2012-01-01 (publication)
Type of data layer: Vector
- Census Tracts - Cartographic Boundary File (CT-CBF), 1981 Census** (highlighted with a red circle)
Add Details
Producer: Statistics Canada
Date published: 1982-11-01 (publication)
Type of data layer: Vector
- Postal To Census Translation Table**
Download - 8 Details
Producer: DMTI Spatial Inc.
Date published: 2007-08-09 (publication), 2014-05-15 (publication)

On the right side, a map of Canada is shown. A grey boundary is overlaid on the western coast of Canada, specifically covering the provinces of British Columbia and Alberta. The map includes labels for major cities like Vancouver, Seattle, and Edmonton, and geographical features like the Rocky Mountains and Great Plains. The map also shows the border with the United States.

4. For this example we will work with Cartographic Boundary Files. Click **Add** to add the data to the map. If you want more information about the dataset you can click **Details**.

Note: You will notice two types of boundary files have been returned in the results: Cartographic Boundary Files (CBF) and Digital Boundary Files (DBF). Both are produced by Statistics Canada for the purposes of mapping the Census Geography. Cartographic boundary files depict the geographical areas using only the major land mass of Canada and its coastal islands. These files are good for creating thematic and choropleth maps. Digital boundary files depict the full extent of the geographical areas, including coastal water areas and boundaries.

The screenshot shows the Scholars GeoPortal interface. At the top, there are navigation tabs: Search, Map (0), Download, and Login. Below these is a search bar with the text 'Census Tracts 2011' and a dropdown menu set to 'Anywhere'. A 'Search' button is to the right. Below the search bar, there is a checkbox for 'Downloadable content only' which is checked, and a 'Back To Browse' link. The search results section shows 'Found 5 results' and 'showing results 1 to 5'. The results are sorted by 'Relevance'. The first result is 'Cartographic Boundary Files (CBF), 2011 Census', with an 'Add - 0/16' button circled in red and a 'Details' button. The second result is 'Digital Boundary Files (DBF), 2011 Census', also with an 'Add - 0/14' button and a 'Details' button. Both results show 'Producer: Statistics Canada', 'Date published: 2012-01-01 (publication)', and 'Type of data layer: Vector'. On the right side of the page, there is a vertical map viewer with zoom controls.

5. After you click **Add** you will have to select the specific files you wish you add. For this example, add the file titled Census Metropolitan Areas & Census Agglomerations.

The screenshot shows the Scholars GeoPortal interface. At the top, there are navigation tabs for Search, Map (0), Download, and Login. Below these is a search bar with the text 'Census Tracts 2011' and a dropdown menu set to 'Anywhere'. A 'Search' button is visible. Below the search bar, there is a checkbox for 'Downloadable content only' which is checked. A 'Back To Results' link is also present.

The main content area is titled 'Downloads' and features a lock icon. Below this, there is a list of files under the heading 'Cartographic Boundary Files (CBF), 2011 Census'. The list includes the following items:

- Agricultural Ecumene Census Divisions (Vector) - Add Details
- Census Agricultural Regions (Vector) - Add Details
- Census Consolidated Subdivisions (Vector) - Add Details
- Census Divisions (Vector) - Add Details
- Census Metropolitan Areas & Census Agglomerations (Vector) - Add Details** (highlighted with a red oval)
- Census Subdivisions (Vector) - Add Details
- Census Tracts (Vector) - Add Details
- Dissemination Areas (Vector) - Add Details

On the right side of the interface, there is a vertical map viewer with zoom controls (+, -, and a full-screen icon).

Option 1: Querying and filtering data for export

1. After you've added data to the map, you can open the underlying data table (attribute table). You can access this table by clicking on the **Data Table** tab in the top right corner of the window.



2. The data table will open at the bottom of the page. You can scroll through the table using the blue arrows.

The screenshot shows the data table interface. At the top, there is a map of the region. Below the map, there is a search bar and a 'Search' button. The table is titled 'Found 151 features - showing 1 to 15'. The table has columns for OBJECTID, CMAUID, CMANAME, and CMATYPE. The first 15 rows are visible, and blue arrows are used for navigation.

OBJECTID	CMAUID	CMANAME	CMATYPE
1	310	Saint John	B
2	720	Swift Current	D
3	821	High River	D
4	454	Sorel-Tracy	D
5	932	Abbotsford - Mission	B
6	826	Strathmore	D
7	640	Thompson	D
8	595	Thunder Bay	B
9	944	Campbell River	D
10	541	Kitchener - Cambridge - Waterloo	B
11	559	Windsor	B
12	806	Brooks	D
13	905	Cranbrook	D

- Clicking on a feature in the table will highlight the feature on the map.

Note: you can close the data table at any time by clicking on the **X** at the top right of the data table.

Query Export Result Reset Census metropolitan area 201 Limit to current extent

Found 151 features - showing 1 to 15

OBJECTID	CMAUID	CMANAME	CMATYPE
3	821	High River	D
4	454	Sorel-Tracy	D
5	932	Abbotsford - Mission	B
6	826	Strathmore	D
7	640	Thompson	D
8	595	Thunder Bay	B
9	944	Campbell River	D
10	541	Kitchener - Cambridge - Waterloo	B
11	559	Windsor	B
12	806	Brooks	S
13	905	Cranbrook	D
14	330	Campbellton (partie du Québec / Quebec part)	D
15	515	Pembroke	D

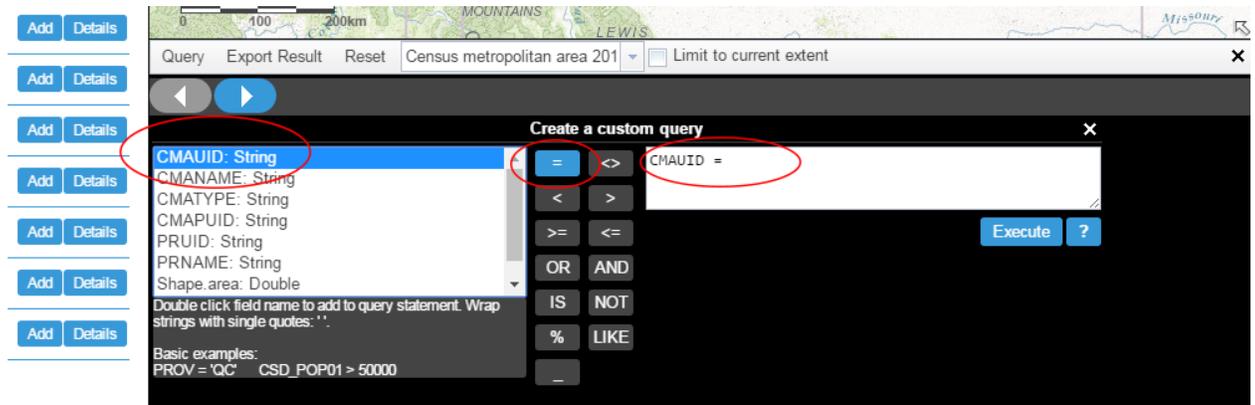
- You can query data to filter out results based on the fields in the data. To open the query window click on the **Query** button.

Query Export Result Reset Census metropolitan area 201

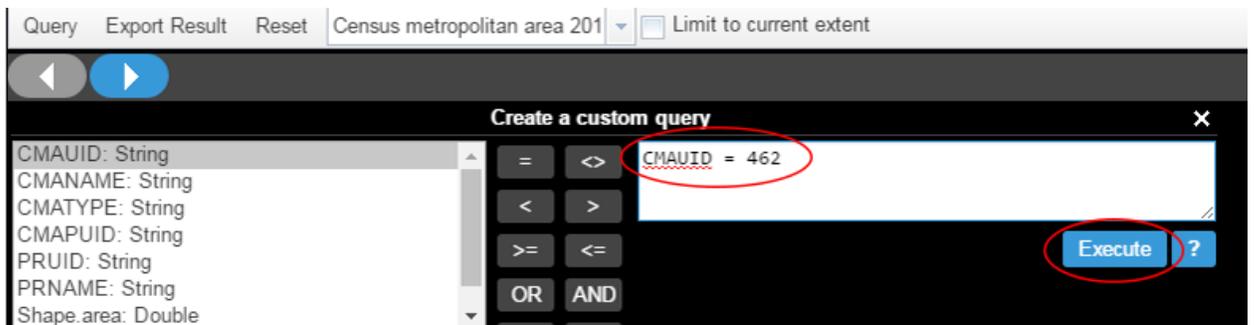
Found 151 features - showing 1 to 15

OBJECTID	CMAUID
3	821
4	454
5	932
6	826
7	640
8	595

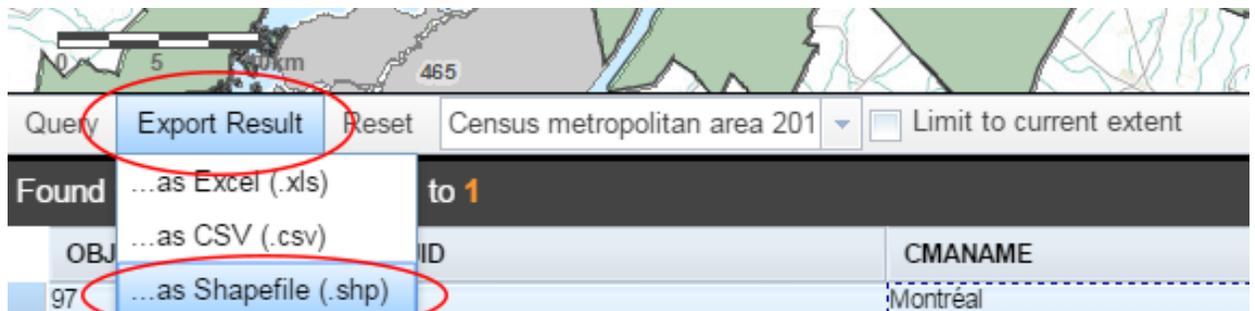
- For this example we are looking for the greater Montreal area, so we will filter using the CMAUID code. First, double click on **CMAUID: String**. Next, click on the equals symbol. These selections will appear in the query box to the right.



- Click inside the query box to the right of the equals symbol in order to type the CMAUID code, which for Montreal is 462. Once you have typed in the CMAUID click **Execute**.



- Once your query results are returned you can export by clicking on **Export Result**, then selecting **...as Shapefile**.



- After the export runs you will be able to access your shapefile in the Download tab, or by clicking on the **Your file is available here** message which will appear at the top right of the data table.

Scholars GeoPortal

Search Map (1) **Download (1)** Login ?

Data
 Place or address
 Census Tracts 2011 Anywhere Search ?
 Downloadable content only
[Back To Results](#)

Downloads

Cartographic Boundary Files (CBF), 2011 Census
 Producer: Statistics Canada
 Date published: 2012-01-01 (publication)
 Type of data layer: Vector

- Agricultural Ecumene Census Divisions Vector [Add](#) [Details](#)
- Census Agricultural Regions Vector [Add](#) [Details](#)
- Census Consolidated Subdivisions Vector [Add](#) [Details](#)
- Census Divisions Vector [Add](#) [Details](#)
- Census Metropolitan Areas & Census Agglomerations Vector [Remove](#) [Zoom](#) [Details](#)
- Census Subdivisions Vector [Add](#) [Details](#)
- Census Tracts Vector [Add](#) [Details](#)
- Dissemination Areas Vector [Add](#) [Details](#)
- Dissemination Blocks Vector [Add](#) [Details](#)
- Designated Places Vector [Add](#) [Details](#)
- Economic Regions Vector [Add](#) [Details](#)
- Federal Electoral Districts, 2003 Representation Order Vector [Add](#) [Details](#)
- Forward Sortation Areas Vector [Add](#) [Details](#)

Query Export Result Reset Census metropolitan area 201 Limit to current extent

Found 1 features - showing 1 to 1 **Your file is available here**

OBJECTID	CMAUID	CMANAME	CMATYPE
97	462	Montréal	B

- Click on the file to download and save to your computer.

Scholars GeoPortal

Search Map (1) **Download (1)** Login ?

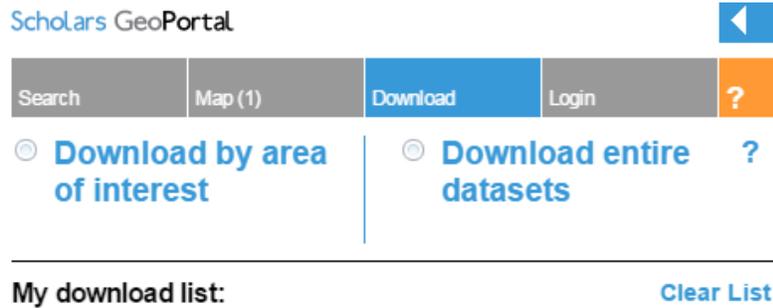
Download by area of interest
 Download entire datasets ?

My download list: [Clear List](#)

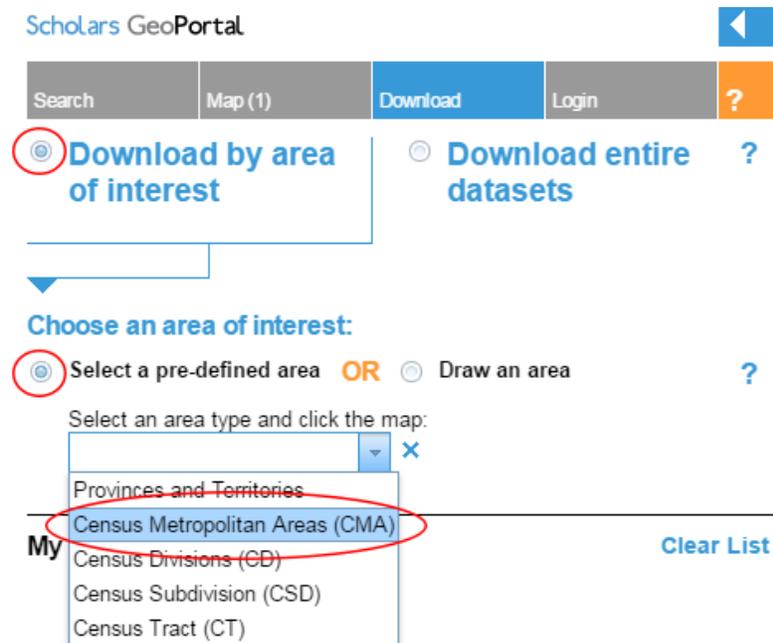
~~DLI 2011_Census_CBF_Eng_Nat_cma.shp:~~
DLI 2011 Census CBF Eng Nat cma.zip

Option 2: Download data by a pre-defined census boundary

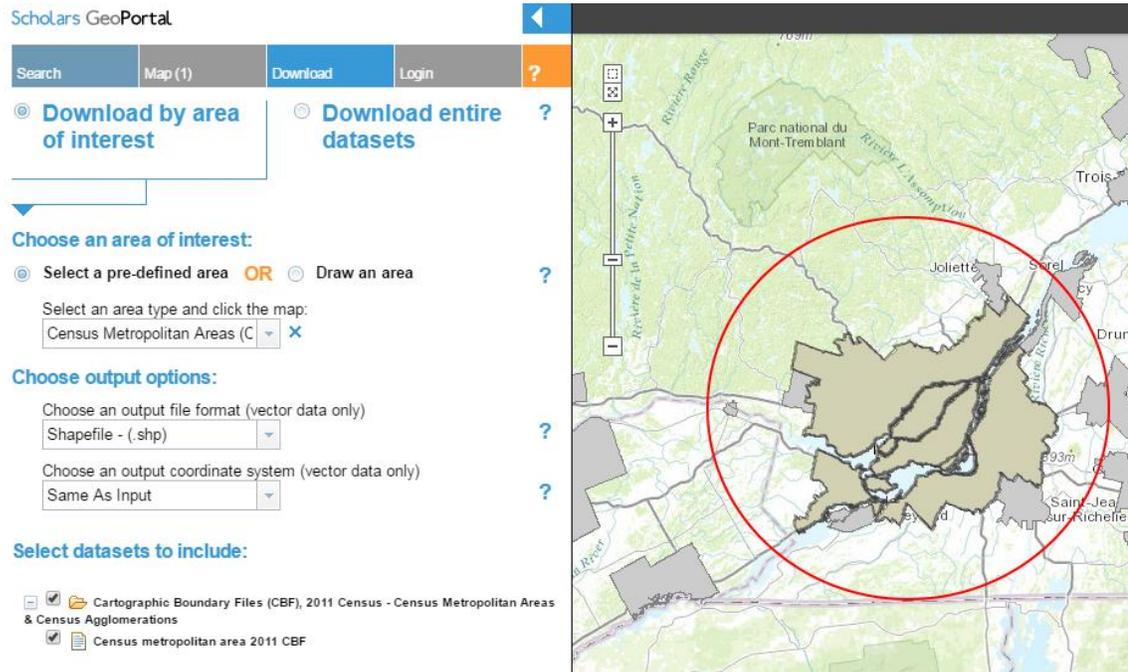
1. Once the CMA data has been added to the map, click on the **Download** tab. Here you are given the option of downloading the entire dataset (which is typically a very large .zip file), downloading based on a pre-defined area (such as a province), or downloading based on an area you define by drawing an area on the map.



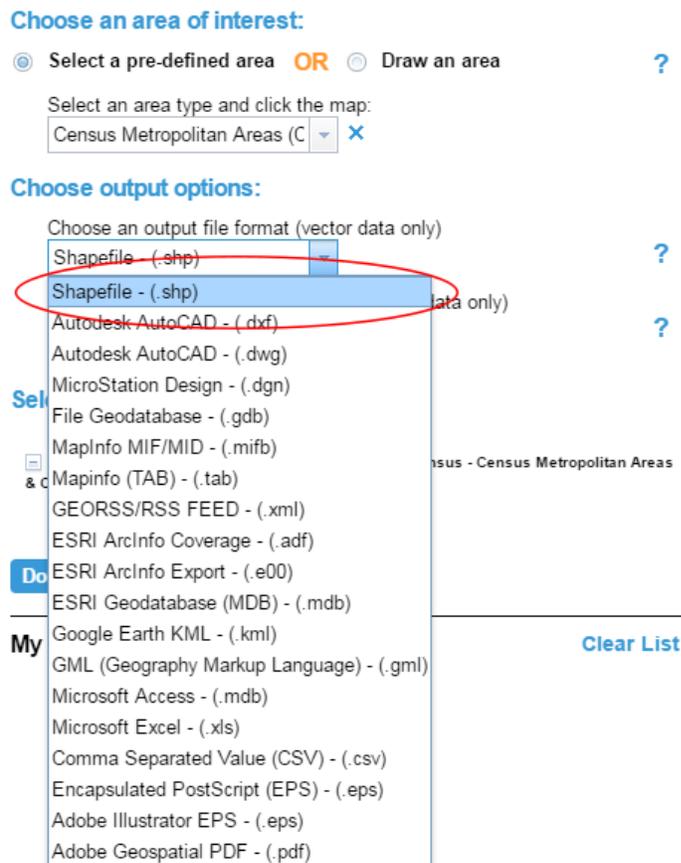
2. Since we want to download the Census Metropolitan Area of Montreal we will download by area of interest. First, select **Download by area of interest**, and then select **Select a pre-defined area**. Next, use the drop-down menu to select an area type, in this case Census Metropolitan Area (CMA).



- Zoom and pan the map to find your desired area. When you find it, click on the desired area; this will highlight the area.



- Select the desired output file format from the drop-down menu. To be able to use the file in ArcMap select **Shapefile – (.shp)**.



5. Keep the output coordinate system as **Same as Input** (this defines the spatial reference system used to display your data).

Choose output options:

Choose an output file format (vector data only)

Shapefile - (.shp) ?

Choose an output coordinate system (vector data only) ?

Same As Input

Same As Input

Canada Lambert Conformal Conic

Statistics Canada Lambert

Statistics Canada Lambert CSRS

WGS Web Mercator Auxiliary Sphere

Ontario MNR Lambert

Ontario MNR Lambert CSRS

WGS 1984

NAD 1983

NAD 1927

2011 Census - Census Metropolitan Areas

Clear List

6. Click **Download** to prepare the file for download. When the process is complete the .zip file will appear listed under the **My download list** section. Click on the file to download it to your computer.

Select datasets to include:

Cartographic Boundary Files (CBF), 2011 Census - Census Metropolitan Areas & Census Agglomerations

Census metropolitan area 2011 CBF

Download

My download list:

Clear List

Cartographic Boundary Files (CBF), 2011 Census - Census Metropolitan Areas & Census Agglomerations:

DLI 2011 Census CBF Eng Nat cma.zip