Master of Data Science - University of British Columbia Okanagan

Minutes for May 20, 2020 - 11:00 AM - 12:10 PM PST via Microsoft Teams Meeting

Present: Bruno St-Aubin (Statistics Canada), Marian Radulescu (Statistics Canada), Sofia Bahmutsky, Ngan Lyle, Kaitlyn Hobbs (Minutes), Shreeram Murali

Agenda

Discussion Points

1 — QGIS progress - Sofia has successfully categorized DBs into PHUs with some discrepancies where DBs were not identified in PHUs.

Meeting Notes

QGIS —

- Don't need to use additional "Geometric predicates" to *intersect*. Fields to add should be selected. Take French label as well.
- Data is ArcInfo shape files - projections are 3347 for DB, which determines how data is unfolded to fit on the screen (from 3D globe to 2D plane). PHU projections are also 3347.
- Rendering and application is slowed with many layers checked.
- Predefined Coordinate Reference System should be Lambert.
- **Building an index for layers:** click on properties of layer (ontario_db and PHUs) > source > create spatial index.
- **Fix geometries:** Processing > Vector layer > Toolbox > Fix geometries
- Temporary scratch layers are not saved on computer, which may slow rendering process. Can save as an ESRI shapefile or GPKG.
- Storage as GPKG (geopackage) is more open than shape format of ESRI and is supposedly faster. Can convert ontario_db layer to GPKG to speed up process.
- Save layer as GPKG then join fixed db to PHU - join type: one-to-one.
- Processing Toolbox > drop fields **n.b.** 'CMAUID' will tell you if a DB is in a big city.
- Processing Toolbox > Join attributes ...

Modelling and Simulation — Bruno is potentially modelling spread of disease on DB scale, which may make use of our statistical methodology.

Ontario COVID Data — Covid cases for PHU can remain dynamic for visualization but geospatial will remain static. Scraped data must also remain static.

Action Items

- May need to map PHUs onto HRs because HRs will match DB boundaries.
- **Next Steps:** Aggregate proximity data
- Send final mapping to Marian, Bruno, and Marina for verification.

Next Meeting: Wednesday, May 27, at 11:00 AM PST with Bruno and Marian via Microsoft Teams Meeting