CARTO-Shapefile-Load

April 2, 2022

[1]:
```
# This Jupyter Notebook loads in a shapefile and a geoJSON file from local

import pandas as pd
import geopandas as gpd
import io
import requests
import matplotlib.pyplot as plt

# Get the file path of the shapefile of interest
trailRouteFP = "/Users/zacharyzordo/Documents/Python/Shapefile and GeoJSON Load/
 ↪MontourTrail/MontourTrailRoute.shp"
municipalitiesFP = "/Users/zacharyzordo/Documents/Python/Shapefile and GeoJSON␣
 ↪Load/PaMunicipalities2022_01.geojson"

#Load shapefile into GeoDataFrame
trailRouteGDF = gpd.read_file(trailRouteFP)
municipalitiesGDF = gpd.read_file(municipalitiesFP)

# Display the first few records of the Montour Trail Route
trailRouteGDF.head()
```

[1]:

	OBJECTID_1	OBJECTID	CREATED_BY	CREATED_DA	MODIFIED_B	MODIFIED_D	COMMENTS	RouteID	Status	LocationMe	LocationBy	LocationDa	Branch	Shape_Leng	Shape_Le_1
0	1	1	Zachary Ordo	2014-03-09	Zachary Ordo	2014-03-09	None	4	1	0	None	None	3	17026.651971	17026.651971
1	2	2	Zachary Ordo	2014-03-09	Zachary Ordo	2014-03-15	None	0	1	0	None	None	1		
2	3	3	Zachary Ordo	2014-03-09	Zachary Ordo	2014-03-09	None	5	1	0	None	None	3		
3	4	4	Zachary Ordo	2014-03-09	Zachary Ordo	2014-03-15	None	0	1	0	None	None	4		
4	5	5	Zachary Ordo	2014-03-09	Zachary Ordo	2014-03-09	None	1	1	0	None	None	1		

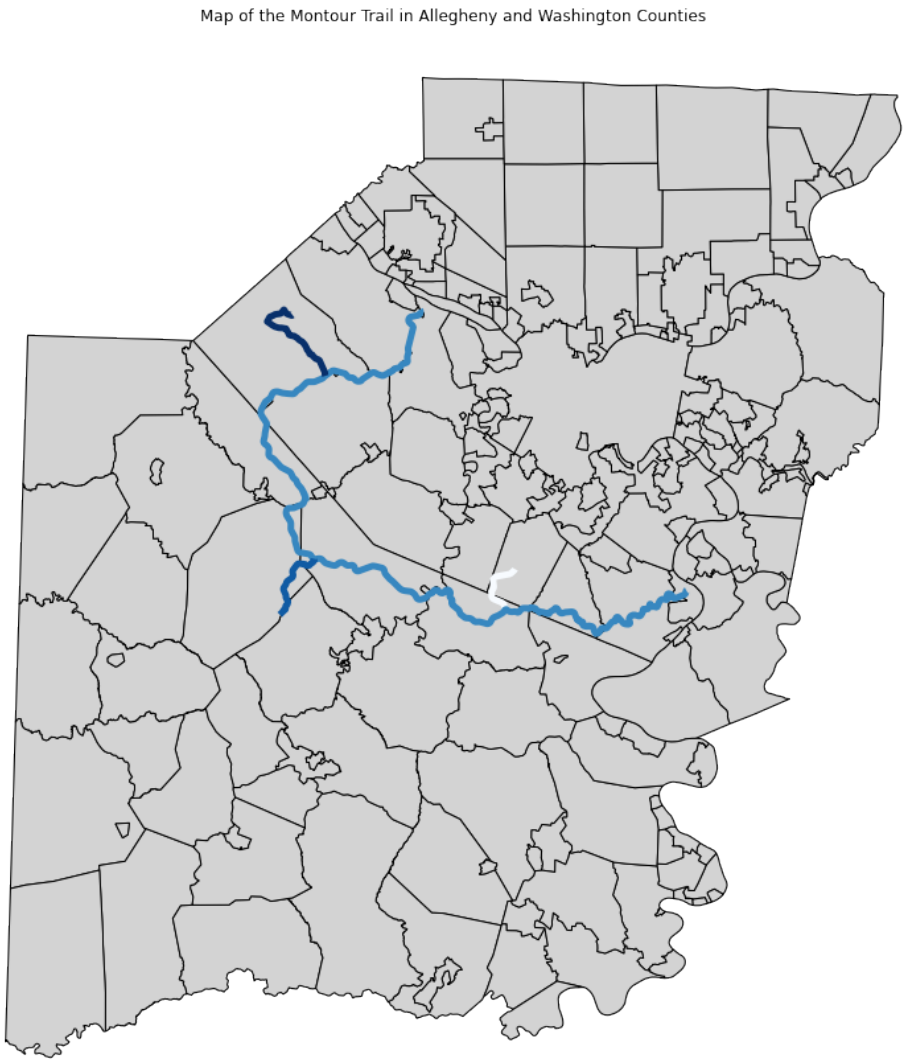
```
1    1532.525251    1532.525251
2    1136.254456    1136.254456
3    2657.205554    2657.205554
4  247442.680694  247442.680694

                                              geometry
0  LINESTRING (1325108.464 355885.340, 1325120.92…
1  LINESTRING (1331680.337 356472.379, 1331697.71…
2  LINESTRING (1325795.177 355948.947, 1325743.52…
3  LINESTRING (1271474.073 387539.976, 1271503.65…
4  LINESTRING (1302582.456 435779.926, 1302661.19…
```

[2]:
```
# Display the first few records of PA Municipalities
municipalitiesGDF.head()
```

[2]:
```
   MSLINK  FED_ID_NUM  FIPS_SQ_MI FIPS_AREA_ CLASS_OF_M FED_AID_UR FIPS_MUN_C  \
0    2254  24-6001593        38.2      00000       2TWP          1      82640
1    1258  23-2131817        28.2      00000       2TWP          1      35672
2    2255  24-6001596        30.6      50016       2TWP          2      84496
3     283  23-6050573         1.2      00000       BORO          1      49720
4    2278  25-1377305        27.4      00000       2TWP          1      69016

  COUNTY MUNICIPAL_   GPID FIPS_NAME FIPS_COUNT  GEOMETRY_A    Shape_Leng  \
0     59        209  33785      None        119         0.0  74680.772799
1     21        203  33786      None        041         0.0  55735.307406
2     59        210  33787    MILTON        119         0.0  63730.550468
3     50        407  33788      None        099         0.0  10891.156452
4     60        219  33789      None        121         0.0  73267.778096

   GEOMETRY_L  FIPS_MUN_P    MUNICIPAL1  \
0         0.0        2983  WEST BUFFALO
1         0.0        2329      HOPEWELL
2         0.0        4437    WHITE DEER
3         0.0         673   MILLERSTOWN
4         0.0         751    SCRUBGRASS

                                              geometry
0  MULTIPOLYGON (((-77.02752 41.02883, -77.02704 …
1  POLYGON ((-77.48381 40.12431, -77.48454 40.123…
2  POLYGON ((-76.86164 41.02629, -76.86184 41.025…
3  POLYGON ((-77.14088 40.55110, -77.14124 40.551…
4  POLYGON ((-79.71339 41.17668, -79.71347 41.175…
```

[3]:
```
f, ax = plt.subplots(1,1,sharex=True,figsize=(15, 15))

municipalitiesConv = municipalitiesGDF.to_crs(trailRouteGDF.crs)
```

```
muniAlleghWash = municipalitiesConv[(municipalitiesConv.FIPS_COUNT == '003') |␣
↪(municipalitiesConv.FIPS_COUNT == '125')]

trailRouteGDF.plot(ax=ax, cmap='Blues', linewidth=5)
muniAlleghWash.plot(ax=ax, color='lightgray', edgecolor='black')
ax.set_axis_off()
ax.set_title("Map of the Montour Trail in Allegheny and Washington Counties")
plt.axis('equal')
plt.show()
```



[4]:
```
from cartoframes import to_carto
from cartoframes.auth import set_default_credentials
```

```
# Pull in credentials from creds.json file in same directory
set_default_credentials('creds.json')

# Upload the school districts loaded in the previous cell to CARTO
to_carto(trailRouteGDF, "Montour_Trail_Route", if_exists='replace')
to_carto(muniAlleghWash, "Allegheny_Washington_Munis", if_exists='replace')
```

```
Success! Data uploaded to table "montour_trail_route" correctly
Success! Data uploaded to table "allegheny_washington_munis" correctly
```

[4]:
```
'allegheny_washington_munis'
```

[ ]:
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