

Python seminar Homework for Chap. 7.3 No.4

Please plot high resolution coastal map in Japan.

The high resolution coastal line data in Japan can be available from <https://nlftp.mlit.go.jp/ksj/>

The homepage only has Japanese page.

Please click 「海岸線 (ライン)」

Please click your favorite prefecture like 「岩手県」

Please click download icon.

Then, you will receive data like C23-06_03_GML.zip

Please extract the zip. Then, you will find “shp” file.

It is also possible to download river data.

Please click 「河川 (ライン) (ポイント)」

Please click your favorite prefecture like 「岩手県」

Please click download icon.

Then, you will receive data like W05-07_03_GML.zip

Please extract the zip. Then, you will find “shp” file.

Please draw the coast line and river data of MILT(Ministry of Land, Infrastructure, Transport and Tourism) data sets and compare with the original coast line of cartopy.

To read shp file, captor shapereader is usefule.

```
import cartopy.io.shapereader as shpreader
C_shapes = list(shpreader.Reader(C_fname).geometries())
ax.add_geometries(C_shapes, ccrs.PlateCarree(), edgecolor='k',
facecolor='none', alpha=0.5)
```

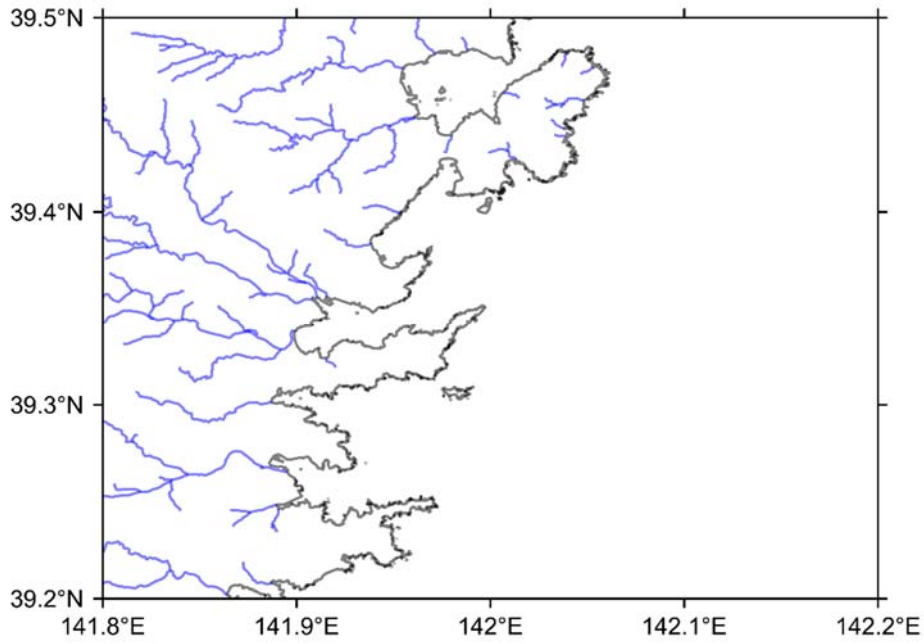


Figure 1. Coast line (black) and river (blue) from the MILT data.

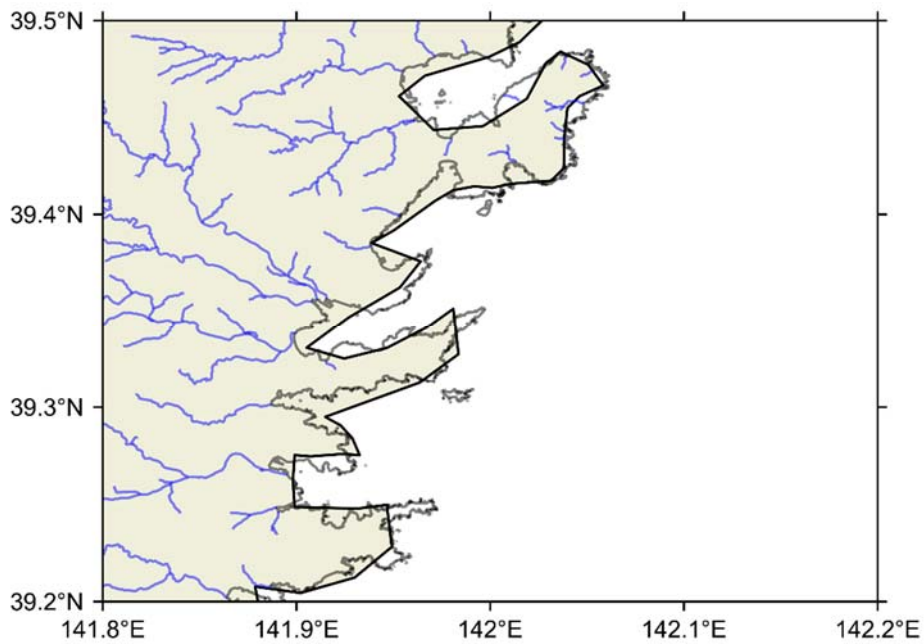


Figure 2. Comparison between the coast line of the MILT data and cartopy high resolution coastline. Black thin line and blue lines are the coastline and river stream from the MILT data and gray area surrounded by thick black line is “10m” cartopy coast line.