

LAB 7:

Which August was the SST warmest and coolest in the Gulf of Mexico between 1982 and 2022?

You will use elements from previous labs to answer the above question. You will need to select only August months to examine and then produce a bar plot time series of August SST for the area average SST within the Gulf of Mexico. *THINK: You will have three dimensions: latitude, longitude, and time. You will need to average the spatial dimensions to obtain the area average time series.* You can visually inspect the bar plot to identify when was SST lowest and highest during the 1982-2022 time period.

USE THE FOLLOWING:

Gulf of Mexico region: 12N to 35N, 100W to 80W

1. Submit a bar plot time series of area averaged August SST. Hint: use the filters tab to average. Then, select bar plot in the views tab. 2pts
2. Submit a map of Aug SST for both the warmest and coolest years. When was the warmest and coolest? (2 maps) 4pts
3. Submit a difference map and provide an interpretation. 2pts
4. Calculate how much warmer the warmest month is compared to the coolest month. I expect a single number answer. Hint: there is no map here. Once you set up the “expert mode”, the answer will be given in the “Description” tab. 2pts

Data:

https://iridl.ldeo.columbia.edu/SOURCES/.NOAA/.NCEP/.EMC/.CMB/.GLOBAL/.Reyn_SmithOlv2/.monthly/.sst/dataselection.html

**Submit responses as an attachment only. NO LINKS! Due before Oct 22.
Send labs to tallen@cimh.edu.bb**