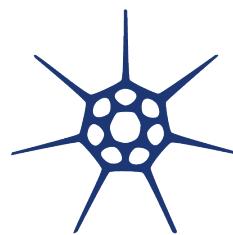
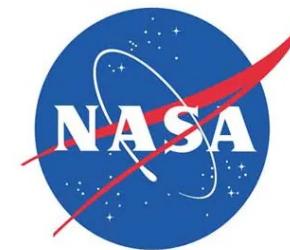


Cloud computing of key NASA oceanographic data: Implications for automating aspects of ecosystem status reports

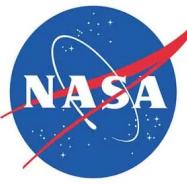
Marisol García-Reyes, Chelle Gentemann, Jeffrey Dorman & William Sydeman



FARALLON INSTITUTE

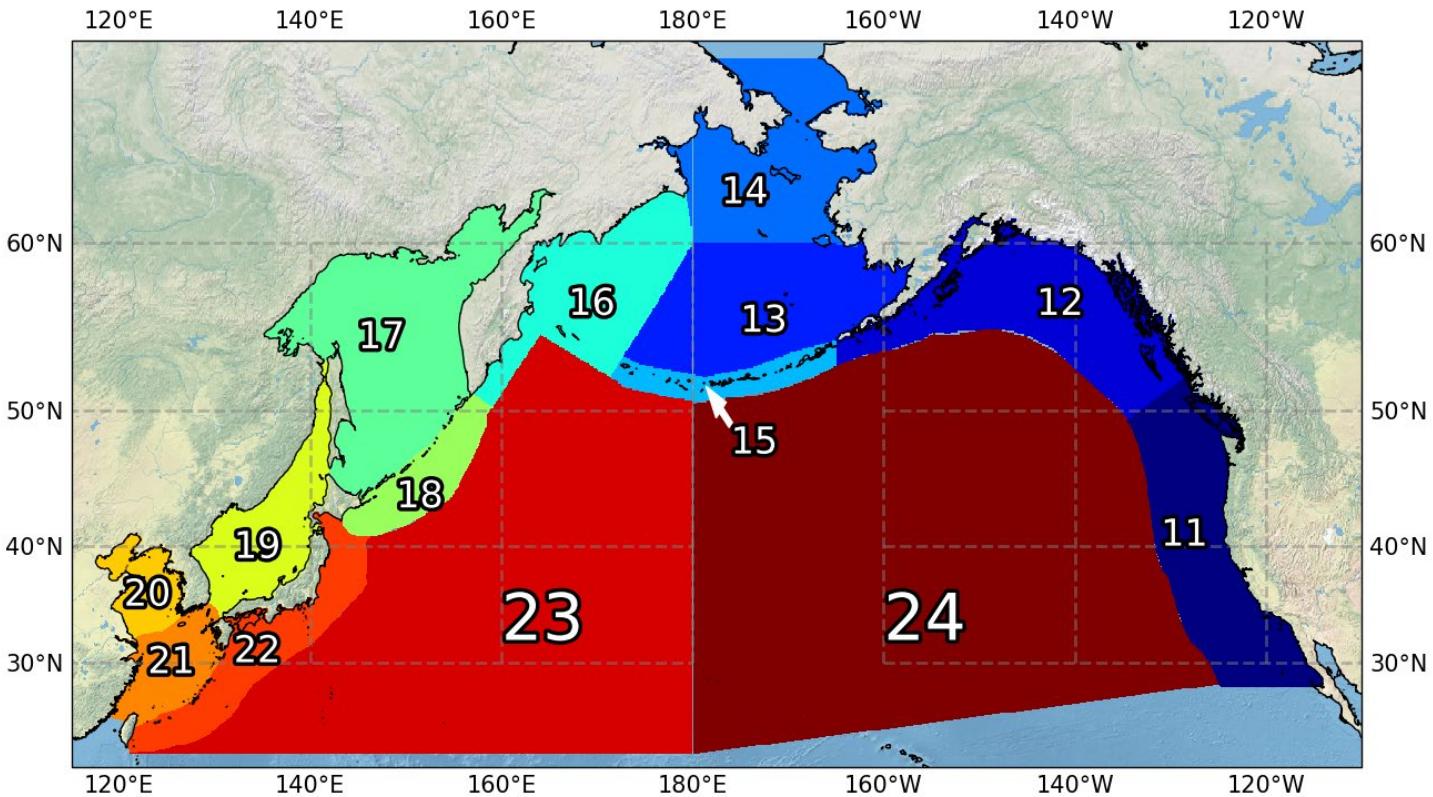


developmentSEED



Including physical data into the IEAs

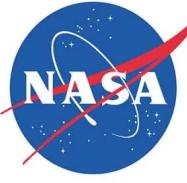
- Satellite data suitable for it
- Large amounts of data available, in coverage and temporal extent
- Allows for standardization across the PICES Regions





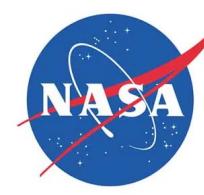
Including physical data into the IEAs

- Satellite data suitable for it
 - Large amounts of data available, in coverage and temporal extent
 - Allows for standardization across the PICES Regions
-
- Programming expertise needed
 - Demand for computational, bandwidth & storage capabilities



Including physical data into the IEAs

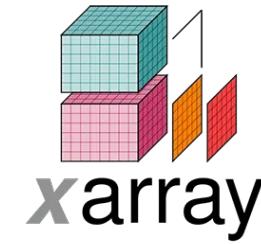
- Satellite data suitable for it
 - Large amounts of data available, in coverage and temporal extent
 - Allows for standardization across the PICES Regions
-
- Programming expertise needed
 - Demand for computational, bandwidth & storage capabilities
-
- Technology is developed to the point to which this could & should be doable & easy



Data & Data sharing



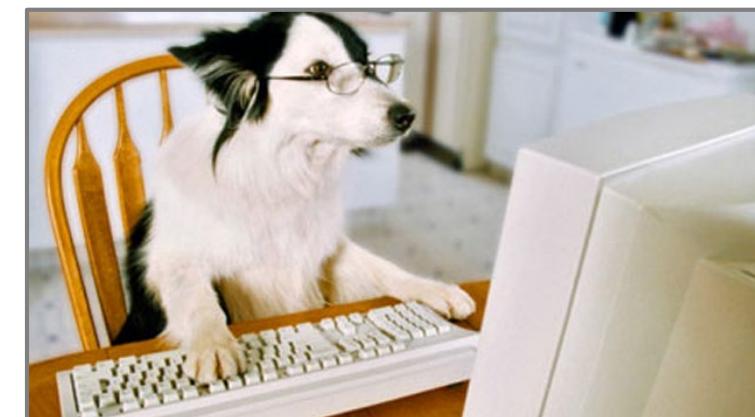
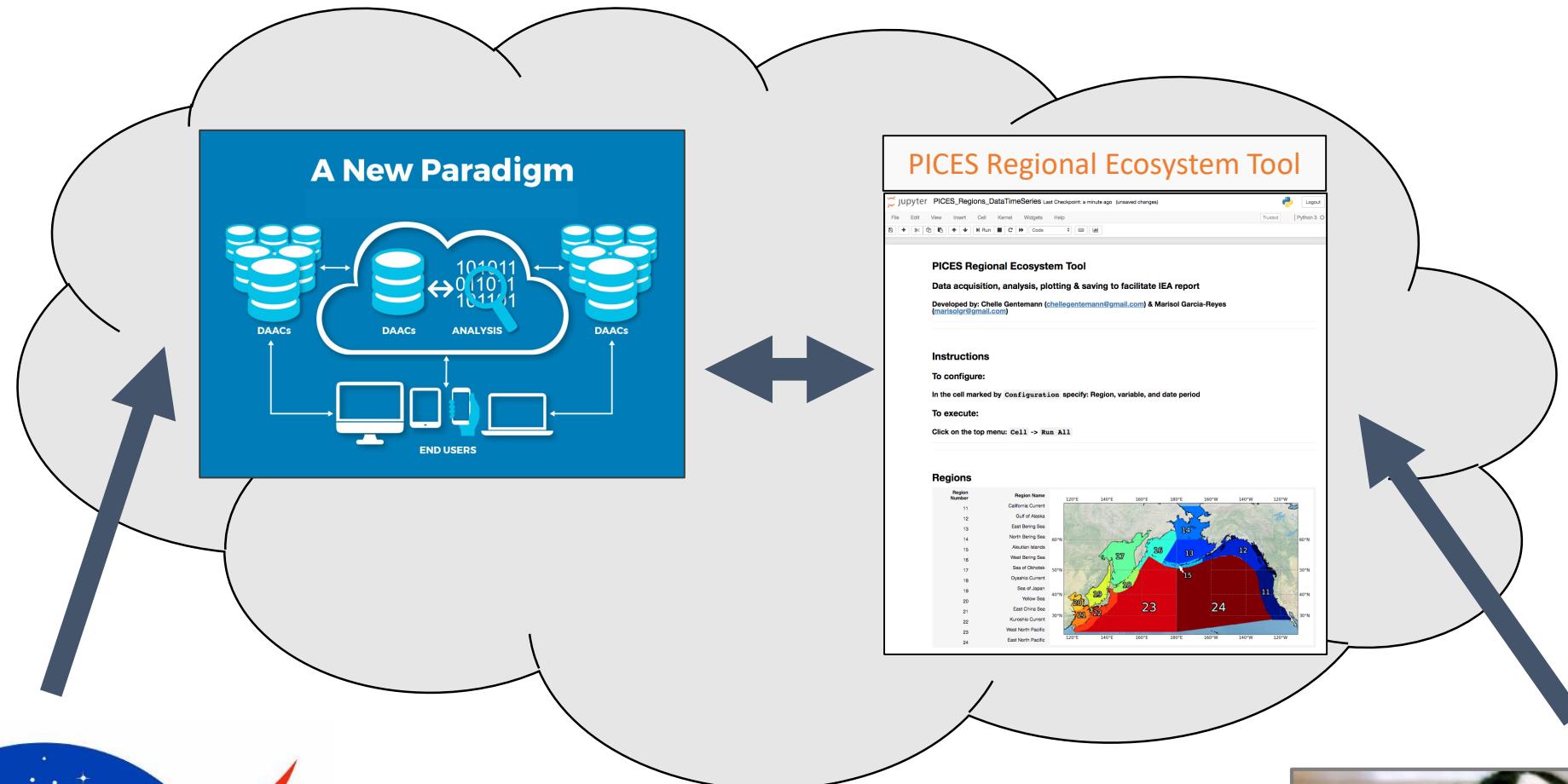
Cloud Computing

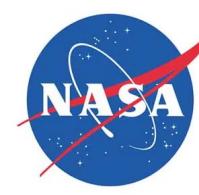


Programming



Code Sharing





How to access the PICES RET

- On your web browser
 - <https://github.com/python4oceanography/PICES-tools>
- Click on the button to load the ‘binder’ with the PICES RET



PICES Regional Ecosystem Tool

Click on the launch binder button to start

testing pangeo binder deployment

[launch binder](#)

testing mybinder deployment

[launch binder](#)

Python for Oceanographers Tutorials: https://github.com/python4oceanography/ocean_python_tutorial

Some helpful webpages on Python: <http://earthpy.org/category/introduction-to-python.html>

How to install miniconda with some useful tools for Oceanographers:
https://github.com/python4oceanography/ocean_python_tutorial/blob/master/python_installation_instructions.md



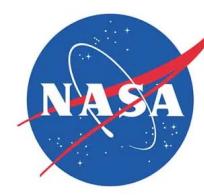
Click on:
PICES_Regional_Ecosystem_Tool



The screenshot shows a Jupyter notebook interface within a web browser window. The title bar indicates the URL is `hub.gke.mybinder.org/user/python4oceanography-pices-tools-vjyhnrtj/tree`. The main area is titled "jupyter" and contains a file tree. The tree includes a folder named "User_Data_And_Figures", several utility files like "utils", and the main notebook file "PICES_Regional_Ecosystem_Tool.ipynb". Other files visible include "_config.yml", "CODE_OF_CONDUCT.md", "environment.yml", "LICENSE", and "README.md". The interface has tabs for "Files", "Running", and "Clusters". At the bottom, there are buttons for "Upload", "New", and "Quit", along with sorting options for "Name", "Last Modified", and "File size".

Name	Last Modified	File size
User_Data_And_Figures	18 hours ago	
utils	18 hours ago	
PICES_Regional_Ecosystem_Tool.ipynb	2 minutes ago	172 kB
_config.yml	18 hours ago	26 B
CODE_OF_CONDUCT.md	18 hours ago	3.21 kB
environment.yml	18 hours ago	327 B
LICENSE	18 hours ago	11.4 kB
README.md	18 hours ago	758 B

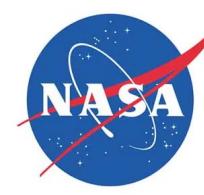
You could also download (clone) it from GitHub directly



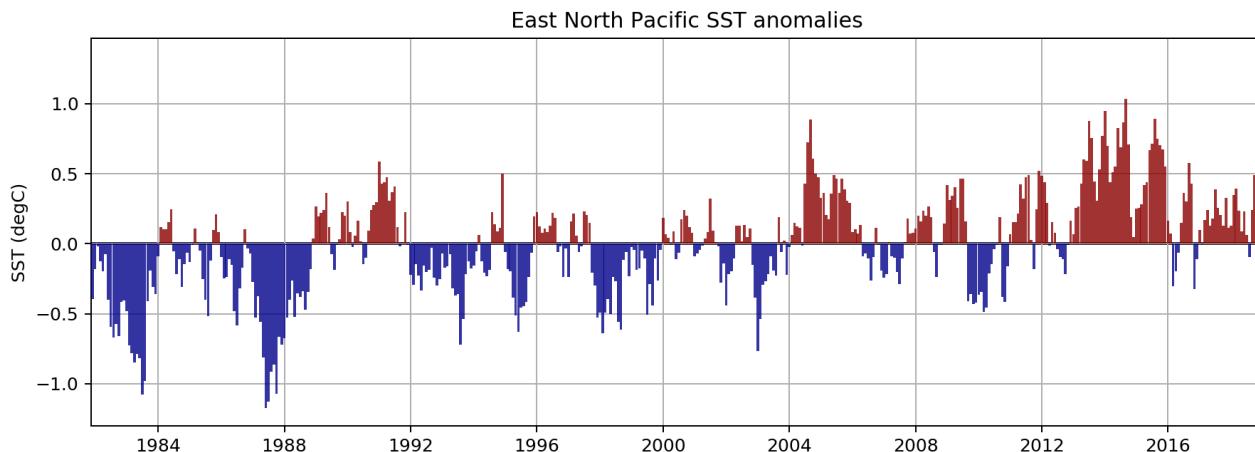
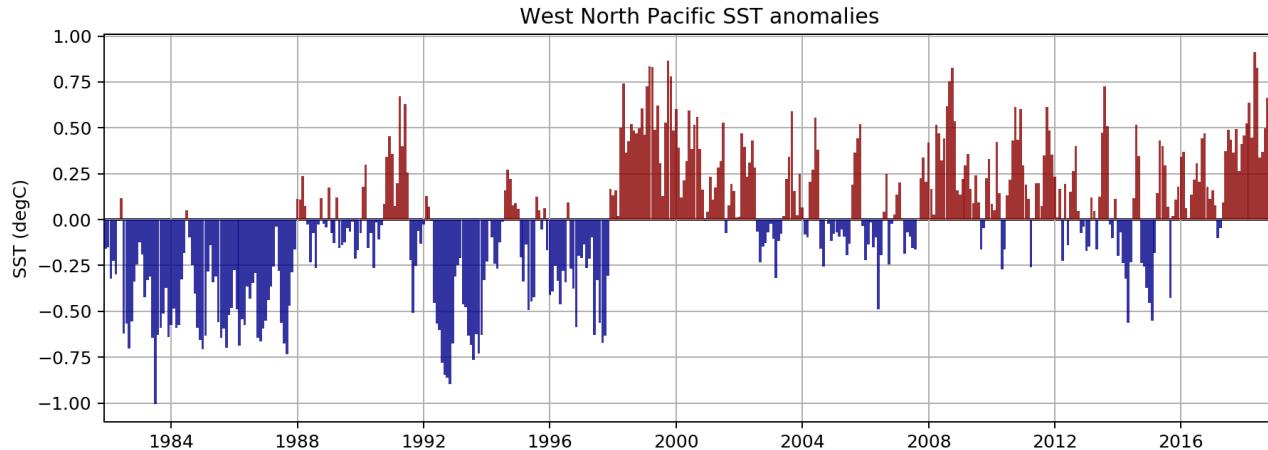
demo

<https://github.com/python4oceanography/PICES-tools>

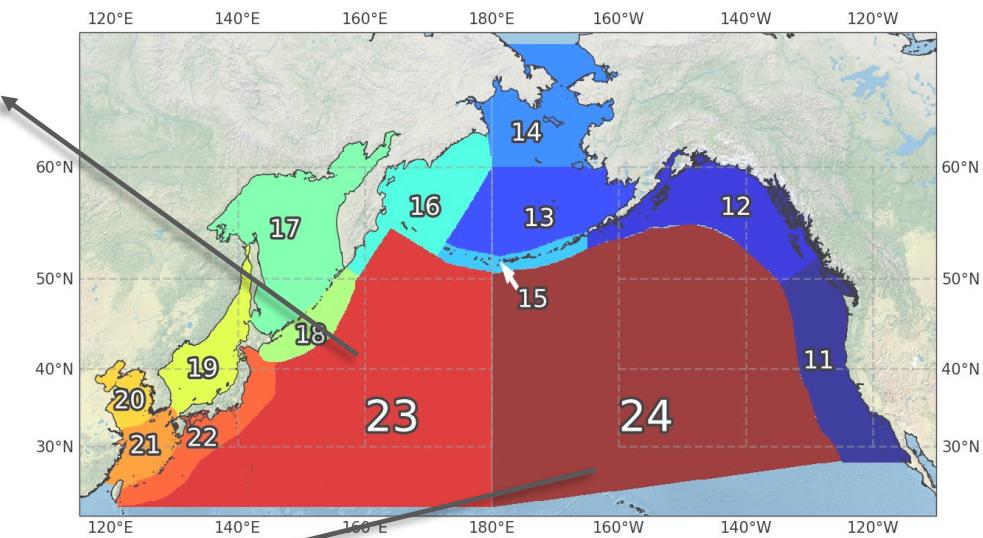




Comparison among regions

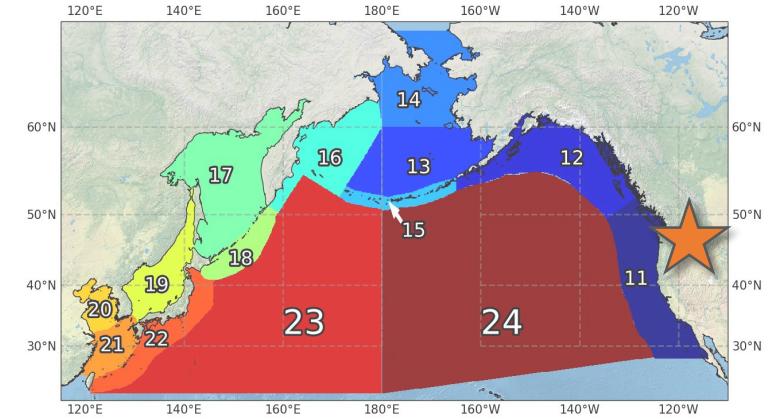
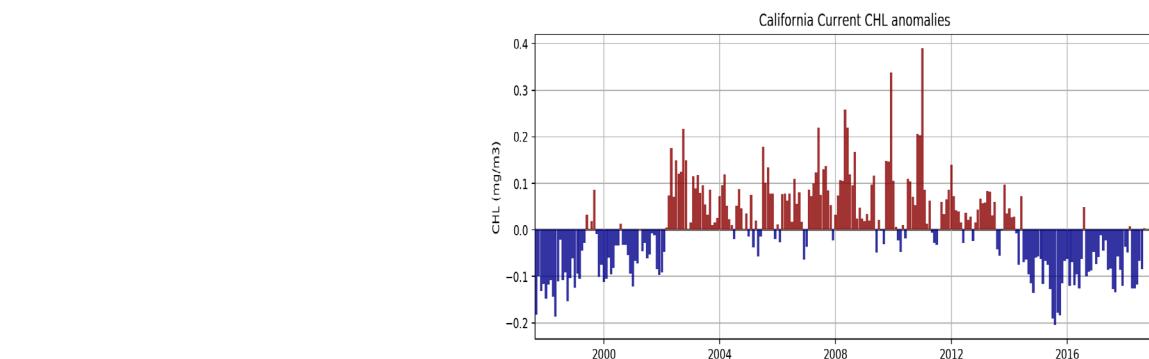
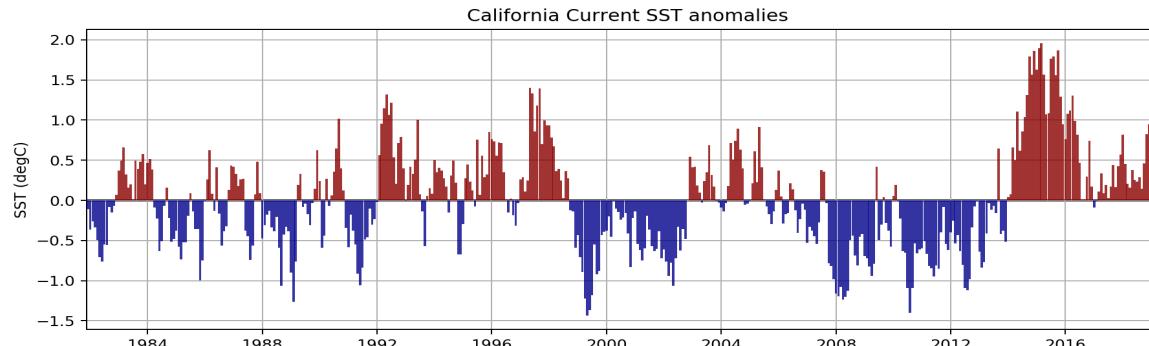
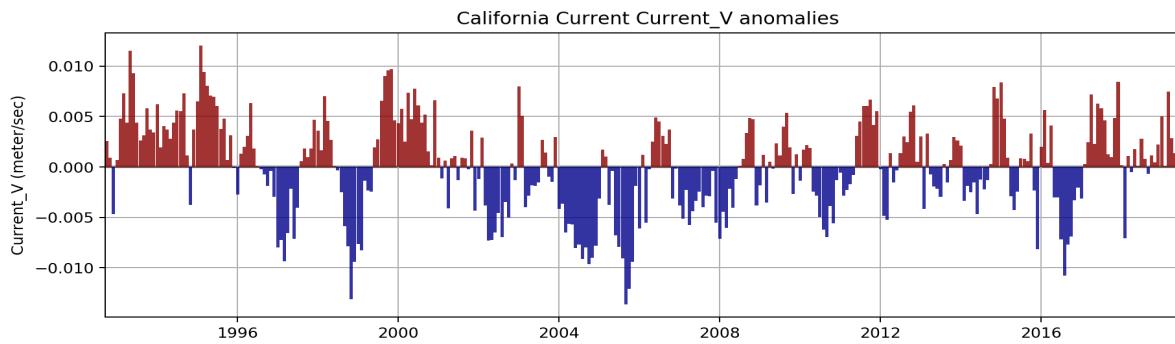


Sea Surface Temperature





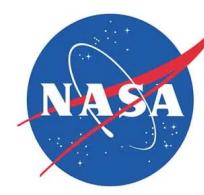
Comparison of Data



Meridional Surface Current

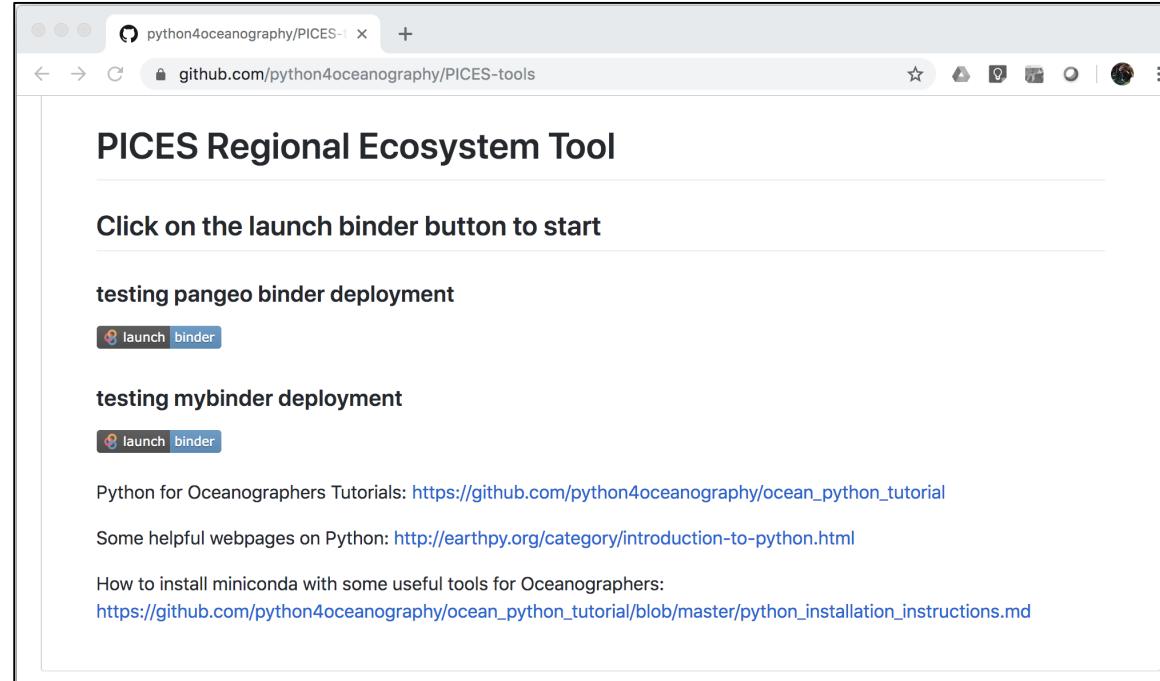
Sea Surface Temperature

Chlorophyll Concentration



From your web browser:

<https://github.com/python4oceanography/PICES-tools>



You could also download (clone) it from GitHub directly

Marisol García-Reyes <marisolgr@gmail.com>

PICES 2019 \ Victoria, Canada