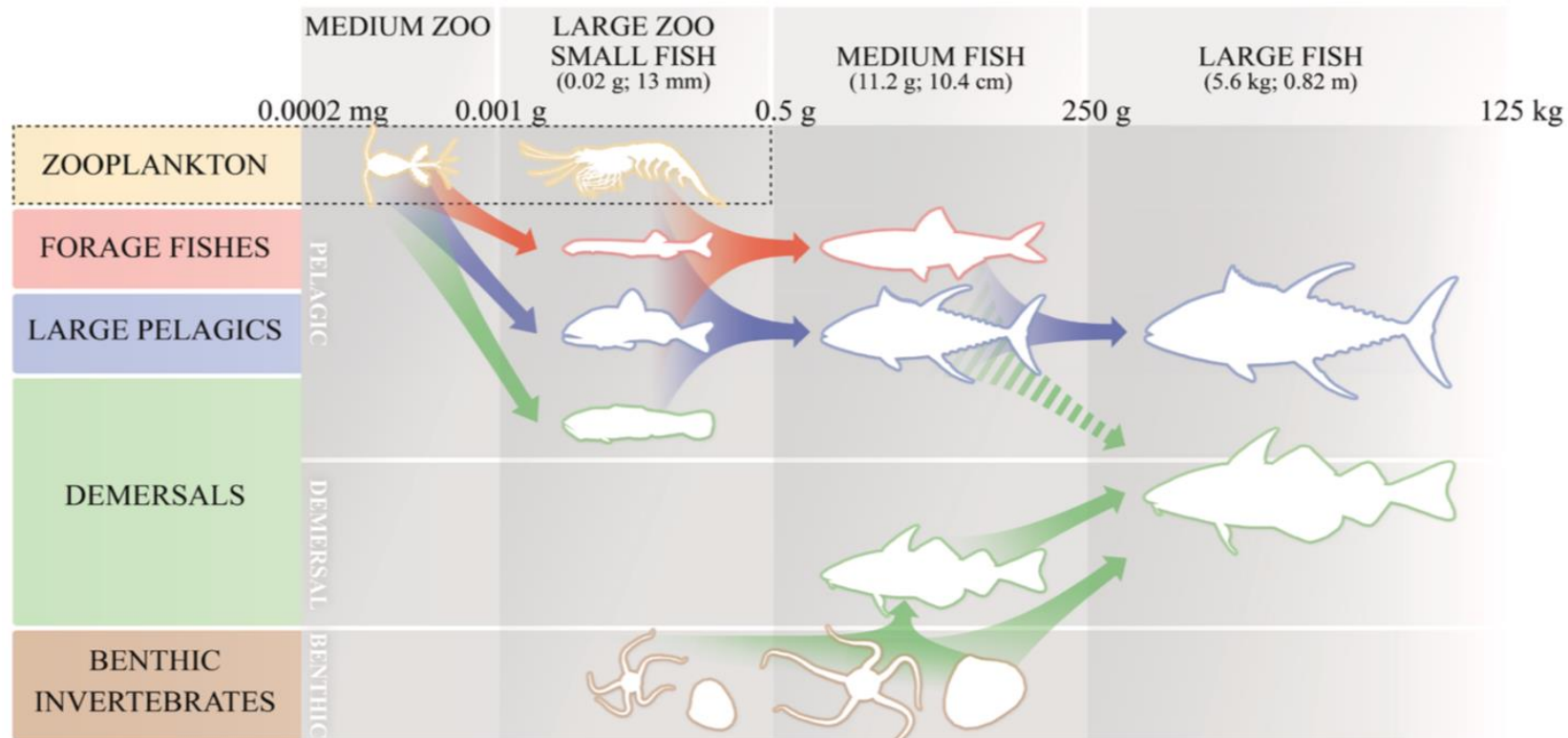


Debugging FLESTY (A Fisheries Size and Functional Type Model)

An NSF Cyberinfrastructure Center of Excellence

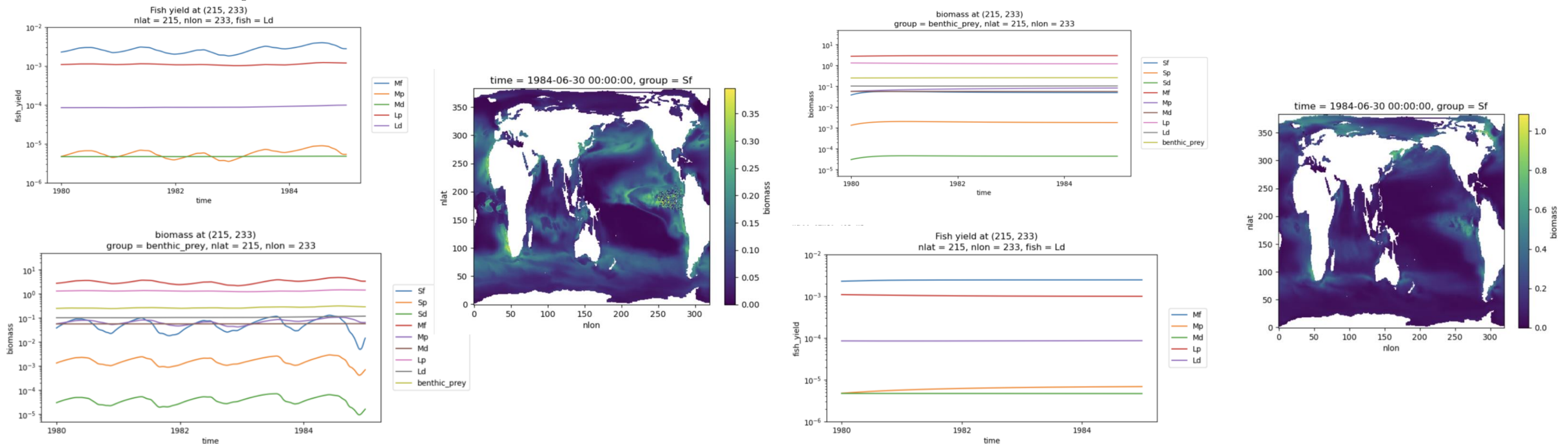
Background

FEISTY is a mechanistic model that includes multiple fish functional types and size-classes.



Work I've Done

The major issue I was given to work on, was finding the root cause of errors in switching from an old dated environment to a new updated environment with new libraries.



What I Found

1. Examine the forcing data generated by these two environments in the form of .zarr files, specifically the zmetadata.(formatting of zmetadata and whether or not it was included in the .zarr file changed with an updated version of xarray)
2. Found the root cause of the error to be in how data was chunked (Chunking is how the program splits datasets into smaller blocks to load and process)

Lessons I've Learned

1. Familiarized myself with making edits and forking on Github
2. Learned how to work with Jupyter Notebooks
3. Dived deeper into python library structure and debugging

Future Work

Explore more errors in specific cases, that relate to outlier data from long-term runs.

Improve for efficiency.

Thank you to NSF CI Compass, the U.S. National Science Foundation, and NCAR for giving me the opportunity to work on this fascinating work this summer!

Questions?