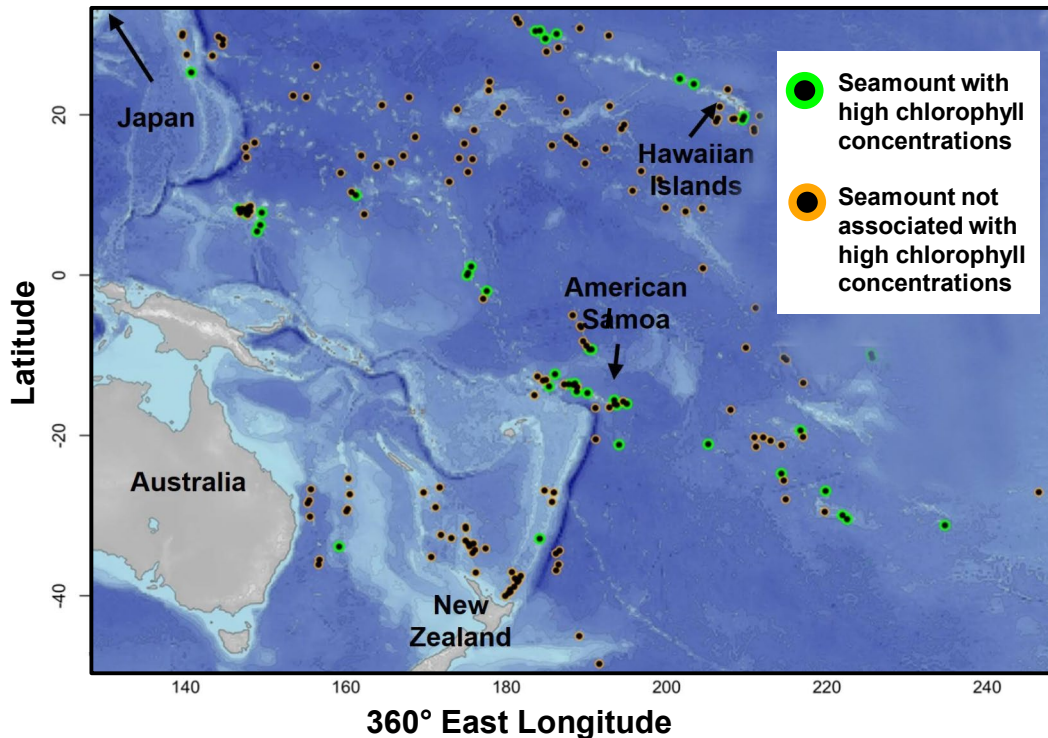
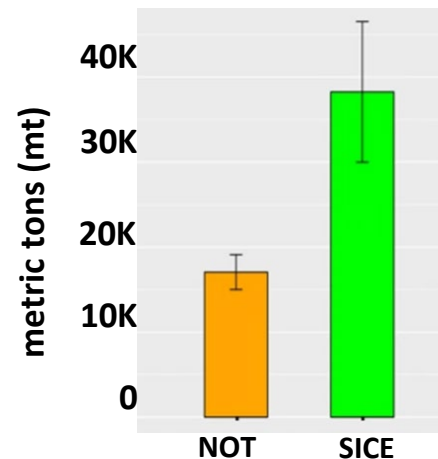


Seamount-Induced Chlorophyll Enhancements (SICE)



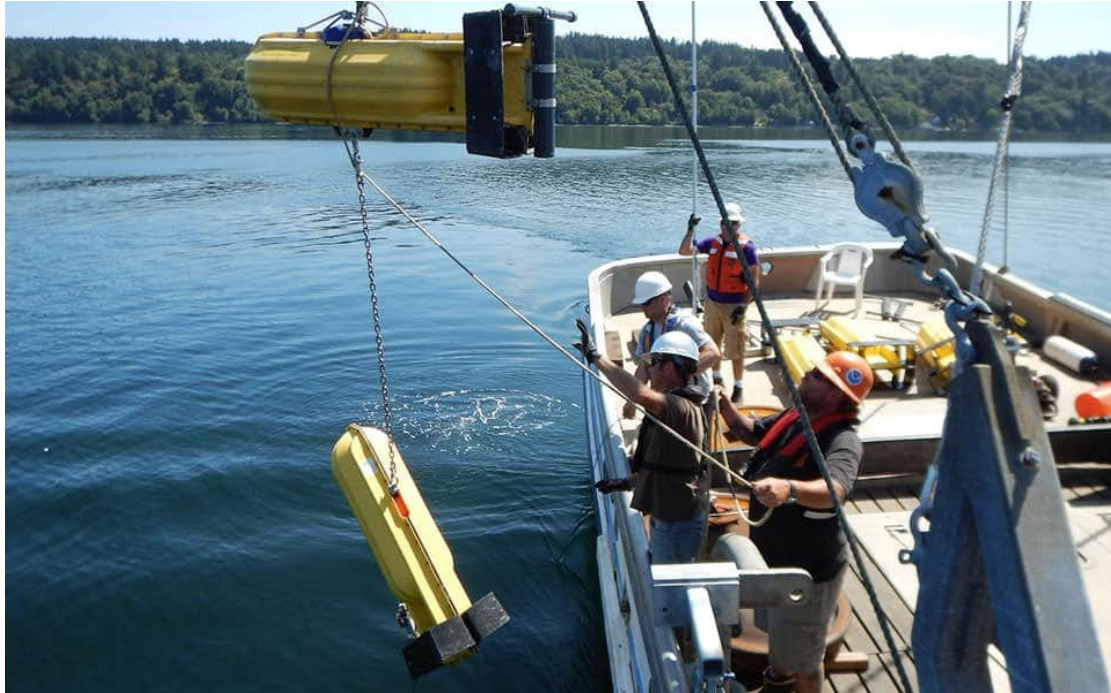
Mean historical total fisheries catch around seamounts with high levels of chlorophyll concentrations (**SICE**-Seamount-Induced Chlorophyll Enhancements) compared to seamounts **NOT** associated with high levels of chlorophyll concentrations.



Adapted from: <https://www.nature.com/articles/s41598-020-69564-0/figures/1>



Measuring Currents

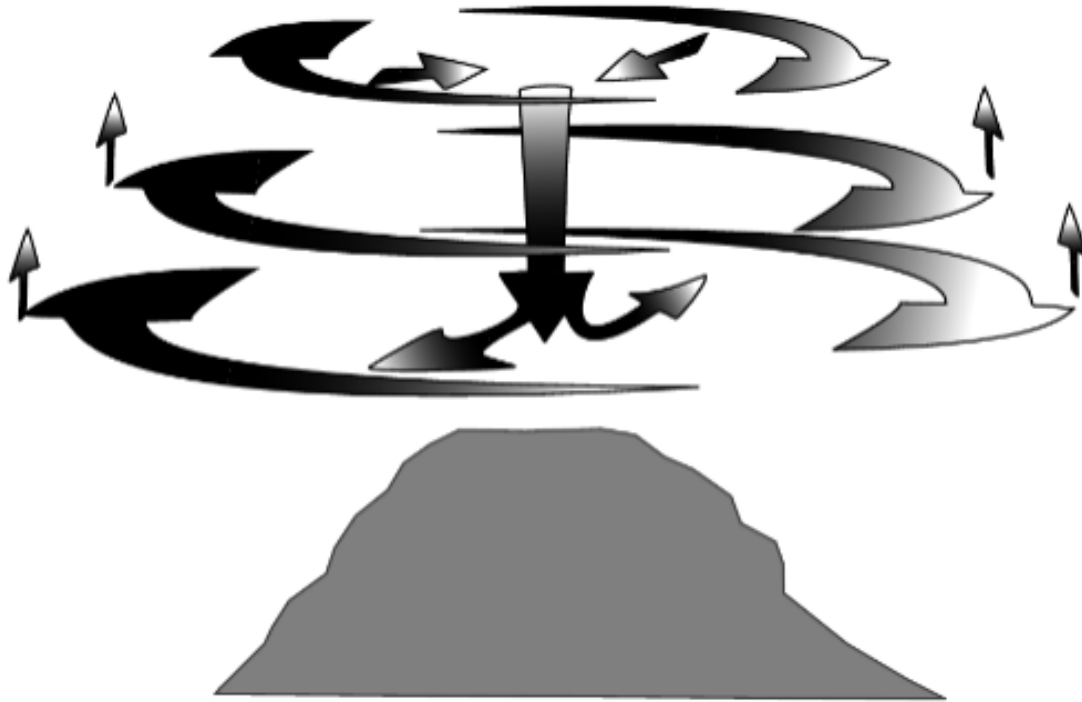


Link: <https://oceanservice.noaa.gov/podcast/july17/nop09-current-surveys.html>

- Current meters attached to cable anchored to bottom at one end and suspended by a buoy at other end taking measurements of currents.
- Several meters were located at various depths along each cable so water motion could be studied at intervals throughout water column.
- Each cable with its attached current meters is called an array.
- Each current meter is capable of recording water movement in 3 directions, similar to x, y, and z- axis of a 3D graph.



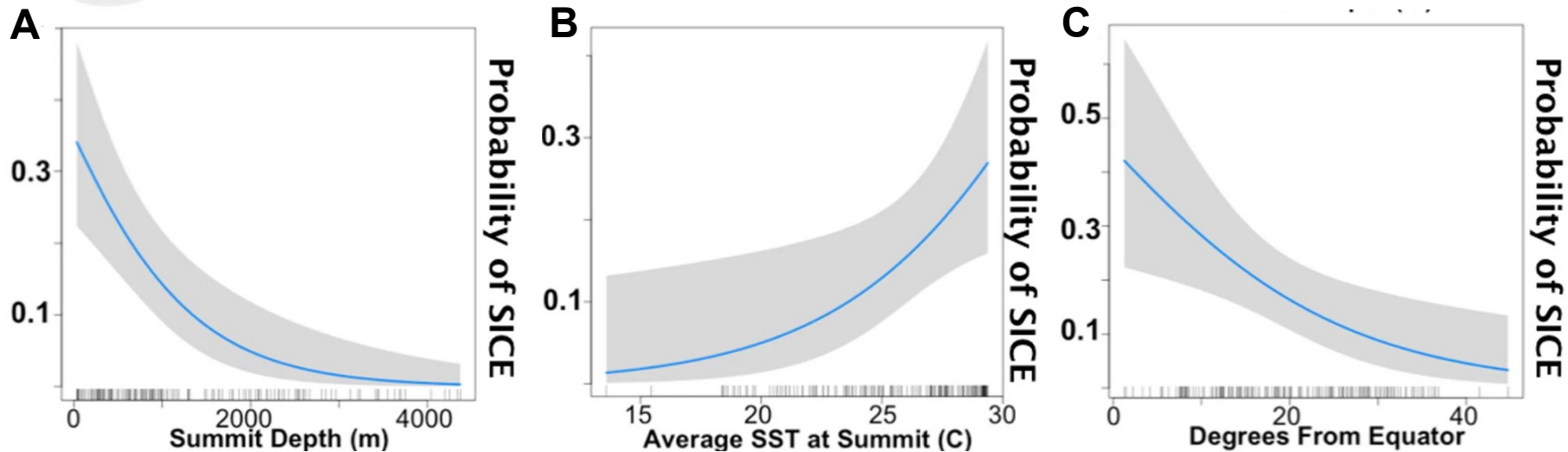
3-D Diagram of Mean Flows in Fieberling Guyot Circulation Cell



Redrawn from Mullineaux and Mills, 1997



Biophysical Drivers of Seamount-Induced Chlorophyll Enhancements (SICE)



Figures A, B, and C show the plots of the modeled probability of SICE with three different geophysical predictors: (A) summit depth, (B) average Sea Surface Temperature (SST), and (C) degrees from equator, all significant predictors of SICE.

Adapted from: <https://www.nature.com/articles/s41598-020-69564-0/figures/2>