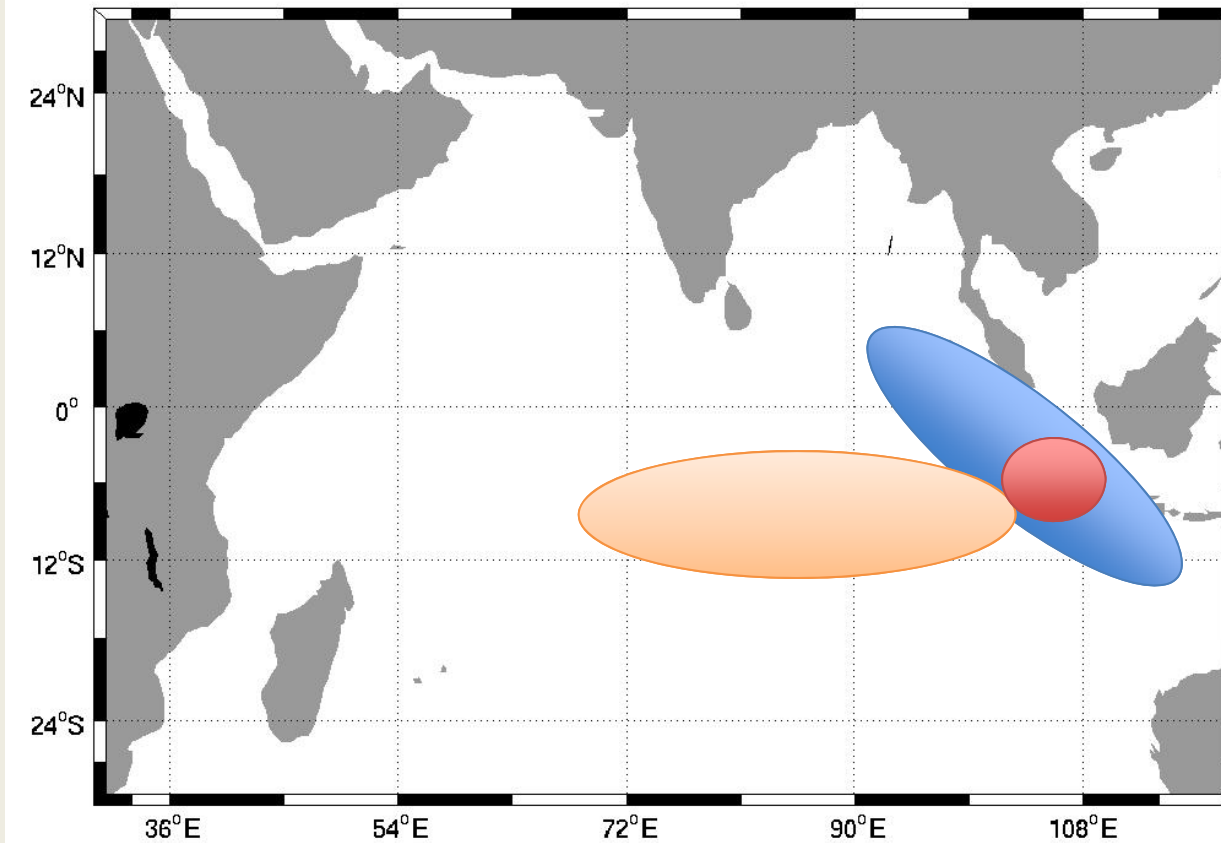


A study of the upper ocean physics and biology in the SE tropical Indian Ocean

Kyung-Il Chang (SEES, SNU)
and
Kelvin Richards (IPRC, University of
Hawaii)



Study Areas

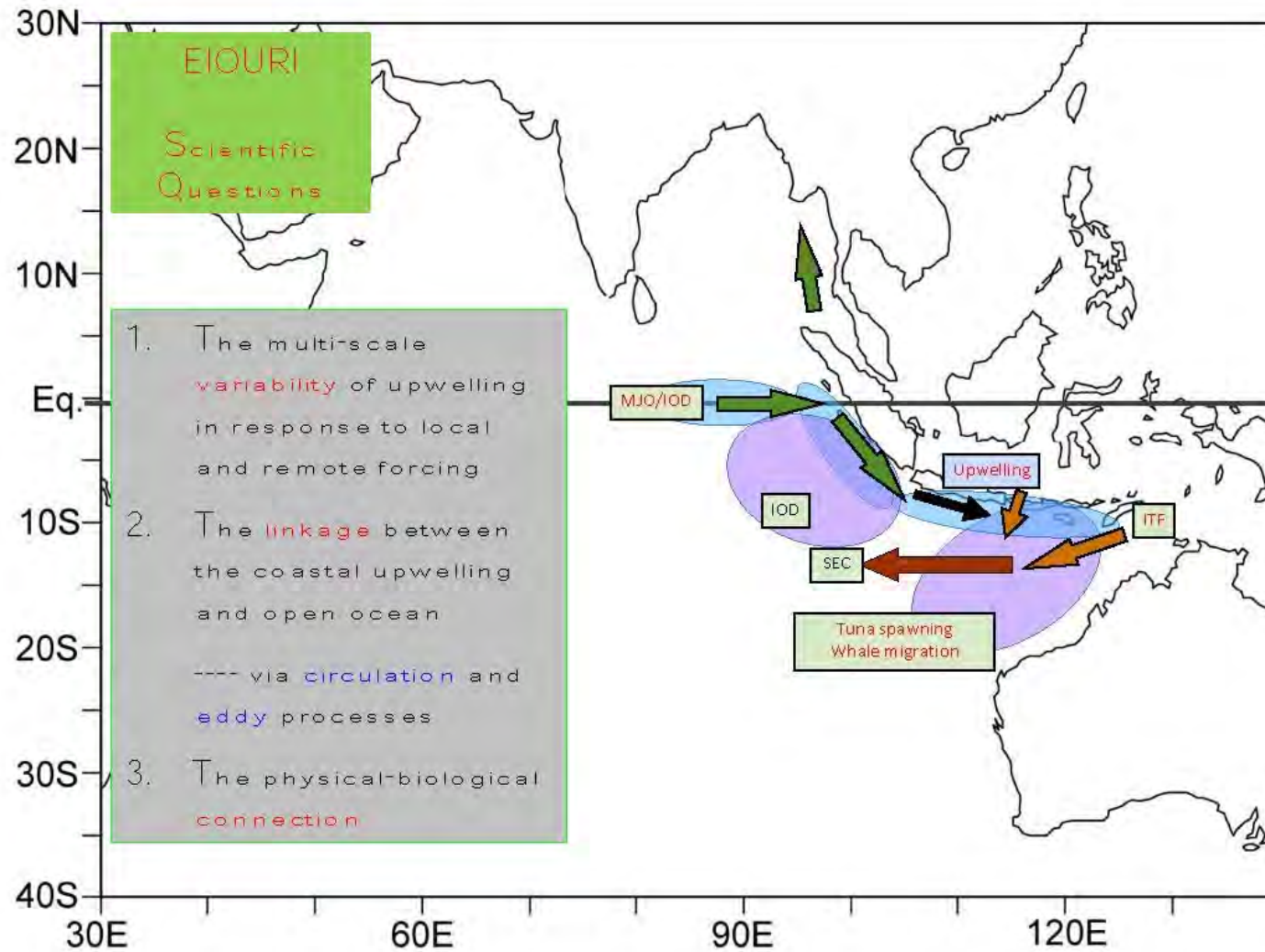


- ❖ Upwelling off Sumatra/Java
- ❖ Extension along thermocline ridge
- ❖ Sunda Strait throughflow

A contribution to the **YMC** and **Eastern Indian Ocean Upwelling Research Initiative**

The study will be a contribution to the **Eastern Indian Ocean Upwelling Research Initiative** (CLIVAR/IOP and IMBER/SIBER)

EIOURI is a key project of IIEO-2 in celebration the 50th Anniversary of the International Indian Ocean Expedition

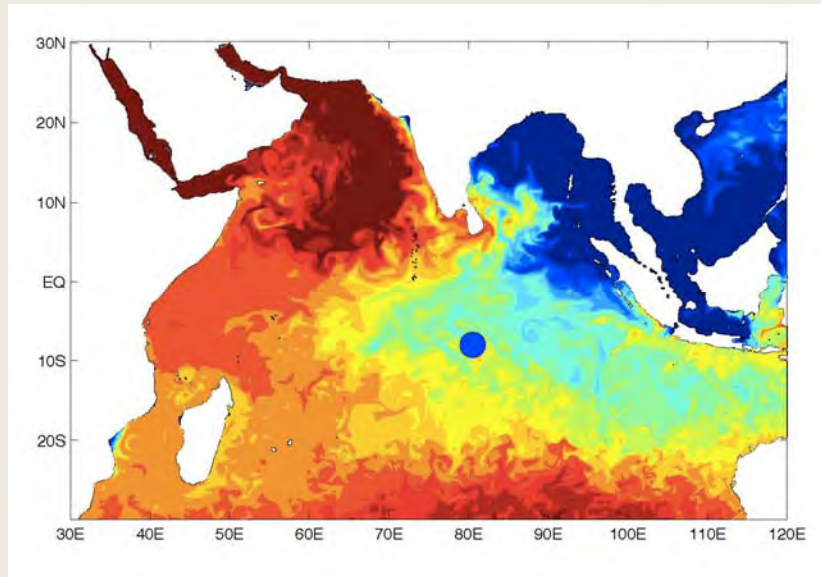


A key focus will be the impact of near surface salinity in stratifying the upper ocean and affecting ocean/atmosphere exchange.

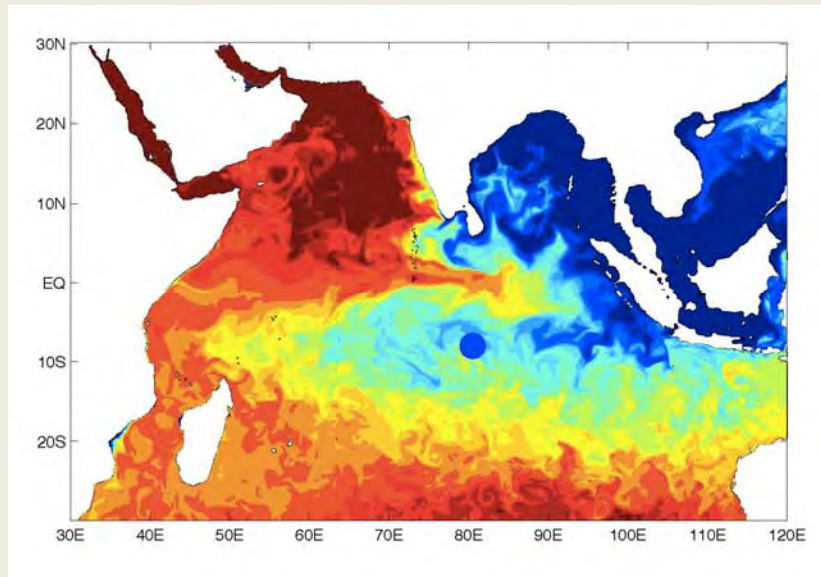
Observations and models show a strong seasonal to interannual variation in the surface salinity off Sumatra and extending along the thermocline ridge

Surface Salinity:
Mercator

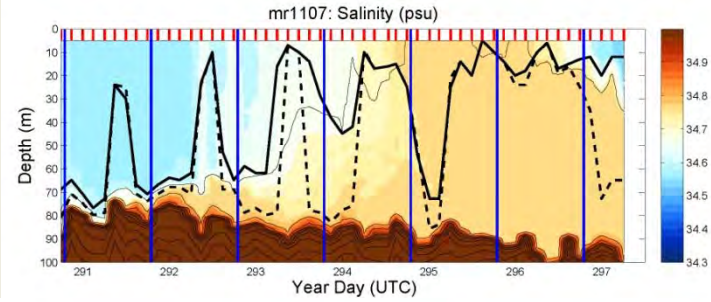
1 Oct 2011



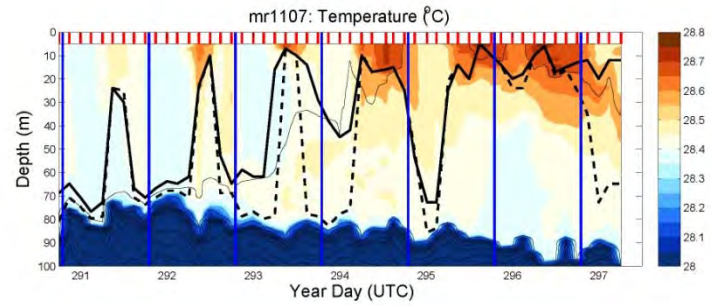
1 Dec 2011



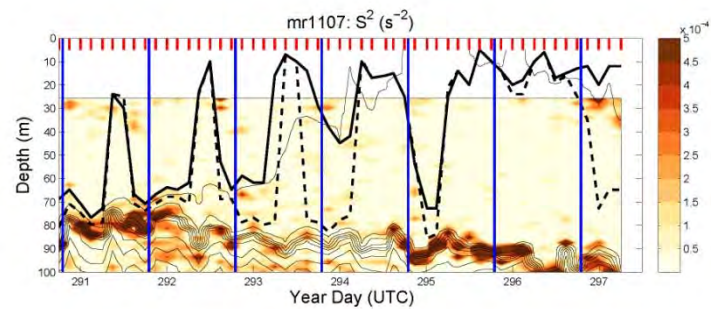
Need for high vertical resolution



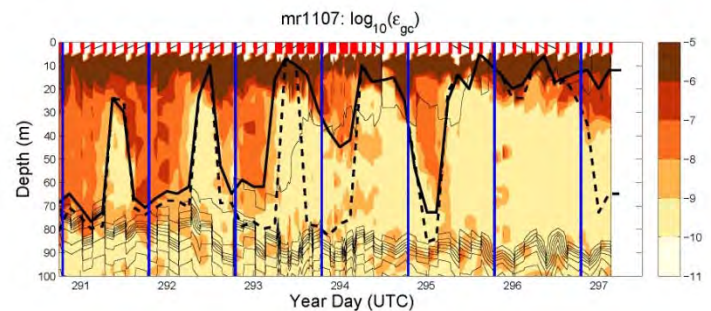
Salinity



Temperature

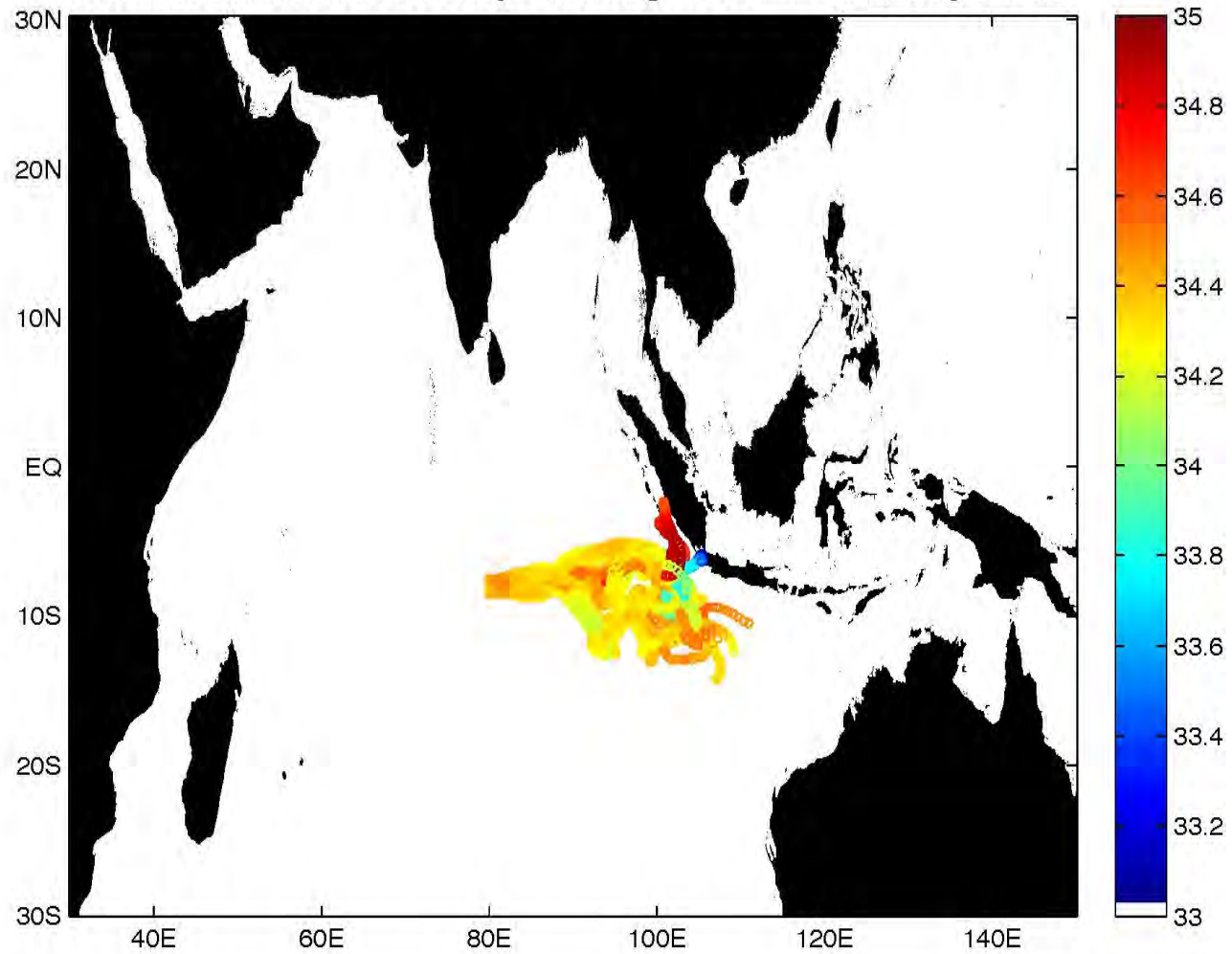


Shear



Turbulence

Mercator: backward traj. starting 2011 11 11, days 100



We will also consider the contribution of Throughflow waters, including the Sunda Strait

Surface Salinity:
Mercator

