

## Interannual salinity variability in the Bay of Bengal

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**B**ay of Bengal (BoB), a tropical basin in the Indian Ocean, receives large quantity of freshwater by excess precipitation over evaporation and river runoff. This large freshwater flux into the BoB cause strong haline stratification which favors the formation of barrier layer (BL) between the base of the salt stratified mixed layer and the top of the thermocline. The BL acts as a barrier to turbulent entrainment of cooler thermocline waters into the mixed layer and thereby plays an important role in maintaining warmer sea surface temperature (SST) and influencing precipitation over BoB. Further, the BL inhibits transfer of nutrients to euphotic zone and thereby limiting the biological productivity of the region. Salinity and temperature profiles obtained from Argo floats and CTD casts are used to understand the salinity variability and its effect on near-surface circulation in the BoB during years 2004-2010. In addition, the near surface circulation, computed evaporation minus precipitation (E-P), and river discharges from two major rivers Ganges and Brahmaputra into the BoB are utilized to investigate the causative mechanisms for interannual salinity variability in the BoB.

### Biography

Vimlesh Pant received his Ph.D. degree at the age of 29 years from University of Pune and worked as a Scientist for 3 years at Government organizations before joining Indian Institute of Technology Delhi as Assistant Professor. His research interests are marine aerosols, physical oceanography and ocean modelling. He has published 13 papers in reputed journals and presented his work at several conferences.

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