

## Curriculum Vitae

### Abhilash Nair

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### Education

- M. Sc in Marine Sciences, Goa University
- B. Sc in Zoology, Goa University

### Area of Interest

- Southern Ocean paleoceanography and Antarctic paleoclimatology using microfossils (diatoms)
  - Fossil diatom identification, diatom census counts, diatom biometry are utilized as the principle tools for diatom based past climate studies.
  - Understanding the past variation of Antarctic sea-ice and oceanic fronts to decipher its influence on paleoproductivity.

### Research Experience

- 4 years as a research fellow in the project “Past Climate and Oceanic Variability”
- Currently pursuing Ph. D from Goa University

### Outline of the Project- Past Climate and Oceanic Variability

In the recent decades, India is making significant progress in Polar and Ocean research where NCAOR plays a pivotal role. It is committed towards improving the understanding in major thrust areas in the field of Earth Sciences. The project “Past Climate and Oceanic Variability” aims in addressing past changes in the Southern Ocean system in a quantitative and process oriented way in order to improve the understanding of future climate and environment. Selected time intervals will be targeted. The key objectives of the project include:

- Paleoclimatic reconstructions of sea surface temperatures, productivity, water column structure and Antarctic Circumpolar Current circulation during the glacial-interglacial periods using an array of marine sediment cores located in the vicinity of Kerguelen Islands, Crozet Islands and different frontal regions.

- Studying the factors controlling the contribution of siliceous and organic fractions to total production to understand the mechanisms controlling the efficiency of the biological pump of carbon in Southern Ocean.

### **Expeditions participated**

- Student participation-Equatorial Indian Ocean Expedition ORV SagarKanya (SK-246) during 13 May- 6 June 2008.
- Scientific member of a summer team -Indian Scientific Expedition to Antarctica during Dec 2013- April 2014.

### **Journal Publications**

**Abhilash Nair**, Rahul Mohan, M. C. Manoj, MelothThamban: *Glacial-interglacial variability in diatom abundance and valve size: Implications for Southern Ocean paleoceanography*. *Paleoceanography* 09/2015; DOI:10.1002/2014PA002680

**Abhilash Nair**, Rahul Mohan, SuhasShetye, SahinaGazi, Syed A. Jafar: *Trigoniumcurvatus sp. nov.andTrigoniumarcticum (Bacillariophyceae) from the surface sediments of Prydz Bay, East Antarctica*. *Micropaleontology* 01/2015; 61(3):185-192.

Shridhar D. Jawak, Manoj M.C, **Abhilash Nair**, Mahesh BS: *Indian Participation in the 33rd Scientific Committee on Antarctic Research (SCAR - 2014)*. *Journal of the Geological Society of India* 11/2014; 84.

Suhas Shetye, Rahul Mohan, Syed A. Jafar, **Abhilash Nair**, ShramikPatil, ShridharJawak, Rajesh Asthana, SahinaGazi: *Diatom burst-driven silica depletion under the Antarctic sea ice: Evidence from sponge spicules*. *Current science* 07/2014; 107(2).

Suhas S. Shetye, Rahul Mohan, **Abhilash Nair**: *Latitudinal shifts in the Polar Front in Indian sector of the Southern Ocean: evidences from Silicoflagellate assemblage*. *Geosciences Journal* 06/2014; DOI:10.1007/s12303-013-0061-8

### **International Conference Proceedings**

**Abhilash Nair**, Rahul Mohan, M. C. Manoj, MelothThamban: *Glacial-interglacial variability in Antarctic sea-ice extent and Southern Ocean frontal systems*. XII International Symposium of Antarctic Earth Sciences, Goa, Inida; 07/2015

AniruddhaAvadhani, **Abhilash Nair**, Anish Kumar Warriier, Mahesh Badanal, Rahul Mohan: *Holocene climatic history of Larsemann Hills, East Antarctica: A diatom based study from Stepped Lake*. XII International Symposium on Antarctic Earth Sciences; 07/2015

**Abhilash Nair**, Rahul Mohan, M. C. Manoj, MeltohThamban: *Glacial-Interglacial variability of Antarctic sea-ice extent and frontal systems: Implications for diatom abundance and size*. XXXIII SCAR Biennial Meetings and Open Science Conference 2014, Auckland, New Zealand; 08/2014

**Abhilash Nair**, Rahul Mohan, M C Manoj, MelothThamban: *Diatom based sea-ice reconstruction over the past 95,000 years in the Indian Ocean sector of Southern Ocean*. PAGES 2nd Young Scientist Meeting & 4th Open Science Meeting; 02/2013