

## **CURRICULUM VITAE**



Name : **SARAT CHANDRA TRIPATHY**  
Designation : Scientist – F & SIC (Ocean Sciences)  
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### **ACADEMIC BACKGROUND:**

2011: D.Sc., Earth and Environmental Sciences [Nagoya University, Japan].  
2005: Ph.D., Marine Sciences [National Institute of Oceanography (NIO)/Berhampur University].  
1998: M.Sc., Marine Biology [Berhampur University, Odisha].  
1996: B.Sc., Botany (Honors), Chemistry, Zoology [Utkal University, Odisha].

### **PROFESSIONAL BACKGROUND:**

01-2021 : Scientist - F, National Centre for Polar and Ocean Research (NCPOR), MoES, Goa.  
01-2016 : Scientist - E, National Centre for Polar and Ocean Research (NCPOR), MoES, Goa.  
12-2011 : Scientist - D, National Centre for Antarctic and Ocean Research (NCAOR), MoES, Goa.  
04-2011 : Post-Doctoral Fellow, HyARC, Nagoya University, Japan.  
04-2008 : Research Student (D.Sc.), Nagoya University, Japan.  
04-2005 : Japanese Govt. (Monbukagakusho/MEXT) Scholar, Nagasaki University, Japan.  
06-2003 : Senior Research Fellow, CSIR-NIO, Visakhapatnam.  
11-2001 : Project Biologist, Wildlife Institute of India (WII), MoEF-CC, Dehradun.  
09-1999 : Project Trainee-III, CSIR-NIO, Visakhapatnam.

### **AWARDS & RECOGNITIONS:**

- INSA grant to participate in the XII<sup>th</sup> SCAR-Biology Symposium in Belgium (2017).
- Nagoya University grant to participate in PICES conference in USA (2009).
- Outstanding poster award in the PORSEC held at Guangzhou, China (2008).
- Japanese Government (MEXT) Fellowship for pursuing D.Sc. in Japan (2005).
- NF-POGO fellowship for visiting professor's training at NIO, Kochi (2004).
- CSIR-Senior Research Fellowship (2003).
- 2<sup>nd</sup> rank in M.Sc from Berhampur University (1998).
- State Scholarship in higher secondary examination (1991).

### **MAJOR AREA OF RESEARCH INTERESTS:**

- Phytoplankton Productivity (Carbon Dynamics) & Bio-optical Oceanography
- Bio-physical Interactions, Marine Ecology & Biogeochemistry

#### SCIENTIFIC EXPEDITIONS PARTICIPATED:

- 2019: Team leader of the Indian Arctic Expedition (Batch III).  
2018: Team leader of the Indian Arctic Expedition (Batch II).  
2018: Member of the 10<sup>th</sup> Indian Southern Ocean Expedition onboard MV SA-Agulhas.  
2017: Chief Scientist of the 9<sup>th</sup> Indian Southern Ocean Expedition onboard MV SA-Agulhas.  
2016: Team leader of the Indian Arctic Expedition (Batch II).  
2015: Chief Scientist of the 8<sup>th</sup> Indian Southern Ocean Expedition onboard ORV-Sagar Nidhi.  
2014: Deputy Chief Scientist of the Tropical Indian Ocean Expedition onboard ORV-Sagar Nidhi.  
2013: Deputy Chief Scientist of the 7<sup>th</sup> Indian Southern Ocean Expedition onboard ORV-Sagar Nidhi.  
2012: Member of the Indian Arctic Expedition (Batch III).

Over 700 days of cruise experience onboard several Scientific Research Vessels in Bay of Bengal, Arabian Sea, Indian Ocean, East China Sea, Southern Ocean & coastal Antarctica, and Arctic fjords.

#### PEER-REVIEWED PUBLICATIONS (JOURNALS/BOOKS):

54. Bhaumik, S., Mandal, S., **Tripathy, S.C.** (202X): Unravelling the functional diversity of macrobenthic community from Prydz Bay, Indian Sector of the Southern Ocean. *Deep-Sea Research Part II*, Vol. xxxx, pp. xxxx. [In Review]
53. Pandi, S.R., **\*Tripathy, S.C.**, Shaju, S.S., Minu, P., Kerkar, A.U., Bajish, C.C., Anilkumar, N (202X): Interannual variability of surface bio-optical characteristics in the frontal zones of the Indian sector of the Southern Ocean during austral summer. *Polar Science*, Vol. xxxx, pp. xxxx. [In Review]
52. Kerkar, A.U., **\*Tripathy, S.C.**, Sabu, P. (202X): Concurrent measurements of phytoplankton productivity and light absorption from a global carbon hotspot: variability, features, and causes. *Global and Planetary Change*, Vol. xxx, pp. xxxxxx. [In Review]
51. Pandi, S.R., **\*Tripathy, S.C.**, Shaju, S.S., Anilkumar, N. (202x): Cross frontal variability in bio-optical characteristics in the Indian sector of the India sector of the Southern Ocean during an austral summer. *Regional Studies in Marine Science*. [In Review]
50. **Tripathy, S.C.**, Kerkar, A.U., Pandi, S.R. (202x): Phytoplankton productivity and bio-optical variability in the Indian sector of Southern Ocean during austral summer. Chapter XX in N. Anilkumar, .....(Eds): *Decadal Indian campaigns in the Southern Ocean to understand the ecosystem processes – upshots*, AGU Books (Wiley-Blackwell) [In Review]
49. Bhaskar, J.T., Parli, B. V., **Tripathy, S.C.**, Jawak, S., Varunan, T. (2023): Does suspended sediment affect the phytoplankton community composition and diversity in the Arctic fjord: A comparative study during summer. *Environmental Monitoring and Assessment*, <https://doi.org/10.1007/s10661-022-10734-0>. Vol. 195 (168), pp. XXXX.
48. Pandi, S.R., **\*Tripathy, S.C.**, Parida, C., Lotliker, A.A., Naik, R.C.S., Naik, R.K., Mishra, R.K., Anilkumar, N. (2022): Spatiotemporal variability in bio-optical characteristics of the Southwestern Tropical Indian Ocean during Boreal Summer: Biophysical influences. *Progress in Oceanography*, Vol. 208, pp. 102883.
47. Kerkar, A.U., **\*Tripathy, S.C.**, Pandi, S.R. (2022): Bio-optical depiction of a polar ocean under a global change: exploring the regional absorption traits. *Global and Planetary Change*, Vol. 213, pp. 103818.

46. **Tripathy, S.C.** (2022): Bio-optical characteristics in relation to phytoplankton composition and productivity in a twin Arctic fjord ecosystem during summer. Chapter 13 in N. Khare (Ed): **Climate Change in the Arctic: An Indian Perspective**, Taylor & Francis, CRC Press, e-ISBN: 9781003265177, pp. 386, <https://doi.org/10.1201/9781003265177>.
45. Bhowmik, M., Mandal, S., **Tripathy, S.C.** (2022): Benthic biome of Southern Ocean: Present state of knowledge and future perspective. Chapter 10 in A. Majumdar & W. Ghosh (Eds): **Systems Biogeochemistry of Major Marine Biomes**, AGU Books (Wiley-Blackwell), ISBN: 978-1-119-55438-7, pp. 189-209, <https://doi.org/10.1002/9781119554356.ch10>.
44. **Tripathy, S.C.**, Varunan, T., Shanmugam, P., Kerkar, A.U., Sarkar, A., Bhaskar, J.T., Kurian, S., Bhaskar, P.V., Gauns, M. (2021): Summer variability in bio-optical properties and phytoplankton pigment signatures in two adjacent high Arctic fjords, Svalbard. **International Journal of Environmental Science and Technology**, <https://doi.org/10.1007/s13762-021-03767-4>.
43. Acharya, A., Fadnavis, S., Nuncio, M., Müller, R., **Tripathy, S.C.** (2021): The Arctic temperature response to global and regional anthropogenic sulfate aerosols. **Frontiers in Environmental Science**, Vol. 9:766538, <https://doi.org/10.3389/fenvs.2021.766538>.
42. Pandi, S.R., Chari, N.V.H.K., Lotliker, A.A., Sarma, N.S., Murthy, K.N., **Tripathy, S.C.**, Bajish, C.C., (2021): Spatiotemporal variability in the optical characteristics of dissolved organic matter in the coastal Bay of Bengal. **International Journal of Environmental Science and Technology**, [doi.org/10.1007/s13762-021-03605-7](https://doi.org/10.1007/s13762-021-03605-7).
41. Kerkar, A.U., Venkataramana, V., **\*Tripathy, S.C.** (2021): Assessing the trophic link between the primary and secondary producers of the Southern Ocean: A carbon biomass-based approach. **Polar Science**, Vol. 31, 100734.
40. **Tripathy, S.C.**, Sabu, P., Patra, S., Naik, R.K., Sarkar, A., Venkataramana, V., Kerkar, A.U., Sudarsanarao, P. (2021): Biophysical control on variability in phytoplankton production and composition in the South-Western Tropical Indian Ocean during monsoon 2014. Chapter in Nayak, A. R., Jiang, H., Karp-Boss, L., Sullivan, J. M., Murphy, D., Byron, M., McFarland, M., (Eds): **Small Scale Spatial and Temporal Patterns in Particles, Plankton, & Other Organisms**. Lausanne: Frontiers Media SA, ISBN: 978-2-88966-769-7, pp. 113-130, <https://dx.doi.org/10.3389/978-2-88966-769-7>.
39. Pandi, S.R., Chari, N.V.H.K., Sarma, N.S., **Tripathy, S.C.**, Chiranjeevulu, G., Das, S. (2021): A review of estuarine CDOM dynamics of east coast of India influenced by hydrographical forcing. Chapter 14 in S. Das & T. Ghosh (Eds): **Estuarine Biogeochemical Dynamics of the East Coast of India**, Springer Nature Switzerland AG, ISBN: 978-3-030-68979-7, pp. 223-237, [https://dx.doi.org/10.1007/978-3-030-68980-3\\_14](https://dx.doi.org/10.1007/978-3-030-68980-3_14).
38. Kerkar, A.U., **\*Tripathy, S.C.**, David, J.H., Pandi S.R., Sabu, P., Tiwari, M. (2021): Characterization of phytoplankton productivity and bio-optical variability of a polar marine ecosystem. **Progress in Oceanography**, Vol. 195, pp. 102573.
37. Pandi, S.R., Chari, N.V.H.K., Sarma, N.S., Chiranjeevulu, G., Kiran, R., Murthy, K.N., Venkatesh, P., Lotlikar, A.A., **Tripathy, S.C.** (2021): Characteristics of conservative and non-conservative CDOM of a tropical monsoonal estuary in relation to changing biogeochemistry. **Regional Studies in Marine Science**, Vol. 44, pp.101721.

36. Inamdar, S., Tinel, L., Chance, R., Carpenter, L., Sabu, P., Chacko, R., **Tripathy, S.C.**, Kerkar, A.U., Sinha, A.K., Bhaskar, P.V., Sarkar, A., Roy, R., Sherwen, T., Cuevas, C., Saiz-Lopez, A., Ram, K., Mahajan, A.S. (2020): Estimation of reactive inorganic iodine fluxes in the Indian and Southern Ocean marine boundary layer. **Atmospheric Chemistry and Physics**, Vol. 20(20), pp. 12093–12114.
35. Pandi, S.R., Baliarsingh, S.K., Lotliker, A.A., Sarma, N.S., **Tripathy, S.C.** (2020): Empirical relationships for remote sensing reflectance and *Noctiluca scintillans* cell density in the northeastern Arabian Sea. **Marine Pollution Bulletin**, Vol. 161(Part B), pp. 111770.
34. Kerkar, A.U., **\*Tripathy, S.C.**, Minu, P., Baranval, N., Sabu, P., Patra, S., Mishra, R.K., Sarkar, A. (2020): Variability in primary productivity and bio-optical properties in the Indian sector of the Southern Ocean during an austral summer. **Polar Biology**, Vol. 43(10), pp. 1469-1492.
33. Singh, A., David, D.T., **Tripathy, S.C.**, Naik, R.K. (2020): Interplay of regional oceanography and biogeochemistry on phytoplankton bloom development in an Arctic fjord. **Estuarine, Coastal and Shelf Science**, Vol. 243, pp. 106916.
32. **Tripathy, S.C.**, Sabu, P., Patra, S., Naik, R.K., Sarkar, A., Venkataramana, V., Kerkar, A.U., Sudarsanarao, P. (2020): Biophysical control on variability in phytoplankton production and composition in the South-Western Tropical Indian Ocean during monsoon 2014. **Frontiers in Marine Science**, Vol. 7:515, <https://dx.doi.org/10.3389/fmars.2020.00515>.
31. Bhaskar, J.T., Bhaskar, P.V., **Tripathy, S.C.** (2020): Spatial and seasonal variations of dinoflagellates and ciliates in the Kongsfjorden, Svalbard. **Marine Ecology**, Vol. 41(3), pp. 1-12.
30. Venkataramana, V., Anilkumar, N., Swalding, K., Mishra, R.K., **Tripathy, S.C.**, Sarkar, A., Soares, M.A., Sabu, P., Pillai, H.U.K. (2020): Distribution of zooplankton in the Indian Ocean sector of Southern Ocean, **Antarctic Science**, Vol. 32(3), pp. 168-179.
29. Kerkar, A.U., Venkataramana, V., **\*Tripathy, S.C.** (2020): Morphometric estimation of copepod carbon biomass in coastal Antarctica: a case study in Prydz Bay. **Journal of Crustacean Biology**, Vol. 40(1), pp. 58-66.
28. **Tripathy, S.C.** and Jena, B. (2019): Iron-stimulated phytoplankton blooms in the Southern Ocean: a brief review. **Remote Sensing in Earth Systems Sciences**, Vol. 2(1), pp. 64-77.
27. Sinha, A.K., Bhaskar, P.V., **Tripathy, S.C.**, Sarkar, A., Sabu, P. (2019): Effects of growth conditions on siderophore producing bacteria and siderophore production from Indian sector of Southern Ocean. **Journal of Basic Microbiology**, Vol. 59(4), pp. 412-424.
26. Pillai, H.U.K., Anilkumar, N., Achuthankutty, C.T., Mendes, C.R., Sabu, P., Jayalakshmi, K.V., Asha Devi, C.R., Dessai, D., George, J.V., Pavithran, S., Hari Devi, C.K., **Tripathy, S.C.**, Menon, N.R. (2018): Planktonic food web structure at SSTF and PF in the Indian sector of Southern Ocean during austral summer 2011. **Polar Research**, Vol. 37(1), pp. 1495545.
25. George, J.V., Anilkumar, N., Nuncio, M., Soares, M.A., Naik, R.K., **Tripathy, S.C.** (2018): Upper layer diapycnal mixing and nutrient flux in the subtropical frontal region of the Indian sector of Southern Ocean. **Journal of Marine Systems**, Vol. 187, pp. 197-205.
24. **Tripathy, S.C.**, Patra, S., Vishnu Vardhan, K., Sarkar, A., Mishra, R.K., Anilkumar, N. (2018): Nitrogen uptake by phytoplankton in surface waters of the Indian sector of Southern Ocean during austral summer. **Frontiers of Earth Science**, Vol. 12(1), pp. 52-62.

23. Sukigara, C., Mino, Y., **Tripathy, S.C.**, Ishizaka, J., Matsuno, T. (2017): Impacts of the Changjiang diluted water on sinking processes of particulate organic matters in the East China Sea. **Continental Shelf Research**, Vol. 151, pp. 84-93.
22. Zhu, Y., Ishizaka, J., **Tripathy, S.C.**, Wang, S., Sukigara, C., Goes, J., Matsuno, T., Suggett, D.J. (2017): Relationship between light, community composition and the electron requirement for carbon fixation in natural phytoplankton. **Marine Ecology Progress Series**, Vol. 580, pp. 83-100.
21. Venkataramana, V., **Tripathy, S.C.**, Anilkumar, N. (2017): The occurrence of blue-pigmented *Pontella valida* Dana, 1852 (Copepoda: Calanoida: Pontellidae) in the equatorial Indian Ocean. **Journal of Crustacean Biology**, Vol. 37(4), pp. 512-515.
20. **Tripathy, S.C.**, Mishra, R.K., Naik, R.K. (2017): Progress in Southern Ocean biology from the Indian Sector: half-decadal (2009-13) overview. **Proceedings of the Indian National Science Academy**, Vol. 83(2), pp. 385-398.
19. Zhu, Y., Ishizaka, J., **Tripathy, S.C.**, Wang, S., Mino, Y., Matsuno, T., Suggett, D.J. (2016): Variation of the photosynthetic electron transfer rate and the electron requirement for daily net carbon fixation in Ariake Bay, Japan. **Journal of Oceanography**, Vol. 72(5), pp. 761-776.
18. Bhaskar, J.T., **Tripathy, S.C.**, Sabu, P., Laluraj, C.M. and Rajan, S. (2016). Variation of phytoplankton assemblages of Kongsfjorden in early autumn 2012: A microscopic and pigment ratio-based assessment. **Environmental Monitoring and Assessment**, Vol. 188(4), pp. 1-13.
17. **Tripathy, S.C.**, Pavithran, S., Sabu, P., Pillai, H.U.K., Dessai, D.R.G. and Anilkumar, N. (2015). Deep chlorophyll maximum and primary productivity in the Indian Ocean sector of the Southern Ocean: Case study in the Subtropical and Polar Front during austral summer 2011. **Deep-Sea Research Part II: Topical Studies in Oceanography**, Vol. 118, pp. 240-249.
16. Sabu, P., Anilkumar, N., George, J.V., Chacko, R., **Tripathy, S.C.** and Achuthankutty, C.T. (2014). The influence of air-sea-ice interaction on the anomalous phytoplankton bloom in the Indian Ocean sector of Antarctic Zone of the Southern Ocean during austral summer 2011. **Polar Science**, Vol. 8(4), pp. 370-384.
15. **Tripathy, S.C.**, Pavithran, S., Sabu, S., Naik, R.K., Noronha, S.B., Bhaskar, P.V. and Anilkumar, N. (2014). Is phytoplankton productivity in the Indian Ocean sector of Southern Ocean affected by pigment packaging effect? **Current Science**, Vol. 107(6), pp. 1019-1026.
14. Wang, S., Ishizaka, J., Yamaguchi, H., **Tripathy, S.C.**, Hayashi, M., Xu, Y., Mino, Y., Matsuno, T., Watanabe, Y. and Yoo, S. (2014): Influence of the Changjiang River on the light absorption properties of phytoplankton from the East China Sea. **Biogeosciences**, Vol. 11, pp. 1759-1773.
13. Siswanto, E., Ishizaka, J., **Tripathy, S.C.** and Miyamura, K. (2013): Detection of harmful algal blooms of *Karenia mikimotoi* using MODIS measurements: a case study of Seto-Inland Sea, Japan. **Remote Sensing of Environment**, Vol. 129, pp. 185-196.
12. **Tripathy, S.C.**, Ishizaka, J., Shibata, T., Siswanto, E. and Mino, Y. (2012): Modification of the vertically generalized production model for the turbid water of Ariake Bay, southwestern Japan. **Estuarine, Coastal and Shelf Science**, Vol. 97, pp. 66-77.
11. Shibata, T., **Tripathy, S.C.**, Ishizaka, J. (2010): Phytoplankton pigment change as a photoadaptive response to light variation caused by tidal cycle in Ariake Bay, Japan. **Journal of Oceanography**, Vol. 66, pp. 831-843.

10. **Tripathy, S.C.**, Ishizaka, J., Shibata, T., Fujiki, T., Okamura, K., Hosaka, T. and Saino, T. (2010): Assessment of carbon- and fluorescence-based primary productivity in Ariake Bay, southwestern Japan. *Estuarine, Coastal and Shelf Science*, Vol. 87, pp. 163-173.
9. Tan, C.K., Ishizaka, J., Manda, A., Siswanto, E. and **Tripathy, S.C.** (2007). Assessing post tsunami effects on ocean color at eastern Indian Ocean using MODIS Aqua satellite. *International Journal of Remote Sensing*, Vol. 28(13, 14), pp. 3055-3069.
8. Tan, C.K., Ishizaka, J., Varis, R., Tong, P.H.S., **Tripathy, S.C.** and Siswanto, E. (2006): Oceanographic events at northern Borneo and their relationship to harmful algal blooms. *Proceedings of ISRS-PORSEC* held at Busan (October), South Korea, pp. 491-494.
7. Tong P.H.S., Lau V.K., Hoang X.B., Tan C.K., Ishizaka, J., Varis, R. and **Tripathy, S.C.** (2006): A discussion on the main reasons causing the mass mortality of corals and benthos in Condao Island during October 2005. *Proceedings of ISRS-PORSEC* held at Busan (October), South Korea, pp. 463-466.
6. Sarma, V.V., Sadhuran, Y., Sravanthi, N.A. and **Tripathy, S.C.** (2006). Role of physical processes in the distribution of chlorophyll *a* in the northwest Bay of Bengal during pre and post monsoon seasons. *Current Science*, Vol. 91(9), pp. 1133-1134.
5. **Tripathy, S.C.**, Kusuma kumari, B.A.V.L., Sarma, V.V. and Raman Murty T.V.R. (2006). Evaluation of trophic state and plankton abundance from the environmental parameters of Visakhapatnam harbor and near-shore waters, East coast of India. *Asian Journal of Microbiology, Biotechnology and Environmental Science*, Vol. 7(7), pp. 831-838.
4. Ray, A.K., **\*Tripathy, S.C.**, Patra, S. and Sarma, V.V. (2005). Assessment of Godavari estuarine mangrove ecosystem through trace metal studies. *Environment International*, Vol. 32, pp. 219-223.
3. **Tripathy, S.C.**, Ray, A.K., Patra, S. and Sarma, V.V. (2005). Water quality assessment of Gautami-Godavari mangrove estuarine ecosystem of Andhra Pradesh, India during September 2001. *Journal of Earth System Science*, Vol. 114(2), pp. 185-190.
2. **Tripathy, S.C.** (2004). Can Bakhira Bird Sanctuary safeguard the purple moorhens? *Current Science*, Vol. 86(3), pp. 367-368.
1. **Tripathy, S.C.** (2004): Measurement of bio-optical parameters and their comparison with satellite derived products for the waters off Dona Paula, Goa. *Nature, Environment and Pollution Technology*, Vol. 3(3), pp. 287-291.

**Web-portals:** <http://www.ncpor.res.in/profiles/details/113>  
<http://scholar.google.com/citations?user=pNIEncAAAAJ>  
[https://www.researchgate.net/profile/Sarat\\_Tripathy](https://www.researchgate.net/profile/Sarat_Tripathy)  
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**OTHER SCIENTIFIC ARTICLES (IN TECHNICAL REPORTS, MAGAZINES, NEWSLETTERS ETC):**

9. **S.C. Tripathy**, A.U. Kerkar and P. Sabu (202x): Temporal variation of bio-optical parameters in Prydz Bay: a 72h time series study in the Indian sector of Southern Ocean. In *Technical/Scientific Report of the 9<sup>th</sup> Indian Scientific Expedition to Southern Ocean*. ©NCPOR, [In Press with NISCAIR].

8. **S.C. Tripathy**, S. Patra and R.K. Mishra (202x): Studies on phytoplankton productivity and physiology in the Indian sector of Southern Ocean. In *Technical/Scientific Report of the 8<sup>th</sup> Indian Scientific Expedition to Southern Ocean*. ©NCPOR, [In Press with NISCAIR].
7. N. Anilkumar, **S.C., Tripathy**, R.K., Mishra (2019): Process studies in the Southern Ocean. In *GnY, (GEOGRAPHY and YOU: special issue on NCPOR)*, Vol. 19, Issue 16, No. 127 (February), pp. 14-20.
6. **S.C. Tripathy**, C.K. Haridevi & R.K. Mishra (2016): Latitudinal distribution of surface PAR and its relation with phytoplankton biomass and productivity. In: Anilkumar, N. and Tripathy, S.C. (Eds.), *Technical publication of the 7<sup>th</sup> Indian Southern Ocean Expedition (2013)*, pp. 27-29, ISBN: 978-93-5267-057-4.
5. V. Venkataramana, **S.C. Tripathy**, H.U.K. Pillai & C. Santhosh Kumar (2016): Distribution of copepod community structure in frontal systems of the Indian Ocean sector of Southern Ocean. In: Anilkumar, N. and Tripathy, S.C. (Eds.), *Technical publication of the 7<sup>th</sup> Indian Southern Ocean Expedition (2013)*, pp. 30-36, ISBN: 978-93-5267-057-4.
4. N. Anilkumar, J.V. George, **S.C. Tripathy**, P. Sabu, R.K. Naik, P.V. Bhaskar & S. Rajan (2015): Hydrodynamics and Biogeochemistry of the South West Tropical Indian Ocean region: A Perspective. The *Indian Ocean Bubble* 2, issue 3 (August), pp. 6-7, newsletter published by ESSO-INCOIS, Hyderabad.
3. S. Pavithran, H.U.K. Pillai, M. Nanajkar, **S.C. Tripathy** and C.T. Achuthankutty (2014): Studies on Biogeochemistry and Hydrodynamics of the Indian sector of the Southern Ocean (Part-III Biological Productivity). *Technical Report on 4<sup>th</sup> Indian Expedition to the Southern Ocean (2010)*, pp. 13-18, ISBN: 978-93-5156-583-3.
2. S. Pavithran, C.K. Haridevi, **S.C. Tripathy**, H.U.K. Pillai and C.T. Achuthankutty (2014): Studies on Biogeochemistry and Hydrodynamics of the Indian sector of the Southern Ocean (Part-III: Biological Productivity and Food-web Dynamics (Primary Production)). *Technical Report on 5<sup>th</sup> Indian Expedition to the Southern Ocean during (2011)*, pp. 23-24, ISBN: 978-93-5156-520-8.
1. H.U.K. Pillai, S. Pavithran, **S.C. Tripathy** and C.T. Achuthankutty (2014): Studies on Biogeochemistry and Hydrodynamics of the Indian sector of the Southern Ocean (Part-3: Biological Productivity and Food-web Dynamics (Mesozooplankton)). *Technical Report on 5<sup>th</sup> Indian Expedition to the Southern Ocean during (2011)*, pp. 24-27, ISBN: 978-93-5156-520-8.

#### CONFERENCE/ SEMINAR/ WORKSHOP PRESENTATIONS:

- **Tripathy, S.C. et al** (2022): Phytoplankton productivity and bio-optical variability in Kongsfjorden and Krossfjorden twin Arctic fjords. Kongsfjorden Flagship Workshop held in Norwegian Polar Institute (NPI), Tromso, Norway during September 27-28, 2022. [O]
- **Tripathy, S.C. et al** (2021): Biophysical control on variability in phytoplankton production and composition in the south-western tropical Indian Ocean during monsoon 2014. OSICON-2021 (Webinar) held in NCPOR, Goa during August, 12-14, 2021. [O]
- **Tripathy, S.C. et al** (2019): Variability of bio-optical properties and phytoplankton community structure in the Arctic fjords during summer 2016. MARICON-2019 held at CUSAT, Kochi during December 16-20, 2019. [O]
- **Tripathy, S.C** and Jena, B (2019): Iron stimulated phytoplankton blooms in the Southern Ocean: a brief review. Presented the paper in the National Polar Science Conference (NCPS-2019) held at NCPOR during August

20-22, 2019. [O]

- **Tripathy, S.C.** (2018): Primary productivity and Bio-optical studies in the Kongsfjorden and Krossfjorden, Arctic. Information & Preparatory Event-Horizon 2020 call on Arctic, 19-20 November, ESSO-NCPOR. [O]
- **Tripathy, S.C.** (2018): Nitrogen uptake by phytoplankton in surface waters of the Indian sector of Southern Ocean during austral summer. NOW-2018, 14-16 November, ESSO-INCOIS, Hyderabad. [P]
- **Tripathy, S.C.** (2018): Salient findings from the Indian Southern Ocean Expeditions. India-USA colloquium: Earth Observations & Sciences for Society and Economy, 11-13 June, CSIR-NIO, Goa. [O]
- **Tripathy, S.C.**, Pavithran, S., Sabu, P., Pillai, H.U.K., Dessai, D.R.G., Anilkumar, N. (2017): Deep chlorophyll maximum and primary productivity in Indian sector of the Southern Ocean: Case study in the Subtropical and Polar Front during austral summer 2011. SCAR Biology symposium, 10-14 July 2017, KU Leuven, Leuven, Belgium. [O]
- **Tripathy, S.C.**, Patra, S., Vishnu Vardhan, K., Sarkar, A., Mishra, R.K., Anilkumar, N. (2017): Nitrogen uptake by phytoplankton in surface waters of the Indian sector of Southern Ocean during austral summer. National Conference on Polar Sciences, 16-17 May 2017, NCAOR, Goa. [O]
- **Tripathy, S.C.**, Patra, S., Sabu, P., Naik, R.K., Sarkar, A., Venkataramana, V., Anilkumar, N. (2015): Variation of phytoplankton biomass and production in the Southwestern Tropical Indian Ocean during monsoon 2014. IO50 symposium (*Dynamics of the Indian Ocean: Perspective and Retrospective*), 30 Nov. to 04 Dec. 2015, NIO, Goa. [P]
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- **Tripathy, S.C.** and Anilkumar, N. (2015): Deep chlorophyll maximum and primary productivity in Indian Ocean sector of the Southern Ocean: Case study in the Subtropical and Polar Front during austral summer 2011. Surface flux workshop, 21-23 Sept. 2015, ESA, ESRIN, Frascati, Italy. [P]
- **Tripathy, S.C.** (2014): Southern Ocean Primary Production: Its role in Global Climate Change. National Hindi Scientific seminar, 30-31 July, IITM, Pune. [P]
- Sukigara, C., Mino, Y., **Tripathy, S.C.**, Ishizaka, J. and Matsuno, T. (2012): Sinking processes of the particulate matters in the center of the East China Sea. KJWOC workshop, 29-30 November, HyARC, Nagoya University, Japan. [O]
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- **Tripathy, S.C.**, Ishizaka, J., Shibata, T., Siswanto, E. and Mino, Y. (2010): Modification of vertically generalized production model for turbid water of Ariake Bay, southwestern Japan. PICES meeting, 22-31 October, Portland, Oregon, USA. [P]
- Shibata, T., **Tripathy, S.C.**, Ishizaka, J. (2010): Phytoplankton pigment change as a response to light variation caused by tidal cycle in Ariake Bay, Japan. JOS meeting, 25-30 March, Tokyo, Japan. [O]



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- Ishizaka, J., Yamaguchi, H., **Tripathy, S.C.**, Makino, T., Matsuno, T., Endoh, T. (2009): Short- term variability of primary production of Changjiang River plumes in the East China Sea observed in summer 2008. PICES meeting, 23 October – 01 November, Republic of Korea. [P]
- Ishizaka, J., Yamaguchi, H., Makino, T., **Tripathy, S.C.**, and Matsuno, T. (2009): Time changes of chlorophyll a and nutrients on the shelf: preliminary results of KT-08-19. Conference on East China Sea, 22-23 April, Nagoya University, Japan. [O]
- **Tripathy, S.C.**, Ishizaka, J., Saino, T., Fujiki, T., Okamura, K., and Shibata, T. (2008): Factors influencing carbon- and fluorescence-based primary production in Ariake Bay, southwestern Japan. PORSEC, 2-6 December, Guanzhou, China. [P]
- **Tripathy, S.C.**, Ishizaka, J., Saino, T., Fujiki, T., Okamura, K., Shibata, T., Hosaka, T. (2008): Factors influencing carbon- and fluorescence-based primary productivity in Ariake Bay. JOS meeting, 24-29 September, Hiroshima, Japan. [O]
- **Tripathy, S.C.**, Ishizaka, J., Saino, T., Fujiki, T., Okamura, K., and Shibata, T. (2008): Assessment of carbon- and fluorescence-based primary production in the Ariake Bay, Japan. 3<sup>rd</sup> KJWOC workshop, 22-23 January, Tokyo, Japan. [O]
- **Tripathy, S.C.**, J. Ishizaka and T. Saino (2006): Estimation of daily primary production using profiling buoy system: a case study in Sagami Bay. 2<sup>nd</sup> KJWOC, 19-20 December, Jeju, Republic of Korea. [O]
- Tan, C.K., J. Ishizaka, L.C. Quah, E. Siswanto, and **Tripathy, S.C.** (2006): Influence of Northeast Monsoon Wind on the Chlorophyll a Variation at Northern Malacca Straits. Symposium on Asian Winter Monsoon (Winter MONEX): A quarter Century and Beyond (WMONEX 25+), 4-7 April, Kuala Lumpur, Malaysia. [P]
- Tan, C.K., J. Ishizaka, Siswanto, E. and **Tripathy, S.C.** (2006): Assessment of Tsunami effects on surface chlorophyll a and sedimentation in the eastern Indian Ocean using MODIS satellite. International Workshop: Post-Disaster Assessment and Monitoring of Coastal Ecosystems and Biological and Cultural Diversity in the Indian Ocean and Asian Waters, 20-24 February, Phuket, Thailand. [O]
- **Tripathy, S. C.**, J. Ishizaka, T. Saino and K. Okamura (2005). Estimation of primary production and phytoplankton photosynthetic parameters in the case II waters of Ariake bay by Fast Repetition Rate Fluorometer. JOS meeting, 26-30 March, Yokohama, Japan. [P]
- **Tripathy, S.C.**, Choudhury, B.C. and Hussain, S.A. (2001): Inland wetland conservation and management in Uttar Pradesh. Training programme on wetland conservation and management, 19 November - 02 December, WII, Dehradun, India. [O]
- **Tripathy et. al.** (2000): Measurement of bio-optical parameters and their comparison with SeaWiFs derived products for the waters off Dona Paula, Goa. Remote sensing and its application to ocean studies: training programme on IRS-P4, 21 February - 10 March, NIO, Goa, India. [O]

#### INVITED TALKS DELIVERED:

- 2022: “Indian Southern Ocean research activities and prospects in Marine Sciences” in the webinar titled “Recent Trends in Marine Sciences” organised by Dept. of Marine Sciences, Berhampur University on March 26, 2022.
- 2022: “Why study Polar Oceans?” in the online Refresher Course (for College/University teachers) in Life Sciences, conducted by UGC-HRD Centre, Goa University on January 11, 2022.
- 2021: “Oceanography: Opportunities for Interdisciplinary Science” in the webinar on “Science and Education Outreach”, conducted by INSA/ INYAS-Mumbai Chapter on June 12, 2021.
- 2021: “SDG-14: Life Below Water: Why Study Polar Oceans?” in the webinar for the immersion course organized by the School of Sustainability, XIM University, Bhubaneswar; July 03, 2021.
- 2021: “Significance of Polar Oceans studies” in the webinar for UGC refresher course in Zoology conducted by SPPU, Pune on December 11, 2021.
- 2020: “Oceans in the wake of climate change: Challenges and solutions” during 26.08.2020 to 28.08.2020 at Fisheries College & Research Institute, Tamilnadu, Dr. J. Jayalalithaa Fisheries University, Thoothukudi.
- 2020: ‘Southern Ocean: Carbon & Climate’ in the Webinar “Aquatic Ecosystem: Prospect & Future Challenges” organised by the Marine Ecology Laboratory, Presidency University, Kolkata during July 18-19, 2020.
- 2020: “Variability in primary productivity and bio-optical properties in the Indian sector of Southern Ocean during an austral summer” at COAST 2020 held during February 28, to March 01, 2020 at the Department of Marine Sciences, Berhampur University.
- 2020: “Southern Ocean expeditions: salient findings” at KV and Dayanand Vidya Mandir School at Curti, Ponda on the occasion of Science Film Festival (SCI-FFI) during 15-19 January, 2020.
- 2019: Salient findings of Indian Southern Ocean Expeditions: Special emphasis on phytoplankton productivity. At SaGHAA-V, held at IIC, New Delhi during February 26-27, 2019.
- 2019: Role of Southern Ocean in global climate change: salient findings from Indian Southern Ocean Expeditions. At KUFOS-INCOIS Centre, KUFOS, Kochi during January 17-18, 2019.
- 2017: Response of Southern Ocean to climate change scenario: perspectives from Indian Southern Ocean Expeditions. At SaGHAA-IV, held at JNU, New Delhi during 30<sup>th</sup> Nov. 30 to 1<sup>st</sup> Dec, 2017.
- 2017: 9<sup>th</sup> Indian Southern Ocean Expedition: An Overview. At Mauritius Oceanography Institute (MOI), Mauritius on February 28, 2017.
- 2015: 8<sup>th</sup> Indian Southern Ocean Expedition: An Overview. At Mauritius Oceanography Institute (MOI), Mauritius on February 24, 2015.

#### BOOKS AND TECHNICAL REPORTS EDITED:

- **Tripathy, S.C.** and Singh, A. (202x): *Dynamics of Planktonic Primary Productivity in the Indian Ocean*, Edited volume, Springer Switzerland [In Press].
- N. Anilkumar and **S.C. Tripathy** (202x): Southern Ocean Expedition (2015-16). *Technical/Scientific Report of the 8<sup>th</sup> Indian Scientific Expedition to Southern Ocean*. ©NCPOR, ISBN: xxx [In Preparation].
- N. Anilkumar and **S.C. Tripathy** (202x): Southern Ocean Expedition (2016-17). *Technical/Scientific Report of the 9<sup>th</sup> Indian Scientific Expedition to Southern Ocean*. ©NCPOR, ISBN: xxx [In Preparation].

- **S.C., Tripathy**, N. Anlikumar (2019): CLIVAR/CliC/SCAR Southern Ocean Region Panel (SORP) National activities report. DOI:10.13140/RG.2.2.10055.55203.
- N. Anlikumar and **S.C. Tripathy** (2016): Southern Ocean Expedition (2013-14). *Technical/Scientific Report of the 7<sup>th</sup> Indian Scientific Expedition to Southern Ocean*. ©NCAOR, ISBN: 978-93-5267-057-4, pp. 131.
- **Tripathy, S.C.**, Mishra, R.K., Mohan, R. and Khare, N. (2013): Studies in Biological Sciences and Human Physiology: Three Decades of Indian Scientific Activities in Antarctica. *A book on Antarctic biology*. ©NCAOR, ISBN: 978-81-906526-8-1.

#### **THESIS (Ph.D.) EXAMINER: [Theses Evaluated: 17]**

- Indian Institute of Technology (IIT), Madras [2013, 2016, 2017, 2018(2), 2019].
- Adikavi Nannaya University, Rajahmundry [2015].
- Andhra University, Visakhapatnam [2017].
- Cochin University of Science and Technology (CUSAT), Kochi [2015, 2017, 2023].
- Bharathidasan University, Tiruchirappalli [2019(2), 2020, 2022].
- Presidency University, Kolkata [2021].
- AcSIR-National Institute of Oceanography, Goa [2022]

#### **JOURNAL REVIEWER:**

- Chem. Ecol., Environ. Int., J Oceanogr., EMAS, Est. Coast. Shelf Sc., Rem. Sen. Env., Limnol. Oceanogr., I J Geo-Mar. Sc., STOTEN, JGR-Biogeosciences, JQSRT, J Coast. Res., GRL, Mar. Pol. Bull., J. Phycol., Front. Mar. Sc., Reg. Stu. Mar. Sc., J. Mar. Sys. etc.
- **Review Editor:** Frontiers in Marine Science (*Specialty: Marine Ecosystem Ecology*)  
<https://loop.frontiersin.org/people/789704/overview>

#### **PROFESSIONAL MEMBERSHIPS:**

- Co-Chair of Southern Ocean Indian Sector (SOIS)-Regional Working Group of SOOS. [May 2021-Present]
- Member (ex officio) of the Scientific Steering Committee (SSC) of SOOS. [May 2021-Present]
- Leadership: Southern Ocean Indian Sector (SOIS)-Working Group. [May 2020-May 2021]
- Member of Advisory Board and Scientific Committee of Amity University. [December 2019-Present]
- National Representative: CLIVAR/CliC/SCAR Southern Ocean Region Panel (SORP). [Dec 2018-Present]
- National Representative: SCAR-SSG Life Sciences. [Dec 2017-Present]
- Life Member, Ocean Society of India (OSI). [January 2021-Present]
- Life member of NF-POGO Alumni Network for Oceans (NANO). [January 2005-Present]

#### **RECOGNIZED GUIDE FOR Ph.D:**

- Goa University (Subject: Marine Biology)
- Mangalore University (Subject: Biosciences)
- Savitribai Phule Pune University (Subject: Environmental Science)

**RESEARCH CAPACITY BUILDING:**

➤ Dr. Jane T. Bhaskar	Post Doctoral Fellow	[DST Woman Scientist Scheme-A]
➤ Dr. Sudarsana R. Pandi	Post Doctoral Fellow	[MoES Project]
➤ Dr. Anvita U. Kerkar	DST-INDPIRE Ph.D. Scholar	[Now Post Doc at FAU, USA]
➤ Mr. Swapnil S. Mawal	Ph.D. Scholar	[ICAR]
➤ Mr. Sunil K. Padhi	Ph.D. Scholar	[DST-INSPIRE]
➤ M.Sc. Dissertation Guided:	03	

**SCIENTIFIC PROJECTS/PROGRAMMES INVOLVED:**

- Hydrodynamics and Biogeochemistry of the Indian sector of Southern Ocean [**Co-PI, MoES Funded**].
- In situ and satellite-based primary productivity and bio-optical studies for understanding dynamics of Kongsfjorden and Krossfjorden twin ecosystem [**PI, MoES Funded**].
- Benthic community structure and climate change mediated stresses on their physiological performances from the Prydz Bay, Indian sector of Southern Ocean during austral summer [**Co-PI, MoES Funded**]

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