

Dr. Parli Venkateswaran Bhaskar

Scientist-C

Southern Ocean Studies Group

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ACADEMIC CAREER

2004 Ph.D in MICROBIOLOGY (Goa University); Work conducted at National Institute of Oceanography, Goa & ICBM-University of Oldenberg, Germany.

1994 Master of Science in MICROBIOLOGY, Bhavnagar University, Gujarat.

PROFESSIONAL CAREER

2010-present Scientist-C, National Centre for Antarctic & Ocean Research, Goa.

2009-2010 Auxiliar Investigador Convidado, CIMA, Universidade do Algarve, Faro, Portugal.

2008-2009 Assistant Professor (Invited), Nagoya University, Nagoya, JAPAN. (3 months)

2006-2008 JSPS Post Doctoral Fellow, Nagoya University, Nagoya, JAPAN.

2003-2006 Research Associate, National Institute of Oceanography, Goa.

2000-2001 DAAD Fellow, University of Oldenberg, GERMANY.

1998 CSIR-Senior Research Fellow, National Institute of Oceanography, Goa.

1995 Project Assistant, National Institute of Oceanography, Goa.

AWARDS & RECOGNITIONS

2006 JSPS Fellowship, by the Japanese Society for Promotion of Science (JSPS), Japan.

2000 DAAD Fellowship by German Academic Exchange Service (DAAD), Germany.

RESEARCH AREA

- Marine Microbial processes: Production, respiration, turnover, enzyme activity
- Carbon Biogeochemistry: Transformation, Vertical fluxes
- Marine Food-web Dynamics: Microbial loop, Bacteria-Phytoplankton-grazer interactions.
- Organic Carbon Characteristics: Carbohydrates, Proteins & lipids.

PRESENT ACTIVITIES AND OTHER CONTRIBUTIONS

- Currently involved in Biogeochemical processes and Food-web dynamics in Indian Ocean sector of Southern Ocean.
- Member of Indian Arctic expedition and Southern Ocean expedition team since 2011.
- Major research activities focussed on microbial activities (production, biomass distribution) & distribution and fate of organic carbon (especially carbohydrates) in coastal (Arabian sea), Mediterranean (Gulf of Cadiz), temperate (Northern Pacific) and Southern Ocean waters.
- Carried out organic carbon flux estimates in near-shore and shelf waters (west coast of India).

- Participated in open ocean cruises in Southern Ocean, Tropical Indian Ocean, Arabian Sea, Bay of Bengal, Gulf of Cadiz and Pacific Ocean.

ROLES & MEMBERSHIPS AT INTERNATIONAL BODIES

- Scientific Steering Committee Member, Southern Ocean Observing System (SOOS).

PROJECT PROPOSED/ACCEPTED/FUNDED

1. Southern Ocean Carbon Processes (SOCarP): Sediment trap based flux study approach in Southern Ocean. Funded by Ministry of Earth Sciences (MoEF), Govt. of India, period 2012-2017.
2. Microbial & Carbon Dynamics (MiCarD)- Production, turnover & fluxes, Accepted by MoES, Govt of India. Funds awaited.

RESEARCH PUBLICATIONS

1. Soares M., **Bhaskar P. V.***, Naik R.K., Dessai D., George J., Tiwari M. and Anilkumar N., 2015. Latitudinal $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ variations in particulate organic matter (POM) in surface waters from the Indian Ocean sector of Southern Ocean and Tropical Indian Ocean in 2012. *Deep Sea Research-II*, 118 (Part B): 186-196.
2. Naik R.K., George J.V., Soares M.A., Devi A., Anilkumar N., Roy R., **Bhaskar P.V.**, Murukesh N. and Achuthankutty C.T., 2015. Phytoplankton community structure at the juncture of the Agulhas Return Front and Subtropical front in the Indian Ocean sector of Southern Ocean: Bottom-up and top-down control. *Deep-Sea Research-II*, 118 (Part B): 233-239.
3. Swart S., Jiping Liu, **Bhaskar P.V.**, Newman L., Fenney K., Meredith M. and Schofield O., 2014. The SOOS Asian Workshop: Exploring possibilities for collaboration. *Advances in Polar Science*, 25(2): 126-132.
4. Jiping Liu, Swart S., **Bhaskar P.V.**, Newman L., Meredith M., Schofield O. and Jianfeng H E., 2014. The SOOS Asian Workshop on Southern Ocean research and processes. *Advances in Polar Science*, 25(2): 121-125.
5. S. C. Tripathy, S. Pavithran, P. Sabu, R. K. Naik, S. B. Noronha, **P. V. Bhaskar** and N. Anilkumar, 2014. Is phytoplankton productivity in the Indian Ocean sector of Southern Ocean affected by pigment packaging effect? *Current Science*, 107(6): 1019-1026.
6. **Bhaskar P.V.**, Roy R., Gauns M., Shenoy D.M., Vala Vala D.R. and Mochemadakar S, 2011. Identification of non-indigenous phytoplankton species dominated bloom off Goa using inverted microscopy and pigment (HPLC) analysis. *Journal of Earth System Science*, 120(6): 1145-1154. (IF:)
7. **Bhaskar P V** and Bhosle N B, 2008. Bacterial heterotrophic production and ecto-glucosidase activity in a shallow coastal station off Dona Paula Bay. *Estuarine Coastal Shelf Sciences*, (80): 413-424. (IF: 1.799)
8. **Bhaskar P V** and Bhosle N B, 2006. Dynamics of transparent exopolymeric particles (TEP) and particle-associated carbohydrates in the Dona Paula bay, west coast of India. *Journal of Earth System Sciences* (115): 403-414. (<http://hdl.handle.net/2264/99>) (IF: 0.213)
9. **Bhaskar P V** and Bhosle N B, 2006. Bacterial Extracellular Polymeric Substance (EPS): A carrier of heavy metals in the marine food-chain. *Environment International* (32): 191-198. (<http://hdl.handle.net/2264/103>) (IF: 2.626)

10. **Bhaskar P V**, Grossart H P, Bhosle N B and Simon M, **2005**. Production of organic macroaggregates from exopolysaccharides of bacterial and diatom origin. *FEMS Microbiology Ecology*, (53): 255-264. (<http://hdl.handle.net/2264/91>) (IF: 2.787)
11. **Bhaskar P V** and Bhosle N B, **2004**. Microbial exopolymeric substances (EPS) and its role in marine biogeochemical cycles. *Current Science*, (88) 45-53. (<http://hdl.handle.net/2264/89>) (IF: 0.688)
12. **Bhaskar P V**, Cardozo E, Giriyan A, Garg A and Bhosle N B, **2000**. Sedimentation of particulate matter in the Dona Paula Bay, west coast of India during November to May 1995-97. *Estuaries* (23): 722-734. (IF: 1.031)
13. Garg A and **Bhaskar P V**, 2000. Fluxes of diatoms in the Dona Paula Bay, west coast of India. *Journal of Plankton Research*, (44): 47-56. (IF: 1.084)
14. Bhosle N B, **Bhaskar P V** and Ramachandran S, **1998**. Abundance of dissolved polysaccharides in the oxygen minimum layer of the northern Indian Ocean. *Marine Chemistry* (63): 171-182. (IF: 1.967)

Workshops/Conferences/Symposia

Oral presentation

World Ocean Science Congress (WOSC)-2015, Kochi, India.

Variability of $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ signatures of suspended particulate organic matter within the photic zone of the Indian sector of Southern Ocean during austral summer, 2012, by Soares M., **P.V. Bhaskar**, Dessai D.R.G., Naik R.K., George J.V. and Anilkumar N.

Japan Oceanography Society Meeting, Shinagawa, Tokyo, Japan, 2008.

Chemical characteristics of suspended particulate organic matter in the surface waters of northern Pacific Ocean- **P.V. Bhaskar**, Y. Heshiki, T. Nishida and E. Tanoue.

IVth International Symposium on DMS(P), University of East Anglia, Norwich, UK, 2007.

Variability in DMS and DMSp at a time series station off Goa, India- V. D. Rao, D. M. Shenoy, **P. V. Bhaskar**, Mangesh Gauns, Sunita Mochemadkar P.V. Narvekar and M. Dileep Kumar.

Indian Ocean Marine Environment Conference (IOMECE)-2005 at Perth, Australia.

“Temporal variation of transparent exopolymer particles (TEP), particle-associated carbohydrates and bacterial abundance in a shallow coastal station of Dona Paula Bay”- **P.V. Bhaskar** and Narayan B. Bhosle.

Conference on Microbiology of the Tropical Seas (COMITS)-2004 at National Institute of Oceanography, Dona Paula, Goa, India.

“Bacterial heterotrophic production and ecto-glucosidase activity in a shallow coastal station of Dona Paula Bay”- **P.V. Bhaskar** and Narayan B. Bhosle.

Posters

“Air-Sea fluxes for the Southern Ocean: Strategies and requirements for detecting physical and biogeochemical exchanges”, Frascati, Italy from 21-23 September, 2015.

Biogeochemical controls on the frontal variability of carbon dioxide fluxes in the Indian sector of Southern Ocean during austral summer, 2013, by Amit Sarkar, **P.V. Bhaskar**, Soares M., Sabu P., Anilkumar N., Mishra R.K., Venkataramana V and Sinha A.

World Ocean Science Congress (WOSC)-2015, Kochi, India.

Meridional variability in nutrient utilization along two transects (57°30'E and 47°E) in the Indian sector of Southern Ocean during austral summer 2011, by **P. V. Bhaskar***, Deepti R. G. Dessai, N. Anilkumar, Racheal Chacko, Sini Pavithran.

SCAR Open Science Conference 2014 held in Auckland, New Zealand.

Latitudinal variation of ^{13}C and ^{15}N in Suspended Particulate Organic Matter (SPOM) in the surface waters of Indian Ocean sector of Southern Ocean and Tropical Indian Ocean during austral summer, 2012, by Melena Soares, **Parli V Bhaskar***, Dipti Dessai-Gauns, Ravidas Naik, Jenson George, N. Anilkumar. Poster presented in the

AOGS conference, 2012, Singapore.

Phytoplankton distribution in contrasting frontal environments: impacts on food-web dynamics in the Indian sector of Southern Ocean, by **Parli V Bhaskar***, Ravidas Naik, Sini Pavithran, Dipti Gauns Desai, Honey Pillai, Jenson V George & N Anil Kumar.

20th Biennial conference of the Coastal and Estuarine Research Federation (CERF), Portland, Oregon, USA, 2009.

Biogeochemistry of Carbohydrates in a tropical bay, west coast of India- **P.V. Bhaskar**.

25th Symposium of Japanese Association of Organic Geochemists, Kanazawa- Japan, 2007.

Chemical characterization of particulate organic matter in the surface waters of the Pacific Ocean- **P.V. Bhaskar**, Y. Heshiki and E. Tanoue.

IVth International Symposium on DMS(P), University of East Anglia, Norwich, UK, 2007.

Variation in DMS and DMSP in the Arabian Sea during the summer monsoon of 2004- D.M. Shenoy, Mangesh U. Gauns, **P.V. Bhaskar**, Sunita Mochemadkar and S.W.A. Naqvi.

International Workshop on Sustained Indian Ocean Biogeochemical and Ecological Research-2006, at National Institute of Oceanography, Dona Paula, Goa, India.

What controls the total Dimethylsulfoniopropionate (DMSP) and Dimethylsulfide (DMS) concentrations during a prasinophyte dominated bloom event?- **P.V. Bhaskar**, M. Gauns, D.M. Shenoy, V.D. Rao, R. Roy and S. Mochemadkar.

Workshop on Marine Pollution and Ecotoxicology (WMPET)-2004 at National Institute of Oceanography, Dona Paula, Goa, India.

Bacterial Extracellular Polymeric Substance (EPS): A carrier of heavy metals in the marine food-chain- **P.V. Bhaskar** and Narayan B. Bhosle.

Technical Reports:

Southern Ocean Technical Report-2012 (ISBN: 978-93-5212-562-3):

- i. Studies on Chemical components of Southern Ocean during 2012 expedition. **P.V. Bhaskar***, *Melena Soares & Deepti Dessai.*
- ii. Studies on Biological components of Southern Ocean during 2012 expedition. *Ravidas Naik, P. V. Bhaskar & C.T. Achuthankutty.*

Southern Ocean Technical Report-2011(ISBN: 978-93-5156-520-8):

- iii. Studies on Chemical Features of Southern Ocean during 2011 expedition. *Deepti Dessai, P.V. Bhaskar*, N. Anilkumar, K.P. Krishnan & C.T. Achuthankutty.*
- iv. Biological productivity and food-web dynamics. *Sini Pavithran, Honey U Pillai, P.V. Bhaskar, N. Anilkumar & C.T. Achuthankutty.*