

Dr. Amrit Kumar Mishra (akm17@iitbbs.ac.in)

National Postdoctoral Fellow 2021-2023: Funded through Science and Engineering Board (SERB), Government of India

Project Title: Evaluation of the influence of anthropogenic pollution on an Ecologically significant yet least studied coastal ecosystems of India

Education

Degree	Discipline	Year	Institute
PhD in Marine Ecosystem Health and Conservation	Marine Ecology	2017	University of Plymouth, UK and University of Algarve, Portugal

Research Interests

Ocean acidification, coastal ecosystems, trace metal chemistry, Contaminants of Emerging Concerns (CECs),

Carbon sequestration, climate change,

Peer-Reviewed Journal Articles

1. **Mishra, A.K.**, Khadanga, M.K., Patro, S., Apte, D. Farooq, S.H., 2021d. Population structure of a newly recorded (*Halodule uninervis*) and native seagrass (*Halophila ovalis*) species from an intertidal creek ecosystem. *Lakes and Reservoirs; Policy and Management for Sustainable Use*. [PDF](#)
2. Milica, S., Ambo-Rappe, R., Carly, P., Fortes, M.D., Hossain, M.W., Kiswara, W., Luong, C.V., Minh-Thu, P., **Mishra, A.K.**, et al., 2021c. Quantification of Blue carbon in seagrass ecosystems of Southeast Asia and their potential for climate change mitigation. *Science of the Total Environment*. 783, 146858. [PDF](#)
3. **Mishra, A.K.**, Apte, D. 2021b. The current status of *Halophila beccarii*: An ecologically significant yet Vulnerable seagrass of India. *Ocean and Coastal Management*. 200,10584. [PDF](#)

4. **Mishra, A.K.**, Narayana, S., Apte, D. 2021a. Loss of Dugong grass [*Halophila ovalis* (R. Brown)] population structure due to habitat disturbance. *Indian Journal of Geo-Marine Sciences*. 50, 115-121. [PDF](#)
5. **Mishra, A.K.**, Cabaço, S., de los Santos, C.B., Apostolaki, E., Vizzini, S., Santos, R., 2020d. Long-term effects of elevated CO₂ on the population dynamics of *Cymodocea nodosa*: Evidence from volcanic CO₂ seeps. *Marine Pollution Bulletin*. 111824. [PDF](#)
6. Morsy, K., **Mishra, A.K.**, Galal, M.M., 2020. Water quality assessment of the Nile Delta lagoons. *Air, Soil and Water Research*. 1,1-13. [PDF](#)
7. **Mishra, A.K.**, Apte, D., 2020c. Ecological connectivity with mangroves influences tropical seagrass population longevity and meadow traits in an island ecosystem. *Marine Ecology Progress Series*. 644, 47-63. [PDF](#)
8. **Mishra, A.K.**, Santos, R., Hall-Spencer, J.M., 2020b. Elevated trace elements in sediments and seagrass at six volcanic CO₂ seeps. *Marine Environmental Research*. 153, 104810. [PDF](#)
9. **Mishra, A.K.**, and Kumar, M. 2020a. Mangrove sediments act as source of nutrients and sink for heavy metals of coastal Andaman Sea. *Indian Journal of Geo-Marine Sciences*. 49, 156-166. [PDF](#)
10. **Mishra, A.K.**, Mohanraju, R., 2018. Epiphytic bacterial communities in seagrass meadows of oligotrophic waters of Andaman Sea. *Open Access Library Journal*, 5, 1-12. [PDF](#)
11. **Mishra, A. K.** 2018. Sargassum, Gracilaria and Ulva Exhibit Positive Antimicrobial Activity against Human Pathogens. *Open Access Library Journal*, 5, 1-11. [PDF](#)
12. **Mishra, A.K.**, Silva, J., Santos, R., 2017. Short term CO₂ enrichment increases carbon sequestration of air-exposed intertidal communities of a coastal lagoon. *Frontiers in Marine Science*. 4, 439. [PDF](#)

[BOOK CHAPTERS](#)

1. **Mishra, A.K.**, Sahoo, R., Samantaray, S.S., Apte, D., 2021a. Seagrasses ecosystems of India as bioindicators of Trace elements. In *Madhav, S., Nazneen, S., Singh, P., eds., Coastal Ecosystems- Environmental Importance, Current challenges and Conservation Measures. Vol.38. Springer.* [PDF](#)
2. Acharya, P., Muduli, P.R., Das, M., **Mishra, A.K.**, 2021b. Assessment of total petroleum hydrocarbon in crabs of Chilika lagoon, India. In *Madhav, S., Nazneen, S., Singh, P., eds., Coastal Ecosystems- Environmental Importance, Current challenges and Conservation Measures. Vol.38. Springer.* [PDF](#)

Manuscripts Submitted

1. **Mishra, A.K.**, Mohakud, S.K., Muduli, P.R., Acharya, P., Farooq, S.H., 2021. COVID-19 induced lockdown reduced metal concentration in the water column of Asia's largest coastal lagoon. *Environmental Monitoring and Assessment* (Under Review). [Preprint](#)
2. **Mishra, A.K.**, Apte, D., Farooq, S.H., 2021. Ecological connectivity of seagrasses with mangroves increases the carbon storage of tropical seagrass meadows of an island ecosystem. *Environmental Science and Pollution*. [Preprint](#)
3. **Mishra, A.K.**, Farooq, S.H., 2021. Trace metal accumulation in seagrass and saltmarsh ecosystems of India: Comparative assessment and bioindicator potential. *Marine Pollution Bulletin* (Under review)

AWARDS & FELLOWSHIPS

- 2021: National Postdoc Fellowship, SERB, India
- 2019: AQUACOSM Travel Grant, Imperial College London, UK
- 2017: National Ocean and Atmospheric Administration (NOAA), USA; Woods Hole Oceanographic Institution
- 2016: Challenger Society, UK Grant
- 2016: POGO & NIPPON Foundation Fellowship, University of Ireland, Ireland
- 2015: European Space agency funding for IMBER, European Union
- 2015: Plymouth Marine Education Grant in Aid, Plymouth Marine Laboratory, UK
- 2015: Plymouth Marine Science and Education Fund, University of Plymouth, UK
- 2015: COTE, Cluster of Excellence Grant, University of Bordeaux, France
- 2015: POGO & NIPPON Foundation Grant, North to South Atlantic Transect
- 2013-2017: Erasmus Mundus Fellowship, European Union

PROFESSIONAL MEMBERSHIPS

- Interdisciplinary Marine Early Career Network (IMECaN): 2021 onwards
- National Oceanographic and Atmospheric Administration (NOAA, USA) Ocean Acidification Initiative: 2021 onwards
- The Indian Ocean Blue Carbon Initiative: 2020 onwards
- International Union for Conservation of Nature (IUCN), Coastal Ecosystems Group; 2018-2021

PROFESSIONAL SERVICE (Reviewer for Scientific Journals)

- Frontiers in Marine Science (2021)
- Marine Environmental Research (2019-2021)
- Environmental Science and Pollution (2021)
- Marine Pollution Bulletin (2019-2021)
- Tropical Ecology (2020-21)
- MDPI-Sustainability (2019-2021)
- Biodiversitas: Journal of Biological diversity (2019-2021)

CONFERENCE & TRAININGS

- AQUACOSM, June 30-July 13, 2019. Participated at AQUACOSM Summer school at Imperial College London, UK on “Use of Mesocosms to understand the multiple stressors effects on aquatic organisms”
- IMBIZO 5: Marine Biosphere research for a sustainable ocean; Linking ecosystems, future states and resource management, Woods Hole Oceanographic Institution, USA, October 02-05, 2017
- Atlantic Ocean Climate Scholars Program, National University of Ireland, Ireland September 12-19, 2016.
- Expert training on climate change and its effects on Atlantic Ocean and Northern Polar regions, ocean and atmosphere interaction, climate modelling, IPCC report discussion.
- Southwest Graduate School Program, University of Plymouth, UK, June 28-1 July, 2016.
- A residential training program on career prospects after Doctoral Degree, Importance of communication skills, team work, communication skills in Doctoral Degree
- Bergen Summer Research School, “Water Climate and Society”, University of Bergen Norway, June 13-24, 2016
- Two weeks training program on the importance of water in changing climate and its impact on the society.
- PlyMSEF Annual Student Conference, Plymouth Marine Laboratory, UK “Making Waves”, February 11, 2016.
- MARES Conference, Olhao, Portugal, February 1-5, 2016,
- North to South Atlantic Transect, Summer School, October 29-3 December 2015
- 5 weeks of on-board training on RV POLARSTERN about physical, chemical and biological oceanography, data collection, handling oceanographic equipment, report writing and science communication.

- IMBER, IMBIZO IV, Trieste, Italy, October 27-30, 2015
- Training and workshop on the multiple stressor effect of human activities on the ocean and the effect of changing climate on the marine ecosystem
- COTE Summer School, University of Bordeaux, France, June 21-26, 2015
- Effect of Ocean Acidification and Global warming on Mediterranean Organisms; in-situ and laboratory studies for monitoring future Oceans, University of Pavia, Italy, September 1-9, 2014.
- Training on effects of ocean acidification on mostly the shellfish industry and costal coralline algae on the coastal city of La Spezia, Italy
- Experimental Design and Analysis of Multivariate Data, University of Aveiro, Portugal, January 27-31, 2014.