Curriculum vitae

Dr. C. PRASANNAKUMAR,

Ph. D. (DST-INSPIRE Fellow), Post doc

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Academics and research

Degree/ Position	Specialization	University/Research institute	Year	Grade
Assistant Professor	Biotechnology & Microbiology	National College, India www.nct.ac.in	2021-present	
Project Associate	Marine Biodiversity informatics	CSIR- National Institute Oceanography, India http://www.nio.org/	2018-2021	
Postdoctoral fellow	Marine Microbiology (npd fellow)	Xiamen University, China http://mel.xmu.edu.cn	2014-2017	
Ph.D.	Marine Microbiology (DST-INSPIRE fellow)	Annamalai University, India http://annamalaiuniversity.ac.in	2009-2013	By thesis
M.Phil.	Marine Microbiology (UGC fellow)	Annamalai University, India http://annamalaiuniversity.ac.in	2007-2009	I class with Distinct.
M.Sc.	Marine Microbiology	Annamalai University, India http://annamalaiuniversity.ac.in	2005-2007	I class with Distinct.

B.Sc.	Microbiology	Madurai Kamaraj University, India http://www.mkuniversity.org/	2002-2005	I class with Distinct.
Diploma	Biotechnology	Madurai Kamaraj University, India http://www.mkuniversity.org/	2002-2004	I class with Distinct.
Advanced Diploma	Biotechnology	Madurai Kamaraj University, India http://www.mkuniversity.org/	2004-2005	I class with Distinct.

* **Postdoctoral research** title: "Effect of chemolithoautotropic nitrification on future ocean conditions" (tested in South China Sea and in open waters of Pacific Ocean).

* **Ph. D., thesis** entitled "Phylogenetic diversity of Prokaryotes in Oxygen Minimum Zone (OMZ) sediments off Southeast coast of India (Bay of Bengal)".

* **M. Phil., thesis** entitled "16S rDNA taxonomy and phylogeny of culturable marine bacteria associated with *Hyattella cribriformis* collected from Palk Bay in southeast coast of India".

* **M.Sc., thesis entitled** "Tackling bacterial mastitis using mangrove extracts".

RESEARCH PUBLICATIONS (last 10 years)

***** indicates corresponding author

- Sadaiappan, B., **PrasannaKumar, C**., Nambiar, V. U., Subramanian, M., & Gauns, M. U. (2021). Meta-analysis cum machine learning approaches address the structure and biogeochemical potential of marine copepod associated bacteriobiomes. Scientific Reports, 11(1). https://doi.org/10.1038/s41598-021-82482-z
- **PrasannaKumar, C.***, Rethinavelu, S., & Balamurugan, S. (2020). First barcodes of *Bathynomus kensleyi* (Lowry & Dempsey, 2006) and *Bathynomus decemspinosus* (Shih, 1972) from the Southeast coast of India. Regional Studies in Marine Science, 101489. https://doi.org/10.1016/j.rsma.2020.101489
- Palanisamy, S. K., **PrasannaKumar, C.***, Paramasivam, P., & Sundaresan, U. (2020). DNA barcoding of horn snail *Telescopium telescopium* (Linnaeus C, 1758) using mt-COI gene sequences. Regional Studies in Marine Science, 35, 101109. https://doi.org/10.1016/j.rsma.2020.101109

- Ashiq Ur Rahman, M., **PrasannaKumar, C**., Mohanchander, P., Manikantan, G., Ajmal Khan, S. and Lyla, P.S. (2019) Identification of eggs, larva and adults of *Scylla serrata* (Forsskal, 1775) using DNA barcodes. Journal of Aquatic Biology & Fisheries. 7: 24-30.
- Sadaiappan B, **Prasannakumar C,** Subramanian K and Subramanian M (2018) Metagenomic data of vertical distribution and abundance of bacterial diversity in the hypersaline sediments of mad boon-mangrove ecosystem, Bay of Bengal. Data Brief. 22: 716-721. https://doi.org/10.1016/j.dib.2018.12.028
- Feroz K S., Sanker G., **Prasannakumar C*** (2014) Linking eggs and adults of *Argulus* spp. using mitochondrial DNA barcodes. Mitochondrial DNA 10: 1-5. https://doi.org/10.3109/19401736.2014.987269
- Gunalan B and **Prasannakumar C*** (2014) Report of *Gnathophausia ingens* (Dohrn, 1870) from bathypelagic region of Bay of Bengal, corroborated by DNA barcoding and 18S rRNA gene sequencing. Indian J. Fish., 61(4) : 123-126. [Corpus ID: 81331501]
- Velmurugan S, **Prasannakumar** C*, Manokaran S, Ajithkumar T T, Samkamaleson A, Palavesam A (2013) DNA barcodes for marine fungal identification and discovery. Fungal Ecology, 6(5): 408-418. https://doi.org/10.1016/j.funeco.2013.05.003
- Rahman A M, Khan S A, Lyla P S, **PrasannaKumar C*** (2013) DNA Barcoding Resolves Taxonomic Ambiguity in Mugilidae of Parangipettai Waters (Southeast Coast of India). Turkish Journal of Fisheries and Aquatic Sciences 13: 321-330. https://doi.org/10.4194/1303-2712-v13_2_14
- **PrasannaKumar C**, Akbar John B, Ajmal Khan S, Lyla P S, and Jalal K C A (2012) Limit of DNA Barcode in Delineating *Penaeus Monodon* and in its Developing Stages. Sains Malaysiana 41(12): 1527-1533. [Corpus ID: 53130799]
- Ajmal Khan S, **Prasannakumar C**, Lyla P. S., Murugan S (2011) Identifying Marine fin fishes using DNA barcodes. Current Science, vol. 101 (9): 1152-1154.

Manuscripts in communication

- **Prasannakumar, C**., Iyyapparajanarasimapallavan, G., Rahman M. A. U., Mohanchander, P., Sudhakar, T. (2020) Variability in the diet diversity of catfish highlighted through DNA barcoding. Cold Spring Harbor Laboratory. https://doi.org/10.1101/2020.09.18.268888
- **Prasannakumar, C**., Manikantan, G., Vijaylaxmi, J., Gunalan, B., Manokaran, S., & Pugazhvendan, S. R. (2020). Strengthening of marine amphipod DNA barcode libraries for

environmental monitoring. Cold Spring Harbor Laboratory. https://doi.org/10.1101/2020.08.26.268896

- **PrasannaKumar, C**., Velmurugan, S., Subramanian, K., Pugazhvendan, S. R., Nagaraj, D. S., Khan, K. F., Sadiappan, B., Manokaran, S., Hemalatha, K. R., Sivamaruthi, B. S., & Chaiyasut, C. (2020). DNA barcoding analysis of more than 1000 marine yeast isolates reveals previously unrecorded species. Cold Spring Harbor Laboratory. https://doi.org/10.1101/2020.08.29.273490
- Prasanthi, N., **Prasannakumar, C**., Annadurai, D., & Mahendran, S. (2020). Identifying seaweeds species of Chlorophyta, Ochrophyta and Rhodophyta using DNA barcodes. Cold Spring Harbor Laboratory. https://doi.org/10.1101/2020.08.30.274456
- Manikantan, G., **PrasannaKumar, C**., Vijaylaxmi, J., Pugazhvendan, S. R., & Prasanthi, N. (2020). Diversity, phylogeny, and DNA barcoding of brachyuran crabs in artificially created mangrove environments. Cold Spring Harbor Laboratory. https://doi.org/10.1101/2020.09.07.286823

Book/ Book Chapters

***** indicates corresponding author

1) **PrasannaKumar C*** (2020) Phylogeny of marine sponge associate culturable bacteria. (pp. 47) Lap Lambert Academic Publishing. ISBN: 978-3-330-03226-2.
2) **PrasannaKumar C***., Balamurugan S. and Kamalason S. (2019) Phylogenetic diversity of Prokaryotes: in Oxygen Minimum Zones of Bay of Bengal. (pp.: 316) Lap Lambert Academic Publishing. ISBN: 978-3-330-03226-2.
3) Sekar V., Rajasekaran R., **Prasannakumar C.**, Sankar R., Sridhar R. and Sachithanandam V. (2015) Morphological and COI Sequence Based Characterisation of Marine Polychaete Species from Great Nicobar Island, India. Trivedi S., Ansari A A, Ghosh S K, Rehman H (Eds.) *DNA barcoding in Marine perspective; assessment and conservation of biodiversity*. (pp 89-112). Springer Nature. ISBN: 978-3-319-41840-7; DOI 10.1007/978-3-319-41840-7.
4) **Prasannakumar C***., Akbar John and Kanagasabapathy V (2015) Mitochondrial DNA Diversity of Wild and Hatchery Reared Strains of Indian Lates calcarifer (Bloch) Trivedi S., Ansari A A, Ghosh S K, Rehman H (Eds.) DNA barcoding in Marine perspective; assessment and conservation of biodiversity. (pp 203-212). Springer Nature. ISBN: 978- 3-319-41840-7; DOI 10.1007/978-3-319-41840-7.

5) Akbar John, B., **Prasanna Kumar C**, Kamaruzzaman, B.Y., Jalal, K.C.A. (2011). Can DNA barcode accurately delineate living fossil (Horseshoe crab) and its different developmental stages?.*In* Kamaruzzaman Yunus, Akbar John, Ahmed Jalal Khan Chowdhury, Zaleha Kassim (Eds.). *The living fossil (Horseshoe crab)*. (pp 237-249). IIUM Press. ISBN: 978-967-418-042-3.

6) Akbar John, B., **Prasanna Kumar C**, Kamaruzzaman, B.Y., Jalal, K.C.A. (2011). Revision on the molecular phylogeny of horseshoe crabs – Part *In* Kamaruzzaman Yunus, Akbar John, Ahmed Jalal Khan Chowdhury, Zaleha Kassim (Eds.). *The living fossil (Horseshoe crab)*. (pp 251-266). IIUM Press. ISBN: 978-967- 418-042-3.

7) Akbar John, B., **Prasanna Kumar C**, Kamaruzzaman, B.Y., Jalal, K.C.A. (2011). Revision on the molecular phylogeny of horseshoe crabs – Part 2. *In* Kamaruzzaman Yunus, Akbar John, Ahmed Jalal Khan Chowdhury, Zaleha Kassim (Eds.). *The living fossil (Horseshoe crab)*. (pp 267-274). IIUM Press. ISBN: 978-967- 418-042-3.

Monographs/field guides/ eCatalogues

1. Manoharan S and PrasannaKumar C (2018) Polychaetes of Indian waters. *Eds*. PrasannaKumar C, Dineshram R and Kavalekar D. CSIR-National Institute of Oceanography, Goa. (eCatalogue completed, monograph in prep.)
2. Anitha George (2019) Marine Sponges- field guide. *Eds*., PrasannaKumar C, Dineshram R and Kavlekar D. CSIR-National Institute of Oceanography, Goa. (Field guide, in prep.)
3. Manikandan, PrasannaKumar C (2019) Brachyuran crabs of Indian waters. *Eds*., PrasannaKumar C, Dineshram R and Kavalekar D. CSIR-National Institute of Oceanography, Goa. (Monograph, in prep.)
4. Raja S, PrasannaKumar C (2019) Amphipods of Indian waters. *Eds*., PrasannaKumar C, Dineshram R and Kavalekar D. CSIR-National Institute of Oceanography, Goa. (Monograph, in prep.)

International Symposium

- **Prasannakumar C** and Qinqhua Z (2018) Validating DNA barcode for Anthozoans: What we know after scanning 126 mitochondrial whole genomes of Anthozoans? International conference on Status and Protection of Coral reefs (STAPCOR-2018) Oct 22- 24 (2018), Bangaram Island, Union Territory of Lakhadweep, India.
- **Prasanna Kumar C** (2011) Dietary analysis of Arius maculatus (Thunberg) through DNA barcodes. Fourth international barcode of life conference, University of Adelaide, Adelaide,

Australia.

- **Prasanna Kumar C** (2011) Estimating the genetic diversity of wild and culture reared *Lates calcarifer* of Indian waters. Fourth international barcode of life conference, University of Adelaide, Adelaide,Australia.
- **Prasanna Kumar C** (2011) DNA barcoding: a potential tool for marine bio-prospecting; Identifying Molluscan egg masses through DNA barcodes, Fourth international barcode of life conference, University of Adelaide, Adelaide, Australia.
- **Prasanna Kumar C**, Ajmal Khan S, Lyla P S and Murugan S (2009) DNA barcoding solves the taxonomic ambiguity persisted within mugillidae. Third International Barcode of Life Conference. Mexico
- Ajmal Khan S, **Prasanna Kumar C**, Lyla P S and Murugan S (2009) DNA barcoding the marine fishes of Parangipettai waters (India). DNA barcoding of marine bio-diversity (MarBOL) Public symposium and workshop. Japan
- Akbar John B, Jalal K C A, Kamaruzzaman Y B, Zaleha K and **Prasanna Kumar C** (2010) Molecular phylogeny of horseshoe crab using mitochondrial cox1 gene as a benchmark sequence. IV international conference on postgraduate education (ICPE 4). Malayasia
- **Prasanna Kumar C**, Ajmal Khan S and Lyla P S (2010) Do DNA barcodes delineate species in all stages of its life? First international conference on Bioinformatics and Systems biology. Annamalai University, India
- Prasanna Kumar C and Ajmal Khan S (2008) Network for DNA barcoding in India. International DNA barcode meet. National Institute of Oceanography, Goa.
- Prasanna Kumar C and Ajmal Khan S (2007) Utility of DNA barcoding in coral conservation. STAPCOR, Lakshadeep Island, India.

National symposia

- **Prasannakumar C**, Lyla P S and Khan S A (2012) Bacteriology of Oxygen Minimum Zone of Bay of Bengal reveals high proportion of hydrocarbonoclastic bacteria. Role of Microbes in Health, Agriculture and Industry (DST, UGC sponcered conference) @ Alagappa University, Karaikudi, Tamil Nadu.
- **Prasanna Kumar C**, Manokaran S, Ashiq Ur Rahman, Lyla P S and Ajmal Khan S (2010) DNA barcoding and phylogeny of polychaetes of South-east coast of India. Symposium on Indian Ocean Marine Living Resources, India
- **Prasanna Kumar C**, Ajmal Khan S and Lyla P S (2010) Biodiversity of anaerobic bacteria

isolated from continental shelf of south east coast of India. Symposium on Indian Ocean Marine Living Resources, India

- **Prasanna Kumar C**, Ajmal Khan S and Lyla P S (2010) Biodiversity of culturable bacteria in sediments of continental shelf of southeast coast of India. Symposium on Indian Ocean Marine Living Resources, India
- **Prasanna Kumar C** (2010) Metagenomic diversity of methanogenic Archaea. International conference on aquatic microbiology; Status, challenge and Opportunities. India
- **Prasanna Kumar C** (2009) DNA barcoding all stages of *Penaeus monodon*. National Workshop on DNA barcoding of Marine Life. India.

Reviewer in peer-review journals

- Frontiers in Microbiology (Nature publishing group)
- African journal of Biotechnology
- Mitochondrial DNA part-B

Workshops

- **R programming**: Workshop. National College, Trichy, Tamil Nadu, India. 3rd March, 2021.
- **Artificial Intelligence**: Concept and its application in Modern Biology held at DBT- APEX-BTIC International Centre for Genetic Engineering and Biotechnology, New Delhi, Sept., 2019.
- Introductory course on **next generation amplicon sequencing**- data analysis conducted at Sathyabama Institute of science and technology, Chennai during 27th to 29th June 2018.
- Workshop on wind-driven, adiabatic and upwelling motions in world oceans held at State key laboratory of marine environmental science, Xiamen University, China, 2015.
- **Next Generation sequencing** (NGS) – Bioinformatics and Data Analysis conducted at Madras Institute of Technology Campus of Anna University, Chennai during 17th to 21st September, 2013.

Awards and Fellowships

Name of the award	Year	Source	Reference	Remarks
National Postdoctoral fellowship (China)	2014-2016	China Postdoctoral science foundation	0050-K83008	For an independent proposal submitted

INSPIRE Fellowship [SRF]	2012-2014	Dept. of Sci. Tech., MoST,	http://www.inspire-dst.gov.in/	For fast publication record utilizing Inspire
		Govt. of India	Upgradation_ JRF2SRF.pdf [sr. no. 210]	fellowship
INSPIRE fellowship [JRF]	2010-2012	Dept. of Sci. Tech., MoST, Govt. of India	No.DST/INSPIRE fellowship/2010, Fellow no.: IF10431	For securing FIRST rank in university examination
UGC research fellowship	2007-2009	University Grant Commission	No.G4/7453/2007 dt. 23.10.2007	For MERITORIOUS performance in M.Sc.
Prof. Krishnamurthy award	2007	Annamalai University	No. 37, dt. 6/08/2007	I rank in M.Sc. Marine Microbiology
Marudhu Pandiar Endowment award	2004-2005	Madurai Kamaraj University	Bk.no.: A, Fo.no.: 71, Ser.no.: 471, dt.: 7/04/2005	For securing University rank in B.Sc. Microbiology
Marudhu Pandiar Endowment award	2003-2004	Madurai Kamaraj University	Bk.no.: 1, Fo.no.: 1, Ser.no.: 154, dt.: 26/03/2004	For securing FIRST rank in II year B.Sc. Microbiology

Grants obtained

Name of the grant	Source	Country	Amount	References	Duration
National Postdoctoral fellowship	China Postdoctoral science foundation	China	8542$	0050-K83008	2 years (2014-2016)

DST INSPIRE fellowship	Department of Science and Technology	India	20100$	IF10431	5 years (2009-2014)

Cruise Participation [I am Sea worthy]

I] Participated in Cruise no:275 of Fishery and Oceanographic Research Vessel 'Sagar Sampada', undertaken to study the benthic productivity, environmental productivity and survey of marine mammals (May 2010). The cruise has covered 1603 nautical miles along southeast and southwest coast of India (**Arabian Sea, Bay of Bengal and Indian Ocean**).

II] Second cruise (290) have been undertaken in RV Sagar Sampada to study human bacterial pathogens along continental shelf sediments of Bay of Bengal. The cruise covered 1500nm in 23days.

III] Third cruise have been undertaken in **South China Sea** to study environmental impact of nitrification in oligotrophic South China Sea (Dec 2014 – Jan 2015) in Dang Fang II. The cruise has covered 2400 nm along South China Sea part of **Pacific Ocean**.

IV] Fourth cruise has been undertaken in **Arabian Sea** to test the suitability of designed epibenthic sledge and beam trawl for deep sea mining (Sindhu Sadana; SSD-T22) from 13th June to 16th June 2019.

PERSONAL PROFILE

Date of Birth	**22/05/1985**
Gender	Male
Birth Place	Kovilpatti (Toothukodi dist.), Tamil Nadu, India
Marital status	Married
Permanent Address	27/Bharathiyar III lane, Sattur, (Virudhunagar dist.) Pin Code: 626 203 Tamil Nadu, India

C. PrasannaKumar