Thinesh Thangadurai

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Education

Bachelor of Science | Zoology 2001-2004 MS University, Tirunelveli, India

Master of Science | Microbiology 2004-2006 MK University, Madurai, India.

Doctor of Philosophy | Marine Biology 2006 -2012 MS University, Tirunelveli, India.

<u>Fellowships</u>

Pool Scientist Fellowship CSIR, India – 2022

Fulbright Post-Doctoral fellowship Indo – US, USIEF- 2017

Kothari Fellowship University Grant Commission, India 2014 to 17.

<u>Experience</u>

Assistant Professor: November 2023 to present, Sultan Qaboos University, Department of Marine Science and Fisheries, Oman.

<u>CSIR Scientist Pool</u>: January 2022 to October 2023, Indian Institute of Science, India. Project: Exploring the Adaptive Potential of Indian Reef Corals to Climate Change: A Genomic Guide for Effective Restoration and Conservation.

Principal Investigator & RA: June 2020 to December 2022.

Pondicherry University, India, Project: Coral health assessment and AMRWATCH Indo – UK project.

<u>Research break but professionally active:</u> January 2019 to May 2020. MS University, India – Organized lab meetings for Ph.D. students.

Fulbright Post-Doctoral Fellow: Jan 2017 to Jan 2019.

Florida International University, USA Project: Elucidate the role of microbiomes in coral adaptation – Miami urban corals.

UGC D.S Kothari Post-Doctoral Fellow: Jan 2014 to Dec 2016.

Pondicherry University, India Project: Understand the physiological responses and role of microbial communities of corals against coral diseases"- Palk Bay Reefs.

Research Associate: January 2012 to 2013.

Indian Institute of Science, India Project: Macro-scale patterns in species distribution of the intertidal soft shore macro-benthic communities along the mainland coast of India.

Junior & Senior Research Fellow: December 2006 to 2012,

Manonmanium Sundaranar University. India. Coral Disease ecology, Coral reproductive biology, Coral transplantation, Coral bleaching studies and Coral health monitoring.

<u>Awards</u>

Rufford Small Grand

PADI Foundation

IDEA Wild

DST Travel Grant CSIR Travel Grant

NASA Distinguished

Professor Aronnox Award (NASA NEEMO) SQU Seed Grant

<u>Skills:</u>

Microbial Ecology – QIIME and Linux QGIS Basic Mapping Tools Photoshop. PCR & NGS.

Field Experience:

Scientific Diving Coral Transplantation Coral Health Assessment Coral Disease Ecology Scientific Writing. In – Situ Experiments

<u>Reviewer:</u>

FEMS Microbial Ecology Frontiers in Microbiology Marine Pollution bulletin Environ.Monit.Assess Bulletin in Marine Science.

Selected Publications:

Thinesh T, Meenatchi R, Lipton AN, Anandham R, Jose PA, Tang SL, Seghal Kiran G, Selvin J. Metagenomic sequencing reveals altered bacterial abundance during coral-sponge interaction: Insights into the invasive process of coral-killing sponge Terpios hoshinota. Microbiological Research. 2020; 240:12655.

Ramu Meenatchi, Thangadurai Thinesh, Pownraj Brindangnanam, Saqib Hassan, George Seghal Kiran, Joseph Selvin. Revealing the impact of global mass bleaching on coral microbiome through 16S rRNA gene-based metagenomic analysis. Microbiological Research. 2019; 233:126408.

T. Thinesh, Meenatchi, Polpass Arul Jose, Seghal Kiran, Joseph Selvin. Differential bleaching and recovery pattern of southeast Indian coral reef to 2016 global mass bleaching event: Occurrence of stress-tolerant symbiont Durusdinium (Clade D) in corals of Palk Bay. Marine Pollution Bulletin. 2019; 145:287–294.

Thinesh Thangadurai, Meenatchi R, Pasiyappazham R, Jose PA, Selvan M, et al. Differential coral response to algae contact Porites tissue loss, praise for Halimeda interaction at South east coast of India. Environmental Science and Pollution Research. 2019; 26(17):17845-17852.

Thinesh T, Meenatchi R, Pasiyappazham R, Jose PA, Selvan M, et al. Short-term in situ shading effectively mitigates linear progression of coral-killing sponge Terpios hoshinota. Plos One. 2017; 12(10).

Thinesh T, Mathews G, Diraviya Raj K, Edward JKP. Outbreaks of Acropora white syndrome and Terpios sponge overgrowth combined with coral mortality in Palk Bay, southeast coast of India. Diseases of Aquatic Organisms. 2017; 126:63-70.

Thinesh T, Jose P, Hassan S, Selvan K, Selvin J. Intrusion of coral-killing sponge (Terpios hoshinota) on the reef of Palk Bay. Current Science. 2015; 109(6):1030.

Thinesh T, Mathews G, Diraviaraj K, Patterson J K. Variation in black and white band disease progression in corals in the Laccadive Sea, southeastern India. Diseases in Aquatic Organisms. 2014; 10(3):227-234.

Thinesh T, Mathews G, Diraviaraj K, Patterson J K. Coral diseases, successful contributors to coral mortality in Shingle Island, Gulf of Mannar, and Southeastern India. Diseases in Aquatic Organisms. 2013; 106:69–77.

Edward JKP, Mathews G, Raj KD, Thinesh T, Patterson J, Tamelander J, Wilhelmsson D. Coral reefs of Gulf of Mannar, India - Signs of Resilience. Proceedings of the 12th International Coral Reef Symposium, Cairns, Australia, 9-13 July 2012.

In Review & Prep:

Thinesh et al. History of recurrent short and long-term coral bleaching events in Indian reefs: a systematic review of contrasting bleaching patterns, lessons learned, and future directions.

Thinesh et al. Symbiont plasticity and bacterial flexibility favours corals to survive in the urban environment.

<u>References</u>

Dr. Kartik Shanker, Professor Centre for Ecological Sciences Indian Institute of Science Bangalore. 560 012 Phone:+91-80-2293-3104 Email:kshanker@iisc.ac.in kshanker@gmail.com

Dr.Mauricio Rodriguez-Lanetty, Associate Professor and Director Florida International University 11200 SW 8th st; Miami, FL 33199 Lab Room: AHC1-224 Phone: 305-3484922 rodmauri@fiu.edu rodriguezlanetty@gmail.com

Dr. Joseph Selvin Professor Department of Microbiology Pondicherry University Pondicherry – 625 014 Phone: +91413-2654868 Email: josephselvinss@gmail.com

National Conference/Seminar/Workshop Participated/Invited lectures - Selected

Invited Talk on "Adaptive mechanism of corals" at Ramasamy Naidu college Trending research Avenues in Biological sciences 31st, January 2020. University Grant commission, Government of India, Sponsored programme.

Invited lecture on Coral Algal Symbiosis at "TMBT | National Conference on Marine Biotechnology | 14-15 February 2019. Department of Biotechnology India, Sponsored programme.

Invited lecture title "Coral adaptive mechanism to climate change" at International Seminar on "BIODIVERSITY AND CLIMATE CHANGE" on 5 th and 6 th December 2019. at "Women's Christian college, Department of Zoology & Biotechnology. Nagercoil. India.

Invited lecture title "Role of Symbionts in coral adaptation" In International Conference on Bio-Commerce 2019 at aditanar college, Tiruchendur.

Presented paper title "Using the world's deepest coral nursery to examine the influence of genet on survival" on Reef Futures 2018 Coral Restoration and Intervention Science Symposium held in Key Largo, Florida, USA. December 10-14. 2018.

Presented paper title "Coral disease distribution and prevalence in Gulf of Mannar and Palk Bay- South East Coast of India" held in Taiwan, June 23 to 27, 2014.

Presented the poster on Observations on the coral reproduction in Tuticorin coast of the Gulf of Mannar, Southeastern India. 11th International coral reef symposium, Fort Lauderdale, Florida, USA. July 9, 2008.

Proceedings of the International workshop on "Gulf of mannar biosphere reserve: An ecological model for biodiversity conservation livelihood and sustainability' organized by national biodiversity authority Chennai-20- 21, 09.2007.

Training workshop for strengthening capacity of officers of State Fisheries Department, Forest (Wildlife) Department and other stakeholder departments to understand the marine biodiversity richness of Gulf of Mannar, its current status of conservation and remedial measures, jointly organized by Gulf of Mannar Biosphere Reserve Trust and SDMRI, Tuticorin, 15-17 November 2006.

Media Coverage:

Under the hood: cure for a deathly infection in sponge – India Biosciences. 27-September-2017

A call for Indian marine scientists to establish a culture of diving safety. India Biosciences. December- 2019.

Study explores recovery patterns of corals in Palk Bay after the 2016 bleaching event. Monga Bay - 25 December 2019.