

SOJA LOUIS

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- **Position at present:** Assistant Professor
 - **Institution:** Department of Zoology, St. Teresa's College
 - **Topics taught:** Environmental Biology, Physiology, Biodiversity and systematics, Instrumentation, Bioinformatics, Nutrition and Health.
 - **Period:** 5 August 2009 - Till date

- **Position Held:** Post Doctoral Fellow
 - **Institution:** Department of Marine biology, Microbiology and Biochemistry, Cochin University of Science & Technology.
 - **Topic of research:** Biodiversity and geoenvironmental relations of Bryozoans of the EEZ of India.
 - **Work Carried Out:** Paleontological studies on the lunilitiform bryozoans.
 - **Period:** 1 August 2007- 31 July 2009 (2 years)

- **Position Held:** Research Fellow
 - **Institution:** Department of Marine biology, Microbiology and Biochemistry, Cochin University of Science & Technology.

- **Topic of research:** “Taxonomy, bionomics and biofouling of Bryozoans from the coasts of India and the Antarctic waters”.
- **Work Carried Out:** Identification and Scanning electron micrograph preparation of 126 species of bryozoans an invertebrate collected from the Indian EEZ and the Antarctic. Biofouling aspects in the Cochin estuary with special reference to bryozoans.
- **Period:** 1998 – July 2007 (9 years)

1. Projects Undertaken

Title : BIOINVASION OF BRYOZOAN SPECIES IN THE COCHIN ESTUARY AND ITS IMPACT ON BIODIVERSITY

Status : Completed

Funding Agency : University Grants Commission

Scheme : Minor Projects

Amount Received : Rs. 97500/-

2. Seminars/ Conferences organized

1. Organizing member, UGC Sponsored National Seminar on Trends in **Biodiversity Studies** organised by the Department of Zoology, St. Teresa’s College, Ernakulam on 4th & 5th December 2014.
2. Organizing Secretary of the International conference on **Nutritional Medicine Health and Wellness**, June 7 & 8th 2012.
3. 10 day International Training program on **Cellular Nutrition and Health**, as part of the World Health Alphabetization Program of Dr. Rath Health Foundation, Santa Clara USA, from 12th July to 22nd July 2011.
4. Organizing member, UGC sponsored National Seminar on “ **Animal Welfare And Humane Education**” Conducted by the Department of Zoology, St. Teresa’s College, Ernakulam and the Mahatma Gandhi Doerenkamp Center MGDC, Bharathidasn University, Thiruchirapalli, Tamil Nadu. on 15th March 2011.
5. International Seminar on ‘**Nutritional Medicine** A natural science based approach to health and the control of chronic and infectious diseases’ on 8th December 2010.

3. Awards

1. Won the **Best presentation prize for paper presentation** at the State level Seminar on Biodiversity at risk – An Indian Perspective, Organized by the Department of Zoology, Bharata Mata College, Thrikkakara on September 28th and 29th 2011
2. **Won the Best paper Award** from *Millenium Zoology*, for the paper on Cognition and Memory Capabilities of some Aquarium fishes by the Student S. A. Marathakarani (2018).

4. List of Publications

A. Research/ Review/ Proceedings Articles (number only)

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|------|-----------------------|----|
| i) |Research articles | 7 |
| ii) | ... Proceedings | 14 |
| iii) |Chapter in Book | 1 |

B. International Journals

1. **Soja, L.** and Menon, N. R. (2009). *Biflustra perambulata* n. sp. (Cheilostomata: Bryozoa), a new alien species from Cochin Harbour, Kerala, India, *Zootaxa*, 2066: 1-68.

C. International Seminars and Symposium

2. Maria Susan Sanjay, Venkataraman, C., **Soja, L** and Shrinivasu, S. (2018). Cheilostomatous Bryozoa from West Coast of India. Book of Abstracts. International Conference on Benthos (ICB 2019), March 2019, Kochi, pp: 128.
3. **Soja, L** and Nimitha, R. C. (2018) Synergistic Action of Vitamin C in preventing Chronic Ailments. Book of Abstracts: 50th Annual International Conference of Nutrition Society of India. Nov. 2018. Pp:
4. **Soja, L.** and Menon, N. R. (2015). Bioinvasion of bryozoans and disruption of biogeographical linkages- A biodiversity evaluation. Proceedings of the International Conference on Biodiversity and Evaluation: Perspectives and paradigm shift, Sree Sankara College, Kalady, pp. 36-39.

5. **Soja, L.** and Menon, N. R. (2010). Climate Change and Estuarine biodiversity Concerns. Book of Abstracts, ICCCE, CUSAT, pp. 150.
6. **Soja, L.** and Menon, N. R. (2008). Bryozoan species diversity in the Cochin estuary, Book of Abstracts, BIOCAM'2008, CUSAT, pp. 30.

D. National Journals

5. Venkatraman, P. Padmanaban , **Soja Louis** , and S. Shrinivaasu (2018). Marine bryozoans of Gujarat and Maharashtra, *Rec. zool. Surv. India*: Vol. 118(4): 389-404. ISSN 0375-1511.
6. S. A. Marathakarani and **Soja, L** (2018). Cognition and Memory Capabilities of some Aquarium fishes', *Millennium Zoology*.
7. Venkataraman,C., Rajkumar Rajan, **Soja Louis**, Shrinivasu, S. and Padmanaban P., (2016). Bryozoans Of Gulf Of Mannar Marine Biosphere Reserve, Southeast Coast Of India, *Rec. zool. Surv. India*, 116(Part-2) : 167-189, ISSN 0375-1511
8. **Soja, L.** and Menon, N. R. (2009). Ecological characteristics associated with the polar erect bryozoans. MECOS. *JMBAI* Special edition 51(2), 11-16.
9. **Soja, L.** and Menon, N. R. (2008). Tsunami and Marine biodiversity concerns. *JMBAI*. Vol. (50) 1. pp. 110-113.
10. **Soja, L** and Menon, N.R. (2005). Meristic features of two allied species of *Steginoporella* Smitt, 1873 (Bryozoa) from Indian and the Antarctic waters. *JMBAI*, Vol. (47) 1. pp. 8-13.

E. National Book Published

9. Venkataraman,C., Shrinivasu, S., and **Soja Louis**. (2016). Diversity of marine bryozoa in India, *Current Status of Marine Faunal Diversity in India*. Zoological Survey of India. Pp: 337-352. ISBN 978-81-8171-447-3.

F. National Seminars and Symposium

10. **Jayaraj, K. A., Naufal P.J., and Soja Louis**. (2017). Diversity and Distribution of Bryozoans in the Intertidal zone of south Andaman island with special

- reference to its epizoism on molluscs. Book of Abstracts, 4th Indian Biodiversity Congress (IBC 2017). March 10-12, Pondicherry University, India. Pp: 181.
11. **Soja, L.,** Menon, N. R, and Karthika M. Nair (2017). Persistence of *Biflustra perambulata* (Cheilostomata: Bryozoa), a alien species in the Cochin estuary, Proceedings of the National Seminar on Marine Ecosystem Health (MEH 2017), Department of marine Biology, Microbiology and biochemistry, CUSAT, pp. 34-42. ISBN:978-81-922264-2-2
 12. **Soja Louis** and Sujatha C.H., (2016). Biogeography of Bryozoans of the southwest coast of India. In: *National Conference and 33rd Convention of Indian Association of Sedimentologists*, at Banaras Hindu University, Varanasi, UP, Nov., 12th -14th :pp:92-93
 13. **Soja, L.** and Menon, N. R. (2014). Biodiversity and geographical linkage of tropical and polar Bryozoans. Proceedings of the National Seminar on ‘Trends in Biodiversity studies’ Dec’ 4-5, pp. 177-191.
 14. Karthika M. Nair and **Soja Louis** (2014) Marine microfoulers as tools of Environmental Impact Assessment, Proceedings of the Nationals seminar on ‘Environmental Impact Assessment’.on Nov’ 28-29. pp 37-40
 15. M.S. Sumi and **Soja Louis** (2014) A study on the macrofoulers of the Cochin Estuary, Proceedings of the Nationals seminar on ‘Environmental Impact Assessment’. On Nov’ 28-29. pp 46-48
 16. Nimitha, R. C., C. V. Anusree, **L. Soja**, and Gladys, F. (2012) Nutritional role of vitamins in prevention of chronic ailments, Proceedings of the National workshop on Fast Food Trap (Issues, Problems and Solutions) on January 2012, pp. 147-154.
 17. **Soja, L.** and Menon, N. R. (2011). Bryozoan Diversity of the Indian Waters. Biodiversity at risk- An Indian Perspective, pp. 88-103.
 18. **Soja, L.** and Menon, N. R. (2010). Bionomics of distribution and settlement of bryozoans in Cochin estuary. Book of Abstracts, SSC, CMFRI, pp. 110.
 19. Menon, N. R. and **Soja, L.** (2009). Bryozoans as a potential source of bioactive compounds. Proceedings of the *National seminar on Bioactive compound from*

marine organisms, (Eds) N.N.Menon *et al.*, Department of marine Biology, Microbiology and biochemistry, CUSAT, pp. 32-38.

20. **Soja, L.** and Menon, N. R. (2009). Estuarine faunal diversity – A chemical and biological approach. Book of Abstracts, AQUASEM'09, CUSAT, pp. 30.

5. Fellowships/ Memberships

1. **Fellow**, International Bryozoology Association, United Kingdom
2. **Fellow**, Nutrition Society of India, NIN Hyderabad
3. **Fellow**, Society of Marine Biologists, CUSAT, India.
4. **Fellow**, Marine Biological Association of India, CMFRI, India
5. **Fellow**, Zoological Society of Kerala, ZSK, India

6. Recognitions as Reviewer/ consultant/ MoU

1. Consultant for Zoological Survey of India (ZSI), Chennai for Identification of Marine Invertebrates
2. Consultant for Pondicherry University, Andamans for Identification of Marine Invertebrates.
3. Coordinator of the Junior Scientist Programme **JSP'2016**-MoU with Navadarshan Education Trust, Archdiocese of Verapoly.
4. MoU with Dr. Rath Research Institute, California, USA.
5. Reviewer of Syllabi in Zoology (UG), PSGR Krishnammal College for Women, Coimbatore, (Autonomous College).
6. Reviewer for Indian Journal of Geo-marine Sciences.
7. Reviewer for Biosystematica.

7. Training Programmes/ Seminars/ Workshops Attended

International

1. 50th Annual International Conference of the Nutrition Society of India on the theme '**India's Transition from Food Security to Nutrition Security**' organized by the National Institute of Nutrition, Hyderabad from 15th – 17th November 2018.
2. International Seminar on **Emerging Trends in Biophysical Research and Current Challenges in Arctic Sea Ice Monitoring** organised by the Department of Zoology, St. Teresa's College, Ernakulam on 13th July 2018.

3. International Seminar on “Recent Trends in Molecular Diagnostics” (RTMD-2017) organized by the Post Graduate Department of Fisheries and Aquaculture, St. Albert’s College (Autonomous), Ernakulam on 10th August 2017.
4. KSCSTE Sponsored International day for Preservation of Ozone Layer -2016: Ozone and Climate: Restored by a World Unified, organized by Department of Zoology, St. Teresa’s College (Autonomous), Ernakulam on 22nd September 2016.
5. International conference on **Biodiversity and Evaluation: Perspectives and paradigm shift**, organized by Sree Sankara College, Kalady on 2nd -3rd December 2015.
6. International Seminar on ‘**Molecular Techniques in Genetic Engineering**’ organized by Department of Botany, St. Teresa’s College, Ernakulam on 14th July, 2014.
7. International symposium on **Computational biology and drug design**’ on 11-13th July 2013 at Mar Athanasios College for Advanced Studies, Tiruvalla.
8. International conference on **Nutritional Medicine, Health and Wellness** organised by the Department of Zoology, St. Teresa’s College, Ernakulam and Dr. Rath Research Institute, USA on 7th and 8th JUNE 2012.
9. 10 day International Training program on **Cellular Nutrition and Health**, as part of the World Health Alphabetization Program of Dr. Rath Health Foundation, Santa Clara USA, from 12th July to 22nd July 2011.
10. International Seminar on ‘Nutritional Medicine- **A natural science based approach to health and the control of chronic and infectious diseases**’ organized by the Department of Zoology, St. Teresa’s College, Ernakulam on 8th December 2010.
11. International Conference on ‘**Climate Change and Environment**’ Organised by National Institute of Science and Communication and information resources, New Delhi at Cochin University of Science and Technology, Kalamassery from 24-26 October 2010.
12. International Symposium on **Marine Ecosystems - Challenges and Oppurtunities (MECOS-09)**, conducted by CMFRI Kochi, from 9th to 12th February 2009.

13. International conference on **Biodiversity Conservation and Management-BIOCAM 2008**, organized by Rajiv Gandhi Chair in Contemporary Studies, CUSAT, held on 3rd to 6th January 2008.
14. International conference - **8th Asian Fisheries Forum** organized by Asian Fisheries Society, held on 20th to 23rd November 2007.
15. International conference - **7th Asia Pacific Marine Biotechnology Conference** organized by National Institute of Oceanography, Goa, India from 2nd to 5th November 2006.

National

1. Faculty Enrichment programme on Teresian Ecofriendly Recycling and Reusing Activities (TERRA), organized by Bhoomithra Sena Club and Department of Chemistry, St. Teresa's College (Autonomous), Ernakulam on 7th November 2018.
2. National Workshop on '**Digital Learning with Web Cloud App & E-content Development**' organized by the Internal Quality Assurance Cell, St. Teresa's College (Autonomous), Ernakulam on 3rd November 2018.
3. Talk on '**Environmental Science and Human Rights**' organized by the Zoological Society of Kerala on 29th September 2018.
4. **World Ozone day Celebrations 2018- 'Keep Cool and Carry on'** organized by Bhoomithra Sena Club and Department of Chemistry, St. Teresa's College (Autonomous), Ernakulam on 17th September 2018.
5. Two day '**Academic Orientation Programme**' organized by the Internal Quality Assurance Cell, St. Teresa's College (Autonomous), Ernakulam on 31st May and 1st June 2018.
6. One day Workshop on '**Human Rights**' organized by the Zoological Society of Kerala on 3rd April 2018.
7. KSCSTE sponsored **National Seminar on 'Wetlands for a sustainable Urban Future'** WWD- 2018, Research Department of Fisheries and Aquaculture, St. Albert's College (Autonomous), Ernakulam on 1st February 2018.

8. Lecture on **Cryo Electron Microscopy**, organized by Sophisticated Analytical Instrument Facility (SAIF), Sophisticated Test & Instrumentation Centre (STIC), Cochin University of Science and Technology -CUSAT on 30th October 2017.
9. UGC sponsored **National Conference on Modern Trends in Research-2017**, organized by Teresian Research and Consultancy Cell (TRACC), St. Teresa's College (Autonomous), Ernakulam on 19th October 2017.
10. **National Seminar on 'Climate Change and Sustainability of Ocean resources'** organized by Centre for Marine Living Resources and Ecology (CMLRE), Ministry of Earth Sciences, and Vijana Bharathi (ViBha), on 4th October 2017.
11. One day Regional Seminar on 'Darwinism in Society' organized by the Zoological Society of Kerala on 21st September 2017.
12. KSCSTE sponsored one day seminar on 'Ente Haritha Bhavanam' –Connecting People and Nature, organized by Department of Zoology, St. Teresa's College (Autonomous), Ernakulam on 16th June 2017.
13. UGC sponsored **National Seminar on Marine Ecosystem Health (MEH 2017)** organized by Department of Marine Biology, Microbiology and Biochemistry, School of Marine Sciences, Cochin University of Science and Technology, from 16th to 17th March 2017.
14. Hands on training on "**SDS Page, Cell Line and Viral Cultivation**" organized by Department of Zoology, St. Teresa's College (Autonomous), Ernakulam and Department of Marine Biology, Microbiology and Biochemistry, School of Marine Sciences, Cochin University of Science and Technology, on 7th March 2017.
15. UGC sponsored **National Seminar on "Green Efforts for Water Conservation – A move towards sustainable environment"** organized by the Department of Zoology, Bharata Mata College, Thrikkakara and Centre for Water Resources Development and Management (CWRDM) on 28th February 2017.
16. UGC sponsored "**Workshop on Education Leadership and Teacher Wellness**" organised by the Community College and the Internal Quality Assurance Cell, St. Teresa's College (Autonomous), Ernakulam on 27th February 2017.
17. **Scholar support Programme (SSP) - Capacity building Workshop** for Resouse Persons sponsored by Department of Higher Education, Govt. of Kerala,

organized by SSP, St. Teresa's College (Autonomous), Ernakulam on 7th January 2017.

18. **National Conference and 33rd Convention of Indian Association of Sedimentologists with emphasis on Energy Resources and Climate Change**, organized by Department of Geology, at Banaras Hindu University, Varanasi, UP on 12th -14th November 2016.
19. UGC sponsored **National Seminar on 'Biodiversity Conservation & issues'** organized by Department of Zoology, St. Teresa's College (Autonomous), Ernakulam on 29th June, 2016.
20. UGC sponsored **"Workshop on 4th Cycle Accreditation in Autonomous Colleges"** organized by the Internal Quality Assurance Cell and the Audit Cell, St. Teresa's College (Autonomous), Ernakulam on 22nd June 2016.
21. UGC sponsored **National Workshop on "Accreditation & Academic Audit"** organized by the Internal Quality Assurance Cell, St. Teresa's College (Autonomous), Ernakulam on 11th June 2016.
22. Department of Higher Education, Govt. of Kerala sponsored **National Seminar on "Recent Advances in Nanoscience and Nanotechnology"** organized by the Department of Physics, St. Teresa's College (Autonomous), Ernakulam on 24th – February 2016.
23. Hands on training on **"Tools and Techniques in Microbiology and Biotechnology"** organized by Department of Zoology, St. Teresa's College (Autonomous), Ernakulam on 11th November, 2015.
24. UGC sponsored **National Conference on Modern Trends in Research -2015** organised by Teresian Research and Consultant Cell (TRACC), St. Teresa's College (Autonomous), Ernakulam on 14th October 2015.
25. Regional Seminar on **Biology and Society** organized by Department of Zoology, St. Teresa's College (Autonomous), Ernakulam on 9th September 2015.
26. UGC sponsored **National Seminar on "Lifestyle Diseases : A Multidisciplinary Approach"** organized by the Department of Sociology, St. Teresa's College (Autonomous), Ernakulam and Indian Medical Association on 14th -15th January 2015.

27. National Workshop on “**Curriculum and Syllabus Restructuring**” organized by the Internal Quality Assurance Cell, St. Teresa’s College (Autonomous), Ernakulam on 9th-10th December, 2014.
28. UGC sponsored **National seminar on ‘Trends in Biodiversity Studies’** organized by Department of Zoology, St. Teresa’s College (Autonomous), Ernakulam on 4th-5th December, 2014.
29. One day Seminar “**Successful Autonomous Colleges in India**” organized by Sacred Heart College, Thevara and Rajagiri College of Social Sciences, Kalamassery, 6th June 2014.
30. National Workshop on “**Functioning as an Autonomous College**” organized by the Internal Quality Assurance Cell, St. Teresa’s College, Ernakulam on February 11, 2014.
31. UGC sponsored **National seminar on Microbiology and microbial technology** by Department of Botany St. Teresa’s College, Ernakulam on October 7-8, 2013.
32. State level Seminar on **Perspectives of science** on October 1st 2013 at Sree Sankara College, Kalady
33. NAAC sponsored **National Workshop on “Equipping New Era Practitioners: Teaching –Learning and Evaluation”** organized by the Internal Quality Assurance Cell, St. Teresa’s College, Ernakulam on June 20-21, 2013.
34. National Workshop on **Fast Food Trap: Issues, Problems and Solutions; Train the Trainer programme** Conducted by the Department of Home Science, St. Teresa’s College, Ernakulam on January 12th 2012.
35. National Seminar on **Best practices in Research and Consultancy: Opportunities and challenges**, Organized by Internal Quality assurance Cell, St. Teresa’s College, Ernakulam on October 20th 2011.
36. UGC sponsored State level Seminar on **Biodiversity at risk – An Indian Perspective**, Organised by the Department of Zoology, Bharata Mata College, Thrikkakara on September 28th and 29th 2011.
37. UGC sponsored Workshop on ‘**Modern Biological Techniques and Bioinformatics – with special reference to the restructured syllabus**’ on 11, 12 & 13th August 2011.

38. UGC sponsored National Seminar on **Challenges in NanoScience and Technology, CNT-2011** Organised by the Department of Chemistry, St. Teresa's College, Ernakulam in collaboration with Inter University Center for Nanomaterials and Devices, CUSAT on 28th & 29th July 2011.
39. 28 day **Orientation programme** (IT oriented) at the Academic Staff College, Kariavattom Trivandrum from 26.04.2011 to 23.05.2011.
40. National Seminar on “ **Animal Welfare And Humane education**” Conducted by the Department of Zoology, St. Teresa's College, Ernakulam and the Mahatma Gandhi Doerenkamp Center MGDC, Bharathidasan University, Thiruchirapalli, Tamil Nadu. on 15th March 2011.
41. National Seminar on ‘**Bioinformatics**’ Organized by Post Graduate and Research Department of Zoology, Maharaja's College, Ernakulam and Cluster of Colleges Ernakulam on 13th and 14th January 2011.
42. Training program for College teachers on ‘**General Informatics**’ organized by St. Teresa's College Ernakulam in collaboration with the Kerala Higher Education Council from 20th to 22nd December 2010.
43. Orientation Programme for University and College teachers on **Student Welfare Activities** organized by the Department of Student Services, Mahatma Gandhi University, Kottayam held at by St. Teresa's College Ernakulam on 10th November 2010.
44. Swadeshi Science Congress held at CMFRI, Kochi and presented a paper on ‘**Bionomics of distribution and settlement of bryozoans in Cochin estuary**’ during November 6th -8th 2010.
45. The Regional Meet 2010 of Xavier Board of Higher Education In India , Kerala North region held at by St. Teresa's College Ernakulam on 16th October 2010.
46. **First Women Science Congress** conducted by Shakti and St. Teresa's College, Ekm at St. Teresa's College during 10th to 12th September 2010.
47. Training for “**Trainers in Soft Skills**” conducted by AIACHE at Jeevas Kendra, Aluva from May 12th to 18th 2010.

48. Training program on **Statistical Data Analysis and Modelling**, organized by School of Marine Sciences and Department of Statistics, Cochin University of Science and Technology, from 13th to 17th July 2009.
49. National seminar **Aquasem'09** organized by Department of Chemical Oceanography,, School of Marine Sciences, Cochin University of Science and Technology on 26th to 28th March 2009.
50. Workshop on **Ensuring Quality in Research Publications**, organized by School of Marine Sciences and Kerala Library Association on 7th March 2009.
51. National workshop on **Global Economic Recession and Fisheries Sector-Challenges and Preparedness**, organized by School of Industrial Fisheries, CUSAT on 6th March 2009.
52. Training program on **Advances in DNA Marker Techniques**, organized by National Bureau of Fish Genetic Resources (NBFGR) ICAR, Cochin Unit, CMFRI Campus, from 17th to 28th February 2009.
53. School cum Workshop on **Trace Element Speciation SEIS-08**, organized by Saha Institute of Nuclear Physics, Kolkata from 24th to 28th November 2008.
54. National conference on **Free Software 2008** held at Cochin University of Science and Technology on 15th and 16th November 2008.
55. Workshop on **Scanning Electron Microscopy**, organized by Sophisticated Analytical Instrument Facility (SAIF), STIC, CUSAT on 28th March 2008.
56. National seminar on **Bioactive Compound From Marine Organisms** held at School of Ocean Science and Technology, Cochin University of Science and Technology, Kochi organized by Department Marine Biology, Microbiology and Biochemistry, CUSAT, Kochi on 14-15 March 2008.
57. National seminar on **Possible Impacts of Sethusamudram Project along Kerala Coast** held at School of Ocean Science and Technology, Cochin University of Science and Technology, Kochi organized by Rajiv Gandhi Chair in Contemporary Studies, CUSAT, Kochi on 18th October 2007.

58. National seminar on **Indian Agriculture and Environmental- Perspectives** held on 11th October 2007 as part of the National self reliance week celebration organized by Swadeshi Science Movement, Kerala and College of Fisheries, Panangad.
59. UGC sponsored National seminar on **Marine Biology– Advances and Prospects** held at Department of Marine biology, Microbiology and Biochemistry, School of Marine Sciences, Cochin University of Science and Technology, Kochi on 10th November 2006.
60. Short course on **Taxonomy and Biodiversity of Fishes and Crustaceans for Scientists, Teachers and Extension Officers** organized by Indian Council of Agricultural Research and held at College of Fisheries, Kerala Agricultural University, Panangad P.O. Kochi from 17th to 26th September 2003. The short course consisted of lectures, demonstrations, discussions and practical exercises based on latest developments in fish and crustacean taxonomy.

8. Training undergone

Training program on **Statistical Data Analysis and Modelling**, organized by School of Marine Sciences and Department of Statistics, Cochin University of Science and Technology, from 13th to 17th July 2009, included sessions on Basic statistical methods; Correlation and regression and various advanced softwares like the application of SPSS, Minitab, R etc.

Training on “**Advances in DNA marker techniques**” organized by National Bureau of Fish Genetic Resources (NBFGR), ICAR at CMFRI during 17-28, 2009. Course consisted of lectures, demonstrations, discussions and practical exercises based on latest advancements in DNA Barcoding, DNA isolation and amplification, advance training in handling Instruments such as DNA sequencer, Thermal Cycler, various types of electrophoresis, genotyping, softwares for analysis of molecular genetic data and biological databases.

School cum Workshop on **Trace Element Speciation SEIS-08**, organized by Saha Institute of Nuclear Physics, Kolkata from 24th to 28th November 2008. Workshop included lectures, demonstrations, and discussions on application of radiotracers in chemical, environmental and biological sciences and training on Atomic Absorption Spectrophotometer, Gas Chromatography-Mass Spectrophotometer, Chromatographic techniques and Voltametry.

Training on “**Taxonomy and biodiversity of fishes and crustaceans**” organized by Indian Council of Agricultural Research held at College of Fisheries, Kerala Agricultural University from 16th to 26th September 2003. Course consisted of lectures, demonstrations, discussions and practical exercises based on latest developments in fish and crustacean taxonomy.

9. Orientation and Refresher courses attended

1. 28 day UGC sponsored **Orientation programme** (IT oriented) at the Academic Staff College, Kariavattom Trivandrum from 26.04.2011 to 23.05.2011.
2. 21 days UGC sponsored **Refresher Course on Environmental Studies (Multidisciplinary)** at Bharathiar University, Coimbatore, Tamilnadu from 19.11.2013 to 9.12.2013.
3. Refresher course in “**Advances in Molecular Biology**”, conducted by the Indian Institute of Science, Bengaluru from 8th to 22nd December 2017.
4. One week FDP programme in **MOOC’s and E-Content Development** conducted by Mahatma Gandhi University, Kottayam from 04/02/2019 to 08/02/2019.

10. Nature Camps attended

1. 3 day Nature Study camp at Idukki Wildlife Sanctuary from 13th -15th January 2018.
2. 3 day Nature Study camp at Thenmala – 2nd -4th February 2013
3. 3 day Nature Study camp at Athirampilly –Vazhachal 11th – 13th February 2011

11. Other details

4. Trained personnel in training soft skills.
5. Trained personnel in Molecular taxonomy.
6. Experience in histological techniques and Electron microscopy.
7. Experience in Spectrophotometry (UV and Fluorescent Spectrophotometer).

I do hereby declare that the above details are true and correct to the best of my knowledge.

January 25, 2019
Cochin

SOJA LOUIS