

# KHADIR MOHIDEEN COLLEGE

(M.K.N. MADHARASA TRUST WAQF) ADIRAMPATTINAM – 614701, THANJAVUR DIST, TAMIL NADU.



## STAFF PROFILE

1. Name : **Dr.A.Maharajan** 

2. Gender : Male

3. Date of Birth : 24/10/1975

4. Designation : Assistant Professor

5. Date of Joining in Teaching Profession : 01/09/2008
 6. Date of joining in our Institution : 01/07/2010

7. Address

8.

Residential

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er=uTnhSi0AAAAJ&hl=en

### 9. **Educational Qualifications**

Google Scholar Link

S. No.	Examination	College	University	Year of	Class
	Passed			Passing	
1	SSLC	S.L.B Govt.Hr.Se.School,	Govt. of Tamil Nadu	1990	First
		Nagercoil			
2	HSC	S.L.B Govt.Hr.Se.School,	Govt. of Tamil Nadu	1992	Second
		Nagercoil			
3	B.Sc	SivanthiAdithanar	Manonmaniam	1995	First
		College, Nagercoil	Sundaranar		
4	M.Sc	S.T.Hindu College,	Manonmaniam	1997	First
		Nagercoil	Sundaranar		
5	M.Phil	Institute for coastal area	Manonmaniam	1998	First
		studies, Nagercoil	Sundaranar		
6	Ph.D	Central Marine Fisheries	University of Madras	2003	Highly
		Research Institute,			commended
		Chennai			

### **Additional Qualification:**

Qualified **National Eligibility Test (NET)** conducted by Indian Council of Agricultural Research (ICAR), October 2001. UGC-CSIR at National Level.

### 10. Teaching & Research Experience

### **A.Teaching**

S.No	Name of the college	Designation	Period
1.	Udaya College of Arts and Science, Vellamodi, Kanyakumari Dist.	Lecturer	Sep 2008 to June 2010
2.	Khadir Mohideen College, Adirampattinam	Assistant Professor (SG)	July 2010 to till date

### **B.Research**

S.No	Name of the Institution	Designation	Period
1.	Central Marine Fisheries Research	Senior Research Fellow	Dec 1998 to Aug 2001
1.	Institute, Chennai	in ICAR sponsored	Dec 1998 to Aug 2001
		Major Research Project.	
2.	Rajiv Gandhi Centre for Aquaculture,	Senior Technical Officer	Aug 2001 to Feb 2003
	(MPEDA) Sirkali, Tamil Nadu	in Sea bass Hatchery	
3.	Fisheries College and Research	Senior Research Fellow	Jul 2003 to Feb 2005
	Institute, Thoothukudi, Tamil Nadu	in NATP sponsored	
		Major Research Project	
4.	Aqua Biotech Group, Malta (Europe)	Senior Consultant in Sea	Dec 2005 to Apr 2007
		bream hatcehry	
5.	Fisheries College and Research	Senior Research Fellow	Jul 2007 to Aug 2008
	Institute, Thoothukudi, Tamil Nadu	in GOMBRT Major	
		Research Project	

11.Research Area of Specialization: Aquatic Toxicology & Aquaculture12.Teaching Area of Specialization: Microbiology, Ecology & Aquaculture

13. Languages known: Tamil & English14. Computer Proficiency: MS office

15. Research Supervision

Ph.D.: Awarded: 6: Pursuing: 2

M.Phil: Awarded: 13

# **Details of Ph.D. awarded scholars**

S. No.	Name of the Scholar	Title of the Thesis	University/College	Date of Viva
1	P.S.Paruruckumani (Ref.No.33286/Ph.D.1 /Zoo/ FT/ Jan 2012)	Evaluation of copper toxicity in the Asian sea bass, <i>Lates calcarifer</i> (Bloch,1790)	Bharathidasan University	08/04/2015
2	Y.Narayanaswamy (Ref.No.12714/Ph.D.1 /Zoo/FT/Oct 2011)	Cytopathological and biochemical changes of the Freshwater crab, Paratelphusa jacquemontii (Rathbun, 1887) exposed to Nurocombi	Bharathidasan University	06/01/2018
3	S.M.Fazildheen (Ref.No.26473/Ph.DK1 /Zoo/PT/Oct 2012)	Evaluation of mercury toxicity in the Asian sea bass, <i>Lates calcarifer</i> (Bloch,1790)	Bharathidasan University	22/12/2019
4	K.Shanmugavel (Ref.no.34385/Ph.D.K 7/ Zoo/FT/ Oct 2014)	Effect of chlorpyrifos in Mangrove crab, <i>Episesarma tetragonum</i> (Fabricius, 1798)	Bharathidasan University	23/02/2020
5	D.Usha (Ref.No.13264/Ph.D K7/Zoo/FT/ Oct 2017)	Effects of dichlorvos on selected biomarkers of Asian sea bass, <i>Lates calcarifer</i> (Bloch,1790)	Bharathidasan University	24/10/2021
6	A.Shanmuganathan (Ref.No.07236/Ph.D.K 7/Zoo/FT/ Oct 2017)	Evaluation of copper toxicity in Litopenaeus vannamei (Boone,1931)	Bharathidasan University	28/09/2022

# **Details of ongoing Ph.D. Scholars**

S.No.	Name of the Scholar	Title of the Thesis	University/College	Date of
				Registration
1	M.Saravanan	Effect of live feed on survival		
	(Ref.No.46339/Ph.D	growth and development of	Bharathidasan	January 2016
	K7/Zoo/PT/ Jan 2016)	Mangrove crab, Scylla serrata	University	
		(Forskal,1775) larvae.		
2	R.Rajesh	Histopathological and		
	(Ref.No.30391/Ph.D.K9/Zoo	Biochemical changes of the	Bharathidasan	
	/PT/Apr 2018)	spiny lobster, <i>Panulirus</i>	University	April 2018
		ornatus (Fabricius,1798)		
		exposed to copper		

# **Details of M.Phil Degree awarded Scholars**

S.No	Name of the Scholar	Title of the dissertation	University	Year of passing
1	H.Hameed Natchia 2K10FT-35574	Impact of Profenofos on physiology and histopathology of gill in cat fish, Mystus gulio (Hamilton)	Bharathidasan	2011
2	T.Sivaprakasam 2K10FT-35585	Phytoplankton diversity and Physico- Chemical parameters of river Cauvery at Madukkur, Thanjavur Dist	Bharathidasan	2011
3	U.V.Abhilash 2K11FT-36927	Studies on physic-chemical parameters and phytoplankton diversity of River Cauvery in Thnjavur Dist, Tamil Nadu.	Bharathidasan	2012
4	P.Masilamani 2K11FT-36935	Studies on seasonal variation and fungal diversity of marine ecosystem in Thanjavur District of Tamil Nadu, India	Bharathidasan	2012
5	C.Vidyasagaran 2K11FT-36953	Studies on food and feeding biology and biochemical composition of the tiger shrimp, <i>Penaeus monodon</i> in Mallipattinam coast at Thanjavur Dist, Tamil Nadu.	Bharathidasan	2012
6	A.Vinothkumar 2K11FT-36954	Studies on physic-chemical parameters and zooplankton diversity of Indian major carp culture ponds in Thanjavur Dist, Tamil Nadu	Bharathidasan	2012
7	K.Rajaraman 2K11FT-36942	Thermal disinfestations of cigarette beetle, Lasioderrma serricorne(F.) (COLEOPTERA;ANOBIIDAE)	Bharathidasan	2012
8	P.Rajasekaran 2K12FT-38584	Impact of cadmium on physiology and histopathology of muscle tissue in Indian major carp, <i>Catla catla</i> (Hamilton)	Bharathidasan	2013
9	R.Kalaiselvi 2K12FT-38581	Effect of cadmium toxicity against Histopathological changes of gill, Hepatopancreas and muscle tissues in white shrimp, <i>Litopenaesus vannamei</i>	Bharathidasan	2013
10	C.Sucitha 2K10FT-35587	Effect of Aluminium toxicity on the oxygen consumption and biochemical response of the Indian major carp, Catla catla	Bharathidasan	2014

11	T.V.Ramkumar 2K14FT-40985	Isolation of gut microflora and screening of extracellular enzymes in the fresh water fish, <i>Oreochromis mossambicus</i> (Peter,1852)	Bharathidasan	2015
12	D.Nancy 2K16FT-16173	Biochemical and cytological changes of Indian white shrimp, <i>Litopenaeus vannamei</i> exposed to chlorpyrifos	Bharathidasan	2017
13	P.Karpagam 2K17FT-18161	Acute toxicity and biochemical changes of a combination of chlorpyrifos and cypermethrin (Nurocombi) insecticide in the mangrove crab, <i>Episessarma tetragonum</i> (Fabricius, 1798)	Bharathidasan	2018

### 16. RESEARCH PAPER PUBLICATIONS (NATIONAL/INTERNATIONAL)

S.No.	Title of the Paper & Authors	Journal Name	Vol & Number	Month & Year	Citation index	Impact Factor
1	Commercial sea bass seed production- RGCA shows the way. Thampi samraj.Y.C., Vinod.P.N., Ramar.G., <b>Maharajan.A</b> . and Dhandapani.K	Info fish International	2:8-13	2003	-	-
2	Continuous live feeding enhances sea bass larvae growth. Thampi samraj.Y.C., <b>Maharajan.A.</b> , Ganesh.K., Ramar.G., Ramasamy.A. and Dhandapani.K	Asian Aquaculture Magazine	26-27	Sep 2003	-	-
3	Shrimps survive white spot syndrome virus challenge following treatment with <i>Vibrio</i> bacterin.  M Rosalind George,  A Maharajan, K Riji John &  M J Prince Jeyaseelan <a href="http://nopr.niscair.res.in/handle/123456789/6339">http://nopr.niscair.res.in/handle/123456789/6339</a>	Indian Journal of Experimental Biology.	44: 63-67	Jan 2006	22	0.8
4	Asian sea bass, Lates calcarifer (Bloch) seed production and Hatchery techniques.  Maharajan.A.	Fishing Chimes	28 (12): 21-23	2009	-	-

5	Diseases of Asian sea bass, <i>Lates</i> calcarifer (Bloch) under farming.  Maharajan.A	Fishing Chimes	29(7): 28- 31	2009	-	-
6	Sublethal effect of copper on the frequency of electrical conductivity in the muscle tissue of spiny lobster, <i>Panulirus homarus</i> (Linnaeus,1758).  Maharajan.A., Rajalakshmi.S., Soumya halder and Vijayakumaran.M	Journal of Aquatic Biology	25(2): 1-4	2010	-	-
7	Identification of <i>Vibrio harveyi</i> as a causative bacterium for a tail rot disease of sea bream <i>Sparus aurata</i> from research hatchery in Malta. S. Haldara, <b>A. Maharajan</b> , S. Chatterjee, S.A. Hunter, N. Chowdhury, A. Hinenoya, M. Asakura S. Yamasakia <a href="https://www.sciencedirect.com/science/article/pii/S09445013090011">https://www.sciencedirect.com/science/article/pii/S09445013090011</a>	Microbiological Research	165(8) 639-648.	Oct 2010	77	5.145
8	Effect of Copper on Morphology, Weight and Chromosomal Aberrations in the Spiny Lobster, Panulirus homarus (Linnaeus, 1758)  A. Maharajan, B. Vaseeharan, S. Rajalakshmi, M. Vijayakumaran, P. Kumarasamy &J. C. Chen https://link.springer.com/article/10 .1007/s12011-011-9110-1	Biological Trace Element Research	144 pages 769–780	June 2011	13	3.738
9	Sublethal Effect of Copper Toxicity Against Histopathological Changes in the Spiny Lobster, <i>Panulirus homarus</i> (Linnaeus, 1758) <b>A. Maharajan</b> , S. Rajalakshmi, M. Vijayakumaran, P. Kumarasamy <a href="https://link.springer.com/article/10">https://link.springer.com/article/10</a> <a href="https://s12011-011-9173-z">.1007/s12011-011-9173-z</a>	Biological Trace Element Research	<b>145</b> , page s 201–210	August 2011	35	3.738

10	Antifouling effect of bioactive compounds from marine sponge Acanthella elongnata and different species of bacterial film on larval attachment of Balanus Amphitrite (Cirripedia, Crustacea) Ganapiriya.V., Maharajan.A., Kumarasamy.P https://www.scielo.br/j/babt/a/z6mPtfCnyQyJ5ZcdzRQyhvg/?format=pdf⟨=en	Brazilian Archives of Biology and Technology	Vol.55. No.2. pp 395-402	June 2012	11	0.7
11	Effect of Aluminium Chloride Toxicity against Histopathology of Gill and Liver tissue of Indian Major Carp, Catla catla (Hamilton). Maharajan. A., Parurukmani.P.S. <a href="http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.644.6751&amp;rep=rep1&amp;type=pdf">http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.644.6751&amp;rep=rep1&amp;type=pdf</a>	International Journal of Pharma and Biosciences	3 (3): B: 523-530	July 2012	4	SJIF: 7.446
12	Biochemical changes in haemolymph of fresh water crab, Paratelphusa jacquemontii (Rathbun) exposed to copper.  Maharajan. A., Shanmugavel. K., Parurukmani.P.S.  https://www.sciencepubco.com/index.php/ijbas/article/view/223	International Journal of Basic and Applied Sciences	1 (4) pp 421-428	2012	3	-
13	Impact of Profenofos on Oxygen Consumption and Gill Histopathology of the Fresh Water Crab, Paratelphusa jacquemontii (Rathbun). Maharajan. A. Neelakandamoorthy.K., Kumarasamy.P. http://medicaljournals.stmjournals. in/index.php/RRJoT/article/view/1 286	Research & Reviews: A Journal of Toxicology	2 (2), Pages 46- 55	August 2012	4	-
14	Fecundity and viability of eggs in wild breeders of spiny lobsters, Panulirus homarus (Linnaeus, 1758), Panulirus versicolor (Latrielle, 1804) and Panulirus ornatus (Fabricius, 1798).	Journal of Marine Biological Association of India	54 (2), 18- 22	Dec 2012	17	NAAS IF: 5.2

	M. Vijayakumaran, <b>A.Maharajan</b> , S. Rajalakshmi, P. Jayagopal, M. S. Subramanian and M. C. Remani. <a href="http://mbai.org.in/php/journaldload.php?id=2256&amp;bkid=107">http://mbai.org.in/php/journaldload.php?id=2256&amp;bkid=107</a>					
15	Effect of copper in protein, carbohydrate and lipid contents of the juvenile lobster, <i>Panulirus homarus homarus</i> (Linnaeus, 1758).  Maharajan, A., Rajalakshmi, S and Vijayakumaran, M.  https://sljas.sljol.info/article/abstract/10.4038/sljas.v17i0.6853/	Sri Lanka Journal of Aquatic Sciences.	17: 19-34.	April 2014	6	-
16	Vibriostatic effects of probiotic  Bacillus licheniformis Dahb1 and its molecular phylogeny resolved through RAPD markers. David Jayaseelan Baranabas, Vaseeharan Baskaralingam, Maharajan Athisuyambulingam, Shanthi sathappan, Gopalakrishnan Vinoj. https://link.springer.com/article/10 .1007/s13213-013-0623-z	Annals of Microbiology	Vol.63. Issue: 4, pp: 1601- 1609	March 2013	9	2.151
17	Effect of Nitrite on Oxygen Consumption and Ammonia Excretion of the Fresh Water Crab, Paratelphusa jacquemontii (Rathbun) Maharajan. A, B. S. Vijaykumar, Y. Narayanasamy, P. S. Paruruckmani, R. Archana <a href="http://pharmajournals.stmjournals.in/index.php/RRJoPS/article/view/463">http://pharmajournals.stmjournals.in/index.php/RRJoPS/article/view/463</a>	Research & Reviews: A Journal of Pharmaceutical Science	4 (1) 20-24	2013	2	-
18	Sublethal effect of profenofos on oxygen consumption and gill histopathology of the IndianMajor carp, <i>Catla catla</i> (hamilton).  Maharajan, A., Usha, R., Paruruckmani, P.S., Vijaykumar, B.S., Ganapiriya. V. and Kumarasamy. P.	International Journal of Pure and Applied Zoology	1(1): 196- 204	June 2013	23	0.765

	https://www.alliedacademies.org/a rticles/sublethal-effect-of- profenofos-on- oxygenconsumption-and-gill- histopathology-of-the-indianmajor- carp-catla-catla-hamilton.pdf					
19	Spatial and Temporal prevalence of Culex quinquefasciatus (SAY) in Southeast region of Puducherry. Rajalakshmi,S., Velvizi, S. and Maharajan, A. http://journalcra.com/sites/default/files/issue-pdf/4441.pdf	International Journal of Current Research	5(11): 3400- 3403	Nov 2013	-	1.532
	Ligand docking and binding aite analysis with PYMOL and AUTODOCK in elimination of Lymphatic filarisis. Rajalakshmi,S., Velvizi, S., Maharajan, A. and Shyamaladevi, K. http://journalcra.com/sites/default/files/issue-pdf/4435.pdf	International Journal of Current Research	5(11): 3393- 3399	Nov 2013	-	ISI 1.532
20	Early larval stages of the spiny lobsters, <i>Panulirus homarus</i> , <i>Panulirus versicolor</i> and <i>Panulirus ornatus</i> cultured under laboratory conditions.  Vijayakumaran, M., <b>Maharajan</b> , <b>A</b> ., Rajalakshmi, S., Jayagopal, P and Remani, M. C. <a href="https://www.journalijdr.com/sites/default/files/issue-pdf/1507.pdf">https://www.journalijdr.com/sites/default/files/issue-pdf/1507.pdf</a>	International Journal of Development Research	4 (2): 377-383	Feb 2014	3	-
21	Comparative evaluation of <i>Penaeus monodon</i> (Fabricius, 1798) culture inDifferent saline grow-out systems in India. Vijaykumar.B.S. and <b>Maharajan.A.</b> <a href="https://www.journalijdr.com/sites/default/files/issue-pdf/1526.pdf">https://www.journalijdr.com/sites/default/files/issue-pdf/1526.pdf</a>	International Journal of Development Research	4(3): 708- 716	March 2014	-	-

22	Effect of copper on the characterization of proteins in the Spiny lobster, <i>Panulirus homarus homarus</i> (Linnaeus, 1758).  Maharajan, A., Rajalakshmi, S and Vijayakumaran, M.  http://ij-aquaticbiology.com/index.php/ijab/article/view/76/146	International Journal of Aquatic Biology	2(3): 129- 137	March 2014	2	0.454
23	Brachyuran crab diversity in Muthupettai mangroves on southeast coast of Tamil Nadu.  Maharajan.A. Ganapiriya.V and Shanmugavel.K.  https://www.fisheriesjournal.com/archives/2015/vol2issue5/PartA/2-5-34.pdf	International Journal of Fisheries and Aquatic Studies	2(5): 30- 31	March 2015	-	0.352
24	Surface ultra structural changes in the gill and liver tissue of Asian sea bass, Lates calcarifer (Bloch) exposed to copper. Paruruckumani.P.S, Maharajan.A, Ganapiriya.V, Narayanaswamy.Y, Raja Jeyasekar.R. <a href="https://link.springer.com/article/10.1007/s12011-015-0370-z">https://link.springer.com/article/10.1007/s12011-015-0370-z</a>	Biological Trace Element Research	168 (2), 500-507	May 2015	19	3.738
25	Characterization of protein profile in the Asian sea bass, <i>Lates calcarifer</i> (Bloch) exposed to copper. Paruruckumani, P.S, <b>Maharajan.A.</b> Seema, P. Fazildheen, M., Ganapiriya. V and Kumarasamy.P. <a href="https://www.fisheriesjournal.com/archives/2015/vol2issue6/PartF/2-6-83.pdf">https://www.fisheriesjournal.com/archives/2015/vol2issue6/PartF/2-6-83.pdf</a>	International Journal of Fisheries and Aquatic Studies	2(6): 409- 415	May 2015	-	0.352
26	Bioaccumulation and Ultra structural alterations of gill and liver in Asian Sea bass, <i>Lates calcarifer</i> (Bloch)in sublethal copper exposure.  Paruruckumani, P.S. <b>Maharajan, A.</b> Ganapiriya, V, Kumarasamy. P.	Aquatic Living Resources	28, 33–44	March 2015	12	1.885

	https://www.alr- journal.org/articles/alr/abs/2015/0 1/alr150017/alr150017.html					
27	Histological alterations of a combination of Chlorpyrifos and Cypermethrin (Nurocombi) 2 Insecticide in the fresh water crab, Paratelphusa jacquemontii (Rathbun).  Maharajan, A. Narayanasamy, Y. Ganapiriya, V. Shanmugavel, K. https://www.sciencedirect.com/science/article/pii/S20909896150004	The Journal of Basic and Applied Zoology	72:104- 112	Oct 2015	33	-
28	Acute toxicity bioassay of copper on the juveniles of Asian sea bass, Lates calcarifer (Bloch). Paruruckumani, P.S, Maharajan.A. and Seema, P. https://www.fisheriesjournal.com/archives/2015/vol3issue2/PartE/3-2-33.pdf	International Journal of Fisheries and Aquatic Studies	3(2): 337- 342	Oct 2015	2	0.352
29	Seminal biochemistry of mangrove crab, <i>Parasesarma plicatum</i> (Latreille, 1803). Ganapiriya, V., Shyla suganthi A., and <b>Maharajan, A</b> . <a href="https://www.textroad.com/pdf/JAEBS/J.%20Appl.%20Environ.%20Biol.%20Sci.,%206(5)1-9,%202016.pdf">https://www.textroad.com/pdf/JAEBS/J.%20Appl.%20Environ.%20Biol.%20Sci.,%206(5)1-9,%202016.pdf</a>	Journal of Applied Environmental and Biological Sciences	6(5)1-9	May 2016		0.702
30	Histoanatamy of androgenic gland of a brychyuran crab, <i>Parasesarma plicatum</i> (Latrielle, 1803). Ganapiriya, V., Shyla suganthi A., and <b>Maharajan</b> , <b>A</b> . <a href="https://www.ijzab.com/pdfreader/12/">https://www.ijzab.com/pdfreader/12/</a>	International Journal of Zoology and Applied Biosciences	1 (1) : 27- 31	Feb 2016	-	-
31	Histopathological changes in gill and hepatopancreas of mangrove crab, <i>Perisesarma bidens</i> exposed to profenofos.	International Journal of Zoology and Applied Biosciences	1 (6) : 283-290	Dec 2016	-	-

32	Maharajan, A., Ganapiriya, V. Shanmugavel, K., Amsath.A and Kasthuri.S. <a href="https://www.ijzab.com/pdfreader/62/">https://www.ijzab.com/pdfreader/62/</a> Biochemical response of Asian sea	International	1 (2) : 86-	Feb	-	-
	bass, Lates calcarifer (Bloch) sublethal copper exposure. Paruruckumani, P.S, Maharajan.A., Fazildheen, M., Ganapiriya. V. <a href="https://www.ijzab.com/pdfreader/23/">https://www.ijzab.com/pdfreader/23/</a>	Journal of Zoology and Applied Biosciences	93	2016		
33	Histopathology biomarker responses in Asian sea bass, <i>Lates calcarifer</i> (Bloch) exposed to copper.  Maharajan, A., Rufus Kitto. A., Paruruckumani, P.S Ganapiriya, V. <a href="https://www.sciencedirect.com/science/article/pii/S20909896160002">https://www.sciencedirect.com/science/article/pii/S20909896160002</a>	The Journal of Basic and Applied Zoology	77, 21–30	Oct 2016	31	-
34	Histology Biomarkers in Muscle and Ovary of Mangrove Crab, Perisesarma bidens Exposed to Profenofos.  Maharajan. A., Ganapiriya, V and Shanmugavel, K.  https://article.sciencepublishinggroup.com/html/10.11648.j.ijbse.2017	International Journal of Biomedical Science and Engineering	5(1): 1-8	Feb 2017	-	-
35	Ultrastructure of the male accessory glands of sesarmid crab, Parasesarma plicatum (Latreille, 1803). Viswambaran Ganapiriya., Arundathi Shyla Suganthi and Athisuyambulingam Maharajan https://www.sciencedirect.com/science/article/pii/S2213879X16300232	Journal of Microscopy and Ultrastructure	5 (2): 111- 117	June 2017	1	-

36	Haematological Changes of Fresh Water Crab, Paratelphusa jacquemontii in Response to the Combination of Chlorpyrifos and Cypermethrin (Nurocombi) Insecticide.  Maharajan A, Narayanaswamy Y, Ganapiriya, V. https://www.jscimedcentral.com/Aquaculture/aquaculture-4-1041.pdf	Annals of Aquaculture Research	4(3): 1041-	August 2017	-	-
37	Toxicity and Bioaccumulation of mercury on the juvenile of Asian sea bass, <i>Lates calcarifer</i> (Bloch). Fazildheen. M, <b>Maharajan</b> , <b>A</b> , Ganapiriya, V. and Amsath.A. <a href="http://www.zoologyresources.com/uploadfiles/researchpapers/8e24105cf78c348fbb8fc5ba35849787.pdf">http://www.zoologyresources.com/uploadfiles/researchpapers/8e24105cf78c348fbb8fc5ba35849787.pdf</a>	International Journal of Zoology and Applied Biosciences	3 (1): 231-238	April 2018	-	-
38	Biochemical changes of fresh water crab, <i>Paratelphusa jacqemontii</i> in response to the combination of Chlorpyrifos and Cypermethrin (Nurocombi) insecticide. Shanmugavel, K. Fazildheen. M, Narayanaswamy, Y, Usha.D, Shanmuganathan, A. Ganapiriya, Vand <b>Maharajan, A</b> . <a href="https://www.ijpbs.com/ijpbsadmin/upload/ijpbs_5cdcfa27d7422.pdf">https://www.ijpbs.com/ijpbsadmin/upload/ijpbs_5cdcfa27d7422.pdf</a>	International Journal of Pharmacy and Biological Sciences	9(1): 295- 304	Jan 2019	-	-
39	Cytopathological changes of gills and muscles in Asian Sea Bass, Lates calcarifer (Bloch) exposed to mercury.  D Usha, A. Maharajan, V. Ganapiriya, SM Fazildheen.  https://www.entomologyjournals.com/archives/2021/vol6/issue2/6-2-47	International Journal of Entomology Research	6 (2): 191- 197	April 2021	-	-
40	Acute Toxicity bioassay of dichlorvos on the Juveniles of Asian Sea Bass, <i>Lates calcarifer</i> (Bloch). D Usha, A. Maharajan, V. Ganapiriya. https://www.entomologyjournals.com/archives/2021/vol6/issue2/6-2-46	International Journal of Entomology Research	6 (2): 198- 202	April 2021	-	-

41	Cytopathological and	Microscopy and	https://do	Nov	1	_
41	, ,	Research		_	1	-
	Ultrastructural changes in the male		i.org/10.1	2021		
	reproductive organs of freshwater	Technique	002/jemt.			
	crab Paratelphusa jacquemontii		<u>24000</u>			
	(Rathbun) exposed to nurocombi.					
	Shanmuganathan Archunan,					
	Maharajan Athisuyambulingam,					
	Kumara Perumal Pradhoshini,					
	Narayanaswamy Yelappu,					
	Ganapiriya viswambaran,					
	Muthukumaravel Kannayiram,					
	Marckasagayam Priyadharshini,					
	Mohamed Saiyad Musthafa,					
	Caterina Faggio.					
	https://analyticalsciencejournals.o					
	nlinelibrary.wiley.com/doi/abs/10.					
	1002/jemt.24000					
42	Biochemical and cytological	International	6 (6): 174-	Nov	-	-
	changes of whiteleg shrimp,	Journal of	179	2021		
	Litopenaeus vannamei exposed to	Entomology				
	chlorpyrifos.	Research				
	A Shanmuganathan, <b>A Maharajan</b> ,					
	V Ganapiriya, D Nancy.					
	https://www.entomologyjournals.c					
	om/archives/2021/vol6/issue6/6-6-					
	<u>35</u>					

### 17. RESEARCH PAPER PUBLICATIONS (NATIONAL/INTERNATIONAL CONFERENCE PROCEEDINGS)

- **1 Maharajan.A** and Vijayakumaran.M. 2004. Copper toxicity in the spiny lobster, *Panulirus homarus* (Linnaeus). *Proceedings of the National Seminar on New Frontiers in Marine Bioscience Research.* NIOT, Chennai. P: 205-212. (ISBN: 81-7764-580-3)
- 2 Sajin.C and Maharajan. A. 2009. Antibiotic activity of medicinal plants in India. *Fifth All India Conference of KAAS. Sciences. Vol.III. Microbiology P:* 1-4. (ISBN: 978-81-909710-0-3)
- 3 Subitha.R and Maharajan. A. 2009. Antibacterial activity of selected herbal plant extracts in Vibrio harveyi and Vibrio parahemolyticus. Fifth All India Conference of KAAS. Sciences. Vol.III. Microbiology P: 5-6. (ISBN: 978-81-909710-0-3).
- **4 Maharajan.A**, Sivakumar.B , Kumarasamy.P and Ganapiriya.V. 2011. Probiotics and their uses in Aquaculture. *Proceedings of National Seminar on Emerging Trends and Challenges in Aquatic Biotechnology*. P: 9-12

- **5** Ganapiriya.V, **Maharajan.A**, Sivakumar.B and Kumarasamy. P.2011. Antifouling activity of marine bacterial film against the settling of larvae of barnacle, *Balanus Amphitrite*. *Proceedings of National Seminar on Emerging Trends and Challenges in Aquatic Biotechnology*. P: 116-119.
- **6 Maharajan.A**, and Kumarasamy.P.2012. Bioresources and the Diversity of Gulf of Mannar. *Proceedings of National conference on Recent Advances in Computational Biology.* P: 64-68. (ISBN:978-81-907647-9-7).
- **7** Vasudhevan. I, **Maharajan.A**, Asokan.A, Rajaselvam.J and RamaDevi.P.2012. Effect of food quality on growth and maturation in angel fish, *Pterophyllum scalare*. *Proceedings of National Seminar on Live Jewels breeding and management techniques*. P: 53-57. (ISBN: 978-93-80819-12-9).
- **8 Maharajan.A**, Vasedhevan.I and Kumarasamy.P.**2012**. Use of antibiotics in Ornamental Fish culture. *Proceedings of National Seminar on Live Jewels breeding and management techniques*. P: 77-81. (ISBN: 978-93-80819-12-9).
- **9** Ganapiriya. V and **Maharajan.A**. **2015**. Antimicrobial activity of chitin and chitosan from crustaceans. *Advances in Natural Medicines and Nutraceuticals*. CYBA Publication Series –IV, P: 127-133.
- **10 Maharajan. A.** and Ganapiriya. V. **2015.** Antimicrobial peptides from haemolymph of marine crustaceans. *Advances in Natural Medicines and Nutraceuticals.* CYBA Publication Series –IV, P: 143-152.

#### 18. Seminars / Conferences / Workshops Attended

- 1. State level seminar on "Water Pollution and Management" conducted on **5-02-2010** at Vivekananda college, Agastheeswaram, Kanyakumari.
- 2. State level symposium in "Microbiology" conducted on **26-3-2010 to 27-3-2010** at Sivanthi Adithanar College, Pillayarpurum, Kanyakumari.
- 3. National Seminar on "Biodiversity Conservation and Management of Aquatic Resources" (NABCMA-2010) conducted on **9-12-2010 to 10-12-2010.** Organized by Directorate of Research Extension (Fisheries), TANUVAS, Fisheries College and Research Institute, Thoothukudi.
- National Workshop on "Marine Finfish farming with focus on cobia to improve the livelihood of fishers conducted on 11-1-2011 to 12-1-2011 at TANUVAS, Fisheries College and Research Institute, Thoothukudi.
- 5. National Workshop on "Emerging Infectious diseases and Management" conducted on **27-1-2011 to 28-1-2011** at Thiru.Vi.Ka. Govt.Arts College,Thiruvarur

- 6. National Seminar on "Emerging Trends and Challenges in Aquatic Biotechnology" conducted on **12-2-2010 to 13-2-2011** at PG and Research Department of Zoology, Khadir Mohideen College, Adirampattinam.
- 7. Indo-UK Workshop on "Shrimp Aquaculture Challenges & Innovative Solutions" conducted on **27**<sup>th</sup> **January 2012** at Hotel Singar International, Kanyakumari, organized by the Department of Bioinformatics, Bharathidasan University, India in Collaboration with School of Biological Sciences, University of London, UK.
- 8. National Conference on "Recent Advances in Computational Biology" conducted on **9**<sup>th</sup> **March 2012** at PG & Research Department of Zoology, Govt Arts College, Karur.
- 9. National seminar on "Recent Trends in Public Health Medicine" conducted on **14<sup>th</sup> March 2012** at Vivekananda College, Agastheeswaram, Kanyakumari.
- 10. International Conference on "Globalization of Indian Medicine" conducted on **12**<sup>th</sup> **September 2012** at Vivekananda College, Agastheeswaram, Kanyakumari.
- 11. National Seminar on "Live Jewels breeding and management techniques" conducted on 12<sup>th</sup> October 2012 at Vivekananda College, Agastheeswaram, Kanyakumari.
- 12. National workshop on "Cobia Culture" conducted on 1<sup>st</sup> &2<sup>nd</sup> March 2013 at Fisheries College and Research Institute, Thoothukudi.
- 13. National conference on "Dengue and Chikungunya Epidemiology and their Management in India" conducted on **30**<sup>th</sup> **and 31**<sup>st</sup> **August, 2013** at Scott Christian College, Nagercoil, Kanyakmari.
- 14. National conference on "Environmental Issues & Challenges- Vision 2020" conducted on **27**<sup>th</sup> and **28**<sup>th</sup> **September, 2013** at Annamalai University, Chithambaram.
- 15. International seminar on "Recent Trends in Aquatic Animal Biotechnology" conducted on **21**<sup>st</sup> and **22**<sup>nd</sup> **October, 2013** at Department of Animal Health & Management, Alagappa University, Karaikudi.
- **16.** Department of Environment, Govt of Tamil Nadu sponsored seminar on "Recent Trends and Strategies in Biodiversity Conservation" conducted on **16-17**<sup>th</sup> April, **2015** at St. John's College, Palayamkottai. **(2 days).**
- 17. Department of TNSCST, ICMR sponsored National Workshop on "Identification and preparation of keys of snakes with special reference to their venomous nature in India" conducted on 26-27<sup>th</sup> August,2015 at Department of Zoology and Wild life Biology, Govt.Arts College, Udhagamandalam. (2 days).

- 18. National seminar on "Advances in Natural Medicines and Nutraceuticals" conducted on **12**<sup>th</sup> **September,2015** at CYBA, Nagercoil.
- 19. National seminar on "Recent trends and Challenges in Biosciences" conducted on 16<sup>th</sup> October 2016 at PG & Research Department of Zoology, Khadir Mohideen College, Adirampattinam.
- **20.** National workshop on "Biodiversity and conservation of aquatic resources (BioCAR' 2016)" conducted on 10<sup>th</sup> and 11<sup>th</sup> November, 2016 at Fisheries Training and Research Centre, Directorate of Extension Education, Tamil Nadu Fisheries University, Parakkai, Kanyakumari District.
- 21. National seminar on "Awareness on pathogen carriage, prevention and personal health promotion among rural adolescent learaners of higher education" conducted on 28<sup>th</sup> July 2017 at Department of Microbiology, M.R.Govt. Arts college, Mannarkudi.
- 22. Two day Scicenec Academies' Lecture workshop on Recent advances in Biology conducted from 12<sup>th</sup> to 13<sup>th</sup> October 2017 at Department of Microbiology, M.R.Govt. Arts college, Mannarkudi.
- 23. National Seminar on "Emerging challenges in biodiversity conservation with special reference to recent trends in ecotoxicology" organised by Department of Zoology, Milad-E-Sherief Memorial College, Kayamkulum, Alappuzha on 26-27<sup>th</sup> February 2018.
- 24. National seminar on **"Sensitizing the women on environment Issues"** organised by Rajah Serfoji Government College, Thanjavur on 22<sup>nd</sup> and 23<sup>rd</sup> March 2018.
- 25. National level Seminar on "Scientific and Technological development for the welfare of community" organised by Syed Ammal Arts & Science College, Ramanathapurum on 4<sup>th</sup> and 5<sup>th</sup> and 6<sup>th</sup> April 2018.
- 26. National seminar on "Biodiversity- A resource for future sustenance" organised by Scott Chritian College, Nagercoil on 27<sup>th</sup> and 28<sup>th</sup> September 2018.
- **27.** National conference on "Future Trends in Marine Biotechnology" organised by Centre for Marine Science and Technology, Manonmanium Sundaranar University, Rajakkamangalam, Kanyakumari on **14**<sup>th</sup> and **15**<sup>th</sup> February **2019**.

- **28.** Presented a paper on National workshop in "Biodiversity Assessment of Heepetofauna and other organisms" conducted from 26<sup>th</sup> and 28<sup>th</sup> February 2020 at Government Arts College, Udhagamadalam.
- **29.** Participated a UGC sponsored "Enterpreenerial Training Programme in Aqua and Vermitechnology" on **13**<sup>th</sup> March **2020** at Rajah Serfoji Goverenment college, Thanjavur.
- **30.** Participated a Webinar on "Environment Day 2020" on 5<sup>th</sup> April 2020 at Government Arts College, Udhagamadalam.
- **31.** Participated a Webinar on "Decoding Covid- 19: Ground realities of the new virus" on 11<sup>th</sup> May 2020 at Stella Maris College, Chennai.
- **32.** Participated a International Webinar on "Covid-19 Vaccine Development" on **15**<sup>th</sup> May **2020** at Ayya Nadar Janaki Ammal College, Sivakasi.
- **33.** Participated a International Virtual Lecture workshop on **20**<sup>th</sup> **May 2020** at Kongu Nadu Arts and Science College, Coimbatore.
- **34.** Participated a International Webinar on "Biodiversity" on 22<sup>nd</sup> May 2020 at The American College, Madurai.
- **35.** Participated a **Three days National level workshop on "**DNA Barcoding" from 22<sup>nd</sup> May to 24<sup>th</sup> May 2020 at Islamiah College, Vaniyambadi.
- **36.** Participated a International Webinar on **"Biodiversity" on 22<sup>nd</sup> May 2020** at The American College, Madurai.
- **37.** Participated a Webinar on **"Fundamentals of Biostatistics" on 23<sup>rd</sup> May 2020** at RV College of Engineering, Bengaluru.
- **38.** Participated a National Webinar on "Oppurtunities & Challenges in Ornamental Fish breeding with special reference to Nutritional requirements" on 26<sup>th</sup> -27<sup>th</sup> May 2020 at College of Fishery science, Nanaji Deshmuch Veterinary Science University, Jabalpur.
- **39.** Participated a Webinar on **"Antiviral Marine macroalgae sulfated polysaccharides to boost immunity as well as active against respiratory infections" on 27<sup>th</sup> May 2020 at V.O. Chidambaram College, Thoothukudi.**

- **40.** Participated a Webinar on "Wild life conservation Issues and Challenges in India" on 28<sup>th</sup> May **2020** at Bharathiyar Arts & Science college for women, Salem.
- **41.** Participated a International Webinar on "The evolving field of Oncology and Career Transition" on 28<sup>th</sup> May 2020 at Fatima Mata National College, Kollam.
- **42.** Participated a Webinar on "Gene and Drug delivery systems for Therapeutic Applications" on **29**<sup>th</sup> May **2020** at Sastra University, Thanjavur.
- **43.** Participated a International Webinar on "Nano- The Tiny Warrior- Engineering nanomedicine and drug delivery system" on 30<sup>th</sup> May 2020 at Kongu Engineering College, Erode.
- **44.** Participated a Webinar on "Immunonutrient for Covid- 19 pandemic" on 31<sup>st</sup> May 2020 at ST Hindu college, Nagercoil.
- 45. Participated a Webinar on "Anti- carcinogenic effect of selected Medicinal plants against ovarian cancer" on 2<sup>nd</sup> June 2020 at DAV College, Jalandhar.
- 46. Participated a National Level Webinar on "Bioprocessing of Medicinal Plants: Challenges and Opportunities" on 3<sup>rd</sup> June 2020 at VOC College, Thoothukudi.
- 47. Participated a International Webinar on "House Plants mitigating the indoor Pollution" on 5<sup>th</sup> June 2020 at Isabella Thoburn College, Lucknow.
- 48. Participated a International Webinar on "Covid 10: The Pandemic Redefined" from 5<sup>th</sup> 6<sup>th</sup> June 2020 at School of Life Sciences, Pondicherry University, Puducherry.
- 49. Participated a Webinar on **"Commemoration of World Oceans Day"** on 8<sup>th</sup> June 2020 at Department of Marine Sciences, Bharathidasan University, Tiruchirappalli.
- **50.** Participated a Webinar on "Climate Change and waste Water Management" organized by Pioneer Kumaraswamy College, Nagercoil on **11**<sup>th</sup> June **2020**.
- **51.** Participated a Webinar on "Research, Innovations and Extension" organized by IQAC, Khadir Mohideen College, Adirampattinam on **15**<sup>th</sup> June **2020**.
- **52.** Participated a Webinar on "Impact of Plastic Pollution on Bio-Diversity" organized by Department of Zoology, ST Hindu College, Nagercoil on **16**<sup>th</sup> June **2020.**

- **53.** Participated a International Webinar on **"Biological Sciences"** organized by Department of Zoology, Rajah Serfoji College, Thanjavur **from 20**<sup>th</sup> **-22**<sup>nd</sup> **June 2020.**
- 54. Participated a Webinar on "Understanding the Mysteries of Microbial Ecology" organised by Aninasillingam Institute for Home Science and Higher Education for Women, Coimbatore on 22<sup>nd</sup> June 2020.
- 55. Participated a Webinar on "Basic Author Workshop Research Article Writing & Reference Management using Mendeley" organised by Faculty of Science, Annamalai University in collaboration with ELSEVIER on 22<sup>nd</sup> June 2020.
- 56. Participated a ICPR Sponsored National Webinar on "Yoga conducted in connection with International Day of Yoga" by the Department of Zoology, Rajah Serfoji College, Thanjavur from 1<sup>st</sup>-3<sup>rd</sup> July 2020.
- 57. Participated a Webinar on "Agricultural Biotechnology for Mitigating Climate Change" organised by Bihar Agricultural University, Bhalpur on 3<sup>rd</sup> July 2020.
- 58. Participated a Webinar on "Wild life resources of Oriental Region: Conservation Challenges" organised by Faculty of Applied Sciences, AMIST University, Malaysia on 3<sup>rd</sup> July 2020.
- 59. Participated a National Webinar on "Fish Parasites are on the Rise" organised by Department of Zoology, Govt. Arts College, Melur on 4<sup>th</sup> July 2020.
- 60. Participated a "Webinar on World Snakes Day" organized by Department pf Zoology and Wildlife biology, Govt.Arts College, Udhagamandalam on 16<sup>th</sup> July, 2020.
- 61. Participated a National Webinar on "Sytategies to enhance Inland Fish Production in Chhattisgarh" World Snakes Day" organised by College of Fisheries, Chhattisgarh held on 18<sup>th</sup> August, 2020.
- **62.** Participated a National level workshop on "Intellectual Property rights" organized by Sri Shivaji Science and Arts College, Chikli on 4<sup>th</sup> July 2021.
- **63.** Participated a National Webinar on "**Feed Certification**" organised by Tamil Nadu Dr.J.Jayalaitha Fisheries University, Institute for Post Graduate studies, OMR campus, Chennai on 14<sup>th</sup> September 2021.
- 64. Participated National webinar on "Recent Advances in Medicinal Chemistry" organised by Ayya Nadar Janaki Anmmal College, Sivakasi from 27-12-2021 to 28-12-2021.

65. Participated National webinar on " A magic bullet for the treatment of metastatic cercal cancer" organised by Bharathidasan Govt college for women , Puducherry on 12<sup>th</sup> February 2022.

### 19. Books published

S. No.	Title of the book	Name of the	ISBN Number	Year
		Publisher		
1.	Hatchery Technology			
	and Culture of Asian Sea bass,	Saras Publication,	ISBN-978-81-89941-38-3	2008
	Lates calcarifer	Nagercoil		
2.	Resources in Gulf of Mannar	Saras Publication,	ISBN-978 - 81-89941- 44- 4	2009
		Nagercoil		
3.	A Text book of Research	Hari Krish		
	Methadology, Biosafety,	Publication, Nagercoil	ISBN-978-81-908674-9-8	2009
	Bioethics, Patenting and IPR			
		Daya Publication,	ISBN(HB) 978-81-7035-6813	
4.	Virology	New Delhi	ISBN (PB)978-81-7035-680-6	2010
5.		Hari Krish	ISBN-978-93-80819-00-6	2011
	Vermitechnology	Publication, Nagercoil		
6.	NAT: and the last	Hari Krish	ISBN-978-93-80819-01-3	2011
	Microbiology	Publication, Nagercoil		

### 20. Reviewer of the following journal

Ecotoxicology and Environmental safely (Elsevier)
Food and Chemical Toxicology (Elsevier)
Ecotoxicology and Environmental Monitoring (Springer)
American Journal of Life sciences
Journal of Applied environmental and Biological Sciences (USA)
International Journal of Zoology and Applied Biosciences
Biological Segment
Turkish Journal of Fisheries and Aquatic Sciences

### 21. Membership in Academic Body/Board of Studies

UG Zoology Board of study member in Poombukar college, Melayoor (Affliated to Bharathidasn University, Tiruchirappalli).

### 22. Details of Major/Minor Research Projects taken so far:

S.No.	Title of the Project	Funding Agency	Minor/Major	Grant	Period
1.	Evaluation of agricultural pesticides on the diversity of commercially important crustaceans at muthupettai mangrove ecosystem, South East Coast of Tamil Nadu, India	Science and Engineering Research Board, Department of Science and Technology, New Delhi	Major	Rs.24,30000/-	2014-2017

### 23. Orientation / Refresher/Short Term/MOOC/Other Courses Attended

- ICAR winter school on "Biotechnological Advances in Fish disease diagnosis and Health Management" (National level) organized by Virology Laboratory, Fisheries College and Research Institute, Thoothukudi, Tamil Nadu from18<sup>th</sup> Nov to 8<sup>th</sup> Dec 2009. (21 days).
- Orientation Course conducted by UGC Academic Staff College, Maduari Kamaraj University, Madurai from 12-11-2012 to 13-12-2012. (28 days).
- SPSS hands on Training by UGC Academic Staff College, Bharathiar University, Coimbatore from 13-01-2013 to 09-01-2013 (7 days).
- Training on'Taxonomy and identification of commercially important crustaceans of India'
   Conducted by CMFRI Cochin from 20<sup>th</sup> to 24<sup>th</sup> August 2013. (5 days).
- UGC, DBT and DST Sponsored National Seminar Cum workshop on "Microbial Phylogenetics and Proteomics" conducted on 12-14<sup>th</sup> February, 2014 at Department of Biotechnology, Alagappa University, Karaikudi. (3 days).
- Ministry of Human Resource Development, New Delhi sponsored Training Programme on "Biodiversity of Marine Plankton" conducted on 6-7<sup>th</sup> March, 2014 at CAS in Marine Biology, Annamalai University, Chithambaram. (2 days).
- Refresher course conducted by UGC Academic Staff college, University of Kerala, Thiruvananthapurum from **02-07-2014** to **22-07-2014**. **(21 days)**.
- Participated a Two week MOOC Workshop for college Teachers on "Management of Environment and its Resources" from 28<sup>th</sup> April to 11<sup>Th</sup> May 2020 conducted by Nesamony Memorial Christial College, Marthandam and St.Xavier's College, Palayamkottai.

- Participated a Five days MOOC course on "Ornapreneurship Development" from 14<sup>th</sup> May to 18<sup>th</sup> May 2020 organised by Kamadhenu University, GandiNagar, Gujarat.
- Participated a Three days Training Programme on "Apiculture" from 13<sup>th</sup> May to 15<sup>th</sup> May 2020 at Ayya Nadar Janaki Ammal College, Sivakasi.
- Completed Four weeks International Faculty Development Online Certificate Course on "Medical Bacteriology" organized by Department of Microbiology, Sacred Heart College, Tirupattur, Tamil Nadu in association with Microbiologist Society of India and Laboratory of Chemical and Biological Analysis, Rio Janeiro State University, Brazil from 1<sup>st</sup> -30<sup>th</sup> June, 2020.
- Three days Virtual Training course on "Techniques in Intensive Production of Marine Copepods" held during 15-17<sup>th</sup> June 2020 organized by Department of Marine Sciences, Bharathidasan University, Tiruchirappalli.
- Online Training cum Awareness Programme on "Biofloc Culture" organized by College of Fishery Science, Jabalpur Association with NFRD, Hyderabad held on 19<sup>th</sup> June 2020.
- Two weeks Faculty Development Programme on "Advanced Concepts for Developing MOOCS" sponsored by MHRD, Ramanujan College, University of Delhi from 2<sup>nd</sup> -17<sup>th</sup> July, 2020.
- One Week Certificate Course on Apiculture organised by Balwant College, Sangli, Shivaji University, Kolhapur from 13<sup>th</sup> -19<sup>th</sup> July, 2020.
- Refresher course in **Life Sciences** conducted by **HRDC**, **Madurai Kamaraj University**, **Madurai** from 04-12-2020 to 22-12-2020. (14 days).
- Online Training cum awareness programme under ICAR- DoF Convergence on "Marine Ornamental Fish Culture" organized by Vizhinjam regional Centre of CMFRI, Vizhinjam on 26<sup>th</sup> February, 2021.
- Six days Department of Biotechnology, Govt. of India sponsored National level short term course
  on "Graphics Design for Teachers" from 26-05-2021 to 31-05-2021 organized by Marian Star
  Centre, St. Mary's College, Thoothukudi.
- One day online cum Awareness Programme on "Biofloc culture" organized by College of Fishery Science, Jabalpur on 19-06-2021.

•	Seven days FDP Programme on	"Enterpreneurship in	Aquaculture"	organized by Sye	d
	Ammal Arts and Science College,	Ramanathapuram fro	m 25-02-2022	to 03-03-2022.	

Dr.A.MAHARAJAN