# **Curriculum Vitae**

## PERSONAL INFORMATION

| Name                 | : | J.S.I. Rajkumar  |
|----------------------|---|--|
| Father's Name        | : | I. Joyce Ignatius (An Ex-servicemen)                           |
| Date of Birth        | : | 13 Nov1983   |
| Age & marital status | : | 28 yr; Single  |
| Gender               | : | Male   |
| Nationality/Religion | : | Indian-Roman Catholic  |
| Community/Caste      | : | BC/ Vellalar   |
| Languages Known      | : | English, Hindi and Tamil.                                      |
| Address              | : | No.42, Periyar Nagar, Defence Enclave, 7 <sup>th</sup> Street, |
|                      |   | I.A.F. Avadi, Muthapudupet, Chennai-600055.                    |
|                      |   | Res: 044-26842436, Cel.: +919940570504.                        |
|                      |   | E- mail: jsirajkumar@gmail.com                                 |

# EDUCATIONAL QUALIFICATIONS

| 2009-2011 | Ph.D., Zoology, Loyola College, University of Madras                      |
|-----------|---|
| 2006-2007 | M.Phil., Zoology, Alagappa University, Karaikudi, 65%                     |
| 2004-2006 | M.Sc., Zoology, Loyola College, University Of Madras, Chennai, 81 %       |
|           | (First Class with Distinction)  |
| 2001-2004 | B.Sc., Zoology, Loyola College, University Of Madras, Chennai, 86 % (Gold |
|           | medalist: First Class with Distinction).                                  |
| 2000-2001 | SSCE, Kendriya Vidyalaya, Avadi, Chennai, C.B.S.E, 73%.                   |
| 1998-1999 | SSE Kendriya Vidyalaya, Avadi, Chennai, C.B.S.E, 64%.                     |

# AWARDS AND HONOURS

- 1. B.Sc Zoology, First Rank, Prof. T.N. Anathakrishnan Medal in 2001-2004.
- 2. B.Sc Zoology, First Rank, Irudayanesan Memorial Medal in 2002-2003.
- 3. B.Sc Zoology, First Rank-Part-III in 2001-2002.

#### **RESEARCH EXPERIENCE**

- 1. Working as *Research Associate* in the GOI-DST sponsored Project on "Potential of Fodder Cultivation as a means of Carbon Capture" in the Department of Livestock Production and Management, Madras Veterinary College, Chennai-600 007 from 01.07.2011 to till date.
- 2. Worked as *Junior Research Fellow* in Integrated Coastal Marine Area Management, Ministry of Earth Sciences in "Marine Ecotoxicology project" from 03.03.2008 to 03.03.2011.

### **RESEARCH PAPERS PUBLISHED**

- 1. Robin, R.S., Pradipta, R. Muduli, Vishnu Vardhan, K., **Raj Kumar, J.S.I.**, Prasun Goswami and Balasubramanian, T. 2010. Nutrients and its influence on biological productivity along Kerala coast, India. *International Journal of Current Research*, **10**: 038-045.
- 2. Robin, R.S., Vishnu Vardhan, K., Pradipta R. Muduli, **J.S.I. Rajkumar** and Swaminathan Palanisami. 2010. Vertical distribution of biological characteristics and phytoplankton community structure in the shelf waters off southwest coast of India. *International Journal of Current Research*, **8:** 016-034.
- 3. **Rajkumar, J.S.I,** John Milton, M.C and Arockia Rita, J.J. 2011. Analysis of inhibition concentration (IC) of cadmium, copper, lead and zinc in *Mugil cephalus, Perna viridis* and *Penaeus monodon* under short-term chronic toxicity tests. *International Journal of Recent Scientific Research.* **2**(5): 139-142. **Impact factor of 0.271**
- 4. **Rajkumar, J.S.I**, John Milton, M.C and Ambrose, T. 2011. Seasonal variation of water quality parameters in Ennore estuary with respect to industrial and domestic sewage. *International Journal of Current Research*, **3**(3): 209-218.
- Rajkumar, J.S.I, John Milton, M.C and Ambrose, T. 2011. Acute toxicity of water borne Cd, Cu, Pb and Zn to *Mugil cephalus* fingerlings. *International Journal of Chemical Sciences*, 9(2): 477-480. Impact factor of 0.067
- 6. **Rajkumar, J.S.I** and John Milton, M.C. 2011. Biochemical markers of oxidative stress in *Mugil cephalus* exposed to cadmium, copper, lead and zinc. *International Journal of Pharma and Biosciences*, **2**(**3**): 41-50. **IC Value 4.63**
- Rajkumar, J.S.I, John Milton, M.C, Ulthiralingam, M, Azhaguraj, R, Ganesh, J and Ambrose, T. 2011. Toxic effects and bioaccumulation of cadmium, copper, lead and zinc in post larval stages of *Penaeus monodon*. *International Journal of Development Research*, 1(2): 001-005.
- 8. **Rajkumar, J.S.I**, John Milton, M.C and Ambrose, T. 2011. Distribution of heavy metal concentrations in surface waters from Ennore estuary, Tamil Nadu, India. *International Journal of Current Research*, **3**(3): 237-244.
- Rajkumar, J.S.I, John Milton, M.C and Ambrose, T. 2011. Toxicity of cadmium, copper, lead and zinc to the juveniles of *Perna viridis*. *International Journal of Chemical Sciences*, 9(2): 553-556. Impact factor of 0.067
- Rajkumar, J.S.I, John Milton, M.C and Arockia Rita, J.J. 2011. Long-term effects of cadmium, copper, lead and zinc exposure on the growth of juvenile green mussel (*Perna viridis*). *International Journal of Recent Scientific Research*. 2(5): 132-135. Impact factor of 0.271
- 11. **Rajkumar, J.S.I** and John Milton, M.C. 2011. Biochemical changes induced by cadmium, copper, lead and zinc exposure to *Perna viridis* under long-term toxicity test. *International Journal of Pharma and Biosciences* **2(3)**: 50-59. **IC Value 4.63**
- 12. **Rajkumar, J.S.I,** John Milton, M.C and Arockia Rita, J.J. 2011. Lipid peroxidation and reduced glutathione as a biomarker in common clam, *meriterix meriterix* to short-term chronic copper exposure. *Asian Journal of Science and Technology*. **2**(4): 009-012.
- 13. **Rajkumar, J.S.I,** John Milton, M. C and Arockia Rita, J.J. 2011. Effects of cadmium, copper, lead and zinc on biomarker responses in post larval stages of *Penaeus monodon*. *International Journal of Development Research*, **1**(2): 006-011.
- 14. **Rajkumar, J.S.I,** John Milton, M.C and Arockia Rita, J.J. 2011. Chronic toxicity of cadmium, copper, lead and zinc to *Mugil cephalus, Perna viridis* and *Penaeus monodon*. *Asian Journal of Science and Technology.* **2(4)**: 005-008.
- 15. Rajkumar, J.S.I, John Milton, M.C and Ambrose, T. 2011. Evaluation of heavy metal

pollution in the surface sediments of Ennore estuary, Tamilnadu, India. *International Journal of Current Research*, **3**(**3**): 219-229.

- Rajkumar, J.S.I, John Milton, M.C and Ambrose, T. 2011. Effects of growth in *Mugil cephalus* exposed to cadmium. *International Journal of Chemical Sciences*, 9(2): 615-619. Impact factor of 0.067
- Rajkumar, J.S.I, John Milton, M.C and Arockia Rita, J.J. 2011. Assessment of heavy metals (Cd, Cu, Pb and Zn) in *Mugil cephalus, Penaeus indicus* and *Meriterix meriterix* of the Ennore creek, Tamil nadu, India. *International Journal of Recent Scientific Research*. 2(5): 126-131. Impact factor of 0.271
- Rajkumar, J.S.I, John Milton, M.C and Arockia Rita, J.J. 2011. Bioaccumulation of some heavy metals Cd, Cu, Pb and Zn in *Mugil cephalus*, *Perna viridis* and *Penaeus monodon*. *International Journal of Development Research*, 1(2): 012-017.
- 19. **Rajkumar, J.S.I** and Samuel Tennyson. 2012. Predicting NOEC through *Mugil cephalus* exposed to heavy metal concentrations with special reference to Ennore creek, Tamilnadu, India. *Elixir Pollution*, 43: 6859-6864.
- Muthuramalingam, T., S. Meenakshi Sundaram, R. Balagopal, J.S.I Rajkumar and T. Sivakumar. 2011. Growth pattern of crossbred Holstein Friesian heifer calves in an organized farm. *Scientific Transactions in Environment and Technovation*, 5(2):82-85.
- Rajkumar, J.S.I, John Milton, M.C and Arockia Rita, J.J. 2011. Levels of heavy metals (Cd, Cu, Pb and Zn) in *Perna viridis* and *Mugil cephalus* exposed under static renewal. *Asian Journal of Science and Technology*, 2(4): 001-004.
- 22. **Rajkumar J.S.I.** 2011. Effects of growth in *Mugil cephalus* juveniles sub-chronically exposed to copper, lead and zinc. *Environmental Science-An Indian Journal*, (TSI), **7** (2): 57-61.
- 23. **Rajkumar J.S.I.** 2012. Mercury Induced Biochemical Changes in *Perna viridis* Exposed in Chronic Toxicity Test, *Research and Reviews: Journal of Toxicology*, 2(1): 1-7.
- Rajkumar J.S.I. 2011. Acute toxicity of cadmium, copper, lead and zinc to tiger shrimp Penaeus monodon postlarvae. International Journal of Environmental Studies. (Accepted; No: 20111129-1fe3). IC Value 4.69
- 25. R S, Robin, Kanuri Vishnu Vardhan, Muduli Pradipta, J.S.I, Raj Kumar and T, Balasubramanian. 2010. Ichthyotoxic dinoflagellate bloom of *karenia mikimotoi* along the southeast Arabian Sea, bordering western India. *Chemistry and Ecology*. (Accepted manuscript number GCHE-2010-0135). Impact factor of 0.776
- 26. **Rajkumar J.S.I.** 2012. Effects of heavy metals in growth of tiger prawn, *Penaeus monodon* (fabr.1798)-an effective assessment tool, *Journal of Applied Sciences in Environmental Sanitation* (Accepted).ICV=6.32
- 27. **Rajkumar J.S.I.** 2012. Marine organisms in toxicological approach for the assessment of environmental risk associated with Cd, Cu, Pb and Zn. *Universal Journal of Environmental Research and Technology (UJERT)* (Accepted).
- 28. Sivakumar. T, Thennarasu. A and **Rajkumar J.S.I**, 2012. Effect of Season on the Incidence of Infectious Diseases of Bovine in Tamilnadu. *Elixir Meteorology*. (Accepted)

#### **RESEARCH ABSTRACTS PRESENTED**

 Published and presented the abstract titled Carbon Storage in Soil through Fodder Crops-An Important Tool in Mitigating Climate Change in the International Workshop on Climate Change in Agriculture: Adaptation and Mitigation Strategies organized by the Faculty of Agriculture and Animal Husbandry, Gandhigram Rural Institute-Deemed University, Gandhigram – 624302 from 21<sup>st</sup> to 23<sup>rd</sup> March 2012.

- Published and presented the abstract titled Fodder Cultivation as a Source of Carbon Capture in Soil for Impeding Climate Change in Agriculture in the International Workshop on Climate Change in Agriculture: Adaptation and Mitigation Strategies organized by the Faculty of Agriculture and Animal Husbandry, Gandhigram Rural Institute-Deemed University, Gandhigram – 624302 from 21<sup>st</sup> to 23<sup>rd</sup> March 2012.
- 3. Abstract accepted for presentation in the International Seminar on "Global Environmental Issues: Challenges to Industry, Ecology and Society" to be held on December 24-25, 2011 at Skail, Kalyani University Campus, West Bengal, India organized by Integrated Research and Development Foundation (IRDF)
- 4. Published abstract titled "Ecological Risk Assessment of Ennore Creek for Mitigating Heavy Metal Pollution" in the National Conference on Environmental Protection and Management in the Department of Advanced Zoology and Biotechnology, Loyola College, chennai-34 on 29<sup>th</sup> and 30<sup>th</sup> August 2011.
- 5. Published abstract titled "Sequestering of Atmospheric Carbon Through Sustainable Agriculture for Mitigating Climate Change" in the National Conference on Environmental Protection and Management in the Department of Advanced Zoology and Biotechnology, Loyola College, chennai-34 on 29<sup>th</sup> and 30<sup>th</sup> August 2011.
- Published abstract titled "Prediction of Pesticide Toxicity By Using PASS" in the National Conference on Environmental Protection and Management in the Department of Advanced Zoology and Biotechnology, Loyola College, chennai-34 on 29<sup>th</sup> and 30<sup>th</sup> August 2011.
- 7. Published abstract titled "**Biochemical Responses of Marine Organisms for Copper in Chronic Toxicity**" in national conference on "Current Trends in Science and Technology" at Madras Christian College from 22<sup>nd</sup> to 24<sup>th</sup> January 2009.
- Participated and presented paper titled "Comparative Acute Toxicity of Arsenic to Marine Organisms, Asian Green mussel (*Perna viridis*) and Crescent Perch (*Therapon Jarbua*)" in national conference on "Current Trends in Science and Technology" at Madras Christian College from 22<sup>nd</sup> to 24<sup>th</sup> January 2009.
- Published abstract titled "Evaluation of antioxidant defence response in *Perna viridis* Linnaeus under chronic mercury exposure: A native Page approach" in International Conference on Frontiers in Biological Sciences (InCoFIBS-2010) in Department of Life Science, National Institute of Technology, Rourkela from October 01 to 03, 2010.

# ARTICLES

1. T. Sivakumar, S. Meenakshi Sundaram, N. Kumaravelu and J.S.I Rajkumar titled "Greening Livestock Production Strategies", Science City Newsletter, Vol IX, No.5, and July 2011, 1-2.

# **BOOKS / CHAPTERS**

 Contributed in the chapter titled "Collection, Preservation and Culture of Insects" of the training manual titled Perspectives of Animal Taxonomy and Systematic edited by Dr. M.C. John Milton.

#### **MEMBERSHIPS/EDITOR/REVIEWER**

- 1. Member- The New York Academy of Sciences (NYAS)
- 2. Reviewer-Resources and Environment, Scientific and Academic Publishing
- 3. Reviewer- Education in Medicine Journal (EIMJ)
- 4. Member- International Association of Engineers and Scientists (IAEST)
- 5. Reviewer-Journal of Science, Technology and Development (JSTD)
- 6. Reviewer- The Computational Science Education Reference Desk (CSERD)
- 7. Member-The International Society for Ecology (ISE)
- 8. Member-Before Its Too Late Conservation Society
- 9. Member-The European Peptide Society (EPS)
- 10. Member-North Shore Animal League America (NSALM)
- 11. Member-International Global Navigation Satellite Systems (IGNSS)
- 12. Member-The International Society of Exercise and Immunology (ISEI)
- 13. Member-International Society for Molecular Recognition (ISMR)
- 14. Member- British Science Association (BSA)
- 15. Member-International Waterlily and Water Gardening Society (IWGS)
- 16. Member-Central Coast Herpetological Society (CCHS)
- 17. Member-Amazon Community animal Rescue, Education and Safety (CARES)
- 18. Member- Multimedia Educational Resource for learning and Online Teaching (MERLOT)
- 19. Reviewer-Journal of Marine Science and Development, OMICS Publishing Group
- 20. Reviewer-International Journal of Science and Advanced Technology (IJSAT)
- 21. Member-International Phytotechnology Society (IPS)
- 22. Member-International Society for Infectious Diseases (ISID)
- 23. Member-National Wildlife Humane Society (NWHS)
- 24. Volunteer Partner- International Forensic Sciences (VPIFS)
- 25. Member-International Forensic Sciences (VMIFS)
- 26. Reviewer-Public Journals (Journal of Experimental Sciences)
- 27. Member-International Serpentine Ecological society (ISES)
- 28. Member-American Chemical Society, Environmental Division (ACS)
- 29. Editorial Board Member-International Society of applied Sciences (ISAS)
- 30. Review Board- Chronicles of Young Scientists (CYS)
- 31. Member-International Society of Zoological Sciences (ISZS)
- 32. Member-Society for Asian Scientists and Engineers (SASE)
- 33. Member-Society for Research and Prevention on Environment and Health (SRPEH)
- 34. Member-International Society for Environmental Information Sciences (ISEIS)
- 35. Member-Society for Free Radical Research International (SFRRI)
- 36. Member-International Natural Hygiene Society (INHS)
- 37. Member-Ocean Futures Society (OFS)
- 38. Member-Specific Scientific and Technical Committee and Editorial Review Board in World Academy of Science, Engineering and Technology
- 39. Member-Scientific Transactions in Environment and Technovation
- 40. Member-Science Alert Family, the Asia's Largest Scientific Community
- 41. Technical Editor in
  - Journal of Biological Sciences
  - International Journal of Zoological Research
  - Asian Journal of Animal Sciences
  - Research Journal of Environmental Sciences
  - Research Journal of Environmental Toxicology

## WORKSHOPS / TRAINING PROGRAMMES ATTENDED

- Participated in the UGC sponsored International Workshop on Climate Change in Agriculture: Adaptation and Mitigation Strategies organized by the Faculty of Agriculture and Animal Husbandry, Gandhigram Rural Institute-Deemed University, Gandhigram – 624302 from 21<sup>st</sup> to 23<sup>rd</sup> March 2012.
- 2. Participated in DBT sponsored short term training course on **Methods and Protocols for Practical Biotechnology** organized by the school of biodiversity and environmental monitoring, Department of Advanced Zoology and Biotechnology, Loyola College, Chennai-34, from March 14<sup>th</sup> to 03<sup>rd</sup> April 2011.
- 3. Participated in National level training cum workshop on **Recent Trends in Animal Taxonomy and Systematic** from 23<sup>rd</sup> to 26<sup>th</sup> Feb 2011 organized by the school of biodiversity and environmental monitoring, Department of Advanced Zoology and Biotechnology, Loyola College, Chennai-34.
- 4. Completed advanced training programme in **DNA Fingerprinting** in the Department of Advanced Zoology and Biotechnology, Loyola College, chennai-34 on 18<sup>th</sup> Dec 2009.
- 5. Underwent workshop programme on **Marine Ecotoxicology** in Integrated Coastal Marine Area Management, Ministry Of Earth Science, Pallikaranai, Chennai-600100, 2008.
- 6. Underwent workshop programme in **Bioinformatics Vector Control**, IICT-2006.
- 7. Underwent a workshop programme in **Cattle Management and Fodder Production**, Govt. Of India-2004.

#### PROJECTS COMPLETED

- 1. Ph.D-entitled 'Ecological Risk Assessment of Ennore Creek to Develop Safety Limits for Cu, Cd, Pb and Zn with *Mugil cephalus* (Linn.), *Perna viridis* (Linn.) and *Penaeus monodon* (Fabr.)', 2011.
- 2. M.Phil-entitled on 'Mosquito Larvicide Abate Induced Haematological Responses of Grass carp *Ctenopharyngodon idellus*' (HOWES, 1981) in 2007.
- 3. M.Sc-entitled 'Study on Municipal Solid Waste Management in Chennai'-2006.

#### SYMPOSIA / CONFERENCES PARTICIPATED

- 1. Participated in the National Conference on Environmental Protection and Management in the Department of Advanced Zoology and Biotechnology, Loyola College, chennai-34 on 29<sup>th</sup> and 30<sup>th</sup> August 2011.
- Participated in the celebrations of the Bicentennial Birth Anniversary of Charles R. Darwin & 150<sup>th</sup> Anniversary of 'on the Origin of Species.' and Seminar on 'Charles R. Darwin: The Intellectual Revolution' in the Department of Advanced Zoology and Biotechnology, Loyola College, chennai-34 on 8<sup>th</sup> and 9<sup>th</sup> February 2010.
- 3. Participated in state level symposium on Role of Laboratories in Trauma Care and Pre-Emptive Prevention of Human Diseases on 17<sup>th</sup> and 18<sup>th</sup> Dec 2008.
- 4. Participated in national conference in "Biodiversity"-2006.
- 5. Participated in state level symposium in "Hitech and Instrumentation in Medical Laboratory Technology for Diagnosis of Human Diseases"-2004.
- 6. Participated in state level seminar in "Urban Environment Impact Assessment" -2004.
- 7. Participated in national seminar in "Healthy Environment for the Next Generation"-2004.
- 8. Participated in state level conference in "HIV/AIDS Awareness for College Students"-2003.

- 9. Participated in state level seminar in "Poultry"-2003.
- 10. Participated in national conference in "Management of Natural Resources for Our Sustenance"-2002.
- 11. Participated in seminar in "Poultry for Sustainable Food Production and Livelihood"-2001.

## SOCIAL ACTIVITES

- 1. Won third price in exhibition in departmental festivals -2005.
- 2. Participated in Community Service Camp at Chengalpet -Loyola College 2004.
- 3. Involved in community service "Men and Women for Others", Loyola College, 2002-2003.
- 4. Active member of the organizing committee of ZALC, Loyola college-2002.
- 5. Organized Animal Welfare quiz competition (NSS)-2002.
- 6. Participated in Cycle Rally Titled Anti-Terrorism (NSS)-2002.
- 7. Participated in Medical Project at Govt-Pheripheral Hospital, 2001-2002.
- 8. Participated in exhibition and as a volunteer in departmental festivals, 2001-2002.
- 9. Participated in crossword and won third price in exhibition, 2001-2002.

# **DECLARATION:**

I hereby declare that the above stated particulars are true.

Place : Chennai-600055 Date : 07.05.2012

# (J.S.I.RAJKUMAR)