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Date of Birth	23 April 1966
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Educational Qualifications	
1998	Ph.D. (Marine Sciences) , <i>Cochin University of Science & Technology, Cochin, Kerala</i>
1989	M.Sc. (Mariculture) , <i>Cochin University of Science & Technology, Cochin, Kerala</i>
1986	B.Sc (Zoology) , <i>Gandhiji University, Kottayam, Kerala</i>
Academic awards	<ul style="list-style-type: none"> • ICAR Junior Research Fellowship for M.Sc. degree program at CMFRI, Kochi (1986-1988) • ICAR Senior Research Fellowship for Ph.D. degree program at CMFRI, Kochi (1989-1992)

Areas of specialization	<ul style="list-style-type: none"> • Genetic improvement of freshwater prawn <i>Macrobrachium rosenbergii</i> • Breeding, hatchery technology and grow-out culture of <i>M. rosenbergii</i> • Physiology of osmoregulation in penaeid prawns. • Cryopreservation of embryos and larval stages of <i>M. rosenbergii</i>.
Current areas of research	<ul style="list-style-type: none"> • Genetic improvement of giant freshwater prawn <i>Macrobrachium rosenbergii</i> through selective breeding. • Development of Freshwater Integrated Multi-Trophic Aquaculture Systems • Aquaponics
Research guidance	<ul style="list-style-type: none"> • M.F.Sc. – 2 • Ph.D - 2
Highlights of Research Contribution	<ul style="list-style-type: none"> • Initiation and implementation of a genetic selection programme based on family selection to develop a fast growing strain of freshwater prawn <i>Macrobrachium rosenbergii</i>. • Involved in establishing a captive broodstock bank for the production of good quality seed of freshwater prawn <i>Macrobrachium rosenbergii</i> in a 2 ha area in the Instructional fish farm of College of Fisheries, Nellore. • Developed and standardized protocols for reliable production of full sib families of freshwater prawn <i>M. rosenbergii</i> for selective breeding programme. • Standardization of an individual (visible implant alphanumeric tag) as well as batch tagging technique (visible implant elastomer tag) in juvenile freshwater prawn <i>M. rosenbergii</i>. • Developed and standardized a package of practices for the development of captive broodstock of freshwater prawn <i>Macrobrachium rosenbergii</i>. • Development of an enzymatic digestion method for the individual separation of viable embryos of <i>Macrobrachium rosenbergii</i> for cryopreservation studies. • Development and standardization of a semi closed, two-phase hatchery technology for sustainable seed production of <i>Macrobrachium rosenbergii</i>.

	<ul style="list-style-type: none"> • Development of a package of practices for grow out production of freshwater prawn <i>M. rosenbergii</i> • Developed and standardized an indoor high-density rearing system for <i>M. rosenbergii</i> post larvae in a commercial level hatchery. • Developed an enzymatic digestion method for the individual separation of viable embryos of <i>Macrobrachium rosenbergii</i> for cryopreservation studies. • Developed an outdoor nursery rearing system of post larvae of <i>Macrobrachium rosenbergii</i> in earthen ponds.
Publications	<ul style="list-style-type: none"> • Peer reviewed Research Papers – 46 • Edited publications: 11 • Book Chapters/Technical Papers/ Popular Articles: 11 • Leaflets - 15
Recent Publications	<ol style="list-style-type: none"> 1. Bindu R. Pillai, Lalrinsanga, P.L., Ponzoni, R.W., Khaw, H.L., Mahapatra, K.D., Mohanty, S., Patra, G., Naik, N., Pradhan, H. and P. Jayasankar. 2017. Phenotypic and Genetic Parameters for Body Traits in the Giant Freshwater Prawn (<i>Macrobrachium rosenbergii</i>) in India. <i>Aquaculture Research</i> 48, 5741-5750. 2. Jesna, P.K., Pillai, B.R., N. Naik and H. Pradhan., 2018. Biofilm formed on different natural substrates enhances the growth and survival in <i>Macrobrachium rosenbergii</i> (De Man 1879) juveniles. <i>Indian Journal of Fisheries</i>,65(1):55-58. 3. Ferosekhan, S., Sahoo, S.K., Giri, S.S., Das, B.K., Pillai, B.R and Das, P. C. 2019. Captive broodstock development, induced breeding and seed production of bagrid catfish, Mahanadi rita, <i>Rita chrysea</i> (Day, 1877), <i>Aquaculture</i>, 503, 339-346. 4. Haldar, C., Das. S. P., Pillai, B.R., Pavan-Kumar A., P. Gireesh-Babu, Das, P., Chaudhari, A., 2019. Single-nucleotide polymorphisms linked to body weight revealed in growth selected <i>Macrobrachium rosenbergii</i>, <i>Aquaculture International</i>, https://doi.org/10.1007/s10499-018-03343 5. Sahoo, S.K., Ferosekhana, S, Giri, S.S., Radhakrishnan, K., Panda, D, SriHari, M., Pillai, B.R. 2019. Length-weight relationship and growth performance of different life stages of hatchery produced magur, <i>Clarias magur</i> (Hamilton, 1822). <i>Aquaculture Research</i> DOI: 10.1111/are.14018 6. Dash, L., Kumar, R., Mohanta, K.N., Mohanty, U.L., Pillai, B.R. and Sundaray, J.K. 2019. Effect of feeding frequency on growth, feed utilisation and cannibalism in climbing perch <i>Anabas testudineus</i> (Bloch 1792) fry. <i>Indian Journal of Fisheries</i>, 66 (1):106-111.

7. P K Sahoo., Pattanayak, S., Paul A, Sahoo, M. K., Rajesh Kumar, P, Panda, D and Pillai, B. R., **2018**. First record of *Metanophrys sinensis* (Protozoa: Ciliophora: Scuticociliatida) from India causing large scale mortality in a new host *Macrobrachium rosenbergii* larvae. *Journal of Fish diseases*, DOI: 10.1111/jfd.12809.
8. Adhikari , S, Chaudhury, A.K, Barlaya, G.,Rathod, R., Mandal, R.N, Ikmail, S., Saha G.S, De H.K, Sivaraman I, Mahapatra AS, Sarkar S, Routray P, Pillai, B.R.,Sundaray, J.K. **2018**. Adaptation and Mitigation Strategies of Climate Change Impact in Freshwater Aquaculture in some states of India. *Journal of FisheriesSciences.com* **12(1): 16-21**.
9. **Bindu R. Pillai**, Mahapatra, K.D., Ponzoni, R.W., Sahoo, L., Lalrinsanga, P.L., Mekkawy,W., Khaw, H.L., Nguyen, N.H., Mohanty, S., Sahu, S., Patra, G., **2015**. Survival, sex ratio, male morphotype distribution, female reproductive status and tag losses in crosses among three populations of freshwater prawn *Macrobrachium rosenbergii* (de Man) in India. *Aquaculture Research* **46, 2644-2655**
10. **Bindu R. Pillai**, K. D. Mahapatra, R. W. Ponzoni, L. Sahoo, P.L. Lalrinsanga, N. H. Nguyen, S. Mohanty , S. Sahu , Vijaykumar, S. Sahu , Khaw, H. L. Patra, G, Patnaik, S, Rath, S. C. **2011**. Genetic evaluation of a complete diallel cross involving three populations of freshwater prawn (*Macrobrachium rosenbergii*) from different geographical regions of India. *Aquaculture* **319 (2011) 347–354**
11. Padmanava Mohanty, L.Sahoo, **B. R Pillai**, P. Jayasankar and P.Das, **2016**. Genetic divergence in Indian populations of *M. rosenbergii* using microsatellite markers. *Aquaculture Research* **47, 472-481** .
12. Anantharaja, K., Mohapatra, B.C., Pillai, B.R., Rajesh Kumar, Devaraj C. and Majhi, D **2017**. Growth and survival of climbing perch, *Anabas testudineus* in Nutrient Film Technique (NFT) Aquaponics System. *International Journal of Fisheries and Aquatic Studies*; **5(4): 24-29**.
13. Patra, G., Mohanty, J., Garnayak, S. K., Sahoo P. K., and Pillai, B.R. **2015**. Genetic variations among families of selectively bred *Macrobrachium rosenbergii* (de man) by RAPD-PCR analysis *Journal of Aquaculture* **23, 17-36**.
14. Swagathika Mohanty, Pillai, B. R, Rangacharylu, P.V. **2013**.Effect of different levels of dietary lipids on reproductive performance of captive broodstock of *Macrobrachium rosenbergii*. *Journal of Aquaculture*, **21, 21-26**.
15. PL Lalrinsanga, **B.R Pillai**, G. Patra, S. Mohanty, N.K Naik, R.R Das, S Sahu, **2014**. Yield characteristics and morphometric relationships of giant freshwater prawn, *Macrobrachium rosenbergii* (de Man, 1879). *Aquaculture International*, **22, 1053-1066**

	<ol style="list-style-type: none"> 16. Mohanty, J., Sahoo, P. K., Pillai, B. R., Mohanty, S., Garnayak, S. K., S. Kumar. 2015. Purification and characterization of a β-glucan binding protein from the haemolymph of freshwater prawn <i>Macrobrachium rosenbergii</i> <i>Aquaculture Research</i>, 46, 95-104. 17. P. L. Lalrinsanga, B. R. Pillai, S. Mohanty, G. Patra, and S. Sahu. 2012, Length-weight relationship and condition factor of giant freshwater prawn, <i>Macrobrachium rosenbergii</i> based on developmental stages, culture stages and sex. <i>Turkish Journal of Fisheries and Aquatic Sciences</i> 12, 917-924. 18. Sahoo, P. K., Shekhar, M. S., Das A., Kumar D. M., Pillai, B.R. and A. S. Sahul Hameed. 2012. Immunomodulatory effect of recombinant RNA-dependent RNA polymerase protein of <i>Macrobrachium rosenbergii</i> nodavirus in giant freshwater prawn <i>Macrobrachium rosenbergii</i> <i>Aquaculture Research</i> 43, 1096-1106. 19. B.B. Sahu, B.R. Pillai, P.L. Lalrinsanga, R.P. Samal, P.K. Meher, D.R. Kanaujia, A.K. Sahu and P. Jayasankar, 2012. A Comparison of Commercial Characteristics and Yield Partitioning Between <i>Macrobrachium rosenbergii</i> (De Man 1879) and <i>Macrobrachium malcolmsonii</i> (Milne Edward 1894), <i>American-Eurasian Journal of Scientific Research</i> 7 (2): 82-85. 20. Bhuyan, S. K., Jena, J. K., Pillai, B. R., P. Kumar and S. K. Chakraborty, 2012. Studies on the growth of Otolithes ruber, and <i>Pennahia macrophthalmus</i> from Paradeep coast, India. <i>Indian J. Fish</i>, 59 (2): 89-93. 21. Das A., Kumar D. M., Pillai, B.R., Shekhar, M. S. Routray, P., and Sahoo, P. K., 2011. Immunomodulatory effect of recombinant capsid and b2 proteins of <i>Macrobrachium rosenbergii</i> nodavirus in freshwater prawn <i>Macrobrachium rosenbergii</i> (de Man). <i>Journal of Aquaculture</i>, 19, 9-24. 22. Rath, S. C., Pillai, B. R., Mohanty, S. N., Sarkar, S. 2011. Growth and survival of <i>Macrobrachium rosenbergii</i> (de Man) post larvae fed with iso-proteic diets incorporated with fishmeal and its substitution exclusively by plant protein. <i>Indian Journal of Animal Sciences</i> 81 (12): 1272-1275.
<p>Book Chapters/ Technical Papers/ Popular Articles</p>	<ol style="list-style-type: none"> 1. Bindu R. Pillai, Lalrinsanga, P.L., Jesna, P.K., D. Panda and B. Mishra, 2018. Breeding and Culture of giant freshwater prawn (scampi) <i>Macrobrachium rosenbergii</i>. In: Ravichandran, K (Ed.). Package of practices for breeding and culture of commercially important freshwater fish species. NFDB, Hyderabad, 55-77. 2. Bindu R. Pillai and J.K. Sundaray, 2017. Freshwater Aquaculture Research and Recent Developments. In: Souvenir; Aqua Aquaria India 2017; 14-16 May 2017, pp37-46' Mangalore, Karnataka. MPEDA 3. B. R. Pillai and D. Panda 2019. Integration of Freshwater and Brackish Water Farming Systems and Research on Resilient Aquaculture Species. In: Souvenir 'International Conference on

Brackishwater Aquaculture (BRAQCON 2019)', Chennai, Tamil Nadu, India, 23-25 January 2019.

4. **Bindu R Pillai, 2019.** Farming of Freshwater Prawn *Macrobrachium rosenbergii* in India: Status and Scope. In: Souvenir, 31st All India Congress of Zoology & National Seminar on "Climate-Smart Aquaculture and Fisheries", College of Fisheries, CAU, Lembucherra, 15-16 January, 2019.
5. **Bindu R. Pillai, 2011.** Freshwater prawn breeding and culture. *In: Handbook of Fisheries and Aquaculture*, ICAR, New Delhi, 413-438.
6. **Bindu R. Pillai, L. Sahoo, P.L. Lalrinsanga, S. Mohanty and S. Sahu, 2011,** Development of captive broodstock of giant river prawn *Macrobrachium rosenbergii*, *Aquaculture Asia*, **16 (2): 17-20.**
7. **Bindu R. Pillai. 2008.** Freshwater Prawn Aquaculture: Status and Scope. In: *Applied Bioinformatics, Statistics and Economics in Fisheries Research*. Pp.131-140. (Eds. A. K. Roy and N. Sarangi). New India Publishing Agency, New Delhi.
8. **Bindu R Pillai, S. C. Rath, Sovan Sahu and Sarangi, N. 2007.** Grow-out technology of giant freshwater prawn. *Indian Farming*, **3-5.**
9. **Bindu R. Pillai, Sahu, S and Mohanty, S. 2007** Growth, survival, yields and weight class distribution of monosex populations of giant freshwater prawn *Macrobrachium rosenbergii* (De Man). In: Nair C. M., Nambudiri, D. D., Susheela, J., Sankaran, T. M., Jayachandran, K. V. and Salin, K. R. (Eds.). *Proceedings of the International Symposium on Freshwater prawns, 20-23 August 2003*, Kochi, India, p.410-416.
10. **Rangacharyulu, P. V., S. S. Giri and Bindu R Pillai and Sovan Sahu. 2007.** Growth and nutrient digestibilities in *Macrobrachium rosenbergii* juveniles fed Aqua-Pro (IHF-500) supplemented diet. In: Nair C. M., Nambudiri, D. D., Susheela, J., Sankaran, T. M., Jayachandran, K. V. and Salin, K. R. (Eds.). *Proceedings of the International Symposium on Freshwater prawns, 20-23 August 2003*, Kochi, India, p. 571-574.
11. **Bindu R. Pillai and P.S.B.R. James, 1993.** Effect of physical stress on *Penaeus indicus*. *C.M.F.R.I. Special publication no. 54*, 1-8.