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Date of Birth	23 April 1966
Sex	Female
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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 • ICAR Senior Research Fellowship for M.Sc. degree program at CMFRI, Kochi

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 high quality captive broodstock of <i>M. rosenbergii</i>. • Quality seed production of <i>M. rosenbergii</i>
Foreign Deputation	<ul style="list-style-type: none"> • Participated in the training programme on "Quantitative Genetics Applied to Fish Improvement" organised by Worldfish Centre at Kasetsart University, Bangkok, Thailand during 10-21 October 2005.
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.

	<ul style="list-style-type: none"> • Development and standardization of a semi closed, two-phase hatchery technology for sustainable seed production of <i>Macrobrachium rosenbergii</i>. • 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.
<p>Publications</p>	<ol style="list-style-type: none"> 1. 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 (<i>Macrobrachium rosenbergii</i>) from different geographical regions of India. <i>Aquaculture</i> 319 347–354. 2. Bindu R. Pillai, L. Sahoo, S. Sahu, S. Mohanty, Vijaykumar, and S. Sahu. 2010. Effect of unilateral eyestalk ablation on ovarian maturation and occurrence of berried females in <i>Macrobrachium rosenbergii</i>. <i>Indian J. Fish</i>, 58 (1): 77-80. 3. Bindu R Pillai, Lopamudra Sahoo, Kanta Das Mahapatra, Raul Ponzoni, Sovan Sahu, Swagatika Mohanty, Vijaykumar and Swagatika Sahu, 2009. Evaluation of a new Fluorescent Internal Tag (soft Visible Implant Alphanumeric Tag) in Freshwater Prawn <i>Macrobrachium rosenbergii</i>, <i>The Israeli Journal of Aquaculture-Bamidgeh</i>, 61 (4) 345-350. 4. Sahoo, P. K., Shekhar, M. S., Das A., Kumar D. M., B.R. Pillai and A. S. Sahul Hameed. 2011. 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>, 2011, 1-11. 5. 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.

6. Kumar V., Pillai, B. R., Sahoo P. K., Mohanty J. and Mohanty S. 2009. Effect of dietary astaxanthin on growth and immune response of giant freshwater prawn *Macrobrachium rosenbergii* (De Man). *Asian Fisheries Science*, 22: 61-69.
7. Shripathi Bhat, Alok Patel, Paramananda Das, Prem K. Meher, Bindu R. Pillai and P. Jayasankar. 2008. Isolation and characterization of microsatellite loci in giant freshwater prawn, *Macrobrachium rosenbergii*. *Conservation Genetics*, DOI 10, 1007/s10592-008-9763-2
8. Bindu R. Pillai, S.C. Rath and S. Sahu. 2007. Evaluation of a Visible Implant Fluorescent Elastomer Internal Tag in Juvenile Freshwater Prawn *Macrobrachium rosenbergii* (de Man). *Indian Journal of Animal Sciences* 77: 1054-1056.
9. Sahoo, P. K., Pillai B. R., Mohanty, J., Kumari, J., Mohanty, S., Mishra, B. K. 2007. In vivo humoral and cellular reactions and the fate of injected bacteria *Aeromonas hydrophila* in freshwater prawn *Macrobrachium rosenbergii*. *Fish and Shellfish Immunology* 23, 327-340.
10. Sahoo, P. K., Das, A., Mohanty, S., Mohanty, B. R., Pillai B. R. and Mohanty, J. 2008. Dietary β glucan improves the immunity and disease resistance of freshwater prawn *Macrobrachium rosenbergii* challenged with *Aeromonas hydrophila*. *Aquaculture Research* 39, 1574-1578
11. Sahoo, P. K., Pillai B. R., Mohanty, J., Kumari, J., Mohanty, S., Mishra, B. K. 2007. Differential affinity of natural haemagglutinin of *Macrobrachium rosenbergii* towards vertebrates erythrocytes. Effect of sex, size and moult stage on haemagglutination titre. *Indian Journal of Experimental Biology*, 45: 830-833.
12. Adhikari, S, Naqvi, A, A, Pani, K. C., Bindu R. Pillai, J. K. Jena, and Sarangi, N. 2007. Effect of manganese and iron on growth and feeding of juvenile giant river prawn *Macrobrachium rosenbergii* (de Man). *J. World Aqua. Soc.*, 38, 161-168.
13. Adhikari, S, V.S. Chaurasia, Naqvi, A, A, Bindu R. Pillai. 2007. Survival and growth of *Macrobrachium rosenbergii* (de Man) juveniles in relation to calcium hardness and bicarbonate alkalinity. *Turkish Journal of Fisheries and Aquatic Sciences* 7, 23-26.
14. Naqvi, A, Adhikari, S, Bindu R. Pillai., Sarangi, N. 2007. Effect of ammonia N on growth and feeding of juvenile *Macrobrachium rosenbergii* (de Man). *Aquaculture Research* 38, 847-851.

15. Rameswara Reddy, **Bindu R. Pillai** and Subhendu Adhikari, **2006**. Bioaccumulation of copper in post-larvae and juveniles of freshwater prawn *Macrobrachium rosenbergii* (de Man) exposed to sub-lethal levels of copper sulfate. *Aquaculture* **252**, 356-360.
16. **Bindu R Pillai**, Swagatika Mohanty and Sovan Sahu. **2006**. Observations on growth, survival, maturation and breeding of *Macrobrachium dayanum* (Henderson, 1893) under laboratory conditions. *J. Aqua.* **14**, 39-44.
17. Sahoo, P.K., **Pillai, Bindu R.**, Mohanty, J., Kumari Jaya and Mohanty, S. **2006**. Effect of water temperature on immune parameters of giant freshwater prawn, *Macrobrachium rosenbergii*. *J. Aqua.* **14**, 77-82.
18. Pradhan, G.C., Sahoo, P.K., Kumari Jaya, Mohanty, S., Mohanty, J., **Pillai, Bindu R.**, and Sarangi, N. (**2006**). Levamisole influences the immune response of freshwater prawn, *Macrobrachium rosenbergii* and its resistance to nitrite stress and *Aeromonas hydrophila* infection. *J. Aqua.* **14**, 1-15.
19. R.K Chand, P.K. Sahoo, Jayakumari, **Bindu R. Pillai**, B. K. Mishra. **2006**. Dietary administration of bovine lactoferrin influences the immune ability of the giant freshwater prawn *Macrobrachium rosenbergii* (de Man) and its resistance against *Aeromonas hydrophila* infection and nitrite stress. *Fish and Shellfish Immunology* **21**, 119-129.
20. Jaya Kumari, P. K. Sahoo, S. S. Giri and **Bindu R. Pillai**, **2004**, Immunomodulation by 'ImmuPlus(Aqua Immu)' in giant freshwater prawn, *Macrobrachium rosenbergii*(De Man), *Indian Journal of Experimental Biology*, **42** : 1073-1077
21. **Bindu R. Pillai** and J. Mohanty. **2003**. Enzymatic digestion - a safe and rapid technique for individual separation of *Macrobrachium rosenbergii* embryos for cryopreservation studies. *Cryobiology*, **47**: 242-246.
22. **Bindu R. Pillai** and A.D. Diwan, **2002**. Effects of acute salinity stress on oxygen consumption and ammonia excretion rates of the marine shrimp *Metapenaeus monoceros*. *Journal of Crustacean Biology*, **22** (1): 45-52.
23. **Bindu R. Pillai**, A.P. Tripathy and J. Dandapat, **2001**. Comparative evaluation of biochemical parameters in wild and cultured brood stock of *Macrobrachium rosenbergii*. *Indian J. Fish*, **48** (1): 35-39.

	<p>24. Bindu R. Pillai, K. J. Rao and J. Mohanty 2001. Toxicity of selected cryoprotectants on the early larval stages of the giant freshwater prawn <i>Macrobrachium rosenbergii</i>. Asian Fisheries Science, 14 (1): 1-8.</p> <p>25. Bindu R. Pillai, A. P. Tripathy and K. J.Rao, 1999. Observations on the growth of post-larvae of <i>Macrobrachium rosenbergii</i> in polyhouse sheet covered earthen nursery ponds during winter. Indian J. Fish. 46. (1): 57-59.</p> <p>26. Bindu R. Pillai and A. D. Diwan, 1999. Ionic regulatory pattern in the shrimp <i>Metapenaeus monoceros</i>. J. Aqua. Trop. 14 (3): 237-246.</p> <p>27. Bindu R. Pillai and K. J. Rao, 1997. Effect of stocking density on post-larval production of <i>Macrobrachium rosenbergii</i> in a two-phase larval rearing system. Journal of Aquaculture. 5: 59-62.</p> <p>28. Bindu R. Pillai and K. J.Rao. 1997. Nursery rearing trials of giant freshwater prawn <i>Macrobrachium rosenbergii</i> in earthen ponds. Journal of Aquaculture 5: 71-76.</p> <p>29. Bindu R. Pillai and A. D. Diwan, 1997. Osmoregulatory adaptations of the shrimp <i>Metapenaeus monoceros</i> in an estuarine environment. Proc. Indian Natnl. Sci. Acad. B63 (4): 315-322.</p>
<p>Book Chapters/ Technical Papers/ Popular Articles</p>	<p>1. Bindu R. Pillai, 2011. Freshwater prawn breeding and culture. In: Handbook of Fisheries and Aquaculture, ICAR, New Delhi, 413-438.</p> <p>2. Bindu R. Pillai, L. Sahoo, P.L. Lalrinsanga, S. Mohanty and S. Sahu, 2011, Development of captive broodstock of giant river prawn <i>Macrobrachium rosenbergii</i>, Aquaculture Asia, 16 (2): 17-20.</p> <p>3. 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.</p> <p>4. Bindu R Pillai, S. C. Rath, Sovan Sahu and Sarangi, N. 2007. Grow-out technology of giant freshwater prawn. Indian Farming, 3-5.</p> <p>5. Bindu R. Pillai, Sahu, S and Mohanty, S. 2007 Growth, survival, yields and weight class distribution of monosex populations of giant freshwater prawn <i>Macrobrachium rosenbergii</i> (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.</p>

6. 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.
7. **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.

