

Résumé

Name : DR. JULA S. NAIR

Age : 58 years

Date of birth : 1 October 1964

Gender : Female

Designation : Director

Present Address : Central Sericultural Research & Training Institute, Central Silk Board, Ministry of Textiles, Berhampore West Bengal -742 101

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NAIRJULA@YAHOO.COM

Educational qualifications : M.Sc., M.Phil., Ph.D.



Academic records

Degree	University/ Institute	Year	Class/ Grade	Subject Specialization	Medals/ Awards
Graduation B.Sc.	University of Calicut	1985	I	Zoology with Botany and Chemistry subsidiaries	First Rank and Gold medal
Post Graduation M.Sc.	University of Calicut	1987	I	Zoology with Entomology Specialization	-
Post Graduation M.Phil.	University of Calicut	1989	I	Zoology with Reproductive Physiology Optional	-
Ph.D.	University of Calicut	2010	-	Sericulture – Silkworm Physiology	-

M.Phil. Dissertation : Seasonal changes in the male reproductive system of fresh water prawn, *Macrobrachium idella*

Ph.D. Thesis : Evolution of silkworm strains (*Bombyx mori* L.) suitable for rearing on artificial diet

Membership in Scientific Bodies : 1. Life Member – National Academy of Sericultural Sciences, India.
2. Life member –Black Caspian Seas and Central Asia Silk Association (BACSA)

Present Job Description : Director - To oversee Research, Training, Extension and overall administration of the Main Institute and the subordinate units such as RSRs and RECs spread in 13 eastern and northern Indian states

Experience

Research : 21 years
 Planning & monitoring : 5 years
 Editor, scientific Journal : 26 years

Organization	Designation	Years of Research experience
Research		
Department of Applied Zoology, Calicut University	M.Phil. Student	1 year (1988-1989)
Central Sericultural Research & Training Institute, Mysore	Senior Research Assistant	7 years (1990-1993 & 1996-2000)
Central Sericultural Research & Training Institute, Mysore	Senior Research Officer	6 years (2000-2006)
Central Sericultural Research & Training Institute, Mysore	Scientist-C	3 years 2006-2009
Silkworm Seed Technology Laboratory, Kodathi	Scientist-C	4 years 2009- 2013
Planning Monitoring and Evaluation		
Central Sericultural Research & Training Institute, Mysore	Senior Research Assistant	3 years (1993 -1996)
Silkworm Seed Technology Laboratory, Kodathi	Scientist-C	1 year 9 months 2009- 2011
Research Coordination Section, Central Silk Board, Bangalore	Scientist-D	6 months Feb-2023- Jul- 2023
Scientific Editing		
Central Sericultural Research & Training Institute, Mysore(IJS)	Senior Research Assistant	7 years (1993 -2000)
Central Sericultural Research & Training Institute, Mysore(IJS)	Senior Research Officer	6 years (2000 -2006)
Central Sericultural Research & Training Institute, Mysore (IJS)	Scientist-C	3 years 2006-2009
Sericologia, Central Silk Board, Bangalore	Scientist-C	1 year (2013-14)
Sericologia, Central Silk Board, Bangalore	Scientist-D	9 years (2014-2023)
Head of Organization		
Central Sericultural Research & Training Institute, Berhampore	Director	August-2023- Continued

Chief Editor : Sericologia, The International Journal published by International Sericultural Commission.

Associate Editor : Research Journal of Agricultural Sciences (RJAS), an International journal

Expert peer reviewer :
1. Research Journal of Agricultural Sciences
2. Indian Journal of Sericulture
3. Journal of Sericulture and Technology (NASSI)

Training obtained :

1. Five Days Training on "Leadership and Organization Development for Women Scientists/Technologists" at Centre for Organization Development, Hyderabad from 12th October to 16th October, 2020.
2. Two days training on "Sexual Harassment of Women at Work Place" at Institute of Secretariat Training and Management, DoPT, Govt. of India, New Delhi from 18th August 2016 to 19th August 2016.
3. Seven days training programme on 'Writing Winning Research Proposals' at National Academy of Agricultural Research Management (NAARM), Hyderabad from 2nd to 8th September, 2011.
4. One week training on Computer Fundamentals and MS Office at Software Training Group International Training Centre, Mysore from 22nd May to 27th May, 2000.
5. 45 days training in bivoltine silkworm rearing at CSRTI, Mysore during October-November 1990.

Research works handled so far:

1. Evolution silkworm breeds with high survival.
2. Heritability, genetic and phenotypic correlation studies for fitness and quantitative traits of bivoltine silkworm *Bombyx mori* L.
3. Evaluation of silkworm breeds/ hybrids, mulberry genotypes and some rearing practices using silkworm feed conversion efficiency as a tool.
4. Screening and development of silkworm strains suitable for artificial diet.
5. Maintenance of bivoltine and multivoltine semi-synthetic diet silkworm strains for original breed characters.
6. Evolution of silkworm strains (*Bombyx mori* L.) suitable for rearing on artificial diet.
7. Studies on the potentiality of selected polyvoltine breeds of the silkworm *Bombyx mori* L.
8. Application of silver nano particles for silkworm disease management.

9. Development, maintenance and multiplication of disease tolerant Nistari breed for West Bengal and Uttar Pradesh.
10. Discrimination of microsporidian spores infecting silkworm, *Bombyx mori* L. employing molecular tools.
11. Influence of shortened and extended periods of seed preservation on disease incidence in popular bivoltine silkworm breeds and hybrids.

Publications

Total	:	43
International journals	:	12
National journals	:	18
Popular scientific articles	:	4
Conference abstracts	:	9

National/International Conferences/Symposia/Seminars attended

1. The 26th International Congress on Sericulture and Silk Industry, SERITECH – The New Concepts in Sericulture. Cluj Napoca, Romania, 7th-11th September, 2022.
2. The 25th International Congress on Sericulture and Silk Industry, Silk Beyond Textile. Tsukuba, Ibaraki, Japan. 19th - 22nd November, 2019.
3. Sixth Asia Pacific Congress of Sericulture and Insect Biotechnology (APSERI). Mysore 2nd - 4th March, 2019.
4. Eighth International Conference on Wild Silkmoth. Guwahati India, 22nd - 24th January 2018.
5. National Conference on Recent Advances in Modern Biology & Sericulture for Women Empowerment and Rural Development. KSSRDI, Thalaghatapura, Bangalore, 24th-26th, October 2013
6. International Conference-4th Bangalore Nano- on 'Nano Science & Technology at the Cutting Edge' at Lalit Ashok, Bangalore during 7th -9th December, 2011.
7. Golden Jubilee National Conference on "Sericulture Innovations –Before and Beyond' at Central Sericultural Research & Training Institute, Mysore on 28-29th January, 2011.
8. Golden Jubilee National Symposium on Plant Diversity, Utilization and Management at University of Kerala, Kariavattom, Thiruvananthapuram on 27th -29th May, 2010.
9. Workshop on Recent Advances in Sericulture Research organized by Central Silk Board, Bangalore and CDFD, Hyderabad at Bangalore on 18th -19th May. 2010 (International).

10. Second Biopesticide International Conference at St. Xavier's College (Autonomous), Palayamkottai, Tamil Nadu on 26th -28th November, 2009.
11. National Conference on Tropical Sericulture for Global Competitiveness organized by National Academy of Sericultural Sciences, India at Central Sericultural Research & Training Institute, Mysore – 5-7th November, 2003.
12. National Conference on Strategies for Sericultural Research and Development at Central Sericultural Research & Training Institute, Mysore. November 16-18, 2000.
13. Seminar on Sericulture Technology: An appraisal at Central Sericultural Research and Training Institute, Mysore. 6th-7th, June, 2000.
14. National Conference on Mulberry Sericultural Research at Central Sericultural Research and Training Institute, Mysore on 10-11th September, 1992.

Major contributions

1. As the Editor of Indian Journal of Sericulture, lifted the standard of the journal substantially through a three tier review and immaculate scientific editing. Got the Journal's layout modified and made it scientifically more appealing.
2. Played instrumental role in evolving bivoltine pure silkworm breeds with high survival and multi x bivoltine hybrids with higher yield and silk content, during the period from 1990 to 1993.
3. As a co-investigator of the project, played substantial role in developing a technology for rearing young silkworm on an inexpensive alternative feed and in evolving exclusive silkworm breeds and hybrids for rearing on artificial feed.
4. Generated useful information regarding the feed conversion efficiency of quite a number of silkworm breeds and hybrids which would equip the breeders with one of the important selection tools.
5. Played significant role in bringing out the Annual Reports, 2008-09 and 2009-10, 2010-11 and 2011-12 of SSTL successfully. Monitored and coordinated all the activities related to Scientific Advisory Committee meetings, conceived and scripted the text for the Institute Brochure, designed its layout, cover page and brought it out, prepared the Annual Action Plan, Road map and the research agenda of the institute.
6. Carried out the trials of the "Studies on the potentiality of selected polyvoltine breeds of the silkworm *Bombyx mori* L."
7. Through directional breeding strategy, developed, maintained and multiplied disease tolerant Nistari breed for West Bengal and Uttar Pradesh specially to suit unfavourable climatic conditions.
8. As a part of the Ph.D. programme, three bivoltine x bivoltine and three multi x bivoltine silkworm hybrids were recommended for rearing their young instar on artificial diet followed by rearing on mulberry leaf. The bivoltine hybrid, B71(A) x 8HT(A) was identified and recommended for rearing in summer season and CSR3(A) x GEN4(A) was identified for rearing in winter and rainy seasons. Among multivoltine x bivoltine hybrids, LMO(A) x CSR3(A) was identified for rearing in summer season and MAD(A) x CSR3(A) was identified for rearing in winter and rainy seasons.

9. The Ph.D. thesis on the topic entitled "Evolution of silkworm strains (*Bombyx mori* L.) suitable for rearing on artificial diet" was prepared, submitted to the University of Mysore and got the degree awarded.
10. Systematized and streamlined the project monitoring and evaluation process at SSSL, Bangalore during the period 2009-2011.
11. After assuming the charge of Chief Editor, *Sericologia*, the scientific Journal of International Sericultural Commission in April 2013, a full-fledged editorial office was set up. The journal title got verified with RNI, New Delhi and actions were initiated for the registration.
12. The journal was revamped with new cover page design, layout and presentation.
13. Issues are being brought out every quarter and being circulated across the globe.

List of Publications

Research Papers

1. G.R.Halagunde Gowda, P. Kumaresan, G.R.Manjunatha, Prashant Sangannavar, Nazeer Ahmed Saheb, S. Manthira Moorthy, **Jula S. Nair** and B.T.Sreenivasa (2023) Growth and instability in Vanya Silk production in India- An economic Analysis. *International Journal of Statistics and Applied Mathematics*, SP-8(3): 175-181.
2. R. Ravikumara, **Jula S. Nair** and G.Lokesh (2022) Tropical Tasar Silkworm (*Antheraea mylitta* Drury) in South-Eastern Karnataka: First Report. *Sericologia*, 62(2):150-152.
3. **Jula S. Nair**, S. Nirmal Kumar, K. Sashindran Nair and A.M.Babu (2013) Scanning Electron Microscopic Studies on the mouth parts of Silkworm, *Bombyx mori* L., developed on artificial diet. *Sericologia*, 53(2): 95-102.
4. **Jula S. Nair**, S. Nirmal Kumar and K. Sashindran Nair (2013) Multivoltine silkworm (*Bombyx mori* L.) strains for rearing exclusively on artificial diet during young stage, developed through directional breeding strategy. *International Journal of Innovation in Science and Mathematics*, 1(1): 4-8.
5. **Jula S. Nair**, S. Nirmal Kumar and K. Sashindran Nair (2011) Development of bivoltine pure strains of silkworm, *Bombyx mori* L. to rear exclusively on artificial diet during young instar. *Journal of Biological Science*, 11(6): 423-427.
6. **Jula S. Nair**, S. Nirmal Kumar and K. Sashindran Nair (2010) Feeding response to artificial diet in multivoltine pure strains of silkworm, *Bombyx mori* L., as improved and stabilized through directional selection. *Research Journal of Agricultural Science*, 1(4):327-331.
7. **Jula S. Nair**, S. Nirmal Kumar and K. Sashindran Nair (2010) Improvement and stabilization of feeding response to artificial diet in bivoltine pure strains of silkworm, *Bombyx mori* L. through directional selection. *Journal of Sericulture and Technology*, 1(1): 41-46.
8. K. Sashindran Nair and **Jula S. Nair** (2010) Conservation and utilization of two rare weeds, windmill pink (*Silene gallica*) and sea purslane, (*Sesuvium portulacastrum*) used in sericulture. *Research Journal of Agricultural Science*, 1(4):430-433.
9. K. Sashindran Nair, **Jula S. Nair** and V.A. Vijayan (2010) Influence of a juvenoid, R394 on the nucleic acid and free amino acid contents of silkworm *Bombyx mori* L. *Journal of Sericulture and Technology*, 1(1): 22-26.

10. K. Sashindran Nair, **Jula S. Nair** and V. A. Vijayan (2010) Phyto-Juvenile hormone for augmentation in cocoon yield in silkworm, *Bombyx mori* L. *Journal of Biopesticide*, 3(1): 212-216.
11. K. Sashindran Nair, **Jula S. Nair** and S. Raje Urs (2010) Conservation strategies for two rare weeds, windmill pink (*Silene gallica*) and sea purslane, (*Sesuvium portulacastrum*) used in sericulture. *Proceedings of the National Symposium on Plant diversity utilization and management*, University of Kerala, Trivandrum, pp. 28-31.
12. K. Sashindran Nair, **Jula S. Nair**, C.K.Kamble and V.A.Vijayan (2009) Protein metabolism in the last larval instar of silkworm, *Bombyx mori* L. as mediated by a juvenile hormone analogue isolated from Bemchi, *Psoralea corylifolia*. *Allelopathy Journal*, 23 (2): 345-356.
13. K Sashindran Nair, **Jula S. Nair** and C.K.Kamble (2009) Cocoon uniformity as a trait for silkworm hybrid evaluation – A critical revisit to the technique. *Indian Journal of Sericulture*, 48 (2): 150-155.
14. K. Sashindran Nair, **Jula S. Nair**, C.K.Kamble and V.A.Vijayan (2008) Juvenoid induced alterations in the transaminase activity in silkworm *Bombyx mori* L. *Indian Journal of Sericulture*, 47(2): 214-217.
15. K. Sashindran Nair, **Jula S. Nair** and V.A.Vijayan (2005-2006) Changes in the total protein, carbohydrate and lipid contents in selected tissues of silkworm, *Bombyx mori* L. under the influence of a juvenoid R394. *Entomologia Hellenica*, 16: 27-36.
16. **Jula S. Nair** and S. Nirmal Kumar (2004) Artificial diet for silkworm (*Bombyx mori* L.) – A retrospection through the decades. *Indian Journal of Sericulture*, 43 (1): 1-17.
17. K. Sashindran Nair, **Jula S. Nair**, Kanika Trivedy, V. A. Vijayan and S. Nirmal Kumar (2004) Efficiency of feed conversion of the last instar silkworm, *Bombyx mori* L. under the influence of a juvenoid, R394. *Indian Journal of Sericulture*, 43 (2): 187-193.
18. K.Sashindran Nair, **Jula S. Nair** V.A. Vijayan and S. Nirmal Kumar (2004) Growth pattern of silkworm, *Bombyx mori* L. in the last larval instar mediated by a juvenoid, R394 and its influence on cocoon traits. *Indian Journal of Sericulture*, 43 (1): 50-56.
19. K. Sashindran Nair, **Jula S. Nair**, Kanika Trivedy and V.A. Vijayan (2003) Influence of Bakuchiol, a JH analogue from Bemchi (*Psoralea corylifolia*) on Silk Production in Silkworm, *Bombyx mori* L. (Bombycidae: Lepidoptera). *Journal of Applied Science and Environmental Management*, 7 (2): 31-38.
20. K.Sashindran Nair, V.A. Vijayan, **Jula S. Nair**, Kanika Trivedy and P.K.Chinya (2002) Hormetic influence on silkworm, *Bombyx mori* L. of a phytojuvenoid, ω -formyl longifolene oxime propargyl ether. *Insect Science and its Application*, 22 (2): 145-150.
21. K.Sashindran Nair, Kanika Trivedy, V.A.Vijayan, **Jula S. Nair** and P.K.Chinya (2001) Influence of a JH mimic, BPE epoxide on the commercial traits of silkworm *Bombyx mori* L. *Indian Journal of Sericulture*. 40(1): 44-49.
22. K.Sashindran Nair, V.A.Vijayan, Kanika Trivedy and **Jula S. Nair** (2001) Improvement in the commercial traits of silkworm, *Bombyx mori* L. by administration of a juvenoid, R394. *International Journal Industrial Entomology*, 3(2): 169-175.
23. K. Sashindran Nair, V.A.Vijayan, **Jula S. Nair**, Kanika Trivedy and P.K. Chinya (2000) Influence of a plant based juvenile hormone mimic, ω -formyl longifolene oxime citronellyl ether on silkworm, *Bombyx mori* L. *Sericologia*, 40(4): 551-557.
24. K.Sashindran Nair, V.A. Vijayan, **Jula S. Nair** and Kanika Trivedy (1999) Juvenilomimic compounds for enhanced productivity in silkworm *Bombyx mori* L. – A screening. *Indian Journal of Sericulture*, 38(2): 119-124.
25. K. Sashindran Nair, **Jula S. Nair**, Kanika Trivedy, C.M. Babu and R.K.Datta (1998) Influence of chemically induced precocious metamorphosis in the growth rate pattern

and economic traits of silkworm, *Bombyx mori* L. *Russian Entomological Journal*, 7(1-2): 101-105.

26. K. Sashindran Nair, Kanika Trivedy, **Jula S. Nair** and R.K.Datta (1998) Manifestations related to developmental determination and reproductive capacity of silkworm, *Bombyx mori* L. induced by an anti-juvenile hormone agent. *Indian Journal of Sericulture*, 37(2): 127-132.
27. K. Sashindran Nair, Kanika Trivedy and **Jula S. Nair** (1998) Juvenile hormone mimics enhance silk productivity in *Bombyx mori* L. *Insect Environment*, 4(1): 28-29.
28. K. Sashindran Nair, **Jula S. Nair** and Kanika Trivedy (1998) Plant growth regulator enhances economic yield in silkworm *Bombyx mori* L. *Insect Environment*, 3(4): 101.
29. K. Sashindran Nair, **Jula S. Nair**, Kanika Trivedy and S.B. Magadum (1997) Basis of the predominance of male- female sex association in the double cocoons of silkworm, *Bombyx mori* L. *Uttar Pradesh Journal of Zoology*, 17(1): 17-22.
30. Kshama Giridhar, S. Nirmal Kumar, **Jula S. Nair** and R.K. Datta (1995) Heritability, genetic and phenotypic correlation studies on fitness and quantitative traits of bivoltine silkworm *Bombyx mori* L. *Indian Journal of Sericulture*, 34 (1): 22-27.

Popular Scientific articles

1. **Jula S. Nair** (2010) Ever heard of High CLA silkworm? *Silk News* 1(2): 3.
2. K. Sashindran Nair, **Jula S. Nair** and C. K. Kamble (2009) Cocoon uniformity test in silkworm hybrid evaluation- An intriguing insight. *Indian Silk*, 47 (12): 6-9.
3. K.Sashindran Nair and **Jula S. Nair**. (1996) Kuttanveshanavum Shadpadangalum (Malayalam). *Mathrubhumi (Daily) Week End Magazine*. January, 14. p.11.
4. K.Sashindran Nair and **Jula S.Nair**. (1996) Repairing bone made easier. *The Times of India, (Daily) Science*, February, 27, p. 16.

Symposium/Seminar/Conference Abstracts

1. **Jula S. Nair**, S. Nirmal Kumar and K. Sashindran Nair (2013) Multivoltine silkworm, (*Bombyx mori* L.) strains for rearing exclusively on artificial diet during young stage, developed through directional breeding strategy. National Conference on Recent Advances in Modern Biology & Sericulture for Women Empowerment and Rural Development. KSSRDI, Thalaghatapura, Bangalore, 24-26, October 2013, p.58.
2. **Jula S. Nair** and S. Nirmal Kumar (2011) Development of bivoltine pure strains of silkworm, *Bombyx mori* L. to rear exclusively on artificial diet during young instar. National Conference on Sericulture Innovations Before and Beyond, CSRTI, Mysore, 28-29, January 2011, p.69
3. **Jula S. Nair** and S. Nirmal Kumar (2011) Evaluation of exclusive bivoltine silkworm hybrids (*Bombyx mori* L.) developed to rear on artificial diet during young instar. National Conference on Sericulture Innovations Before and Beyond, CSRTI, Mysore, 28-29, January 2011, p. 81.
4. K. Sashindran Nair, **Jula S. Nair** and S. Raje Urs (2010) Conservation strategies for two rare weeds, windmill pink (*Silene gallica*) and sea purslane, (*Sesuvium portulacastrum*) used in sericulture. National Symposium on Plant diversity utilization and management. University of Kerala, Trivandrum. 27-29 May, 2010, p.28.
5. K.Sashindran Nair, **Jula S. Nair** and V.A. Vijayan (2009) Juvenile hormone mimics from plant sources for augmentation in cocoon yield in silkworm, *Bombyx mori* L. Second Biopesticide International Conference, St. Xavier's College (Autonomous), Palayamkottai. 26-28 November, 2009, p. 155.

6. K. Sashindran Nair and **Jula S. Nair** (2004) Insect hormones and their analogues for silkworm rearing management. Presented in National Seminar on Applied Biosciences, Nehru Arts and Science College, Kanhangad, Kerala, 19-20 November, 2004. p. 12.
7. K. Sashindran Nair, Kanika Trivedy, **Jula S. Nair**, S. Nirmal Kumar and K.P. Jayaswal (2001) Identification of promising multivoltine breeds based on their efficiency in feed conversion. National Seminar on Mulberry Sericulture Research in India, Karnataka State Sericulture Research & Development Institute, Bangalore, 26-28 November, 2001, pp. 133-134.
8. **Jula S. Nair**, C.G.P. Rao., S.N.Chatterjee, S. K. Ashwath and R.K. Datta (1992) Evaluation of a few improved multivoltine silkworm breeds and their hybrids. National Conference on Mulberry Sericulture Research, December 10-11. Abst. No. 163. p. 98.
9. Kshama Giridhar, Nirmal Kumar, S., **Jula S. Nair** and Datta, R. K. (1992) Heritability, genetic and phenotypic correlation studies for fitness and quantitative traits of bivoltine silkworm *Bombyx mori* L. In: Fourth All India conference on cytology, genetics and symposium on cytogenetics of mulberry and silkworm. KSSRDI, Thalagattapura, Bangalore. Nov. 1992, Abst.No.180, p.115.