BIODATA

1. Name : **Dr. S. Manthira Moorthy**
2. Designation : Scientist-C
3. EducationalQualification : M.Sc. in Zoology in 1990.
   Ph.D. in Zoology in 2006
4. Expertise area : Silkworm Breeding
5. Research Experience : 19+ years
6. Past and present positions :

Name of the employer	Designation of post held	Date of joining	Date of leaving	Nature of duties performed
Central Sericultural Research and Training Institute, Berhampore, W.B	Senior Research Assistant/ Senior Research officer / Scientist-C	Jan. 1994	May 2009	Research on Silkworm breeding (Associated with development of productive silkworm hybrids viz., CSR2 x CSR4, (CSR6x CSR26) x (CSR2 x CSR27), CSR16 x CSR17) and CSR46 x CSR47)
Central Sericultural Research and Training Institute, Mysore, Karnataka	Scientist-C	Jun. 2009	Till date	Research on Silkworm breeding

7. Membership of Academic bodies/organizations:

1	NASSI (National Academy of Seri. Sciences)	Life Member

8. Training Undergone

Sl. No.	Training Attended/undergone	Institute	Period
1	Foundation course on Sericulture	CSR&TI, Berhampore, W.B	Oct'94 to March'95 & 6 months
2	Techniques on Silkworm seed technology	SSTL, Central Silk Board, Bangalore,	1997 & 14 days
3	Application of Molecular Biological tools for genetical and pathological research in Sericulture	Seri-Biotech research Laboratory, Central Silk Board, Kodathi, Bangalore	2000 & 30 days
4	Extension officer programme on reeling technology	CSTRI, Bangalore	2001 & 7 days
5	Advances in molecular techniques in Sericulture	Tamil Nadu Agriculture University, Coimbatore	2011 & 15 days

9. Projects handled

Sl. No.	Project title	Period	Important contributions
1	AIB 001: Improvement of Silkworm. (Associate)	1994-2000	Associated with development of breeds SK3, SK4, SK6, SK7, D6(P), O3,BHR2,BHR3. Associated with development hybrids like N x YB, M6DP(C) x (SK6 x SK7) and N x (SK6 x SK7)
2	Maintenance of Bivoltine germplasm (Associate)	1994-2009 & 2010-till date	30 bivoltine silkworm breeds are maintained conforming to original breed characteristics
4	Screening of high temperature and humidity tolerant silkworm hybrids developed by various institutes suitable for different crop seasons of West Bengal (Associate)	2002-2005	Three hybrids are found suitable for rearing all the seasons (N x (SK6 x SK7), N x (M12(W) and APM1 x APS8
5	AIB 3237: Utilization of Polyvoltine breeds for improvement of survival in Bivoltine silkworm, *Bombyx mori* L. (Project leader)	2002-2007	Breeds like SK4C and D6(P)N developed. Three multi x bi hybrids viz., M6DP (C) x SK4C, M6DP (C) x (D6(P)N x SK4C) and M6DP(C) x D6(P) N .
7	AIB3393: Development of commercial hybrids of silkworm, *Bombyx mori* L. by identification of bivoltine parents through screening in different seasons of West Bengal (Associate)	2006- 2011	The breeds M6DP(C); SK7; B.Con4; M.Con4; and the hybrids SK6 x SK7 showed superiority in the expression when reared in various seasons.
8	Physio-biochemical characterization of selected silkworm germplasm accessions during seed crop seasons (Associate)	2008-2011	Characterization of 10 silkworm breeds through Esterase, Protein marker carried out.
9	AIT 3445: Development of Robust bivoltine silkworm hybrids of *Bombyx* mori L tolerant to high temperature environment of the tropics through DNA marker assisted selection (Project Leader)	2011-2015	Two DNA marker (SSR-LFL329, LFL1123) associated with thermo tolerance in silkworm was identified. Development of thermo tolerant breeds under progress.

10. Important Research Publications:

1) **Moorthy,S.M**., Das, S.K., Rao, P.R.T., Debnath, S and Raje Urs, S (2006). Genetic variability and selection index of some quantitative traits of bivoltine Silkworm , *Bombyx mori* L. Ind.J.Genet. , 66(1):82-84.

2) Das, S.K., Chattopadhyay, G.K., **Moorthy, S.M.,** Verma, A.K., Ghosh, B., Rao, P.R.T., Mukherjee, S., Sengupta, A.K and Sarkar,A. (2006). Breeding strategies for high humidity and high temperature conditions of eastern region. In: "5th Mulberry Silkworm Breeder's Meet" held at CSR&TI, Berhampore on 14-15th Feb,2006. pp.42- 48.

3) Das, S.K., Chattopadhyay, G.K., **Moorthy, S.M**., Verma, A.K., Ghosh, B., Rao, P.R.T., Mukherjee, S., Sengupta, A.K and Sarkar,A. (2006). Breeding strategies for high humidity and high temperature conditions of eastern region. In: "5th Mulberry Silkworm Breeder's Meet" held at CSR&TI, Berhampore on 14-15th Feb,2006. pp.42- 48.

4) **Moorthy, S.M**., Das, S.K., Rao, P.R.T., Raje Urs, S and Sarkar, A (2007). Evaluation and selection of potential parents based on selection indices and isozyme variability in Silkworm, *Bombyx mori* L. Int.J.Indust. Entomol., 14 (1): 1-7.

5) **Moorthy, S.M**., Das, S.K., Kar, N.B and Raje Urs, S (2007). Breeding of bivoltine breeds of *Bombyx mori* L suitable for variable climatic conditions of the tropics. Int.J.Indust. Entomol., 14(1): 99-105.

6) Das, S.K., **Moorthy, S.M.,** Chattopadhyay, G.K., Mandal, K and Bajpai, A.K. (2008). Development of silkworm breeds and hybrids for the plains of Eastern India. In: "6th Mulberry Silkworm Breeder's Meet" held at CSR&TI, Mysore on 10th June, 2008. pp.6-11.

7) **Moorthy, S.M**., Das, S.K., Kar,N.B., Mandal, K and Bajpai, A.K. (2007). Breeding of bivoltine silkworm breeds suitable for tropics and identification of multi x bi silkworm hybrid for commercial exploitation in Eastern India. In perspectives of Cytology and Genetics. 13,215-227.

8) **Moorthy, S.M.,** Das, S.K., Mandal, K and Bajpai, A.K. (2008). Esterase isozyme – a tool for developing high survival bivoltine lines. In: "6th Mulberry Silkworm Breeder's Meet" held at CSR&TI, Mysore on 10th June 2008. pp.89-93.

9) Naseema Begum,A., **Moorthy, S.M** and S.Nirmal Kumar (2010). Boil off loss in cocoons and filament neatness of selected breeds of silkworm, *Bombyx mori* Linn. reared in different seasons. Entomon 35 (1): 43-46.

10) **Moorthy,S.M.,** Mandal, K., Bhutia, R and Das, N.K (2011). Stability of bivoltine silkworm genotypes of *Bombyx mori* l for a few economic traits. Journal of Sericulture and Technology, 2(1), 46-50.

11) **Moorthy, S.M**., Mandal,K., Kar, N.B and Das, S.K (2011). Identification of suitable bivoltine foundation cross for sustainable bivoltine silkworm seed crop in tropics. The Bioscan, 6(4):697-700.

12) **Moorthy, S.M** and Kar, N. B (2012) Studies on suitability of using bivoltine x multivoltine silkworm hybrid in seed crop and its utilization as male parent for preparation of multi x (bivoltine x multivoltine) commercial silkworm hybrids in tropical conditions. Int.J.Research in Zoology, 2 (1): 6-10.