

Dr. Birendra Nath Sarkar M.Sc., Ph.D.

Scientist-D

Muga Silkworm Seed Organization

Central Silk Board, Ministry of Textiles Govt. India

Resomnagar, Khanapara, Guwahati-22

Assam (India)

E-mail : bnsarkarcsb@yahoo.com

birendranathjohn@gmail.com

Mobile No. +91 94359 16605



Educational Qualification:

✚ M.Sc. in Zoology (Cell Biology), Guwahati University, Assam, India (1994).

✚ Ph.D on Eri Silkworm “A study on Eri silkworm *Samia ricini* Donovan Ecoraces with special reference to seed production” from Guwahati University, Assam India,(2014).

Area of Interest:

- Seed production in Vanya silkworm.
- R&D on Cell Biology and Genetics.

Professional Experiences:

Research fellow: “Indo-Us primate project”(1994-95).Field survey in National Park, Sanctuary and Reserve forest for different primate species of North Eastern region of India.

Senior Research Assistant: Research Extension Centre, Central Silk Board, Agartala (Tripura) (1995-2000).Popularization of mulberry plant (S1-Variety), polarization of (Multi x Bi) races of mulberry silkworm and seasonal survey of disease of mulberry plants in all the district of Tripura.

Senior Research Assistant: Research Extension Centre, Central Silk Board, Coochbehar (WB)(2001-2005).Established new area of plantation and initiate muga rearing in newly extended area in Jalpaiguri district and Cilapata Reserve forest of North Bengal (WB).

Scientist-B: CMER&TI,Lahdoigarh,Jorhat, Assam (2006-2014). Established the Eri silkworm Germplasm bank for the first time in the country, where maintained the 26 nos. of ecoraces of eri silkworm germplasm, collected from different potential eri growing area of India. Morphological characterization of collected eri silkworm ecoraces was completed and compiled and documented “Monograph on Catalogue on Eri Silkworm (*Samia ricini*) Germplasm”. Study of hybridization experiment of wild and cultivated (*Samia canningi* H. x *Samia ricini* D. successfully. Trimoult eri silkworm isolated from Imphal ecorace and reported, where larval period of the trimoult eri silkworm was only 13 days. Assisted to develop eri silkworm C2 breed from the collected germplasm and multilocational trial under hybrid authorization programme. Assisted as resource person to preparation of “DOCUMENTARY FILM ON ERI CULTURE” from Eri silkworm GPB at CMER&TI, Lahdoigarh, Jorhat(Assam).

Scientist-C: CMER&TI, Lahdoigarh, Jorhat, Assam (2014 to 18th June, 2018). Developed eri silkworm seed preservation technology under the project APS-5859: Development of egg preservation technique of eri silkworm, *Samia ricini*, (Donovan). Development of suitable combinations/hybrids of eri silkworm with sustainable performance for commercial exploitation from isolated homozygous strain of eri silkworm *Samia ricini*, (Donovan) under the project AIB-5879: Development of suitable combinations/hybrids of eri silkworm with sustainable performance for commercial exploitation.

Scientist-D: Muga Silkworm Seed Organization Guwahati-22, Assam (20th June, 2018 to till date)

Awards (if any):

- ✚ Award for “conservation of primate species” under “Indo-Us primate project” (1994-95).
- ✚ Letter of appreciation from Director of Sericulture, Mizoram, Aizawl for excellent contribution in effective contribution for beneficiaries empowerment programme of Eri (2012).
- ✚ Best Performing CSB Scientist in VANYA seed sector for year 2020.

Research Projects concluded:

- AIE-6005: Survey, Collection, Characterization and documentation of eri silkworm germplasm. (Co.PI).
- APS-5859: Development of egg preservation technique of eri silkworm, *Samia ricini*, Donovan. (PI).
- PIE- 5853: Collection, characterization, evaluation and conservation of perennial host plants for Eri silkworm rearing. (Co.PI).
- DST : (4) Sustainable eri silkworm rearing: evaluation of *Ailanthus* species. (Co.PI).
- AIB-5879: Development of suitable combinations/hybrids of eri silkworm with sustainable performance for commercial exploitation. (PI).

Research paper publications in Magazine /Journal:

- 1) **B.N.Sarkar**, M.C.Sarmah and R.Chakravorty (2008) Trimoulting behaviour in eri silkworm *Samia ricini*. **Indian Silk**, 46 (9): pp. 14 -15.
- 2) **B.N.Sarkar** and M.C.Sarmah (2010) Seasonal variation of grainage characters in seed production of eri silkworm, *Samia ricini* (Donovan) **Indian J.Seri.**2010, 49(1) pp. 88 - 91.
- 3) **B.N.Sarkar**, B.C.Chutia, J.Ghose and A. Barah (2010) life history of *Attacus atlas* l (lepidoptera: saturniidae) on *litsaea monoptala* juss. in north east india. **Journal of Bombay Natural History Society**. 107(1) pp.42-44.
- 4) **B.N. Sarkar** and S.N.Gogoi (2010) Genetic Variability studies in Eri silkworm (*Samia ricini* Donovan) of North Eastern Region of India. **Indian J. of Genetics of Plant Breeding**, Volume.70 (1).Feb.2010 pp.76-79.
- 5) **B.N. Sarkar**, M.C. Sarmah, and K.Dutta, (2012) Screening of superior ecotypes of eri silkworm *Samia ricini* for better economic traits in different season. **J.Appl.Biosci.**,38(1):73-77,2012 pp.73.
- 6) **B. N. Sarkar**, M.C. Sarmah, P.Dutta and K. Dutta (2012) Embryo isolation and egg preservation technology of eri silkworm *Samia ricini* (Donovan) lepidoptera: saturniidae. **Munis Ento.Zoo.** Vol.7, No. 2 June 2012. pp. 792-797. [ISSN 1306-3022].
- 7) **B.N. Sarkar**, M.C. Sarkar and K. Giridhar Grainage performance of eri silkworm *Samia ricini* (Donovan) fed on different accession of castor food plants. **International journal of Ecotypes and Ecosolutions**. Vol. 2(2), pp.17-21, May 2015, ISSN: 2437-1327.
- 8) **B.N. Sarkar**, M.C Sarmah, S.A. Ahmed and K.Giridhar (2015) Eri silkworm rearing on perennial host plant. **Indian Silk** Vol. 5-6 (53-54 old) No. 12-2 pp. 30 - 32.
- 9) **B.N. Sarkar** and M.C. Sarmah **Punya Daimari Source of inspiration in Udalguri, BTC, Assam**

Research paper publications Seminar / Workshop proceeding):

- 1) **B.N. Sarkar**, A. Barah. and R Chakravorty.(2008) Biodiversity of eri silkworm in north east india. UGC sponsored National Seminar at N.N.Saikia College, Titabar, Assam, on 26 -27th September, 2008; pp. 50-54.
- 2) **B.N. Sarkar**, S.N. Gogoi, K. Dutta and R Chakravorty(2008) Quantitative traits and correlation in eri silkworm, *Samia ricini* (Donovan) germplasm in Northeast India.19th All India Congress of Zoology, National Seminar held on 29-31/12/08 at Gauhati University, Assam ; pp.72.
- 3) **B.N.Sarkar**,B.C.Chutia, and R.Chakravorty (2009) Hybridization and rearing performance of *Samia ricini* donovan and *Samia canningie* Hutton. National conference on vanya silk 28th - 30th january, 2009, NASSI, Organized by CMER&TI, Lahdoigarh, Central Silk Board, Jorhat, Assam.
- 4) **B. N Sarkar**, L. Deka and K. Dutta Eri silkworm *Samia ricini* (Donovan), food plant and improved rearing technology. Published in the proceeding of National Seminar on “*Biodiversity of North Eastern region and it future concern*” held at Mangaldoi on 10 -11th Feb., 2010).
- 5) **B.N. Sarkar**, M.C. Sarmah, K.C Singh, B. C. Chutia and R. K. Rajan, Conservation of eri silkworm germplasm and development of hybrid (2010) 6th International Conference on Wild Silk moths. held at Tokyo, Japan,pp.59.
- 6) **B. N Sarkar**, A Barah, M. R. Babu, K. Dutta “Biodiversity of eri silkworm and its host plants in india” National Conference on *Sericulture Innovation Before and Beyond* on the occasion of Golden Jubilee celebration of CSRTI, Mysore between 25th November to 10th December, 2010.
- 7) **B. N. Sarkar**, M.C. Sarmah, Ahmed and R.K. Rajan (2011) Improved Eri Culture: Current trends in Research and Development in Emerging areas of seri-biotechnology (course material /invited talks)edited by M. Chutia and K. Das, CMER&TI, Lahdoigarh pp. 32- 46.
- 8) **B. N. Sarkar**, M.C. Sarmah (2011) Rearing and economic importance of wild silkmoth *Attacus atlas* L. on Soalu, *Litsaea monopetala* Juss. XXIInd Congress of the International Sericulture Commission (ISC) held on 14-17 December, 2011.
- 9) **B. N. Sarkar**, M.C.Sarmah and K. Giridhar (2013) Eri silkworm germplasm conservation and development of breeds/hybrids. Ist Bodoland National Seminer-cum workshop on Sericulture industry and its role in Socio-Economic pliftment in Rural Society.10th -11th August 2013.
- 10) **B. N. Sarkar**, M. C. Sarmah and K Giridhar (2013) Wild silkmoth: *Attacus atlas* L. reared on *Litsaea monopetala* Juss. Recent Advances in Modern Biology & Serculture for Women Empowerment and Rural Development (RAMBSWERD-2013),24-26th October, 2013 KSSRDI, Bengaluru.

Books Published:

- 1) Monograph on Catalogue on Eri Silkworm (*Samia ricini*) Germplasm (2008), Co-author, published by CMER&TI, Lahdoigarh, Jorhat, Assam.
- 2) Eri Seed Production-A *Users Manual* (2017) Edited by B. N. Sarkar and M.C. Sarmah Published by Director CMER&TI, Lahdoigarh, Jorhat, Assam.
- 3) ERI CULTURE A comprehensive profile (2013) Co-author published CMER&TI, Lahdoigarh, Jorhat, Assam.
- 4) *Package of practices for rearing of eri silkworm C2 breed*. Co-author, Published by Director, CMER&TI, Lahdoigarh

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Scientist-D
MESSO,HQ,Guwahati
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