

PUBLICATIONS

Research Papers (International):

1. Alam, K., Raviraj, V.S., Kar, P.K. and Chakrabarty, S. (2022). Diversity in wild tasar (*Antheraea mylita* D.) ecoraces of Simlipal biosphere reserve with respect to cocoon and associated parameters, *Plant Archives*; Volume- 22 : Special Issue. pp.36-39. (NASS: 4.73)
2. Alam, K., Harjan, Y., Kire, Z., Harish Babu, S., Kishor Kumar, C.M. and Singh, A. (2023). Field efficacy of *Chrysoperla zastrowi sillemi* (Esben-Petersen) against mulberry whitefly *Dialeuropora decempuncta* (Homoptera: Aleyrodidae). *Pharma Innovation*, 12(3):3780-3783. (NAAS:5.23)
3. Chakrabarty, S., Ranjita Devi, T., Dutta Biswas, T., Saha, A.K. and Bindroo, B.B. (2023). Problems and Prospects of Seed Cocoon Generation (Nistari & SK6 X SK7) in Murshidabad District of West Bengal, India. *Int. Journal of All Education Research and Scientific Methods (IJARESM)*; ISSN2455-6211. 11(1): 536-549 (Impact factor: 7.429): www.ijaresm.com.
4. Chakrabarty, S., Paul, S. K., Saha, A.K. and Bindroo, B.B. (2022). Studies on efficacy of Ghar Sodhon – a fumigant room disinfectant used in sericulture in comparison with Sanitech Super- a chlorine dioxide-based room disinfectant and 5% Bleaching Powder solution as control. *Int. Journal of All Education Research and Scientific Methods (IJARESM)*, ISSN2455-6211. 10(4): 217- 230 (Impact factor: 7.429): www.ijaresm.com.
5. Hossain, Z. and Rahul, K. (2022). Morphological and molecular identification of fungi isolated from insect pests of mulberry pathogenic to silkworm *Bombyx mori* L. *Science, Technology and Development*, 11(5): 10–18.
6. Kurmi, D., Rabha, M. and Rahul, K. (2023). Extraction of sericin protein from *Bombyx mori* L. cocoon (Race Nistari). *Pharma Innovation*, 12(2): 270–274.
7. Rahul, K., Anil, P., Pooja, M., Mihir, R. and Sivaprasad, V. (2022). Efficacy of phototrophic bacterial feed supplementation on economic traits and disease resistance in mulberry silkworm, *Bombyx mori* (Lepidoptera: Bombycidae). *Revista de la Sociedad Entomológica Argentina*, 81(3):28–40.
8. Rahul, K., Kweon, H.Y., Kim, H.B. and Lee, J.H. (2022). In vitro screening of anti-skin aging and antioxidant properties of aqueous/ solvent extracts from distinctive stages of silkworm (*Bombyx mori* L.) pupae. *Int. Journal of Industrial Entomology*, 45(1): 1–11.
9. Rahul, K., Kweon, H.Y., Kim, H.B. and Lee, J.H. (2022). Evaluation of the anti-inflammatory effects of silkworm (*Bombyx mori* L.) pupal extracts against lipopolysaccharide-induced inflammation in the murine macrophage cell line (RAW264.7). *Int. Journal of Industrial Entomology*, 45(2): 99–107.
10. Rabha, M., Das, D. and Konwar T. (2023). Whole genome sequencing of a novel *Bacillus thuringiensis* isolated from Assam soil. *BMC Microbiology*, 23(91): 1–14.
11. Goswami, J., Gogoi, D. K., Rasid, N., Handique, B. K., Subrahmanyam, G., Bora, P. P., Das, R. and Raju. P. L. N. (2023). Development of a Muga disease early warning system - a mobile-based service for Seri farmers. *Current Science*, 121 (10): 1328-1334. [Impact Factor: 2.492]

Abstract :In Korean

1. 김현복, 차익섭, 이지혜, 권해용, Kamidi Rahul, 최정숙 (2022) 기능성 증진 처리 뽕 산물을 이용한 가공제품 제조방법 개발 및 기능 성분 함량 비교. The 65th (1) Conference of the Korean Society of Sericultural Science (Daejeon city, South Korea; 11-12th May, 2022), p 38.

2. 김현복, 차익섭, 이지혜, 권해용, Kamidi Rahul, 최정숙 (2022) 품종(계통)별 오디의 과실적 특성 및 기능 성분 함량 비교. The 65th (1) Conference of the Korean Society of Sericultural Science (Daejeon city, South Korea; 11-12th May, 2022), p 40.
3. 이지혜, Kamidi Rahul, 김현복, 권해용 (2022) 누에번데기 종류와 추출용매에 따른 항염증 효능 분석. The 65th (2) Conference of the Korean Society of Sericultural Science (Jeju Island, South Korea; 12-14th October, 2022), p 88.
4. 김현복, 이지혜, Kamidi Rahul (2022) HME-DDS 기술을 적용한 꿀가루 제조 및 특성. The 65th (2) Conference of the Korean Society of Sericultural Science (Jeju Island, South Korea; 12-14th October, 2022), p 100.

Research Papers (National):

1. Harijan, Y., Deepika, K.U., Suresh, K., Chakravarty, D., Pappachan, A. and Kishor Kumar, C.M. (2023). Assessment of polycross hybrids of mulberry for fruit and seed traits. *The Mysore Journal of Agricultural Sciences*. 57(2) [Accepted for publication].
2. Kabiraj, D., Chetia, H., Nath, A., Sharma, P., Mosahari, P. V., Singh, D., Dutta, P., Neog, K. and Bora, U. (2022). Mitogenome-wise codon usage pattern from comparative analysis of the first mitogenome of *Blepharipa* sp. (Muga uzifly) with other Oestroid flies, *Scientific Reports* (2022) 12:7028. <https://doi.org/10.1038/s41598-022-10547-8>.
3. Makwana, P., Shambhavi, P., Hungund, Appukuttan Nair and Pradeep, A.R. (2022). Dipteran endoparasitoid *Exorista bombycis* utilizes antihemocyte components against host defense of silkworm *Bombyx mori*. *Archives of Insect Biochemistry & Physiology*. <https://doi.org/10.1002/arch.21976>; (IF.2.454)
4. Mandal, A. K., Sarkar, B., Mandal, H., Chakraborty, A. P., Das Mohapatra, P. K., Dam, P., Mondal, R., Some, S., Sadat, A., Ghati, A., Neog, K., Mandal, S., Incei, I. A. (2022). Genomic Clues of a Multidrug-Resistant Bacterium from Cultured Domestic Silkworm (*Bombyx mori* L.), *Microbiology Resource Announcements*, May, 2022, DOI: 10.1128/mra.00081-22.
5. Raju, C.G., Sarkar, S., Canamedji, V., Parameswaranaiik, J. and Sarkar, S. (2022). A review paper on Silkworm farming automation using Artificial Intelligence, Machine Learning and Cloud Based solutions. *Communications in Computer and Information Science (CCIS)*, Springer publication. (Article accepted).
6. Suresh, K. Manjappa, G., and Kishor Kumar, C.M. (2022), Broad sense heritability and multivariate analysis of powdery mildew resistant inter-specific pseudo F2 (F1) population of mulberry, *IV international conference on Innovative and Current Advances in Agriculture & Allied Sciences*, 12-14 June, Shimla page no:129.
7. Suresh, K. Deepika U.K., Harijan, Y. and Kishor Kumar, C.M. (2022), Adaptation to climate change effects by pruning and rearing date selection for mulberry sericulture in lower-gangetic region, *National seminar on Climate Smart Sericulture: Approaches for Sustainable Sericulture*, 6th & 7th October, Page No. 60.
8. Tulsi Naik, K.S., Ismail, S., Pradeep, A.R. and R.K Mishra (2022). Molecular characterization of the functional genes associated with silk assembly, transport and protection in the silk glands of popular multivoltine breeds of silkworm *Bombyx mori* L. *Applied Biochemistry and Biotechnology*, <https://doi.org/10.1007/s12010-022-04158-2> (IF 3.094).

Popular articles:

- ✓ Kartik Neog and Kishor Kumar, C.M. (2022). Participation of Tribal populations on the Mulberry Silk Production in Assam. *Indian Silk*.

Books/ Book chapters/ Hand Book

1. পরমেশ্বর নাইক জে, শফি আফরোজ, দীপেশ পণ্ডিত, নেহা হোড়, সুস্মিতা দেবী, কিশোর কুমার, সি এম. (2023). কৃষক হস্ত পুস্তক রেশম চাষে শিল্প উদ্যোগ উন্নয়ন (Bengali). কেন্দ্রীয় রেশম গবেষণা ও প্রশিক্ষণ প্রতিষ্ঠান, কেন্দ্রীয় রেশম বোর্ড, বস্ত্র মন্ত্রণালয়, ভারত সরকার, বহরমপুর, মুর্শিদাবাদ, পশ্চিমবঙ্গ - 742101, ভারত.
2. Parameswaranaiik, J. and Misha Madhavan, M. (2022). Entrepreneurship Development in Allied Sectors of Agriculture. Skills for Entrepreneurship Development in Pig Husbandry [E-book]. ICAR-National Research Centre on Pig, Rani, Guwahati & National Institute of Agricultural Extension Management, Hyderabad.
3. Parameswaranaiik, J., Shafi, A., Dipesh, Pandit., Sushmita, D., Neha, H. and Kishor Kumar C. M. (2023). Farmers Hand Book on Entrepreneurship Development in Sericulture (English). Central Sericultural Research and Training Institute, Central Silk Board, Ministry of Textiles, Govt. of India, Berhampore, West Bengal-742101.
4. Sivaprasad, V., Chandrakanth, N. and Manthira Moorthy, S. (2022). Genetics and genomics of *Bombyx mori* L., In Genetic methods and tools for managing crop pests edited by AK Chakravarthy, Part II published by *Springer Nature* Singapore, pp. 127-209.
5. Saha, S., Khasru, A., Tanmay C. and Pathadeb, G. (2022). Micropropagation for stress tolerance in crop plants: An Overview in book Response of Field Crops to Abiotic stress Edited by Shuvasish Choudhury and Debojyoti Moulick. CRC press, *Taylor and Francis Group*, <https://doi.org/10.1201/9781003258063>.
6. Afroz, S. and Joycy, R. D. (2022). "Open Auction System in Silkworm Cocoon Markets" in the book 'Advances in Agricultural Marketing and Value Chain Management' published by *International Books & Periodical Supply Service* (ISBN : 978-93-94023-15-4; E-ISBN : 978-93-94023-16-1)]
7. Rahul, K., Makwana, P., Ghosh, S. and Pappachan, A. (2022). Why biotechnology needed in insects? In: Kumar D. and Shukla S (eds). Introduction to insect biotechnology. *Springer Nature* Switzerland (Accepted).

Papers Presented in Conferences/Seminars/Symposia etc. (Online)

Proceedings of The 65th (1) International Conference of the Korean Society of Sericultural Science (Daejeon city, South Korea) during 11th & 12th May, 2022.

- ✓ Rahul, K., Kim, H.B., Kweon, H.Y., Lee, J.H. (2022). Anti-skin aging and antioxidant properties of silkworm (Baegokjam) pupal extracts. p 19.
- ✓ Rahul, K., Lee, J.H., Kim, H.B., Kweon, H.Y. (2022). Molecular weight distribution and structural characterization of fibroin isolated from diverse Korean silkworm varieties, p. 56.

Proceedings of IVth International Conference on innovative and current advances in agriculture and allied sciences (ICAAAS-2002) organized by SSDAT MEERUT at Shimla, Himachal Pradesh during 12-14th June, 2022.

- ✓ Suresh, K., Manjappa, G., and Kishor Kumar, C.M. (2022). Broad sense heritability and multivariate analysis of powdery mildew resistant inter-specific pseudo F2 (F1) population of mulberry, p.129.

Proceedings of 26th International Sericulture Congress, SERITECH-The new concepts in sericulture during 7th to 11th September, 2022 at Cluj Napoca, Romania.

1. Alam, K., Paik, J., Saha, S., Rabha, M. and Sivaprasad, V. (2022). A preliminary investigation on image-based cocoon gender identification using deep convolution neural network, p. 129.

2. Makwana, P., Rahul, K., Pradeep, A.R., Niranjana, V., Sivaprasad, V., Kishor Kumar, C.M. (2022). Potential of sericin peptides from *Bombyx mori* (Nistari) as drug delivery molecules: A computational analysis. p 270.
 3. Raviraj, V.S., Makwana, P., Chandrakanth, N., Lakshmanan, V., Pradeep, A.R., Kishor Kumar, C.M. and Sivaprasad, V. (2022). Expression profiling of TRP genes for determination of thermo sensitivity and humidity tolerance in silkworm, *Bombyx mori* L. p. 184.
 4. Makwana, P., Ito, K., Rahul, K., Raviraj, V.S., Pradeep, A.R., Sivaprasad, V., Kishor Kumar, C.M. (2022). Differential immune responses against *Staphylococcus aureus* infection in geographically distinct strains of Nistari (*Bombyx mori*), pp. 140-141.
 5. Suresh, K., Ghosh, M. K., Chakravarty, D. and Kishor Kumar, C.M. (2022). Development and identification of nutrient use efficient mulberry genotypes for low input sericulture, p.95.
 6. Tulsi Naik, K.S., Vanitha, C., Raghavender, G., Ramesha, A., Rabha, M., Rahul, K., Ranjini, M.S., Ponnuvel, K.M., Sivaprasad, V. (2022). Molecular marker assisted breeding for the development and evaluation of BmBDV/ BmDENV2 resistant productive commercial hybrids, pp. 123-124.
 7. Manudeep Rao, D., A, Ramesha, Suresh K., R, K. Mishra, and K.M. Ponnuvel (2022). Identification, Expression analysis and Non-functional mutations in MLO genes associated with powdery mildew resistance in *Morus* spp. p.100.
 8. Deepika K.U. (2022). Determining the effect of plant hormones, nutrients & bioactive substances in improving mulberry leaf longevity
 9. Chandrakanth, N.(2022). An Improved Crossbreed, 12Y x BFC1 for Eastern & North Eastern India.
Proceedings of Vth regional science congress of West Bengal held on Panchanan Barma University, Cooch Behar, during 17th & 18th January, 2023.
- ✓ Ghosh, S., Makwana, P., Rahul, K. (2023). Evaluation of antimicrobial and antioxidant properties of crude protein extract from mulberry (*Morus* sp.) leaves. p. 46.
Proceedings of International Conference on Advances in Plants, Microbes and Agricultural Sciences" (APMAS-2023) held during 2nd to 4th March, 2023.
- ✓ Ghosh, S., Makwana, P., Mandal, P., Bhandari, J.B., Rahul.K.(2023). Assessment of antioxidant enzyme activities of crude and semi-purified protein extracts from mulberry leaves. APMAS/203/699. (Abs.)
Proceedings of National Seminar on "Climate Smart Sericulture-2022 approaches for sustainable Sericulture" organised by Central Silk Board, Bengaluru, India during 6th to 7th Oct., 2022.
1. Alam, K., Deepika, K. U., Chacroborty, S., Pandit, D. and Kishore Kumar, C. M. (2022). Survey on the occurrence of major foliar diseases of mulberry in Murshidabad district of West Bengal.
 2. Chakrabarty, S., Ranjita Devi, Th., Dutta Biswas, T., Bindroo, B.B. and Kishor Kumar, C.M. (2022). Problems and prospects of Seed Cocoon (Nistari and SK6 x SK7) generation in West Bengal, p.22.
 3. Chandrakanth, N., Roy, S., Moorthy, S.M., Raviraj, V.S., Sivaprasad, V. and Kishor Kumar, C.M. (2022). Functional classification of esterases in mulberry silkworm breeds popular in Eastern and North-Eastern India, p. 35.
 4. Chandrakanth, N., Raviraj, V.S., Moorthy, S.M., Sivaprasad, V., Manjunatha, G.R. and Kishor Kumar, C.M. (2022). A new thermo-tolerant bivoltine double hybrid, WBDH-1 for Eastern and North-Eastern India, p. 21.
 5. Kartik Neog and Kishor Kumar, C.M. (2022). Problems and Prospects of Bivoltine Sericulture in Nagaland.

6. Makwana, P., Ghosh, S., Rahul, K., Mandal, P., Pradeep, A.R., Sivaprasad, V. and Kishor Kumar, C.M. (2022) Identification of a new infective species of *Serratia* in mulberry silkworm, *Bombyx mori*, p. 100.
7. Maheswari, M., Lokesh, G., Chaudhuri, R.S., Chandrakanth, N., Murali, Y Srinivasulu and Sreenivasa, B.T. (2022). Evaluation and identification of silkworm (*Bombyx mori* L.) genetic resources for abiotic stress condition, p. 23.
8. Parameswara, N. J. (2022). Vulnerability of sericultural farmers against climate change in West Bengal. (Abs.)
9. Rabha, M., Rahul, K., Alam, K., Pradeep, A.R. and Kishore Kumar, C. M. (2022). Trends in diseases incidence in commercial crops during favourable and unfavorable seasons in West Bengal, p.92.
10. Raviraj, V.S., Chandrakanth, N., Sivaprasad, V., Moorthy, S.M., Pradeep A.R. and Kishor Kumar, C.M. (2022). Identification of potential parental breeds for development of bivoltine double hybrids tolerant to high temperature and high humidity for Eastern and North Eastern India, p. 20.
11. Ranjta, D. Th., Chakraborty, S., Mitra, G. and Kishor Kumar, C.M. (2022). Cold reeling - an agent of selection in breeding programme of Nistari-a multivoltine breed in sericulture, p. 138
12. Srinivasa. G, Manjunatha, G.R. Shafi Afroz, Dipesh Pandit and Kishor Kumar, C.M. (2022). Integration of reeling activity with cocoon production for increasing the farmers income in West Bengal.
13. Suresh, K., Chattopadhyay, S., Deepika, U.K., Harijan, Y. and Kishor Kumar, C.M. (2022). Development of powdery mildew resistant mulberry genotypes and evaluation for leaf productivity under sub-tropical irrigated condition, p. 106.
14. Suresh, K., Deepika, U.K., Harijan, Y. and Kishor Kumar, C.M. (2022). Adaptation to climate change effects by pruning and rearing date selection for mulberry sericulture in lower-gangetic region, p.62.

Proceedings of National Seminar on Entrepreneurship in Sericulture at SK University Anantapur on 28th and 29th April, 2022.

- ✓ Balachandran, N., Collins, Z. Renthlei and Kishor Kumar, C.M. (2022). Impact of Integrated Sericulture Development Programme under NERTPS in the North Eastern state of Meghalaya in improving socio economic status of the mulberry sericulturists. p.105.

Proceedings of National conference on "sericulture based multidisciplinary approaches for climate resilience sustainability & livelihood security" organized by College of Sericulture, Chintamani, UAS Bengaluru during 26th to 27th August, 2022.

- ✓ Yallappa Harijan, Suresh. K., Deepika K.U., Chakravarty, D., Pappachan, A.I and Kishor Kumar, C.M. (2022). Characterization of hybrid fruits & seeds of mulberry from polyclonal seed orchard. p. 17.

Proceedings of National Symposium on "Vanya Sericulture : Opportunity Galore" organized by CTR&TI, Ranchi at Ranchi on 28th & 29th October, 2022

- ✓ Alam, K., Raviraj, V.S., Kar P. K. and Chakraborty, S.(2022). Diversity in wild tasar (*Antheraea mylitta* D.) ecoraces of Simlipal biosphere reserve with respect to cocoon and associated parameters, p. 126.
- ✓ Zakir Hossain and Kishore Kumar, C.M. (2022). Exploitation of hilly regions of West Bengal to augment muga seed production in the North Eastern region of India, p.143.
- ✓ Gogoi, D.K. and Bhuyan, P.M. (2022). Exploration of gut bacterial diversity and community structure in Muga silkworm, *Antheraea assamensis* Helfer in Northeast India, p. 104.
- ✓ K. Neog, Singh, B.K. and Kishore Kumar, C.M. (2022). Seri-Biodiversity in Nagaland, p. 124.

Proceedings of Rajbhasha Takniki Seminar on Samagra Resham Utpadon Chunotiya ebom bhabhi rononeeti organized by Central Tasar Research & Training Institute, Central Silk Board, Ranchi on 28th January 2023.

1. Alam, K., Kire, Z., Pandit, D. and Kishor Kumar, C.M. (2023). Sahatut safed makkhi ke khilaf joibik niontron agent ke rup me chrysoperla sp ka field mulyankon. Rashtriya.
2. Deepika, K.U., Harijan, Y., Alam, K., Suresh, K. and Kishor Kumar, C.M. (2023). NDBI bisleshak dwara sahatut poudha ke swastha ka parimanikaran.
3. Kishor Kumar, C.M. (2023). Bharat ke purbi aur purbottar rajyo me shahatut resham Krishi ke vikash me CSRTI, Berhampore ka jogdan.
4. Paik, J., Saha, S., Rabha, M. and Sivaprasad, V. (2022). A Sahatut safed makkhi ke khilaf joibik niontron agent ke rup me chrysoperla sp ka field mulyankon.
5. Raviraj, V.S., Sonowal, A., Hussain, A., Devi, S., Chandrakanth, N., Makwana, P., Alam, K., Pradeep, A. R. and Kishor Kumar, C.M. (2023). Resham keet *Bombyx mori* me marker sahayak Chayan ka upoyog karke uchha tapman aur adrta ke liye sahisnu bivoltine ka pehechan.
6. Suresh, K., Harijan, H., Deepika, K.U., Chattopadhyay, S. and Kishor Kumar, C.M. (2023). Sharat ritu ke dauran parna ebang resham kosa ki utpadakata hetu shahatut ke naya jeenrup ka akalan.