

PUBLICATIONS OF CMER&TI (2019-20)

Research articles:

1. Gohain, A., Sarma, R.K., Debnath, R. et al. Phylogenetic affiliation and antimicrobial effects of endophytic actinobacteria associated with medicinal plants: prevalence of polyketide synthase type II in antimicrobial strains. *Folia Microbiol* 64, 481–496 (2019).
2. Kumar A, Kumar A, Cabral-Pinto MMS, CP., Chaturvedi AK, Shabnam AA, Subrahmanyam G, Mondal, R & Yadav KK (2020). Lead Toxicity: Health Hazards, Influence on Food Chain, and Sustainable Remediation Approaches. *International Journal of Environmental Research and Public Health*, 17(7), 2179.
3. Kumar A, Kumar A,Cabral-Pinto MMS, ChaturvediAK, Shabnam AA, Subrahmanyam G, Mondal R, Gupta DK, Malyan SK, Kumar SS, Khan S, Yadav KK (2020) Lead Toxicity: Health Hazards, Influence on Food Chain, and Sustainable Remediation Approaches. *Int. J. Environ. Res. Public Health* 2020, 17, 2179.
4. Kumar A, Subrahmanyam G, Mondal R, Cabral-Pinto MMS, Shabnam AA, Jigyasu DK, Malyan SK, Kishor-Fagodiya R, Khan SA, Kumar A, Yu ZG (2020) Bio-remediation approaches for alleviation of cadmium contamination in natural resources, *Chemosphere*, <https://doi.org/10.1016/j.chemosphere.2020.128855>.
5. Kumar, A., Subrahmanyam, G., Mondal, R., Cabral-Pinto MMS, Shabnam, A.A, Jigyasu, D.K, Malyan, S.K, Kishor-Fagodiya, R., Khan, S.A, Kumar, A., Yu, Z.-G., Bio-remediation approaches for alleviation of cadmium contamination in natural resources, *Chemosphere*, <https://doi.org/10.1016/j.chemosphere.2020.128855>.
6. Liu J, Li S, Li W, Peng L, Chen Z, Xiao Y, Guo H, Zhang J, Cheng T, Goldsmith MR, Arunkumar KP, Xia Q, Mita K (2019) Genome-wide annotation and comparative analysis of cuticular protein genes in the noctuid pest *Spodoptera litura*. *Insect Biochemistry and Molecular Biology* 110: 90-97.
7. Luikham R, Keisa TJ, Singh S, Subrahmanyam G and Jalaja SK (2020) Photoperiodic effect on diapausing pupae of *Antheraea pernyi* during seed cocoon preservation period In *Sericologia*, Vol 6 (1&2): 56-61.
8. Mahesh D.S., Narayanaswamy T.K., Muthuraju R., Vidyashree D.N. And Subbarayappa C.T. (2020) Influence of Silkworm Pupal Residue Biocompost (SPRB) on Growth and Yield Parameters of Mulberry. *International Journal of Agriculture Sciences*, ISSN: 0975-3710 & E-ISSN: 0975-9107, Volume 12, Issue 2, pp.- 9464-9466.

9. Mahesh, D.S., Muthuraju, R., Vidyashree, D.N., Narayanaswamy, T.K., & Subbarayappa, C.T. (2020). Effect of Silkworm Pupal Residue Protein (SPRP) and Silkworm Pupal Residue Extract (SPRE) Spray on Major and Micronutrients Status of Mulberry, Ind. J. Pure App. Biosci. 8(1), 110-114.
10. Meccariello Salvemini M, Primo P, Arunkumar KP, Bourtzis K, Mathiopoulos K, Ragoussis J, Vitagliano L, Tu Z, Papathanos P, Robinson M, Saccone G (2019) Maleness-on-the-Y (MoY) orchestrates male sex determination in major agricultural fruit fly pests. Science 365: 1457-1460
11. Mech, D., Das, S.C. and Ahmed, M.(2019). Comparative study of Muga Cocoon Yield in Improved and Traditional practice. International Journal of Agriculture Sciences, 11(3),7818-7820
12. Rohela GK, Jogam P, Mir MY, Shabnam AA, Shukla P, Abbagani S and Kamili AN (2020) Indirect regeneration and genetic fidelity analysis of acclimated plantlets through SCoT and ISSR markers in *Morus alba* L. cv. Chinese white. *Biotechnology Reports* 25 (2020) e0041.doi.org/10.1016/j.btre.2020.e00417
13. Roy D and Singh Subadas. (2020). *Nesolynx thymus* (Hymenoptera:Eulophide)-A promising pupal endo-parastoid to control uzifly infesting muga silkworm" *InFood and Scientific Reports*, Vol. 1(7). Pp 36-39, (ISSN 2582-5437).
14. Roy D.and Singh Subadas (2020). *Gynaautocera papilionaria* (Lepidoptera: Zygaenidae): a newly reported pest of Muga silkworm host plant (Soalu) in Brahmaputra valley of Assam. *InFood and Scientific Reports*, Vol. 1(6). Pp 42-45, (ISSN 2582-5437).
15. S Singh, Jigyasu DK, Roy D, Shabnam Aand Das R (2019). Feeding Behaviour of Two Important Predator Bugs *Eocanthecona furcellata* Wolff and *Sycanus collaris* Fabricius in Muga EcosystemInResearch Journal of Agril. Sci. Vol. 10(1). Pp 185-188.
16. Singh CP, Singh J and Arunkumar KP (2019) Role of Toll-receptors in the inhibition of BmNPV proliferation and their interplay with antimicrobial serin proteins in *Bombyx mori*. *Journal of Asia-Pacific Entomology* 22: 897-902.
17. Subrahmanyam G, Esvaran VG, PonnuvelK M, Hassan W, Chutia M, Das R (2019) Isolation and Molecular Identification of Microsporidian Pathogen Causing Nosemosis in Muga Silkworm, *Antheraea assamensis* Helper (Lepidoptera: Saturniidae). Indian Journal of Microbiology, 59: 525-529.
18. Vijay, N. and Mech, D. (2020). Impact of improved muga culture training programm on adoption level of farmers. Journal of Pharmacognosy and Phtochemistry, 9(1), 22220 -2224.
19. Vijay, N., Yarrzari, S. P. and Mech, D. (2020), Influence of improved muga culture technology on knowledge level of farmers. Journal of Pharmacognosy and Phytochemistry, 9(1), 1954-1957

Papers presented in Conferences/ seminars:

1. Kumar A, Chaturvedi AK, Yadav K, Arunkumar KP, Malyan SK, Raja P, Kumar R, Khan SA, Yadav KK, Rana KL, Kour D, Yadav N, Yadav AN (2019) Fungal Phytoremediation of Heavy Metal-Contaminated Resources: Current Scenario and Future Prospects In *Recent Advancement in White Biotechnology Through Fungi* pp 437-461 (Springer, Cham)
2. Kumar Rajesh, Manpoong NS, Singh Subadas, Chauhan S, Gani M, Das R. and Ghosh MK (2019). Endoparasites (Tachinids) of silkworms and their control measure through bio-rational tactics, Wolbachia and organic methods in India In APSERI, 2-4 March 2019, Pp 88.
3. Roy D and Singh Subadas (2020). *Nesonyx thymus*: A promising, pupal parasitoid to control uzifly in Muga ecosystem" in e-syposium-IRABSRD 2020, Innovation and recent advancements in biological sciences for rural development, July 23-24, 2020
4. Singh Subadas (2020). SERICULTURE: its pivotal role in women empowerment and sustainable livelihood in rural areas In symposium, Magadh University, 26-27 June 2020.
5. Subrahmanyam G, Chutia M, Das R. 2019. Management of microbial diseases in muga rearing field. Department of Sericulture (DOS), Assam, Annual Proceedings, Guwahati.
6. Subrahmanyam, G., Kumar, A., Sandilya, S. P., Chutia, M., & Yadav, A. N. (2020). Diversity, Plant Growth Promoting Attributes, and Agricultural Applications of Rhizospheric Microbes. In Plant Microbiomes for Sustainable Agriculture (pp. 1-52). Springer publisher. (International Book chapter) ISBN: 978-3-030-38453-1.

Books/ Book Chapters:

1. Chaubey R., Singh J, Baig MM, **Kumar A.** 2019. Recent Advancement and the Way Forward for Cordyceps. In: Yadav A., Singh S., Mishra S., Gupta A. (eds) Recent Advancement in White Biotechnology Through Fungi. Fungal Biology. Springer, Cham
2. Fagodiya R.K., **Kumar A.**, Kumari S., Medhi K., **Shabnam A.A.** (2020) Role of Nitrogen and Its Agricultural Management in Changing Environment. In: Naeem M., Ansari A., Gill S. (eds) Contaminants in Agriculture. Springer, Cham. https://doi.org/10.1007/978-3-030-41552-5_12
3. Kour D, Lata RK, Yadav AN, Yadav N, Kumar V, **Kumar A**, Sayyed RZ, Hesham Abd El-Latif; Dhaliwal HS; Saxena AK 2019. Drought-Tolerant Phosphorus-Solubilizing Microbes: Biodiversity and Biotechnological Applications for Alleviation of Drought Stress in Plants. In: Sayyed R., Arora N., Reddy M. (eds) Plant Growth Promoting Rhizobacteria for Sustainable Stress Management. Microorganisms for Sustainability, vol 12. Springer, Singapore

4. Kumar et al., 2019. Fungal Phytoremediation of Heavy Metal-Contaminated Resources: Current Scenario and Future Prospects. In: Yadav A., Singh S., Mishra S., Gupta A. (eds) Recent Advancement in White Biotechnology Through Fungi. Fungal Biology. Springer, Cham.
5. Malyan SK, Kumar A, Baram S, Kumar J, Singh S, Kumar SS, Yadav AN. 2019. Role of Fungi in Climate Change Abatement Through Carbon Sequestration. In: Yadav A., Singh S., Mishra S., Gupta A. (eds) Recent Advancement in White Biotechnology Through Fungi. Fungal Biology. Springer, Cham
6. Malyan SK, Singh S, Bachheti A, Chahar M, Sah MK, Narender, Kumar SS. 2020. Cyanobacteria: A perspective paradigm for agriculture and environment. New and Future Developments in Microbial Biotechnology and Bioengineering, 215–224. doi:10.1016/b978-0-12-820526-6.00014-2
7. Manjunath R.N., Kumar A., Arun Kumar K.P. (2020) Utilisation of Sericulture Waste by Employing Possible Approaches. In: Naeem M., Ansari A., Gill S. (eds) Contaminants in Agriculture. Springer, Cham. https://doi.org/10.1007/978-3-030-41552-5_19
8. Rana KL, Kour D, Kaur T, Devi R, Yadav N, Subrahmanyam G., Kumar A, Yadav AN. 2020. Biotechnological applications of seed microbiomes for sustainable agriculture and environment. New and Future Developments in Microbial Biotechnology and Bioengineering, 127–143. doi:10.1016/b978-0-12-820526-6.00008-7
9. Rohela G.K., Mir M.Y., Shukla P., Shabnam A.A. (2020) Newly Identified Phenolic Compounds from Different Plant Families. In: Lone R., Shuab R., Kamili A. (eds) Plant Phenolics in Sustainable Agriculture. Pp: 157-181. Springer, Singapore. https://doi.org/10.1007/978-981-15-4890-1_7
10. Sharaff, M. M., Subrahmanyam, G., Kumar, A., & Yadav, A. N. (2020). Mechanistic understanding of the root microbiome interaction for sustainable agriculture in polluted soils. New and Future Developments in Microbial Biotechnology and Bioengineering, 61–84. doi:10.1016/b978-0-12-820526-6.00005-1
11. Subrahmanyam G, Chutia M, Das R. 2019. Advanced molecular methods in the diagnosis of microbial pathogens of *Antheraea assamensis Helfer*, In Molecular Insect Science, Edited L. K. Hazarika and S. Kalita, Pp: 27-34, Mahababahu publication, ISBN: 978-81-928703-8-0.
12. Subrahmanyam G, Kumar A, Sandilya SP, Chutia M, Yadav AN. 2020. Diversity, Plant Growth Promoting Attributes, and Agricultural Applications of Rhizospheric Microbes Yadav, A. N., Singh, J., Rastegari, A. A., & Yadav, N. (Eds.) In Plant Microbiomes for Sustainable Agriculture. Sustainable Development and Biodiversity. doi:10.1007/978-3-030-38453-1
13. Tyagi K., Shukla P., Rohela G.K., Shabnam A.A., Gautam R. (2020). Plant Phenolics: Their Biosynthesis, Regulation, Evolutionary Significance, and Role in Senescence. In: Lone R., Shuab R., Kamili A. (eds) Plant Phenolics in Sustainable Agriculture. Pp: 431-449. Springer, Singapore. https://doi.org/10.1007/978-981-15-4890-1_18

Booklets/ leaflets/ News items:

1. Mech D and Vijay N (2020) Integrated Practice of ITK and Modern Technology for Muga Silkworm Seed production- Published by CMER&TI, CSB, Lahdoigarh, January 2020 (In Assamese)
2. Mech D and Vijay N (2020) IntegratedPractice of ITK and Modern TechnologyforHigher Muga cocoon yield - Published by CMER&TI, CSB, Lahdoigarh, January 2020 (In Assamese)
3. Mech, D, Vijay, N. and Das, R. (2020), Indigenous Technical Knowledge (ITK) for Sustainable Development of Muga Cultur - Published by CMER&TI, CSB, Lahdoigarh, January 2020 (In English)
4. Subrahmanyam G, Chutia M, Arunkumar KP. 2020. Annual Review of Genetics, 2018. Nancy M. Bonini, Andrew G. Clark and Michael Lichten. Current Science, 118 (1), 142-13.
5. आफताबअहमदशबनम,अमितकुमारऔरविनोदकुमारएसनाइक(२०२०)|बहुवर्षीयएरुडपौधेकाचयणएवंग्रहणहेतुसर्वेक्षणव भू-टैगिंग।केमूएअवप्रसं,हिन्दीन्यूज़लेटर (खंडIX): पेज७-८.