

## **Curriculum Vitae of Dr. Krishna Karmakar**

1. Name of the Teacher : **Dr. Krishna Karmakar**  
2. Designation : Professor & Head
3. Place of Posting : Department of Agricultural Entomology,  
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4. Date of Birth : 01.01.1964
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- 6. Area of specialization** : Agricultural Entomology with specialization in Agricultural Acarology.
- 7. Date of joining in the University Service** : 25.09.1991
- 8. Service profile** : i. Lecturer , Department of Agril. Entomology, BCKV, North Bengal Campus, NARP Terai zone, Pundibari, CoochBehar, since joining to October, 2000.  
ii. Associate Professor, Department of Agril. Entomology, AINP on Agril. Acarology; BCKV October, 2000 – 25<sup>th</sup> September 2008.  
iii) Professor, Department of Agril. Entomology & In-Charge, AINP on Agril. Acarology; BCKV, from 25<sup>th</sup> September 2008 to 14.07.2014.  
iv) Professor & Head, Department of Agril. Entomology 14.07.2014 to continuing.
- 9. Research and Professional Experiences** : 30 Years Teaching, Research & Extension Experience

**10. Academic Qualification**

: B.Sc. (Ag.) Hons.; M. Sc. (Ag.); Ph. D. in Agricultural Entomology with specialization in Agricultural Acarology

**11. List of research publications:**

1. Karmakar, K., P.K. Sarkar, A.K. Somchoudhury and A.B. Mukherjee (1994). Role of some weather parameters vis-à-vis morphological and biochemical characteristics of pigeon pea plant on the relative abundance of *Schizotetranychus cajani* (Gupta) (Acarina: Tetranychidae). *Ann. Entomol.* 12 (1): 29-35.
2. Karmakar, K. (1995). Comparative symptomology of chilli leaf curl disease and biology of tarsonemid mite, *Polyphagotarsonemus latus* (Banks) (Acari: Tarsonemidae). *Ann. Entomol.* 13 (2): 65-70.
3. Karmakar, K., P.K. Sarkar, A.K. Somchoudhury and A.B. Mukherjee (1996). Influence of host plants on different life stages of *Polyphagotarsonemus latus* (Banks) (Acari : Tarsonemidae). *Ann. Entomol.* 14 (2): 41-45.
4. Karmakar, K., P.K. Sarkar, A.K. Somchoudhury and A.B. Mukherjee (1996). Effectiveness of some modern pesticides against different stages of yellow mite, *Polyphagotarsonemus latus* (Banks) (Acari: Tarsonemidae) infesting chilli. *Ann. Entomol.* 14 (2): 47-54.
5. Karmakar, K. (1997). Size, shape and behaviour of *Polyphagotarsonemus latus* (Banks) (Acari: Tarsonemidae). *Environment & Ecology* 15 (1): 219-220.
6. Karmakar, K. (1997). Notes on symptoms of *Polyphagotarsonemus latus* (Banks) (Acari: Tarsonemidae) infested host plants with histological deformities in chilli. *Indian Agric.*, 41 (2): 155-157.
7. Karmakar, K. (1997). Effect of micronutrients on the biology of *Polyphagotarsonemus latus* (Banks) (Acari: Tarsonemidae). *Environment & Ecology* 15 (3): 699-701.
8. Karmakar, K (1997). Relative incidence of rice pests and their integrated management under terai agro-ecological conditions. Annual Report, 1997-98, Regional Research Station, Terai Zone, Bidhan Chandra Krishi Viswavidyalaya, North Bengal Campus, 36-37pp.
9. Karmakar, K., Jaydeb Ghosh and S.K. Senapati (1998). Relative abundance and biology of European red mite, *Panonychus ulmi* (Koch) (Acari:Tetranychidae) infesting mulberry cultivars. *Environment & Ecology* 16 (1): 101-104.

10. Karmakar, K. and B. Bhattacharya. (2000). Performance of a local brinjal variety (*Solanum melongena* L.) and its pest management under terai agro-ecological conditions. *Environment & Ecology* 18 (2): 344-346.
11. Karmakar, K. and B. N. Panja. (2001). Glume blight disease of high yielding *Boro* (Summer) rice from sub-Himalayan terai zone of West Bengal. *Environment & Ecology* 19 (1) : 249-250.
12. Karmakar, K. (2002). Approaches for integrated pest management of rice under Terai zone of West Bengal. *Proceedings on National Seminar on “ Integrated Pest Management in the Current Century”* November 29-30, 2002, Department of Agricultural Entomology, BCKV, West Bengal, India 264-274pp.
13. Karmakar, K. (2003). Effect of date of sowing on the incidence of insect pests of rape and mustard. *J. Interacad.* 7(4): 420-425.
14. K. Karmakar, Prakash Ghosh, S.B. Chattopadhyay and Md. Mohasin (2003). Effect of plant morphological characters and weather parameters on the incidence of *Leucinodes orbonalis* (Guen.) on different cultivars of brinjal. *Ann. Entomol.* 21(1-2): 21-28.
15. D. J. Pal, Md. Mahasin, A.K. Somchoudhury and K. Karmakar (2003). Preying potential of *Chrysoperla carnea* Stephens (Neuroptera:Chrysopidae) on the eggs of brinjal shoot and fruit borer. *Ann. Entomol.* 21(1-2): 11-13.
16. K. Karmakar (2003). Severity of infestation of coconut mite, *Aceria guerreronis* Keifer (Acari:Eriophyidae) in Southern districts of West Bengal. *Ann. Entomol.* 21(1-2): 29-31.
17. Sahoo Kr. Shyamal and K. Karmakar (2004). Screening of pumpkin cultivars against leaf miner (*Liriomyza trifolii* Burgess) (Agromyzidae: Diptera) and white fly (*Bemisia tabaci* Genn.) (Aleyrodidae:Hemiptera). *J. Interacad.* 8(4): 575-581.
18. Lakshman Patel and K. Karmakar. (2004). Relative susceptibility of pointed gourd (*Trichosanthes dioica* Roxb.) cultivars to false spider mite, *Brevipalpus phoenicis* (Geijskes) (Acari:Tenuipalpidae). *Ann. Entomol.* 22(1-2): 23-25.
19. K. Karmakar (2004). Influence of jute cultivars and crop age on the incidence of yellow mite, *Polyphagotarsonemus latus* (Banks) (Acari:Tarsonemidae). *Ann. Entomol.* 22(1-2): 26-28.
20. Mrityunjay Ghosh, K. Karmakar, A.K. Pal and S.K. Gunri (2004). Response of local aromatic rice cultivars to fertilizer levels in terai zone of West Bengal. *Bangladesh J. Agril. Sci.* 31(2): 155-159.

21. Patel, L. and K. Karmakar (2005). Seasonal abundance of false spider mite, *Brevipalpus phoenicis* (Geijskes) on selected cultivars of pointed gourd (*Trichosanthes dioica* Roxb.). *Environment & Ecology* 23 (Spl-2): 242-244.
22. Karmakar K. and G. Saha (2005). Population dynamics of false spider mite, *Brevipalpus phoenicis* (Giejskes) (Acari:Tenuipalpidae) on *Mikania micrantha* Kunth. in relation to weather parameters. *Journal of Crop and Weed*, 2(1): 68-71.
23. Karmakar K. and G. Saha (2005). Preference of chilli germplasms to aphid, *Aphis gossypii* Glover (Homoptera:Aphididae) and their management under Gangetic plains of West Bengal. *Journal of Aphidology*, 19: 25-28, 2005.
24. Karmakar K. and Soma Dey (2006). Studies on seasonal incidence of phytophagous mite species on selected germplasms of banana in West Bengal. *Indian J. Crop Science*, 1(1-2): 138-139.
25. Samapika Hazra, Md. Mahasin, Amitava Banerjee and K. Karmakar (2006). Efficacy of some pesticides against the adults of two spotted red spider mite (*Tetranychus urticae* Koch.) on *Acalypha copperencis* L. in laboratory condition. *Uttar Pradesh J. Zool.* 26(1):109-110.
26. Krishna Karmakar, D. Mazumder and A.C. Pradhan (2007). Influence of rice cultivars, spacing and nitrogen levels on the occurrence of rice sheath mite, *Steneotarsonemus spinki* Smiley (Acari:Tarsonemidae) under Gangetic Plains of West Bengal. *Journal of Acarology*, 17(1&2) 19-20.
27. Krishna Karmakar (2008). *Steneotarsonemus spinki* Smiley (Acari:Tarsonemidae) – a yield reducing mite of rice crops in West Bengal, India. *Internat. J. Acarol.* 34(1): 95-99.
28. Krishna Karmakar and Debasis Mazumdar (2010). Population dynamics of yellow mite, *Polyphagotarsonemus latus* (Banks) (Acari:Tarsoneidae) on different cultivars of jute (*Corchorus* spp. L) in relation to some abiotic parameters. *J. ent. Res.*, 34 (3): 229-231.
29. Krishna Karmakar and Salil K. Gupta (2011). Impact of the date of transplanting on population dynamics of the rice sheath mite, *Steneotarsonemus spinki* Smiley (Acari: Tarsonemidae), on the rice cultivar IET-4786 in the Gangetic plains of West Bengal, India. In: Moraes, G.J. de & Proctor, H. (eds) *Acarology XIII: Proceedings of the International Congress. Zoosymposia* 6: 119– 122.
30. Krishna Karmakar and Salil K. Gupta (2011). Predatory mite fauna associated with agri-horticultural crops and weeds from the Gangetic Plains of West Begal, India. In: Moraes, G.J. de & Proctor, H. (eds) *Acarology XIII: Proceedings of the International Congress. Zoosymposia* 6: 63-68.

31. Salil K. Gupta and Krishna Karmakar (2011). Diversity of mites (Acari) on medicinal and aromatic plants in India *In: Moraes, G.J. de & Proctor, H. (eds) Acarology XIII: Proceedings of the International Congress. Zoosymposia* 6: 57-62.
32. Pranab Debnath, Krishna Karmakar, Amalendu Ghosh and Chirantan Chattopadhyay (2012). Infestation of yellow mite in mung bean in West Bengal: A survey. *Pulses Newsletter*, Indian Institute of Pulses Research, Kanpur, 23 (1):6.
33. Pranab Debnath and Krishna Karmakar (2013). Garlic mite, *Aceria tulipae* (Keifer) (Acari:Eriophyoidea) – a threat for garlic in West Bengal, India. *International Journal of Acarology*, 39(2):89-96.
34. Pubali Mondal, Krishna Karmakar and Romen Kumar Kole (2013). Evaluation of plant extracts against two spotted spider mite, *Tetranychus urticae* Koch (Acari: Tetranychidae) infesting okra. *Ann. Entomol.*, 31(1): 121-127.
35. K. Karmakar and Sandip Patra (2013). Bio-efficacy of new acaricide molecule, Etoxazole 10% Sc (w/w) against red spider mite, *Tetranychus urticae* Koch in brinjal. *Vegetos*. 26(2): 396-402.
36. K. Karmakar, Pranab Debnath and Sandip Patra (2014). Etoxazole: A new novel acaricide molecule for effective management of tea red spider mite, *Oligonychus coffeae* (Neitner). *Res. On Crops*. 15(3): 662-669.
37. Pubali Mandal, Arpita Saha, P. K. Bandopadhyaya and K. Karmakar (2014). Field evaluation of Garlic varieties against *Aceria tulipae* (Keifer) (Acari:Eriophyoidea). *India Journal of Entomology*. 76(3): 254-255.
38. Krishna Karmakar and Salil K. Gupta (2014). Descriptions of four new species of phytoseiid mites (Acari:Mesostigmata) from West Bengal, India. *Rec.zool.Surv. India*; 114 (Part-4):687-700.
39. Vikram Prasad & Krishna Karmakar (2015). Holotype female of *Paraphytoseius scleroticus* after 33 years: voucher photos, comments and description of a new genus (Acari: Phytoseiidae). *Persian Journal of Acarology*, 2015, Vol. 4, No. 1, pp. 27–42.
40. Vikram Prasad & Krishna Karmakar (2015). *Paraphytoseius nicobarensis* (Acari: Phytoseiidae): exact identity,comments and voucher photos of types after 37 years. *Persian Journal of Acarology*, 2015, Vol. 4, No. 2, pp. 143–162.
41. K. Karmakar and Sandip Patra (2015). Bio-efficacy of some new insecticide molecules against pod borer complex of Red gram. *Legume Research*, 38 (2): 253-259.
42. Gilberto J. de Moraes, Reham I.A. Abo-Shanaf; Yanebis Perez-Madruga, Leocadia Sanchez; Krishna Karmakar & Chyi-Chen Ho. (2015). The Lasioseius phytoseioides

- species group (Acari: Blattisociidae): new characterisation, description of a new species, complementary notes on seven described species and a taxonomic key for the group. *Zootaxa*, 3980 (1): 001–041.
43. Salil K. Gupta and Krishna Karmakar (2015). An updated checklist of Indian Phytoseiid mites (Acari: Mesostigmata). *Rec.zool.Surv. India*; 115 (Part-1):51-72.
44. Pranab Debnath and Krishna Karmakar (2015). Description of a new species of *Phyllocoptruta* (Acari: Eriophyoidea) on *Azadirachta indica* from West Bengal, India. *Persian Journal of Acarology*, Vol. 4, No. 3, pp. 297–304.
45. Suvash Chandra Bala, Krishna Karmakar and Dipak Kumar Ghosh (2015). Field Evaluation of Chilli Germplasms Against Yellow Mite, *Polyphagotarsonemus latus* (Banks) (Acari-Tarsonemidae) and Its Management under Gangetic Basin of West Bengal. *Environment Ecology* 33 (4C): 2031—2035.
46. Krishna Karmakar and Pranab Debnath (2016). Impact of organic-inorganic nutrients combination in rice on the occurrence of *Steneotarsonemus spinki* Smiley (Acari: Tarsonemidae) in West Bengal, India. *Persian Journal of Acarology*, Vol. 5, No. 1, pp. 71–80.
47. Pranab Debnath & Krishna Karmakar (2016). Eriophyoid mites from Eastern India: description of three new species (Acari: Prostigmata: Eriophyoidea) *Zootaxa*, 4061(5): 553–568.
48. Krishna Karmakar (2016). The mites of the family Tarsonemidae (Acari: Heterostigmata) in West Bengal, India. *J. Acarol. Soc. Jpn.*, 25(S1): 75-79.
49. Shubham Pramanik and Krishna Karmakar (2016). Description of six new species of phytoseiid mites (Acari: Phytoseiidae) from Arunachal Pradesh, India. *Persian Journal of Acarology*, Vol. 5, No. 3, pp. 161–187.
50. Pranab Debnath and Krishna Karmakar (2016). Varietal preference and population dynamics of *Notacaphylla chinensiae* Mohanasundaram and Singh on litchi in West Bengal, India. *Persian Journal of Acarology*, 2016, Vol. 5, No. 3, pp. 229–237.
51. Krishna Karmakar and Pubali Mandal (2013). Occurrence of *Brevipalpus phoenicis* Geijskes (Acari: Tenuipalpidae) in relation to prevalent weather parameters on various betelvine (*Piper betel L.*) cultivars under Gangetic West Bengal. *Ann. Entomol.*, 31(2) : 191-200.
52. Krishna Karmakar, Suvash Chandra Bala and Sunil Kr. Ghosh (2017). Population dynamics of sheath mite, *Steneotarsonemus spinki* Smiley infesting rice cultivar IET-4786 and its management under Gangetic Basin of West Bengal. *Journal of Entomology and Zoology Studies*; 5(4): 663-666.

53. P. Barma, S. Jha, S. Banerjee and K. Karmakar (2017). Bio-Ecology of Two-Spotted Spider Mite (*Tetranychus urticae* Koch.) (Acari:Tetranychidae) Infesting Pointed Gourd (*Trichosanthes dioica* Roxb.) in West Bengal. *Trends in Biosciences* 10 (18), 3210-3216.
54. Suvash Ch. Bala, Krishna Karmakar and Sunil Kr. Ghosh (2015). Population dynamics of mite, *Aceria tulipae* (Keif.) on garlic (*Allium sativum* L) and its management under Bengal Basin. *International Journal of Science, Environment and Technology*, Vol. 4, No 5, 1365 – 1372.
55. Krishna Karmakar, Sagarika Bhowmik & Choyang Sherpa (2017). Description of five new species and re-description of two species of Amblyseius (Acari: Phytoseiidae) from West Bengal, India. *Zootaxa*, 4311 (1): 039-061.
56. Soumita Pal and Krishna Karmakar (2017). Population dynamics and management of yellow mite, *Polyphagotarsonemus latus* (Banks) (Acari: Tarsonemidae) infesting gerbera under protected cultivation. *Journal of Entomology and Zoology Studies*, 5(5): 795-799.
57. Krishna Karmakar & Sagarika Bhowmik (2018). Description of eight new species and re-description of four species belonging to the family Phytoseiidae (Acari: Mesostigmata) from West Bengal, India. *Zootaxa*, 4422 (1): 041–077.  
<https://doi.org/10.11646/zootaxa.4422.1.3>
58. S. T. Pavana Kumar, Krishna Karmakar, Adam Kamei, Debasis Mazumder and David Kamei (2018). Searching key traits for further description of Phytoseiidae mite family. *The Bioscan*, 13(2): 545-549.
59. Suvash Ch. Bala, Krishna Karmakar and Sunil Kr. Ghosh (2018). Diversity of mite fauna associated with various agro-horticultural crops in Jharkhand. *Journal of Entomology and Zoology Studies*, 6(4): 806-809.
60. Pavan Kumar S.T., Debasis Mazumdar and Krishna Karmakar (2018) Numerical taxonomy of Phytoseiidae mite family: a multivariate approach. *RASHI* 3 (2): 57 - 64.
61. Shamik Dey, Tufleuddin Biswas, Kingshuk Roy and Krishna Karmakar (2020). Impact of spot application of insecticide on the different cultivars of Maize against fall army worm (*Spodoptera frugiperda* Smith) under conservation agriculture. *Journal of Entomology and Zoology Studies* 2020; 8(3): 75-80.  
<https://www.researchgate.net/publication/341102975>
62. Shamik Dey, Tufleuddin Biswas, Mahafuzar Rahaman, Suvendu Bhattacharjee and Krishna Karmakar (2020). Effect of Spot Application of Imidacloprid 17.8 SL on Mustard Aphid (*Lipaphis erysimi*) under Conservation Agricultural Practices, West Bengal, India. *Int. J. Curr. Microbiol. App. Sci* 9(7): 3620-3627,  
<https://doi.org/10.20546/ijcmas.2020.907.422>

63. Dey, S. and K. Karmakar (2020). Seasonal impact on life-fertility table parameters of *Oligonychus sapienticulus* Gupta infesting banana under Gangetic basin of West Bengal, India. *J. Environ. Biol.*, **41**, 631-636 (2020).  
<http://doi.org/10.22438/jeb/41/3/MRN-1117>
64. Shamik Dey, Tufleuddin Biswas, Kingshuk Roy and Krishna Karmakar Impact of spot application of insecticide on the different cultivars of Maize against fall army worm (*Spodoptera frugiperda* Smith) under conservation agriculture. *Journal of Entomology and Zoology Studies* 2020; 8(3): 75-80.  
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65. Shamik Dey1, Tufleuddin Biswas, Mahafuzar Rahaman, Suvendu Bhattacharjee and Krishna Karmakar (2020). Effect of Spot Application of Imidacloprid 17.8 SL on Mustard Aphid (*Lipaphis erysimi*) under Conservation Agricultural Practices, West Bengal, India. *Int.J.Curr.Microbiol.App.Sci* (2020) 9(7): 3620-3627  
<https://www.researchgate.net/publication/343288049>
66. Priyankar Mondal, Moumi Ganguly, Pritha Bandyopadhyay, Krishna Karmakar, Anamika Kar and Dipak Kumar Ghosh (2020). Status of Rugose Spiraling Whitefly *Aleurodicus rugioperculatus* Martin (Hemiptera: Aleyrodidae) in West Bengal with notes on host plants, natural enemies and management. *Journal of Pharmacognosy and Phytochemistry* 2020; 9(1): 2023-2027
67. Md. Iftiar Hossain Molla and Krishna Karmakar (2020). Selection of best performing newly developed rice lines against rice Sheath mite *Steneotarsonemus spinki* Smiley (Acari: Tarsonemidae) under Gangetic basin of West Bengal. *Journal of Entomology and Zoology Studies* 2020; 8(2): 682-686  
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68. Shamik Dey and Krishna Karmakar (2021). Conservation Agriculture for the management of insect pests- A review. *International Journal of Ecology and Environmental Sciences*. Volume 3; Issue 1; 2021; Page No. 395-400.
69. Md. Iftiar Hossain Molla, Anamika Kar, Suvash Chandra Bala and Krishna Karmakar, (2021). Description of four new species of phytoseiid mites belonging to the genus *Typhlodromus* (*Anthoseius*) De Leon from West Bengal. *Zootaxa* 4949 (3): 541–556.  
<https://doi.org/10.11646/zootaxa.4949.3.6>
70. Anamika Kar & Krishna Karmakar (2021) Description of three new species of phytoseiid mites (Acari: Mesostigmata) from Sundarban, West Bengal, India, *International Journal of Acarology*, 47:1, 51-60, <https://doi.org/10.1080/01647954.2020.1870555>
71. Priyankar Mondal, Moumi Ganguly, Krishna Karmakar, Antonio C. Lofego & Gilberto J. de Moraes (2021): A new species of *Steneotarsonemus* (Acari: Tarsonemidae) from

common reed grass, *Phragmitesaustralis* (Poaceae) in the wetlands of Eastern India, *International Journal of Acarology*, <https://doi.org/10.1080/01647954.2021.1900912>

72. Priyankar Mondal and Krishna Karmakar (2021). First record of *Metatarsonemus* (Acari: Tarsonemidae) from India with description of two new species. *Zootaxa* 4942 (2): 229–251, <https://doi.org/10.11646/zootaxa.4942.2.6>
73. Priyankar Mondal and Krishna Karmakar (2021). First record of *Metatarsonemus* (Acari: Tarsonemidae) from India with description of two new species. *Zootaxa* 4942 (2): 229–251, <https://doi.org/10.11646/zootaxa.4942.2.6>
74. Sagarika Bhowmik and Krishna Karmakar (2021). Five new species and re-description of eight species belonging to the family Phytoseiidae (Acari: Mesostigmata) from West Bengal, India. *Zootaxa* 4975 (3): 401–450, <https://doi.org/10.11646/zootaxa.4975.3.1>
75. Priyankar Mondal, Moumi Ganguly & Krishna Karmakar (2021). Three new species of *Metatarsonemus* (Acari: Tarsonemidae) from a part of Central Himalayan biotic province in West Bengal, India, *International Journal of Acarology*, <https://doi.org/10.1080/01647954.2021.1976274>
76. Sandipan Kayal, Krishna Karmakar and Gilberto J. de Moraes (2021). Sources of infestation of the rice sheath mite, *Steneotarsonemus spinki* Smiley (Acari: Tarsonemidae), in West Bengal, India. *International Journal of Pest management*. <https://doi.org/10.1080/09670874.2021.1973691>
77. Priyankar Mondal and Krishna Karmakar (2021). Taxonomic notes on genus *Floridotarsonemus* (Acari: Tarsonemidae) with a description of two new species from West Bengal, India and keys to the world species. *Systematic & Applied Acarology* 26(6): 1109–1125, <https://doi.org/10.11158/saa.26.6.8>
78. Priyankar Mondal and Krishna Karmakar (2021). First record of *Fungitarsonemus* (Acari: Tarsonemidae) from India with description of three new species from the state of West Bengal. *Systematic & Applied Acarology* 26(11): 2027–2047 (2021) <https://doi.org/10.11158/saa.26.11.4>
79. Moumi Ganguly, Priyankar Mondal, & Krishna Karmakar (2021). Taxonomic notes on subgenus *Steneotarsonemoides* (Acari: Tarsonemidae) with description of a new species of *Steneotarsonemus* from Tiger grass in the northern hill zone of West Bengal, India. *Zootaxa* 5023 (3): 405–420, <https://doi.org/10.11646/zootaxa.5023.3.5>

80. Md. Iftiar Hossain Molla and Krishna Karmakar, (2021). Description of five new species of Amblyseiinae (Acari: Phytoseiidae) associated with medicinal plants from the Northern Himalayan Zone of West Bengal, India. *Zootaxa* 5057 (3): 364–384, <https://doi.org/10.11646/zootaxa.5057.3.3>
81. Priyankar Mondal, Moumi Ganguly, Krishna Karmakar, Antonio C. Lofego & Gilberto J. de Moraes (2021). A new species of *Steneotarsonemus* (Acari: Tarsonemidae) from common reed grass, *Phragmites australis* (Poaceae) in the wetlands of Eastern India, *International Journal of Acarology*, 47:4, 289-300, <https://doi.org/10.1080/01647954.2021.1900912>
82. Anamika Kar & Krishna Karmakar (2021). Description of eleven new species of phytoseiid mites (Acari: Mesostigmata) from Meghalaya state, north eastern India, *Zootaxa* 5068 (3): 301–354, <https://doi.org/10.11646/zootaxa.5068.3.1>
- 83.
- 12. Significant achievements in terms of deliverable to farmers/ corporate house/stake holders with photographs.**
- a) The rice panicle mite, *Steneotarsonemus spinki* was observed as serious pest of rice in West Bengal during wet season. It is identified as one of the major yield reducing mite species. Rice cultivars Masuri, Ranjit are tolerant and IR-36 and IET-4786 are susceptible to mite. None of the pesticides is effective however, application of *Gliricidia* and mustard cake as organic source of nutrients reduce the mite population and increase yield. High yielding and mite tolerant rice variety BCKV rice-1 & BCKV rice-6 has been developed.
  - b) Developed mass production technology of predatory mite, *Neoseiulus longispinosus* and *Agistemus industani* as the most effective bio-agents for integrated management of spider mites and yellow mite in chilli.
  - c) High yielding and mite tolerant chilli cultivar BCCH-SL-4 has been developed.
  - d) The garlic mite, *Aceria tulipae* has been identified as a major constraints of garlic cultivation in West Bengal. The garlic variety *Katki* is tolerant and *Gangajali* is susceptible to mite.
  - e) Identified the false spider mite, *Brevipalpus phoenicis* 1<sup>st</sup> time as one of the damaging mite pests causing significant damage in pointed gourd.
  - f) Established the role of whitefly as the disseminator of chilli yellow mite.

### **13. Awards and recognition:**

- a. The best poster award obtained at the National Seminar on “Coastal Resources & their Sustainable Management: Issues & Strategies” organized by BCKV, Mohanpur-741252, West Bengal during November 24-27, 2005.
- b. The best poster award obtained at the National Seminar on “Integrated production and Post-Harvest Management of Tropical Fruits” Organized by BCKV, Mohanpur, Nadia, West Bengal, during April 11th – 12 th , 2006.
- c. The best poster award obtained at the “*National Symposium on climate change, plant protection & food security interface*” organized by Association for Advancement in Plant Protection on December 17 to 19<sup>th</sup>, 2009, at Lake Hall, BCKV, Kalyani, West Bengal.
- d. Special Recognition Award for Organizing the Acarology Meeting on Taxonomy during April 8-10, 2010 at BCKV, Kalyani, India, in Association with Acarology Development Foundation, West Bloomfield, Michigan, USA.
- e. The best poster award obtained at the “*International Symposium cum Workshop in Acarology*” organized at Lake Hall, BCKV, Kalyani, West Bengal during April 8-10, 2010.

### **14. Guidance in Master’s and Ph.D. Programme:**

#### **A) Guided five students of Master’s degree programme and submitted thesis on the following topics:**

- a) “Bio-ecology of *Brevipalpus phoenicis* (Geijskes) (Acari:Prostigmata) on selected pointed gourd (*Trichosanthes dioica* Roxb.) cultivars. (2003).
- b) “Occurrence of yellow mite, *Polyphagotarsonemus latus* (Banks) (Acari:Tarsonemidae) and predatory mites in diversified groups of chilli cultivars” (2004).
- c) “Population dynamics and management of jute yellow mite, *Polyphagotarsonemus latus* (Banks) (Acari:Tarsonemidae) in relation to biotic and abiotic parameters” (2005).
- d) “Population dynamics, bio-ecology and sustainable management of yellow mite, *Polyphagotarsonemus latus* (Banks) Acari:Tarsonemidae infesting jute (*Corchorus* spp.)” (2007).
- e) “Population dynamics and management of chilli yellow mite, *Polyphagotarsonemus latus* (Banks) under Bengal Basin” (2008).

#### **B) Guided Ph. D. scholars on the following topics:**

- a) “Mango mites and their management”

- b) "Exploration of banana mites, emphasizing population dynamics and management of *Oligonychus oryzae* Hirst. (Acari:Tetranychidae) in Gangetic plains of West Bengal"
- c) "Systematics of Eriophyoids and study on bio-ecology and management of Eriophyoids infesting garlic and mango"
- d) "Records, Distribution and Taxonomic Description of Phytoseiid Mites from West Bengal"

**15. Number of seminar/symposia/conference/winter school attended or organized.**

**A) National and International Seminar/Symposia/Conference:**

- a) National Seminars attended : 21
- b) International Seminars attended : 10
- c) International Symposium Organized : 2

**B) National Workshop/ Group Meeting:**

1. Participated in VIII Group meeting of AINP on Agril. Acarology, 28<sup>th</sup> -29<sup>th</sup> March, 2003; Banaras Hindu University, Banaras, Uttar Pradesh.
2. Participated in IX Group meeting of AINP on Agril Acarology, 3<sup>rd</sup> -5<sup>th</sup> March, 2005; Punjab Agricultural University, Ludhiana, Punjab.
3. Participated in X Group meeting of AINP on Agril Acarology, 27-28<sup>th</sup> February'07 at Navsari Agricultural University , Navsari, Gujarat.
4. Participated in XI Group meeting of AINP on Agril Acarology, 17-19<sup>th</sup> June '09 at Regional Horticultural Research Station, HAU, Mashobra Himachal Pradesh.
5. Participated in XII Group meeting of AINP on Agril Acarology, 27-28<sup>th</sup> January '12 at Kerala Agricultural University, Trissur, Kerala.
6. Participated in XIII Group meeting of AINP on Agril Acarology, 11-12<sup>th</sup> July '13 at Rajasthan Agril University, Jaypur, Rajasthan.
7. Participated in XIV Group meeting of AINP on Agril Acarology, 19-21st April'16 at Assam Agril University, Jorehat, Assam.

**C) National/International Training/Short course/Winter & Summer School:**

1. Participated in National Training in "Integrated Pest Management In Rice" at Central Plant Protection Training Institute, Hyderabad from 1<sup>st</sup> September, 1993 to 8<sup>th</sup> September, 1993.
2. Participated in National Training on "Instrumentation In Entomological Research" held from 18<sup>th</sup> January to 7<sup>th</sup> February, 2000 at Department of Agril. Entomology, Tamil Nadu Agrilcultural University, Coimbatore-641003.
3. Participated in Summer School on "Training In Identification and Management of Mite Pests of Crops" held at Department of Agril. Entomology, UAS, GKVK, Bangalore-560065, Karnataka from 24<sup>th</sup> June to 14<sup>th</sup> July, 2001.

4. Participated in the “Summer Acarology Training program on the Introductory Acarology” at Ohio State University, 1315 Kinnear Road, Ohio, Columbus, USA during 27<sup>th</sup> June to 15<sup>th</sup> July’ 2011.
5. Participated in the “Summer Acarology Training program on Agricultural Acarology” at Ohio State University, 1315 Kinnear Road, Ohio, Columbus, USA during 27<sup>th</sup> June to 15<sup>th</sup> July’ 2011.
6. Participated in “A Training programme on Taxonomy of Phytoseiidae mites” at “Escola Superior de Agricultura Luiz de Queiroz”, USP, Piracicaba Brazil from 13<sup>th</sup> April, 2012 to 20<sup>th</sup> June, 2012.

#### **16. No. of class catered in UG and PG level:**

- Regularly catered Graduate and Post Graduate classes in different Semesters in the Department of Agricultural Entomology.
- Visiting Professor at “Escola Superior de Agricultura Luiz de Queiroz”, USP, Piracicaba Brazil.
- Visiting Professor at “UNESP”, Jaboticabal, Brazil.

#### **17. Performance of Extension Activities:**

- i) Extension activities are performed occasionally by participating Farmers and State Govt. officers’ Training Programmes.
- ii) Through participating in “Front Line Demonstration” of crops, KVK and NGOs’ organized farmers programme on crop protection.

#### **18. Patents/technology commercialization/release of variety/and publication of book:**

- P. Hazra, A. Chattopadhyay, **K. Karmakar** and S. Dutta (2011). Modern Technology in Vegetable Production. *New India Publishing Agency*, Pitam Pura, New Delhi-110088 413pp.
- A provisional filing of patent on “Mass production, transportation and field release technique of predatory mite, *Neoseiulus longispinosus* (Evans)” has been done.

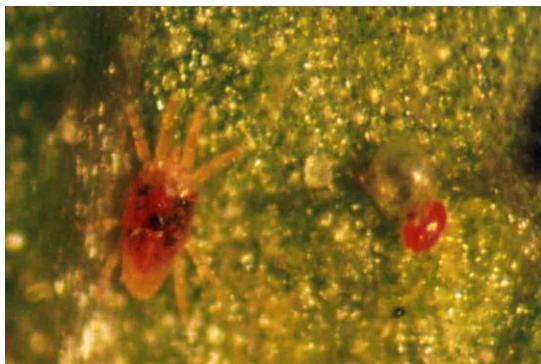
#### **19. Number of on-going research project with funding agencies:**

- Senior Acarologist & Officer-in-Charge, All India Network Project on Agril. Acarology, ICAR, Govt of India.
- Principal Investigator, “Evaluation of Bio-efficacy of Pyridalyl against pod borer complex of Red gram” Sponsored by Sumitomo Chemical India Pvt. Ltd.
- Principal Investigator, “Evaluation of Bio-efficacy of Etoxazole against spider mite complex of egg plants and red spider mite of tea” Sponsored by Sumitomo Chemical India Pvt. Ltd.
- Principal Investigator, “Evaluation of Bio-efficacy and phytotoxicity of deltamethrin 10 EC (w/v) (deltamethrin 11% w/w) (brand name : decis 10EC)

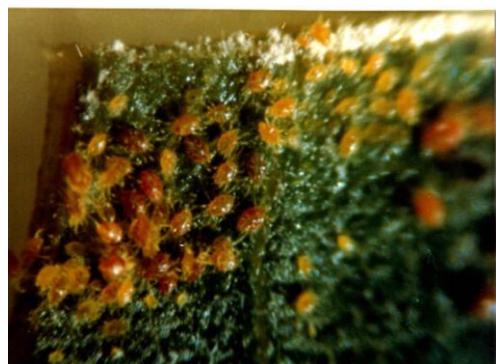
against thrips in onion, Fipronil 0.6% GR and Fipronil 200 SC (w/v) against insect pests of rice" Sponsored by M/S Bayer Crop Science Ltd.

- Co-Investigator, RKVY Project on "Promotion of Bengal Aromatic Rice through Improved Production and Processing System" Govt. of West Bengal.
- Co-Investigator, RKVY Project on "Development of model for sustainable Backyard Poultry Farming System in West Bengal".
- Principal Investigator, "Study on impact of indiscriminate use of chemical fertilizers and pesticides in crops" Sponsored by Govt. of India, through NIPHM, Hyderabad.

## 20. Photographs of the relevant topics:



1. False spider mite in pointed gourd



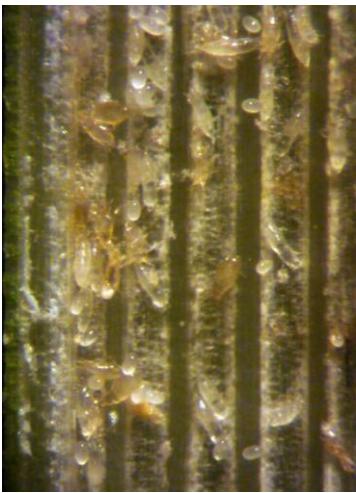
2. Mass production of *Agistemus industani*



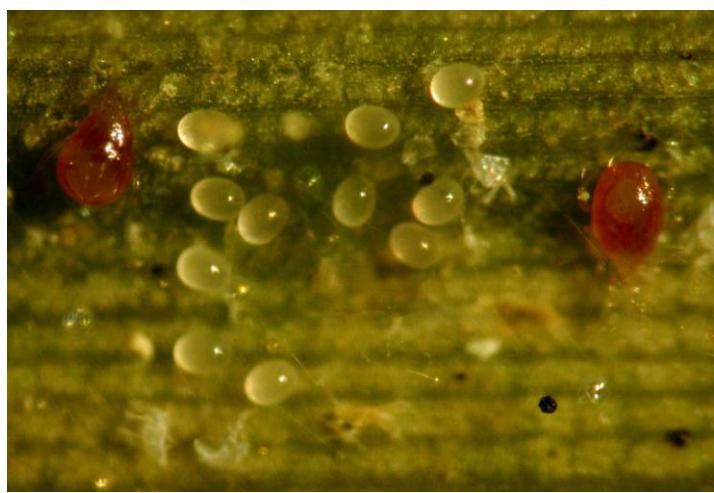
3. Dissemination of yellow mite by whitefly



4. Colony of *Oligonychus sapienticulus* on banana



5. Colony of Rice sheath mite,  
*Steneotarsonemus spinki* Smiley



6. Predatory mite, *Neoseiulus longispinosus* (Evans)

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