

1. Full Name: **Dr. Kennedy Ningthoujam**
2. Designation: **Assistant Professor (Sr. Scale)**
3. Department/School: Entomology, School of Crop Protection, CPGSAS
4. Areas of specialization: Biological control
5. Research Interests:
 - *Bacillus thuringiensis* (Bt) cry & vip toxin
 - Arthropod diversity studies (fruit flies, termites, spiders etc.)
 - Biorational approaches in pest management (Kairomonal studies)
6. Highest Educational Qualifications: **Ph.D.**



Degree	Year	Subject	University/Institution
Ph.D.	2015	Entomology	Indian Agricultural Research Institute, New Delhi

7. Professional Experience: 10 years

Positions held	Name of the Institute	From	To	Pay Scale
Assistant Professor (Sr. Scale)	CPGS-AS, CAU	2020	Till date	7 grade pay
Assistant Professor	CPGS-AS, CAU	2016	2020	6 grade pay

8. Research Projects:

Title	Funding agency	Budget (Lakhs)	Duration	Status
Consortium Research Project on Borer (Role as PI)	ICAR-IIHR, Bengaluru	33.00	3 years	Completed
Exploring diversity of <i>Bacillus thuringiensis</i> in the NER for mining novel insecticidal genes. (Role as PI)	DBT, GoI	55.00	3 years 6 months	Completed
Integration and Application of UAV for Crop Health Assessment and Monitoring with IIDS in Providing Evidence Based Agro Advisory Services to Farmers of North-East India. (Role as Co-PI)	Ministry of Electronics and Information Technology (MeitY)	44.4	5 years	Completed
Evaluation of NH1-1702 30% wg [NHI-1501 10% + Pymetrozine 20% WG] to control BPH/WBPH in Rice in comparison with standard check (Role as Co-PI)	Nichino India Pvt. Ltd	14.08	1 year	Completed
Faunistic studies on bamboo shoot fruit flies (Diptera: Tephritidae) of western Ghats and Northeast India (Role as centre-PI)	ANRF, DST, GoI	14.33	3 years	Ongoing
Strategies for devising kairomone-based management of Fall Armyworm, <i>Spodoptera frugiperda</i> (J.E. Smith) with special reference to egg parasitoid, <i>Trichogramma pretiosum</i> (Riley) in Northeast India (Role as PI)	ANRF, DST, GoI	38.02	3 years	Ongoing
Promotion of Pulses in NEH (Role as PI)	ICAR-IIPR, Kanpur	25.00	3 years	Ongoing
Establishment of quality control lab for honey and other bee hive products (Role as Co-PI)	National Bee Board, New Delhi.	66.00	1 year 6 months	Ongoing

9. Publications: (Selected research papers)

Author (s)	Title	Name of Journal	Volume	Page	Year
Reddy, C. A. *, Pathak, M*., Kumar, Y.B. Ningthoujam, K*., Waseem, M. A., Sahoo, B.K., Sorahia, D., Gogoi, J., Kumar, A.A. & Majumder, S*.	Field efficacy of new-generation insecticides and household residue mitigation techniques assessed by LC-MS/MS for safe tomato consumption	<i>Scientific Reports</i>	16	7214	2026
Reddy, C. A. *, Pathak, M., Ningthoujam, K., Rajesh, T., Waseem, M.A., Sahoo, B.K., Chandra, P.K., Jeevana, K., Moirangthem, K., Talukdar, M. and Sorahia, S.	Influence of climatic factors on pest–predator dynamics in tomato (<i>Solanum lycopersicum</i> L.) agroecosystem of Meghalaya, India	<i>Tropical Agriculture (Trinidad)</i>	103 (1)	96-109	2026
Rangesan, A., Devi, N. U., Dutta, M. & Ningthoujam, K*.	Physical basis of host plant resistance in rapeseed and mustard against mustard aphid, <i>Liphaphis erysimi</i> (Kaltenbach).	<i>Arthropod Plant Interaction.</i>	19	102	2025
Ningthoujam, K*., Moirangthem, Z., Pathak, M., Gogoi, J. and Sorokhaibam, M.	Host suitability and parasitism of <i>Trichogramma pretiosum</i> on <i>Galleria melonella</i> and <i>Corcyra cephalonica</i> for the management of fall armyworm.	<i>Scientific Reports</i>	15	34154	2025
K.J. David, N.R. Noor Mahammed, D.L. Hancock, R.G. Gracy, Ningthoujam, K and S.N. Sushil	Taxonomic notes on Oriental bamboo-shoot fruit fly genus <i>Acroceratitis</i> Hendel (Diptera: Tephritidae: Dacinae: Gastrozonini), with description of a new species from India.	<i>Zootaxa</i>	5637 (1)	83–98	2025
David, K. J., Hancock, D. L., Reshma, E. A., Jothish, P. S., Ningthoujam, K., Niladri, B. M., Abhishek, V. & Mahammed, N. N.	Two new species of <i>Euphranta</i> Loew (Diptera, Tephritidae, Trypetinae, Adramini) from India.	<i>Deutsche Entomologische Zeitschrift</i>	72 (2)	367-375.	2025
Chada A.R., Mahesh P., Yengkhom B.K., Ningthoujam, K., Jyotim G. Abhinay A.K., Bimal K.S. Sharad S., Pradeep K.C. and Sujan M.	Residue dynamics and food safety evaluation of novel insecticides on tomato fruit.	<i>Environmental Monitoring and Assessment</i>	197	690	2025
Sahoo, B.K., Pathak, M., Patra, S., Waseem, M.A., Ningthoujam, K., Dutta, P., Patidar, R.K., Kalita, H., Haritha, S., Raj, A., Boruah, S., Sarmah, K., Ikram, M., Hnialum, M. and Ramya, A.R.	Compatibility and synergistic effects of insecticides with <i>Metarhizium anisopliae</i> for sustainable management of <i>Nephotettix virescens</i> in north eastern	<i>Journal of Animal and plant Science</i>	35 (4)	-	2025
Ningthoujam, K*., Rethinam, H., Ramappa, K., Pathak, M., & Suting, E. G.	Diversity and distribution of Termite fauna in mid hill-range of Meghalaya (Eastern Himalayan region), India.	<i>International Journal of Tropical Insect Science</i>	44 (2)	873-884	2024

Tullika, T. and Ningthoujam, K* .	Kairomonal effect of hexane extracts of <i>Corcyra cephalonica</i> and <i>Spodoptera frugiperda</i> on the parasitizing activity of <i>Trichogramma pretiosum</i> .	<i>Journal of Chemical Ecology</i> .	https://doi.org/10.1007/s10886-024-01534-6	1-7	2024
David, K.J., Abhishek, V., Ningthoujam, K. , Ajaykumara, K.M., Gracy, R.G., & Hissay, C.B.	Four new species of <i>Zeugodacus Hendel</i> (Diptera, Tephritidae, Dacinae, Dacini) and new records of dacines from India.	<i>ZooKeys</i> ,	1188	1	2024
David, K.J., Hancock, D. L., Salini, S., Ningthoujam, K. , Khemrajji, H. N., Abhishek, V. & Sushil, S. N.	New species and new records of fruit flies of tribe Acanthonevrini Diptera: Tephritidae: Phytalmiinae) from India.	<i>Zootaxa</i>	5506 (3)	301-321	2024
Lyngkhoi P.R., Ningthoujam, K* , Pathak, M., Sailo N.	Screening of Potato Varieties for Resistance to Potato Tuber Moth, <i>Phthorimaea operculella</i> (Zeller) in Meghalaya, India.	<i>Potato Research</i>	https://doi.org/10.1007/s11540-023-09685-x	1-16	2023
Manchikatla, S., Ningthoujam, K* , Pathak, M., & Singh, A. R.	Baseline susceptibility of cabbage butterfly, <i>Pieris brassicae</i> (Linnaeus) (Lepidoptera: Pieridae) to <i>Bacillus thuringiensis</i> (Berliner) Cry toxins in Meghalaya.	<i>Egyptian Journal of Biological Pest Control</i>	33 (1)	13	2023
Sushanti T., Devi R.K.T., Singh A.K., Ningthoujam K. , Kadam V., Laloo B., Nongthombam O., Patel, K., Maibam U.	Comparative Evaluation of Epiphytic Yeast for the Management of Fruit Rot of Chilli under Field and Pot Conditions.	<i>Agricultural Mechanization in Asia, Africa and Latin America</i>	54 (9)	15533-15543	2023
Sunita Chetry and Kennedy Ningthoujam*	Fruit fly species new to India and Meghalaya	<i>Indian Journal of Hill Farming</i>	35 (2)	20-22	2022
Satyanarayana MSV, Tombisana Devi RK, Rajesh T and Ningthoujam, K. ,	<i>In vitro</i> management of ginger rhizome rot causing pathogen by fungicides	<i>International Journal of Chemical Studies</i>	8(6)	2152-2156	2020
Devi, N.O., Devi, R.K.T., Rajesh, T. Thakuria, D Ningthoujam, K. , Debbarma, M. and Hajong, M.	Evaluation of endophytic <i>Bacillus</i> spp. isolates from tomato roots on seed germination and seedling vigour of tomato	<i>International Journal of Chemical Studies</i>	8(6)	2152-2156	2020
Moakala Jamir, Rajesh, T., Devi, R.K., Majumder, D., Ningthoujam K. and Hemochandra, L.	Cultural and Morphological Variability in <i>Phomopsis vexans</i> (Sacc. & Syd.) Harter Causing Fruit Rot of Brinjal	<i>Int. J. Curr. Microbiol. App. Sci</i>	7(7)	2807-2814	2018
Ningthoujam K.* , Sharma, K. & Gujar, G.T.	Frequency of alleles conferring resistance to Cry1Ac toxin of <i>Bacillus thuringiensis</i> in population of <i>Helicoverpa armigera</i> (Hubner) (Lepidoptera: Noctuidae) from India.	<i>Indian Journal of Experimental Biology</i>	52	728-733	2017
Ningthoujam K.* , Sharma, K. & Gujar, G.T.	Biological traits associated with Cry1Ac resistance in <i>Helicoverpa armigera</i> (Lepidoptera: Noctuidae)	<i>Indian Journal of Experimental Biology</i>	52	722-727	2017

Deepika G, Ningthoujam K.* , Longkumer Y.	Soil arthropod diversity, richness and abundance in agricultural ecosystems.	<i>Indian Journal of Entomology</i>			
Mittal, A., Ningthoukhongjam, J., Malthankar, P.A., Ningthoujam, K. , Kalia, V. and G.T. Gujar	Toxicity of Cry1Ac., Inheritance of Cry1Ac Resistance and Fitness Cost Association in the Pink Bollworm, <i>Pectinophora gossypiella</i> (Lepidoptera: Gelechiidae).	<i>Biopestic. Int.</i>	12(2)	127-138	2016

***Corresponding author**

Book, Book chapters & Review paper

Title	Author's Name	Publisher/ ISBN	Year
Molecular Entomology (Book)	Tirunagaru, K.C., Ali, A., Ningthoujam, K. , Chandra, A., Pathak, M. and Thangjam, R.	Taylor & Francis group, London. https://doi.org/10.1201/9781003757405 Pages: 476 ISBN9781003757405	2025
Molecular Biology Techniques. <i>In: Molecular Entomology.</i>	Tirunagaru, K.C., Ali, A., Ningthoujam, K. , Chandra, A., Pathak, M. and Thangjam, R.	Taylor & Francis group, London. https://doi.org/10.1201/9781003757405 Page: 1-111 ISBN9781003757405	2025
Analysis of DNA and RNA in Insects. <i>In: Molecular Entomology.</i>	Tirunagaru, K.C., Ali, A., Ningthoujam, K. , Chandra, A., Pathak, M. and Thangjam, R.	Taylor & Francis group, London. https://doi.org/10.1201/9781003757405 Page: 112- 170 ISBN9781003757405	2025
Genetic Improvement of Natural Enemies. <i>In: Molecular Entomology.</i>	Tirunagaru, K.C., Ali, A., Ningthoujam, K. , Chandra, A., Pathak, M. and Thangjam, R.	Taylor & Francis group, London. https://doi.org/10.1201/9781003757405 Page: 171-192 ISBN9781003757405	2025
Genes of Interest in Entomology. <i>In: Molecular Entomology.</i>	Tirunagaru, K.C., Ali, A., Ningthoujam, K. , Chandra, A., Pathak, M. and Thangjam, R.	Taylor & Francis group, London. https://doi.org/10.1201/9781003757405 Page: 193-250 ISBN9781003757405	2025
Transgenic Plants for Pest Resistance. <i>In: Molecular Entomology.</i>	Tirunagaru, K.C., Ali, A., Ningthoujam, K. , Chandra, A., Pathak, M. and Thangjam, R.	Taylor & Francis group, London. https://doi.org/10.1201/9781003757405 Page: 251-313 ISBN9781003757405	2025
Insect Gene Transformation. <i>In: Molecular Entomology.</i>	Tirunagaru, K.C., Ali, A., Ningthoujam, K. , Chandra, A., Pathak, M. and Thangjam, R.	Taylor & Francis group, London. https://doi.org/10.1201/9781003757405 Page:314-358 ISBN9781003757405	2025
DNA Fingerprinting for Taxonomy and Phylogeny. <i>In: Molecular Entomology.</i>	Tirunagaru, K.C., Ali, A., Ningthoujam, K. ,	Taylor & Francis group, London.	2025

	Chandra, A., Pathak, M. and Thangjam, R.	https://doi.org/10.1201/9781003757405 Page: 359-417 ISBN9781003757405	
DNA Diagnostics and Sf Transgenic Technology. <i>In: Molecular Entomology.</i>	Tirunagaru, K.C., Ali, A., Ningthoujam, K. , Chandra, A., Pathak, M. and Thangjam, R.	Taylor & Francis group, London. https://doi.org/10.1201/9781003757405 Page: 418-475 ISBN9781003757405	2025
Bt in Natural Farming: Benefits and limitations. <i>In: Nature Supportive Farming for Ensuring Sustainability in Agriculture.</i>	Ningthoujam, K.	Biotech Books, New Delhi. p. 79-109 ISBN:9788176226257	2025
The Chemical Ecology of Plant-Insect Interactions. <i>In: Integrated Pest Management: Advancement, Adoption and Ecological Challenges.</i>	Sorahia, D. Ningthoujam, K. , Pathak, M., Gogoi, J., Kumar, M.S., Chandra, P.K. and Sehgal, M.	Biotica Publications, pp. 173-195. https://doi.org/10.54083/978-81-986377-3-412 .	2025
Integrating Sniffer Bees into Security and Defenses: Advancements in the Detection of Explosives and Illicit Substances. <i>In: Integrated Pest Management: Advancement, Adoption and Ecological Challenges.</i>	Sahoo, B.K., Pathak, M., Boruah, S., Sarmah, K., Ningthoujam, K. , Sehgal M and Ikram, M.	Biotica Publications, India. pp. 000-000. DOI: https://doi.org/10.54083/978-81-986377-3-411 .	2025
Apiculture and Sericulture: Twin Engines of Rural Prosperity. <i>In: Integrated Pest Management: Advancement, Adoption and Ecological Challenges.</i>	Reddy, C.A., Gogoi, J., Pathak, M., Ningthoujam, K. , Kalita, H., Sahoo, B.K., Boruah, S. and Sehgal, M.	Biotica Publications. https://doi.org/10.54083/978-81-986377-3-4_02 . ISBN 978-81-986377-3-4	2025
Pesticide Resistance Management Strategies. <i>In: Integrated Pest Management: Advancement, Adoption and Ecological Challenges.</i>	Reddy, C.A., Pathak, M., Ningthoujam, K. , Gogoi, J. and Sehgal, M.	Biotica Publications. https://doi.org/10.54083/978-81-986377-3-4_02 . ISBN 978-81-986377-3-4.	2025
Eri Silkworm: A Potential Commercial Insect and Its Future Prospects. <i>In: Integrated Pest Management: Advancement, Adoption and Ecological Challenges.</i>	Kalita, H., Pathak, M., Ningthoujam, K. , Sahoo, B.K., Boruah, S. and Sehgal, M.	Biotica Publications https://doi.org/10.54083/978-81-986377-3-4_02 . ISBN 978-81-986377-3-4	2025
Latest Improvements in Insect Pheromonal Research, Method and Protocols. <i>In: Integrated Pest Management: Advancement, Adoption and Ecological Challenges.</i>	Gogoi, J., Ningthoujam, K. , Pathak, M., Ng. Tombisana Meetei and Sorokhaibam, M.	Biotica Publications. https://doi.org/10.54083/978-81-986377-3-4_02 . ISBN 978-81-986377-3-4.	2025
Socioeconomic factors affecting IPM adoption. <i>In: Integrated Pest Management: Advancement, Adoption and Ecological Challenges.</i>	Gogoi, J., Ningthoujam, K. , Pathak, M., Tengli, M.B., Alok, A., Sorahia, D.,	Biotica Publications, pp. 196-215. DOI: https://doi.org/10.54083/978-81-986377-3-4_13 .	2025
Beneficial Insects in Natural/Organic Agro-Ecosystems and their Utilization in Non-Chemical Management of Pest Population. <i>In: Nature Supportive Farming for Ensuring Sustainability in Agriculture.</i>	Pathak, M., Ningthoujam K. and Sahoo, B.K.	Biotech Books, New Delhi. p. 68-78 (ISBN:9788176226257).	2025
Importance of Hymenopteran	Roy, T., Sorahia, D.,	<i>Plant Archives</i>	2025

Pollinators in Agriculture Ecosystem. (<i>Review paper</i>)	Chatterjee, S., Pathak, M., Rajesh, T., Ningthoujam, K. and Patidar, R.K.	Vol. 25, No. 2, e-ISSN:2581-6063	
Organic Honey production Techniques. In: Nature Supportive Farming for Ensuring Sustainability in Agriculture.	Pathak, M., Ningthoujam, K. , Patidar, R.K., Swami, S. and Sahoo, B.K..	Biotech Books, New Delhi. p. 281-299 ISBN:9788176226257	2025
Susceptibility of fall armyworm, <i>Spodoptera frugiperda</i> to Crytoxins	Ramappa, K and Ningthoujam, K	ICAR-NBAIR ISBN:978-81-938078-3-5	2022
Eco-Friendly management of Fall army worm, <i>Spodoptera frugiperda</i> (J.E.Smith) in North East Regions	Ningthoujam, K. , Karthik, R., Harish, R., Thangjam, R. and Sorokhaibam, S.	DEE,CAU Imphal & ICAR-NBAIR ISBN:978-81-938078-3-5	2020
Entrepreneurship through mass production of bio-Control agents	Pathak, M., Patidar, R.K., Dutta, P., V. Kadam, Ningthoujam, K. , and Tombisana, R.K.	DEE CAU Imphal & ICAR-NBAIR ISBN:978-81-938078-3-5	2020

10. Course taught:

Insect Anatomy and Physiology (ENT 502); Insect Taxonomy (ENT 503); Insect Ecology (Insect 504); Insect Phylogeny and Systematics (ENT 601); Insect Physiology and Nutrition (ENT 602); Insect Toxicology and Residues (ENT-606)

11. Student guidance: as Major Advisor

- a. **M.Sc. Guided:** 21 completed (as Major Advisor); 2 ongoing (as Major Advisor)
- b. **Ph.D. Guided:** 4 ongoing (as Major Advisor)

12. Significant Achievement:

- 2 Novel *Bacillus thuringiensis* (Bt) strains isolated and deposited at NBAIM-NAIMCC, Kushmaur, UP under GENERAL deposit (Accession No.: NAIMCC-B-03857 and NAIMCC-B-03858)
- 12 Novel *Bacillus thuringiensis* (Bt) strains isolated and deposited at NBAIM-NAIMCC, Kushmaur, UP under GENERAL deposit (Accession No.: NAIMCC-B-03871 to NAIMCC-B-03882)
- 12 Novel *Bacillus thuringiensis* (Bt) strains isolated and deposited at NBAIM-NAIMCC, Kushmaur, UP under GENERAL deposit (Accession No.: NAIMCC-B-03859 to NAIMCC-B-03870)
- 2 Novel *Bacillus thuringiensis* (Bt) strains isolated and deposited at NBAIM-NAIMCC, Kushmaur, UP under SAFE deposit (Accession No.: NAIMCC-SB-0145 and NAIMCC-SB-0146) and Mass production as CAU-Bt biopesticide from the isolated strains.
- Mass production of Bt formulation liquid biopesticide from the isolated potent native Bt strains MKAKG-1 /NAIMCC-SB-0146 under the name ‘CAU Bt’ and sale to KVKs, distribution to farmers through training programmes.
- **A new species of *Acroceratitis*** Hendel, namely *Acroceratitis sachini* is described from Western Ghats, Karnataka, India. published in Zootaxa in 2025, 5637 (1): 083–098
- **2 new species of fruit flies** of tribe Acanthonevrini (Diptera: Tephritidae: Phytalmiinae) from India. Published in Zootaxa in 2024, 5506 (3), 301-321.
- **4 new species of fruit flies** (from Meghalaya and Western Ghats of India) belonging to the tribe Dacini, Acanthonevrini; and Deposited in ZooBank Published in ZOOKEYS January 2024 1188: 1–26 (2024)

- First report of 4 Fruit flies species in India
- Implementation of '**Healer cum Sealer**' technique of management of Borer complex under ICAR-IIHR funded CRP borer project
- Awarded **Patent** titled “*Portable Liquid cum Paste Trunk Borer Applicator*” Patent No.: 221566 Designed No.: 482930-001 by The Patent Office, Government of India on 06.12.2025

13. Workshop/Training/conferences organized:

Training	Duration	Year	Role
Pt. Deen Dayal Upadhyay Unnat Krishi Shiksha Yojana	5 Days (27 th to 31 st March, 2017)	2017	Course Director

- Workshop on “Biocontrol of crop pests & invasive and utilization of insects as food in North East Region of India”. In collaboration with ICAR-NBAIR, Bengaluru, 6-7th March, 2020.
- Training cum Input distribution Programme on Promotion of Pulses in Meghalaya, 24th February, 2024 at Thadnongiaiw, Bhoirimong, Ri-bhoi.
- Training cum Input distribution Programme on Promotion of Pulses in Meghalaya, 4th March, 2024 at Nalapara, Nongpoh, Ribhoi.
- Training cum Input distribution Programme on Promotion of Pulses in Meghalaya, 15th March, 2024 at Markasa, West East Khasi Hills district.
- Training cum Input distribution Programme on Promotion of Pulses in Meghalaya, 30th September, 2024 at Thadnongiaiw, Bhoirimong, Ri-bhoi.
- Training cum Input distribution Programme on Promotion of Pulses in Meghalaya, 11th November, 2024 at Thadmuthlong, West Jaintia Hills.
- Training cum Input distribution Programme on Promotion of Pulses in Meghalaya, 26th November, 2024 at College of Post Graduate Studies in Agricultural Sciences, Umiam, Meghalaya.
- Training cum Input distribution Programme on Promotion of Pulses in Meghalaya, 10th December, 2024 at College of Post Graduate Studies in Agricultural Sciences, Umiam, Meghalaya.

14. Google Scholar/ORCID/ResearchGate/Scopus ID:

ResearchGate: https://www.researchgate.net/profile/Kennedy-Ningthoujam?ev=hdr_xprf

ORCID: <https://orcid.org/0000-0002-6709-7252>