

CURRICULUM VITAE
DR. VIKAS KUMAR

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Scientist D and Officer & Divisional-in-charge
Centre for DNA Taxonomy (CDT),
Molecular Systematics Division (MSD)
Zoological Survey of India,
Ministry of Environment Forests and Climate Change
(MoEFCC), Govt. of India,
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Research interests: Morphological & Molecular
Systematics of insects, DNA Barcoding of Indian Fauna, Insect Genomics

Current projects:

NMHS project, MoEF&CC (Ministry of Environment Forest and Climate Change), New Delhi

- "Lepidoptera (Insecta) as potential Indicator-Taxa for tracking Climate Change in the Indian Himalayan Landscape"
- "Bio-Diversity Assessment through long term monitoring plots in Indian Himalayan Landscape"

National PDF, Department of Science & Technology (DST), SERB Govt. of India, New Delhi

- Combined taxonomy, biogeography and next generation sequencing (NGS) based reassessment of Testudines in Eastern Himalaya and Indo-Burma biodiversity hotspots with special references to archival specimens at National Zoological Collection's.

AICOPTAX project funded by MOEFCC

- Taxonomic studies on the Tubulifera (Insecta: Thysanoptera) of India.

ZSI (MOEFCC) funded

- Morphological & Molecular Systematics of Thysanoptera (Insecta) of Himachal Pradesh state of India
- Investigating Thrips Diversity (Thysanoptera: Insecta) in Rajasthan State of India
- Morphological and Molecular systematics of Thysanoptera of Odisha & Gujarat

Completed projects:

ICAR (Indian Council of Agricultural Research), New Delhi

- Outreach programme on Management of Sucking Pest in Horticultural crops” “Cataloguing thrips (Thysanoptera: Insecta) species on Horticultural Crops from India

Department of Science & Technology (DST), SERB Govt. of India, New Delhi

- Combined molecular (COI Barcode) and morphological based inventorying of freshwater fish diversity from three selected protected areas on south bank landscape of river Brahmaputra in Assam, Arunachal Pradesh and Nagaland.
- Molecular Systematics and Phylogeny of Economically Important Thrips in India

DBT (Department of Biotechnology, Govt. of India)

- Molecular Identification of Archival Chelonians (Turtle and Tortoise) by using Contemporary Genome technologies

Central Silk Board Projects

- Studies on differential gene expression profiling of Bombyx mori Nucleopolyhedrovirus (BmNPV) resistant and susceptible Bombyx mori silkworm strains, CSB (21.15 lakhs), From July 2010 to September 2011

- Studies on differential gene expression profiling of Bombyx mori Nucleopolyhedrovirus (BmNPV) resistant and susceptible Bombyx mori silkworm strains, CSB (21.15 lakhs), From July 2010 to September 2011
- Analysis of mitochondrial gene variability in Indian tasar silkworm Antheraea mylitta and Antheraea assamensis populations (Pilot Project at Seribiotech Research Laboratory), Pilot project at CSB, from April 2009 to March 2010

ACADEMIC QUALIFICATIONS:

- 2004 Ph.D., Zoology (Entomology: Taxonomy of thrips), University of Delhi, Delhi India.
Thesis Title: Taxonomic Studies on Thysanoptera-Terebrantia of Delhi.
Advisor: Prof. J. S. Bhatti.
- 1999 M.Sc., Zoology (Entomology), C. C. S. University, Meerut, U.P. India
- 1996 B.Sc., Zoology, Botany, Chemistry, C. C. S. University, Meerut, U.P. India

PROFESSIONAL EXPERIENCES:

- 10/10/2015 to Continuing: **Scientist D, Officer & Divisional-in-Charge, Centre for DNA Taxonomy, Molecular Systematics Division, Zoological Survey of India, Kolkata-700053**
- 28/9/2011 to 09/10/2015: **Scientist C, Officer-in-Charge, Centre for DNA Taxonomy, Molecular Systematics Division, Zoological Survey of India, Kolkata-700053**
- 05/01/2009 to 27/09/2011: **Scientist B, Seri-biotech Research Lab, Central Silk Board, Ministry of textiles, Govt. of India, Bangalore**
- 08/02/2008 to 31/12/2008: **DST Young Scientist, Indian Institute of Horticultural Research, ICAR, Bengaluru-89**
- 16/08/2005 to 07/02/2008: **Senior Research fellow, Indian Institute of Horticultural Research, ICAR, Bangalore-89 on Bio-ecology of thrips of Watermelon bud necrosis virus (WBNV) in Karnataka (India) funded by Govt. of Karnataka.**

INVITED TALKS/ SYMPOSIUM OR CONFERENCE ATTENDED:

1. Attended **7th International Barcode of Life Conference** held at **Kruger National Park, South Africa on 20-24th November 2017** and presented poster on **“Barcoding fauna of India: An initiative by Zoological Survey of India”**
2. Lead talk on **“DNA barcoding Initiative by Zoological Survey of India** in “International Conference in Zoological Sciences with a special symposium on Ants” held on 26-28 October 2017 at Punjabi University, Patiala
3. Lead talk on **“DNA barcoding Initiative by Zoological Survey of India** in “International Conference in Zoological Sciences with a special symposium on Ants” held on 26-28 October 2017 at Punjabi University, Patiala
4. Lead talk on **“DNA Barcoding and its applications”** at Dehradun on 13 October 2014 DNA Barcoding training jointly organized by ZSI-WII-Dolphin Institute
5. Invited talk at **Calcutta Univ.** on **“DNA Barcoding & Molecular Phylogeny”** December 2013.

6. Invited as a lead **speaker by Central Univ. Of Kerala**, on *Molecular Taxonomy* Kassaragod, Kerala April 2013.
7. *Invited as a resource person* on Brainstorming session at Dr. Uma Ramakrishnan lab, *National Centre for Biological Sciences* Bangalore on DNA Barcoding, Population Genetics and Phylogenetics. From march 26-30, 2012.
8. Invited as *a resource person for workshop on Molecular Phylogenetics* at **Centre of Ecological Sciences IISc Bangalore** , September 2011
9. Delivered an **invited lecture** on “*Biosystematics of phytophagous and predatory thrips*” at Department of Agricultural Entomology, Centre for plant protection, **Tamil Nadu Agricultural University**, Coimbatore, Tamil Nadu, India.

PUBLICATION HISTORY:

1. Chatterjee, S., Caleb, J.T.D., Tyagi, K., Kundu, S., **Kumar, V.** (2018) First report of *Hyptiotes affinis* Bosenberg & Strand, 1906 (Araneae: Uloboridae) from India. *Munis Entomology and Zoology*, 13(1): 211-213.
2. Chatterjee, S., Caleb, J.T.D., Tyagi, K., Kundu, S., **Kumar, V.** (2017). First report of *Menemerus nigli* (Araneae: Salticidae) from India. *Halteres*, 8: 109-111.
3. Tyagi, K., Chakraborty, R., Singha, D., and **Kumar, V.** (2017) A new species of *Trichromothrips* (Thysanoptera) from India with four new records. *Zootaxa* 4363 (1): 145–150.
4. Chatterjee, S., Caleb, J.T.D., Tyagi, K., Kundu, S., & **Kumar, V.** (2017) Two new species of jumping spiders of the genus *Epocilla* Thorell and *Mogrus* Simon (Araneae: Salticidae) from India. *Arthropoda Selecta*, 26(4):321-326.
5. Tyagi, K., **Kumar, V.**, Singha, D., Chandra, K., Laskar, B.A., Kundu, S., Chakraborty, R., Chatterjee, S. (2017) DNA Barcoding studies on Thrips in India: Cryptic species, Species complexes. *Scientific Reports*, 4898, 7:1-14. Doi:10.1038/s41598-017-05112-7
6. Tyagi, K. & **Kumar, V.** 2017. Thrips of Economic Importance in India: An identification Guide. : 1-96. Published by the Director, Zoological Survey of India.
7. **Kumar, V.**, Chandra, K., Tyagi, K., Kundu, S., Laskar, B. A., Singha, D., Chatterjee, S. and Chakraborty, R. (2017) Barcoding fauna of India: an initiative by Zoological Survey of India. *Genomics*, 60(11):957. In. 7th International Barcode of Life Conference, 20-24 November 2017, South Africa: <https://doi.org/10.1139/gen-2017-0209>
8. Singha, D., Tyagi, K., & **Kumar, V.** 2017. First record of *Podothrips erami* (Thysanoptera: Tubulifera) from India. *Halteres*, 8: 30-32.
9. Tyagi, K., Singha, D. & Kumar, V. 2017. *Danothrips litseae* sp.n. (Thysanoptera, Thripidae) from India on leaves of *Litsea*. *Zootaxa*, 4269(1); 137-140.
10. Tyagi, K., Mound, L.A. & **Kumar, V.** 2016. A new species of *Chirothripoides* (Thysanoptera: Tubulifera) from India and Malaysia. *Zootaxa*, 4200: 30-35.
11. Singha, D. Tyagi, K. & **Kumar, V.** 2016. New Distributional records from Odisha state of India. *Records of Zoological Survey of India*, 116(2): 191-195.

12. Tyagi, K., **Kumar, V.** Bhuyan, M., Shandilya, S. & Chanda, S. K. 2016. *Chaetanaphothrips kiyosumianus* (Thysanoptera, Thripidae) new to India with first record of the male. **Zootaxa**, 4147(5), 593-596.
13. Tyagi, K. & **Kumar, V.** 2016. The Sericothripinae genus *Neohydatothrips* (Thysanoptera, Thripidae) in India with description of two new species. **Zootaxa**, 4132(3), 438-444.
14. Tyagi, K. & **Kumar, V.** 2016. Thrips (Insecta: Thysanoptera) of India- An Updated Checklist. **Halteres**, 7: 64-98.
15. Tyagi, K. & **Kumar, V.** 2016. A new record of Holarctic genus *Odontothrips* (Thysanoptera, Thripidae) from India with a new species. **Zootaxa**, 4067 (4): 484–488.
16. Kundu S, **Kumar, V.**, Laskar BA, Chandra K, Tyagi K (2016) Mitochondrial DNA effectively detects non-native Testudines: Invisible wildlife trade in northeast India. **GENE Reports**. doi:10.1016/j.genrep.2016.02.002.
17. Laskar BA, **Kumar, V.**, Darshan A, Kundu S, Das DN. DNA barcoding of *Amblyceps congeneris* (Siluriformes: Amblycipitidae) from Brahmaputra drainage in northeast India. **Mitochondrial DNA**. DOI: 10.3109/24701394.2016.1174223.
18. Laskar BA, **Kumar, V.**, Kundu S, Tyagi K, Singha D, Chakraborty R, Chatterjee S, Saha S (2016) DNA barcoding of Gobiid fishes (Perciformes: Gobiidae) from eastern and northeastern India with new record of a Gobionellinae species for the region. **Mitochondrial DNA**. doi: 10.3109/24701394.2016.1143470.
19. Tyagi, K., **Kumar, V.** & Chauhan, N. 2015. A new species of the genus *Tameothrips* Bhatti (Thysanoptera: Thripidae) with four new records of thrips from India. **Zootaxa**, 4007(2), 283-289.
20. Tyagi, K. & **Kumar, V.** 2015. New Record of *Moundinothrips robustus* (Thysanoptera: Thripidae) from Himachal Pradesh State of India. **Records of Zoological Survey of India**, 115(1), 97-99.
21. Chandershekhar, K. N., Raj Kumar, R., **Kumar, V.**, Banerjee, D., Kundu, S., Ghosh, B., Tyagi, K. 2015. DNA Barcoding reveals host associated genetic diversity of ‘tea Mosquito Bug’ *Helopeltis theivora* (Miridae: Heteroptera) from India. **Asia Pacific Entomology**, 18(3), 541-545.
22. Tyagi, K., **Kumar, V.**, Singha D. and Chakraborty, R. 2015. Morphological and DNA Barcoding Evidence for Invasive Pest thrips, *Thrips parvispinus* (Thripidae: Thysanoptera), newly recorded from India. **Journal of Insect Science**, 15(1): 1-4. DOI: 10.1093/jisesa/iev087
23. Banerjee, D., **Kumar, V.**, Maity, A., Ghosh, B., Tyagi, K., Singha, D., Kundu, S., Laskar, B. A., Naskar, A. and Rath, S. 2015. Identification through DNA barcoding of Tabanidae (Diptera) vectors of surra disease in India. **Acta Tropica**, 150: 52-58.
24. Tyagi, K. & **Kumar, V.** 2015. The *Thrips formosanus* group from Asia and Australia with a new species of the genus *Thrips* (Thysanoptera: Thripidae) from India. **Zootaxa**, 3947 (2): 296–300.
25. Tyagi, K. & **Kumar, V.**, 2015. First report of Western Flower Thrips, *Frankliniella occidentalis* (Pergande) (Thripidae: Thysanoptera) from India – A Potential havoc to Indian agriculture, **Halteres**, 6: 1-3.

26. Tyagi, K. and **Kumar, V.** 2015. *Thrips arorai* Bhatti (Thysanoptera, Thripidae): first description of the male. *Zootaxa*, 3904 (1): 144-146.
27. Kundu, S., Laskar, B.A., Venkataraman, K., Banerjee, D. & **Kumar, V.** 2015. DNA barcoding of *Nilssononia* congeners corroborates existence of wild *N. nigricans* in Northeast India. **Mitochondrial DNA**, 1-4.
28. Tyagi, K. and **Kumar, V.** 2014. New records of Thrips (Thysanoptera, Terebrantia, Thripidae) from Himachal Pradesh, India. *Records of Zoological Survey of India*, 114(4): 591-598.
29. Singha, D., Tyagi, K. & **Kumar, V.** 2014. New record of Thrips (Insecta: Thysanoptera) from West Bengal, India. *Records of Zoological Survey of India*, 114(4): 599-602.
30. **Kumar, V.**, Tyagi, K., Ghosh, B. and Singha D. 2014. A new species of *Taeniothrips* (Thysanoptera: Thripidae) from India. *Zootaxa*, 3884 (2): 197-200.
31. Tyagi, K., Ghosh, B. and **Kumar, V.** 2014. The genus *Ctenothrips* from India (Thysanoptera: Thripidae) with description of one new species and one new record. *Zootaxa*, 3821(3): 273-279.
32. **Kumar, V.** and Tyagi, K. 2014. The Poaceae-associated genus *Bamboosiella* (Thysanoptera, Plaeothripidae) from India with one new species. *Zootaxa*, 3795(1): 079-084. New Zealand.
33. Gopalapillaia, R., Vasantkumara, V.K., Balaa, R., Modalaa, V., Raoa, G.& **Kumar, V.** (2014) Yeast two-hybrid screen reveals novel protein interactions of the cytoplasmic tail of lipophorin receptor in silkworm brain. *Journal of Molecular Recognition*, 27: 190–196. DOI: 10.1002/jmr.2350
34. Tyagi, K. and **Kumar, V.** 2013. The genus *Rhamphothrips* in India (Thysanoptera: Thripidae) with description of a new species. *Zootaxa*, 3745 (4): 491–495. New Zealand.
35. Tyagi, K. and **Kumar, V.** 2013. Thysanoptera Fauna of Chhattisgarh India. *Records of Zoological Survey of India*. 113(4): 133-138.
36. Tyagi, K. and **Kumar, V.** 2013. New records of thrips (Thysanoptera: Phlaeothripidae) from Karnataka, India. *Check List*, 9(5): 1117-1118.
37. Mohapatra, A., Ray, D. & **Kumar, V.** (2013) A new fish species of Genus *Hapalogenys* from Bay of Bengal, India, *Zootaxa*, 3718 (4): 367–377.
38. Halder A, Joardar SN, Parui P, Banerjee D, **Kumar V**, Samanta I & Lodh C (2013) Prevalence of midges; potent vectors for bluetongue virus infection in West Bengal, India. **Adv. Anim. Vet. Sci.** 1 (4S): 45 – 50.
39. Tyagi, K. and **Kumar, V.** 2012. A new species of *Psephenothrips* Reyes (Thysanoptera: Phlaeothripidae) from India. *Oriental Insects*, 46(3-4): 281-287.
40. Kulkarni, N., Rizvi, A.N., **Kumar, V.**, Paunikar, S. & Mishra, V.K. (2012) Morphological & Molecular Characterization of *Steinernema dharanii* sp. n. (Nematoda: Steinernematidae), an Entomopathogenic Nematode from India. **Indian Journal of Tropical Biodiversity**, 20(2): 107-116.

41. Tyagi, K. and **Kumar, V.** 2011. A new record of Pest species *Pseudodendrothrips bhattii* Kudô (Thysanoptera: Thripidae: Dendrothripinae) from India. *Indian Journal of Entomology*, 73(4): 296-297.
42. Tyagi, K. and **Kumar, V.** 2011. The Indian species of *Liophloeothrips* Priesner (Thysanoptera, Phlaeothripidae) with one new species. *Zootaxa*, 2803: 21-31. New Zealand.
43. Pradeep, A.R., JIngade, A.H., Singh, C.K., Awasthi, A.K., **Kumar, V.**, Rao, CGP & Vijayprakash, N.B. (2011). Genetic Analysis of Scattered populations of the Indian Eri Silkmoth *Samiacynthia ricini* Bonovan: differentiation of subpopulations. *Genetics & Molecular Biology*, 34, (3): 502-510.
44. Tyagi, K., **Kumar, V.** and Mound, L.A. 2008. Sexual dimorphism among Thysanoptera Terebrantia, with a new species from Malaysia and remarkable species from India in Aeolothripidae and Thripidae. *Insect Systematics & Evolution*, 39(2): 155-170. Denmark.
45. Tyagi, K. and **Kumar, V.** 2008. Two new species of *Stenchaetothrips* (Thysanoptera: Insecta) from India. *Zootaxa*, 1851: 58-64. New Zealand.
46. Tyagi, K. and **Kumar, V.** 2008. Checklist of Terebrantia (Thysanopter) Recorded from Karnataka, India. *Biosystematica*, 2(1): 41-48. India.
47. Asokan, R., Krishna Kumar, N. K., Ranganath, R., Vageeshbabu, S., & **Kumar, V.** (2008) simple method to isolate DNA from single specimen of onion thrips, *Thrips tabaci* Lindman and melon thrips, *T. palmi* Karny (Thysanoptera: Thripidae) and molecular identification. *Entomon*, 32(2): 71-78. India.
48. **Kumar, V.**, Tyagi, K. and Bhatti, J.S. 2007. Annotated checklist of Terebrantia (Thysanoptera: Insecta) of Delhi. *Zoo's Print*, 22(6):2714-2718 India.
49. **Kumar, V.**, Tyagi, K. and Bhatti, J.S. 2007. On the discovery of new thrips related to the genus *Haplothrips*, Amyot & Surville from Delhi. *Journal of Bombay Natural History Society*, 104(1): 68-71.
50. **Kumar, V.** and Tyagi, K. 2007. A remarkable new Phlaeothripid (Tubulifera: Thysanoptera) related to *Haplothrips* from India. *Journal of Experimental Zoology*, 9(2): 337-340. India.
51. Asokan, R., Krishna Kumar, and **Kumar, V.** and Ranganath H. R. (2007) Molecular differences in mitochondrial cytochrome oxidase I (mt COI) gene and development of species specific markers of onion thrips, *Thrips tabaci* Lindman and melon thrips, *T. palmi* Karny (Thysanoptera: Thripidae), vector of Tospoviruses (Bynyaviridae). *Bulletin of Entomological Research*, 97:1-10 CABI, U.K.
52. **Kumar, V.**; Tyagi, K., Krishna Kumar, N. K. and Ranganath, H. R. 2007. Biosystematics of Phytophagous and predatory thrips. Pp. 117-138. In: Ramaraju, K; Gunthailagaraj, K; Suresh, S; Jeyarani, S; Kuttalam, S (eds.) Proceeding of Winter School training on Biosystematics of Agriculturally Important Insect and Mite Biodiversity, 8-28 November, Coimbatore.
53. Bhatti, J. S., **Kumar, V.**, Tyagi, K. 2006. Order Thysanoptera. Pp. 515–534. In: Jerath, Puja, & Chadha (eds), Biodiversity in the Shivalik Ecosystem of Punjab. xxxii + 898 pp. Bishen Singh Mahendra Pal Singh, Dehra Dun.
54. **Kumar, V.**, Tyagi, K. and Bhatti, J.S. 2005. On Some New Records of Thysanoptera (Insecta) from India. *Entomon*, 30(3): 249-254. India

55. Bhatti, J. S., Telmadarraiy, Z., **Kumar, V**, and Tyagi, K. 2003. Species of *Eremiothrips* in Iran (Terebrantia: Thripidae). **Thysanoptera** 2003 (Thrips No. 2): 49–110. Delhi. India.

Abstracts:

56. Chatterjee. S., Caleb. T. D., Tyagi. K., Chandra. K., and **Kumar, V**, Morphological and molecular identification of Spider (Arachnida: Araneae) from India (2017) In. “International Conference in Zoological Sciences with a special symposium on Ants” 26-28 October 2017 Dept. Of Zoology and environmental science Punjabi University, Patiala, Abstract No. 106, p95.
57. Chakraborty. R, Tyagi. K., Kundu, S., Chandra. K., and **Kumar, V**, First mitochondrial genome of Marigold pest thrips, *Neohydatothrips samayunkur* (Thysanoptera: Sericothripinae) (2017) In. “International Conference in Zoological Sciences with a special symposium on Ants” 26-28 October 2017 Dept. Of Zoology and environmental science Punjabi University, Patiala, Abstract No. 105, P-94.
58. Singha. D, Chakraborty. R, Chandra. K., **Kumar, V** and Tyagi. K., Morphological and Molecular identification of an invasive species *Scirtothrips malayensis* (Thysanoptera: Insecta) new to India (2017) In. “International Conference in Zoological Sciences with a special symposium on Ants” 26-28 October 2017 Dept. Of Zoology and environmental science Punjabi University, Patiala, Abstract No. 130, P-113.
59. Kundu. S, Tyagi. K., Chandra. K., and **Kumar, V**., Environmental DNA (EDNA) corroborate the footmarks of threatened testudines from anonymous habitats in Northeast India (2017) In. “International Conference in Zoological Sciences with a special symposium on Ants” 26-28 October 2017 Dept. Of Zoology and environmental science Punjabi University, Patiala, Abstract No. 186, P-157.
60. Bhatti, J. S., **Kumar, V**., and Tyagi, K. 2003. Identification of the Oriental Rice Thrips, *Stenchaetothrips biformis* (Bagnall) (Terebrantia: Thripidae). pp. 664–665. In. Subrahmanyam B & Ramamurthy VV (eds), Proc. Natnl. Symp. Frontier Areas Ent. Res., 5–7 Nov. 2003, New Delhi.
61. Bhatti, J. S., R. Varatharajan, Shimray Chochong Vareichung, **Kumar, V**., and Tyagi, K. 2003. The exotic species *Neohydatothrips samayunkur* (Kudo 1995) (Terebrantia: Sericothripidae) is now discovered from 6 states in India. pp. 666–667. In. Subrahmanyam B & Ramamurthy VV (eds), Proc. Natnl. Symp. Frontier Areas Ent. Res., 5–7 Nov. 2003, New Delhi.
62. Bhatti, J. S., Tyagi, K. and **Kumar, V**. 2003. Variation and population structure in the common thrips *Plicothrips apicalis* (Bagnall) living on *Cynodon dactylon* (Tubulifera: Phlaeothripidae). pp. 672–673. In. Subrahmanyam B & Ramamurthy VV (eds), Proc. Natnl. Symp. Frontier Areas Ent. Res., 5–7 Nov. 2003, New Delhi.

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