

# Deepak Verma

Supervisor: Prof. Dinesh Kumar  
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## PERSONAL DETAILS

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Sex: Male

Date of Birth : August 21, 1987

Nationality: Indian

Father's Name : Uma Shanker Verma

Mother's Name : Mrs. Shila Devi

Marital status: Married

Languages Known: English and Hindi

Corresponding address: B 24/118B Kashmiriganj, Varanasi – 221010

**Research Interest:** Insecticide resistance in insects, Cuticular hydrocarbons, Role of entomopathogenic fungi in insects' management.

## Education

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- Ph.D.: Zoology, Department of Zoology, Banaras Hindu University, Varanasi, (2013-2020) India.
- M.Sc.: Zoology with specialization in Entomology, Department of Zoology, Banaras Hindu University, Varanasi (2012), India.
- B.Sc.: Zoology, Botany and Chemistry, Veer Bahadur Singh Purvanchal University, Jaunpur (2007), India.
- Intermediate (Class 12th): Biology, Chemistry, Physics, English and Hindi, U.P. Board, Bengali Tola Inter College, Varanasi (2003), India.
- High School (Class 10th): Science, Mathematics, English, Social Science, Hindi and Commerce; U. P. Board, Bengali Tola Inter College, Varanasi (2001), India.

## Research Experience

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Doctoral Research Fellow, Ecophysiology Unit, Department of Zoology, Institute of Science, Banaras Hindu University (Duration: September 2013- November 2020).

**Title of Thesis:** “Study of Insecticides Resistance Mechanism and Stress Physiology in *Bactrocera cucurbitae*”

## Research Publications

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### Publication from thesis

1. Deepak Verma, Soni Kumari and Dinesh Kumar. (2020) Alteration of insecticide resistance during the aging of *Bactrocera cucurbitae* (Diptera: Tephritidae). Journal of Scientific Research. 12(1). <http://dx.doi.org/10.3329/jsr.v12i1.41336>.
2. Deepak Verma, Soni Kumari and Dinesh Kumar.(2019) Monitoring of insecticide resistance in Varanasi population of *Bactrocera cucurbitae* (Diptera: Tephritidae). Biochemical and Cellular Archives, 19(1), 211-214.
3. Deepak Verma, Soni Kumari and Dinesh Kumar.(2019) Cuticle thickness and its association with insecticide resistance in *Bactrocera cucurbitae* (Diptera: Tephritidae). Biochemical and Cellular Archives, 19(1), 211-214.
4. Deepak Verma, Soni Kumari and Dinesh Kumar. (2015) Effect of mass rearing on antioxidant enzymes in fruit fly, *Bactrocera cucurbitae* (Diptera: Tephritidae). J. Exp. Zool. 2015; 18 (2):1001-4.

### Other publication

5. Soni Kumari, Deepak Verma and Dinesh Kumar.(2019) Extraction and identification of volatile bioactive compounds of *Aspergillus niger* and its efficacy against insect pest, *Dysdercus koenigii* (Heteroptera: Pyrrhocoridae). Biochemical and Cellular Archives, 19(1), 437- 444.
6. Soni Kumari, Deepak Verma and Dinesh Kumar. (2019)Evaluation of *Aspergillus niger* as a Biocontrol Agent in the Insect Pest Management of Red Cotton Bug, *Dysdercus koenigii* (Heteroptera: Pyrrhocoridae). J. Sci. Res. 11(2):235-247.
7. Soni Kumari, Deepak Verma and Dinesh Kumar. (2016) A new Dipteran parasitoid, *Phasia varicolor* (Diptera: Tachinidae) found in the field attacking the red cotton bug, *Dysdercus koenigii* (Heteroptera: Pyrrhocoridae), JEZS 2016; 4(6): 133-136.
8. Soni Kumari, Deepak Verma and Dinesh Kumar.(2015) Effect of entomopathogenic fungi, *Aspergillus niger* on haemocytes and antioxidant enzymes (sod, catalase) in *Dysdercus koenigii* (Heteroptera: Pyrrhocoridae). J. Exp. Zool. 2015; 18 (1):461-4.

### Book Chapter

9. Sumit Kumar Hira, Deepak Verma, Partha Pratim Manna. Tumor antigen-/cytokine-pulsed dendritic cells in therapy against lymphoma. In Cancer Vaccines 2014 (pp. 45-56). Humana Press, New York, NY.

### Conferences

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#### Abstract and Poster presentation

- Deepak Verma and Dinesh Kumar. Effect of mass rearing on catalase activity in fruit fly, *Bactrocera cucurbitae* (Diptera: Tephritidae). National symposium on Behavioural ecology & molecules to organism. Organized by Ethological society of India. Date 7-9 November 2014.
- Deepak Verma and Dinesh Kumar. Effect of ageing on insecticide resistance in *Bactrocera cucurbitae*(Diptera: Tephritidae).International Conference on Entomology, December 3-5, 2016 organised by Department of Zoology & Environmental Sciences, Punjabi University, Patiala & Association of Entomologists.

- Deepak Verma and Dinesh Kumar Effect of Malathion on Esterase and stress enzymes (SOD and Catalase) activity in a fruit fly, *Bactrocera cucurbitae*. International conference ‘Advances in Agricultural and Biodiversity Conservation for Sustainable Development (ABCD-2017)’ October 27 & 28, 2017 at Brahaspati Bhawan, C. C. S. University, Meerut, Uttar Pradesh, India.
- Deepak Verma, Soni Kumari, Dinesh Kumar. Effect of deltamethrin on detoxifying enzymes in a fruit fly, *Bactrocera cucurbitae* (Diptera: Tephritidae). International Conference on Agricultural, Allied Sciences and Biotechnology for Sustainability of Agriculture, Nutrition & Food Security, organized by Mahima Research Foundation And Social Welfare, Banaras Hindu University, 25-16 November, 2017.
- Soni Kumari, Deepak Verma, Dinesh Kumar. Studies on the synergism between entomopathogenic fungi, *Aspergillus niger* and insecticide, Spirodiclofen and its efficacy against insect pest, *Dysdercus koenigii* (Heteroptera: Pyrrhocoridae), International Conference on Agricultural, Allied Sciences and Biotechnology for Sustainability of Agriculture, Nutrition & Food Security, organized by Mahima Research Foundation And Social Welfare, Banaras Hindu University, November, 2017.
- Deepak Verma and Dinesh Kumar. Insecticide resistance in lab and wild population of *Bactrocera cucurbitae* (Diptera: Tephritidae). XVI AZRA International Conference, Department of Entomology and Agricultural Zoology, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi, 9-11 February 2018.

## Training course/workshop

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- **“Genes to Genomics: The Current Status” March 1-7, 2017** organized by **Centre for Bioinformatics & UGC-SAP**, School of Biotechnology, Institute of Science, Banaras Hindu University, Varanasi.
- Attended workshop on **“Awareness and sensitization towards use of Animals in Teaching and Research as per CPCSEA and UGC Guidelines”**, Department of Zoology, Institute of Science, Banaras Hindu University, 16th April, 2018.

## Awards / Scholarships / Academic Achievements

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- Qualified **CSIR-UGC National Eligibility Test for Junior Research Fellowship (JRF) and Lecturership in June, 2012.**
- Teaching experience: Mentored six M.Sc. students from Ecophysiology Unit at the Department of Zoology, BHU.

## Skills

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- 1) **Insects rearing:** *Bactrocera cucurbitae*, *Dysdercus koenigii*.
- 2) **Histopathology:** Histopathological analysis of testis and ovary of insects by Using Periodic acid-Schiff-Harris haematoxylin, haematoxylin Eosine (HE) staining.
- 3) **Microscopy:** Light microscope, Scanning electron microscope.
- 4) **Proteomic:** SDS-PAGE, 2-D PAGE.

**5) Biochemical techniques:**

- Oxidative stress parameters: Lipid peroxidation assay and antioxidant enzymes (superoxide dismutase, catalase, Cyt P450, Esterase and glutathione-s-transferase) activity.

**6) Chromatography:** Cuticular hydrocarbon analysis by GC-MS.

**7) Dry Lab Work:**

**Bioinformatics:** Basic bioinformatical tools like Sequence Analysis tools (BLAST, CLUSTAL-W, etc),

**Statistical analyses:** Analysis of data by Student's t test, and one-way analysis of variance (ANOVA) followed by Duncan's multiple range test, Kaplan-meier survival analysis, using Prism software.

## References

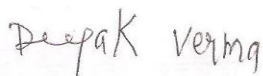
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2. Professor Bechan Lal, Department of Zoology, Institute of Science, Banaras Hindu University, Varanasi-221005, India.  
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**Declaration:**

I, hereby declare that all my information furnished above is true and correct to the best of my knowledge.

Place: **Varanasi, India**



(**Deepak Verma**)