




**DEPARTMENT OF ZOOLOGY**  
**DYAL SINGH COLLEGE, UNIVERSITY OF DELHI**  
**FACULTY DETAIL**



Title	Dr.	First Name	Sanjiv	Last Name	Mullick	Photograph
Designation	<b>Associate Professor</b>					
Address	<b>Department of Zoology</b> <b>Dyal Singh College</b> <b>University of Delhi</b> <b>New Delhi, India</b>					
Phone No Office	<b>011-24367819</b>					
Residence	<b>7838217232</b>					
Mobile	<b>9899121963</b>					
Email	<a href="mailto:sanjivmullick@dsc.du.a">sanjivmullick@dsc.du.a</a> <a href="mailto:c.insanjivmullick@gmail.com">c.insanjivmullick@gmail.com</a>					
Web-Page	<a href="http://dsc.du.ac.in/faculty/">http://dsc.du.ac.in/faculty/</a>					
<b>Educational Qualifications</b>						
Degree	Institution				Year	
PhD (Insect Behavior)	<b>University of Delhi</b>				<b>1999</b>	
MSc Zoology	<b>University of Calcutta</b>				<b>1987</b>	
BSc (Hons) Zoology	<b>University of Calcutta</b>				<b>1985</b>	
<b>Career Profile</b>						
	<b>Organization</b>	<b>Designation</b>	<b>Duration/Year</b>	<b>Role</b>		
	Department of Zoology Dyal Singh College University of Delhi Delhi	Associate Professor	2012 till date	Teaching and Research		
	Department of Zoology Dyal Singh College University of Delhi Delhi	Reader	2009	Teaching and Research		
	Department of Zoology Dyal Singh College University of Delhi Delhi	Assistant Professor (Senior Lecturer)	2006	Teaching and Research		
	Department of Zoology Dyal Singh College University of Delhi Delhi	Lecturer (Temporary)	2004	Teaching and Research		
	Department of Zoology Dyal Singh College University of Delhi Delhi	Lecturer (Ad-hoc)	2001	Teaching		

Department of Zoology Ramjas College University of Delhi Delhi	Lecturer (Ad-hoc)	2000	Teaching
Insect Behaviour Research Laboratory Department of Zoology University of Delhi, Delhi	PhD Scholar UGC JRF andSRF	1993 to 1999	Research
Department of Zoology J. N. College, LNMU, Madhubani	Lecturer (Ad-hoc)	1989 to 1992	Teaching
<b>Administrative Assignments (From 1<sup>st</sup> July 2017 onwards)</b>			
<b>Designation</b>	<b>Committee and Organization</b>	<b>Year/Duration</b>	
Deputy Coordinator	Central Evaluation Centre Dyal Singh College	2010 – 2020	
Teacher-in-Charge	Department of Zoology	Session- 2023-24	
Member	Selection Committee, Permanent Appointment of Assistant Professor Department of Zoology.	2024	
Convener	Admission Committee BSc Life Sciences BSc (H) Zoology Dyal Singh College	2020 2023	
Member	Research and Development Cell, Dyal Singh College	2023	
Member	Organizing Committee, Faculty Development Program, Dyal Singh College	2018	
Convener	Summer Research Internship Program (IQAC)	2019	
Member	Admission Committee BSc Life Sciences Dyal Singh College	2017, 2019, 2021, 2022	
Member	Screening Committee, Appointment of Assistant Professor in Zoology and Bengali	2020	
Subject Expert	Appointment of Assistant Professor in Zoology, Institute of Home Economics University of Delhi	2019	

Member	Internal Quality Assurance Cell (IQAC), Dyal Singh College	2017 - 2022
Convener	Revision of Syllabus of DSE papers, BSc (Hons) Zoology, Department of Zoology, University of Delhi, Delhi.	2019
Convener	The Zoological Society	2019
Co-Convener	Dyal Singh College	2020
<b>Areas of Interest / Specialization</b>		
Specialization: Applied Entomology, Insect Behavior, Insect-Plant Interactions, Bioinformatics. <b>Research Interests:</b> Research is focused on agricultural insect pests and their interactions with economically important crop plants. Studies also include role of volatile chemical signals emanating from plant surfaces that play important role in selection/ rejection of insect pests. Works also include to examine the post-ingestive effects of different nutrients, phytochemicals, nano-biopesticide formulations on lepidopteran insect pests. The research findings will help in the development of eco-friendly pest management strategies to increase food production by minimizing damage caused by insect pests in a sustainable manner.		
<b>Subjects Taught</b>		
Animal Behaviour		Zoology, BSc (Hons), Part-III
Animal Physiology		Zoology, BSc (Hons), Part-II
Biostatistics, Bioinformatics, Computational Biology,		Zoology, BSc (Hons), Part-III
Wildlife Conservation and Management and		Zoology, BSc (Hons), Part-
III Evolutionary Biology.		Zoology, BSc (Hons), Part-III
<b>Research Guidance</b>		
<b>1. PhD Supervision</b>		
i) Name of student- Dr. Tarun Kumar Vats, Dept. of Zoology, University of Delhi Title of PhD thesis: Biological activity of certain plant extracts against diamondback moth <i>Plutellaxylostella</i> (Lepidoptera: Plutellidae) Year of award: 2015 Currently Scientist B, ICMR- National Institute of Malaria Research, Dwarka, New Delhi.		
ii) Name of Student- Mr. Ankur, Dept. of Chemistry, University of Delhi Co-supervision for PhD degree since 2019.		
iii) Name of Student- Ms. Nida (Joined as Research Intern)		
<b>2. Research Guidance- Summer Internship</b>		
No. of Students: 10		
Year: 2019		
<b>Publications Profile</b>		
<ul style="list-style-type: none"> <li>Singh, A. K. and <b>Mullick, S.</b> (1997). Effect of leguminous plants on growth and development of gram pod borer, <i>Helicoverpa armigera</i> Indian J. Ent. 59 (2):209-214.</li> <li><b>Mullick, S.</b> and Singh A. K. (2001). Effect of Leguminous Host Plants on Fecundity and Longevity of <i>Helicoverpa armigera</i> (Hubner) (Lepidoptera: Noctuidae). Entomon 26 (2): 113-120.</li> </ul>		

- Singh, A. K. and **Mullick, S.** (2002). Leaf volatiles as attractants for neonate *Helicoverpa armigera* (Lep., Noctuidae) larvae. J. Appl. Ent. 126(1): 14-19. Wiley.
- Vats, T. K., Rawal, V., **Mullick, S.**, Rojina Devi, M.R. Singh, P. and Singh, A. K. (2019). Bioactivity of *Ageratum conyzoides* (L.) (Asteraceae) on feeding and oviposition behaviour of diamondback moth *Plutella xylostella* (L.) (Lepidoptera: Plutellidae). In J. Trop. Insect Sci. 39: 311-318. Springer Nature.
- Vats T. K. V. Rawal, A. K. Singh and **Sanjiv Mullick** (2023). Deterrent effect of *Calotropis procera* R. Br. on feeding, oviposition and egg hatchability of *Plutella xylostella* (L.) (Lepidoptera: Plutellidae). J. Asia Pacific Entomol. 26: 102081. Elsevier.
- Yadav Deen, S.P., Sharma, A.V., Singh, P., Ganta, S., Ragesh, P.R., Sharma, S., Tarkeshwar, Kapinder, Singh, J., Devi, M.R., **Mullick, S.** (2023) Influence of age, diurnal cycle, and plant and non-plant surfaces on oviposition by *Spodoptera litura* (Fabricius) (Lepidoptera: Noctuidae). In J. Trop. Insect Sci. (accepted). Springer Nature.
- Ankur, **Mullick, S.** and Gupta, A. (2023). Development of Citronella essential oil-based Nanoemulsion and its larvicidal effects against *Spodoptera litura* (Fab.) (Lepidoptera: Noctuidae). Mater. Today: Proc. (In Press). Elsevier.
- Ankur, Gupta, A. Rawat, P. Singh, M. and **Mullick, S.** (2024). Development and characterization of *Cymbopogon winterianus* (Jowitt) essential oil-based nano-emulsion for larvicidal and antifeedant activity against *Spodoptera litura* (Fab.) (Lepidoptera: Noctuidae). BioNanoScience. (Accepted). Springer Nature.

#### Conference Organization/ Presentations

- Mullick, S. and A. K. Singh (2000). Feeding responses and growth of *Helicoverpa armigera* (Lepidoptera: Noctuidae) larvae maintained on chickpea, cowpea, blackgram and pigeonpea diets. **XXI International Congress of Entomology**, Londrina, Brazil, 22-27 August 2000 (poster presented).
- Singh, A. K. and S. Mullick (2000). Orientational responses of neonate *Helicoverpa armigera* larvae towards leaves of different leguminous plants. **XXI International Congress of Entomology**, Londrina, Brazil, 22-27 August 2000. (poster presented)
- Mullick, S. and A. K. Singh (2000). Suitability of flower buds and pods of leguminous crops for development of *Helicoverpa armigera* Hubn. (Lepidoptera: Noctuidae). In: **Abstracts of 3<sup>rd</sup> International Crop Science Congress**, 17-22 August 2000, Hamburg, Germany, 92pp.
- Mullick, S. and Singh A. K. (2000). Effect of leguminous crop on fecundity and longevity of *Helicoverpa armigera* Hubn. (Lepidoptera: Noctuidae). **Entomology Congress 2000**, Trivandrum, India, 5-8 November 2000. (Oral Presentation).
- Mullick, S. and Singh A. K. (2004). Development and survival of *Helicoverpa armigera* (Hübner) (Lepidoptera: Noctuidae) fed on seed powder of different leguminous plants at **XXII International Congress of Entomology**, Brisbane, Australia. 15-21 August, 2004. (Oral Presentation)
- Mullick, S. and Singh A. K. (2012). Orientation of neonate *Helicoverpa armigera* (Lepidoptera: Noctuidae) towards flower buds and pods of leguminous crops. **International Symposium on Insects (ISol 2012)**, Kuala Lumpur, Malaysia, 3-5 Dec, 2012. (Oral Presentation)

- Vats T. K., Rawal V., Singh A. K. and **S. Mullick** (2015). Antifeedant Activity of *Ageratum conyzoides*(L.) (Asteraceae) Extracts against *Plutellaxylostella*(L.)(Lepidoptera: Plutellidae) at 17<sup>th</sup> International Conference of Entomology, Dec-3-4, 2015, Penang, Malaysia (Oral Presentation)
- Vats T. K., Rawal V., Singh A. K. and **S. Mullick** (2015). Oviposition Deterrence Activity of *Calotropis procera*R.Br (Asclepiadaceae) Extracts against *Plutellaxylostella*(L.)(Lepidoptera: Plutellidae) at International Conference of Entomology, Dec-3-5, 2015, Patiala , Punjab, India.(PosterPresentation)
- Agarwal, V.P. **Mullick, S.** Mohindra, P., Yadav M. et al. (2018). Animal E-museum: An ICT tool for undergraduate students, poster presented at National Science Day 2018 celebration, INSA, New Delhi, India.(PosterPresentation)
- Vats T. K., Rawal V., Singh A. K. and **S. Mullick** (2019). Feeding deterrence of *Plutellaxylostella*(L.)(Lepidoptera: Plutellidae) by Foliage Extracts of *Calotropis procera*R.Br (Asclepiadaceae) at National Conference on 'Insect-Plant Biology in 21<sup>st</sup> Century, Nov- 4-5, 2019, organized by Dept. of Zoology, Deshbandhu College, University of Delhi, Delhi, India. (OralPresentation)
- Ankur,Gupta, A.,**Mullick, S.**and Goel, R. (2020). Nano-encapsulated bio- pesticide formulation: Synthesis, characterization and bio-efficacy of nano-encapsulated lemon grass essential oil against *Spodoptera litura*(Fab.)(Lepidoptera: Noctuidae) at International Conference on Nano Science & Technology (ICNOSAT 2020) 5-7<sup>th</sup> March 2020, DST Nanomission, Kolkata.(posterpresentation).
- Ankur, **Mullick, S.**and Gupta, A. (2023).Development of Citronella essential oil-based Nanoemulsion and its larvicidal effects against *Spodopteralitura* (Fab.)(Lepidoptera: Noctuidae). 4<sup>th</sup> International Conference on Materials, Manufacturing and Modelling (ICMMM2023), 10-12 March, 2023, VIT, Vellore, India (Oral Presentation).
- Ankur, Nida, Alka Gupta and **Sanjiv Mullick** (2023).Repellency and Insecticidal Activity of nano-emulsified formulation of *Eucalyptus citriodora* essential oil against *Spodopteralitura* (Fab.) (Lepidoptera: Noctuidae). 74<sup>th</sup> International Symposium on Plant Protection, 23 May, 2023, Ghent, Belgium. (Poster Presentation).
- Ankur, Nida, Rupom Pathori, **Sanjiv Mullick** and Alka Gupta. Eucalyptus citriodora essential oil loaded PEG-based nanoformulation: Development, characterisation, and bio-efficacy against *Spodoptera litura* (Lepidoptera: Noctuidae). International Conference Offline on "Macromolecules: Synthesis, Morphology, Processing, Structure, Properties and Applications (ICM-2024), 12th-14th January 2024, organized by Mahatma Gandhi University, Kottayam Kerala, India. (Short Invited Lecture)
- Rupom Pathori, Nida, Ankur, Alka Gupta and **Sanjiv Mullick**. Development and survival of *Spodoptera litura* (Fab.) (Lepidoptera: Noctuidae) larvae on horticultural crops. International Conference on Advances In Chemical And Applied Sciences For Sustainable Development (ACASSD-2024), 29<sup>th</sup>-30<sup>th</sup> March 2024, Organized by JECRC University, Jaipur, Rajasthan, India. (Poster Presentation).
- Ankur, Nida, Rupom Pathori, **Sanjiv Mullick** and Alka Gupta.Nano-emulsified formulation of *Eucalyptus citriodora* essential oil: Development, Characterization and its repellent activity against *Spodoptera litura* (Fab.) (Lepidoptera: Noctuidae). International Conference on Advances In Chemical And Applied Sciences For Sustainable Development (ACASSD-2024), 29th-30th March 2024, Organized by JECRC University, Jaipur, Rajasthan, India. (Oral Presentation).

- Project: DSC- 301 - E-museum development for Fauna listed in Delhi University Syllabus  
Funding: INR 5,00, 000/- ; Funding Agency: University of Delhi  
P.I: Dr. V. P. Aggarwal; Co-PI's: **Dr. Sanjiv Mullick**; Dr. Poonam Mohindra;  
(2015-2016)
- Project: DS 206 – Development of electronic database of internal morphology of plants and animals listed for undergraduate course of Delhi University.  
Funding: INR 6,50, 000/-; Funding Agency: University of Delhi  
P.I: Dr. V. P. Aggarwal; Co-PI's: **Dr. Sanjiv Mullick**; Dr. Poonam Mohindra; Dr. P. V. Arya (2014-2015)
- Project: DSC 301 – Development of Zoology E-museum for courses in University of Delhi.  
Funding: INR 7,00, 000/-; Funding Agency: University of Delhi  
P.I: Dr. V. P. Aggarwal; Co-PI's: Dr. Anita Goel; **Dr. Sanjiv Mullick**; Dr P. V. Arya. (2012- 2013)
- Project: CSIR-ASPIRE Transdisciplinary Major Research Project,2024-2027.  
Title: Development of Nano-emulsified essential oil and Plant Metabolites based formulations and their bio-efficacy against *Spodoptera frugiperda* (Lepidoptera: Noctuidae).  
Funding: INR 24,43,360/- ; Funding Agency: CSIR  
PI: Prof. Alka Gupta, Department of Chemistry, Dyal Singh College.  
Co- PI: **Dr. Sanjiv Mullick**, Department of Zoology, Dyal Singh College.

#### Awards and Distinctions

1993-1995 Junior Research Fellowship

1995-1998 Senior Research Fellowship; both the fellowships awarded by University Grant Commission, New Delhi, India.

2012 Travel grant for attending International Conference in Malaysia, Awarded by University of Delhi.

#### Association With Professional Bodies

**Entomological Society of India**

#### Other Activities like MOOCs/ Patents etc.

#### REVIEWER

1. Arthropod-Plant Interactions (Springer Nature)
2. International Journal of Tropical Insect Science (Springer Nature)
3. International Microbiology (Springer Nature)
4. Journal of Threatened Taxa

Signature of Faculty Member