

Arshi Siddiqui

M.Sc, Ph.D, NET, GATE

Assistant Professor
Department of Biosciences
Integral University
Lucknow



Teaching Interests:

- Insect Biology, Animal Science, Non-chordate and Chordate Biology, Evolutionary Biology.

Research Trajectories

- ❖ Role of biopesticides mainly green pesticide against pest.
- ❖ Elucidation of crosstalk between two different biopesticides against pest.
- ❖ Identification of effective combination of biopesticides against pest.

Area of Research: Biological Control of Aphid pests/ Insect Ecology/ Insect Behaviour/ Behavioural Evolution/ Insect developmental strategies.

➤ Academic Qualifications:

DEGREE	YEAR	BOARD/ UNIVERSITY	SUBJECTS	DIVISION PERCENTAGE (%)
Ph.D. (Zoology)	2016	University Lucknow, Lucknow, India	of Title: Development rate polymorphism in a predatory ladybird, <i>Propylea dissecta</i> (Mulsant)	Completed
Pre Ph.D. Course Work (Zoology)	2012	University Lucknow, Lucknow, India	of Research Methodology and Review of Literature.	Qualified
M.Sc. (Zoology)	2012	University Lucknow, Lucknow, India	of Zoology	1 st 72.16

B.Sc. Zoology	2010	Navyug Degree Lucknow Kanya College,	Zoology, Botany, Chemistry	1 st 74.00
Intermediate	2007	U P Board	Zoology, Botany, Physics, Chemistry, English, Hindi	1 st 79.00
Matriculation	2005	U P Board	Science, Hindi, English, Home Science, Social Science, Computer.	1 st 65.17

Techniques Known and Applied

- **Animal handling:** Experience in animal handling live insect and dissection of *Pila*, *Lamellidens*, *Sepia*, *Aplysia*, etc. Surgical removal of ovary, testis, thymus gland and adrenal gland of albino mice.
- **Microscopy:** Stereoscopic binocular microscope.
- **In vivo techniques:** Histology and Histo-morphometric analysis.
- **Proficiency in computer knowledge:** MS Office tools
- **Statistical software:** MINITAB 15.0, SAS.
- **Course on Computer Concepts (CCC)** by National Institute of Electronics and Information Technology (NIELIT).
- **Basic Computer Concepts (BCC)** by National Institute of Electronics and Information Technology (NIELIT).

Teaching experiences

- In **Pioneer Girls Degree College**, Ruchikhand-II Sharda Nagar, Lucknow.
- In **Mahila Vidhyalaya Degree College**, Aminabad Lucknow.
- **Integral University**, Dasauli Kursi Road, Lucknow.

Research experiences

- Project Assistant at DST Fast Track Young Scientist.
- **Project entitled:** Slow and Fast development in Ladybirds: Evolutionary Rationale and Role in Pest Management.

Contributions made as a Group Leader

- Doctoral Students: 03 (enrolled)
- PG thesis: 03 Submitted (awarded), 02 (enrolled)
- UG Dissertations: 16 (awarded) 06 (enrolled)

Membership of Academic Bodies/Scientific Society

- (i) Life Member, Zoological Society of India, Kolkata
- (ii) Life Member, Association of Entomologists, Patiala.

National Exam Qualified

- CSIR-UGC Net Qualified
- GATE qualified

Awards/medals/prizes

- **Smt Vijay Laximi Gold Medal and certificate** for highest marks in Zoology (B.Sc-IIIyr (ZBC); Graduation) in 2010.
- **Best poster presentation award on** effect of temperature on selected lines of developmental variants of *Propylea dissecta*. 3rd Lucknow science congress LUSCON-2015 and National conference on science for society an interdisciplinary approach at Babasaheb Bhimrao Ambedkar University, A Central University Vidya Vihar, Raebareli Road, Lucknow. 31 Oct–2 Nov, 2015.

Patent Grants:

Arshi Siddiqui, Uzma Afaq, Geetanjali Mishra (2023). Isolation method for slow and fast developers in a predatory ladybird beetles, *Propylea dissecta* (mulsant). Indian Patent. Application number: 202311063312. Filed date: 21 September, 2023. Published date: 13 October, 2023.

Research Grants

- Two Years Seed Money Grants for Research approved by Integral University (2021) entitled ‘Developmental rate polymorphism in a predatory ladybird beetle, *Coccinella septumpunctata*.

Research publications

1. **Arshi Siddiqui**, Omkar, Sarah C. Paul, Geetanjali Mishra. (2015). Predatory responses of selected lines of developmental variants of ladybird, *Propylea dissecta* (Coleoptera: Coccinellidae) in relation to increasing prey and predator densities. **Biocontrol Science and Technology**, 25: 9, 992-1010.
2. **Arshi Siddiqui**, Omkar, Geetanjali Mishra. (2015). Predator-prey interactions in selected slow and fast developing females of a ladybird, *Propylea dissecta*. **Journal of Experimental Zoology: Part A**, 323A:745–756.
3. Mhd Shahid, **Arshi Siddiqui**, Geetanjali Mishra, Omkar (2016). Mating alters the rate of development of ovarioles in the ladybird, *Propylea dissecta* (Coleoptera: Coccinellidae). **European Journal of Entomology**. 113: 44-50.
4. **Arshi Siddiqui**, Omkar, Geetanjali Mishra (2017). Selection and inheritance of developmental variants of *Propylea dissecta* under thermal stress conditions. **Journal of Thermal Biology**. 69: 275–280
5. **Arshi Siddiqui**, Omkar, Geetanjali Mishra (2020). Food availability rhythm affects reproduction in consecutive generations in ladybird, *Propylea dissecta*. **Current Science**. 119(6): 1038-1041.
6. **Arshi Siddiqui**, Hira Moid (2022). An Introduction on Phytochemical Analysis and their Types. **Der Pharmacia Lettre**. 14(2):01-05.
7. **Arshi Siddiqui**, Omkar, Geetanjali Mishra (2023). Allocation of food resource by experimentally evolved lines of developmental variants of *Propylea dissecta*: a food exploitation strategy. **Bulletin of Entomological Research**.113(2), 212-219. <https://doi.org/10.1017/S0007485322000475>
8. **Arshi Siddiqui**, Omkar, Geetanjali Mishra (2023). Optimizing aphid biocontrol with the predator *Propylea dissecta*, based on experimental evolution of predatory population. **The Canadian Entomologist**. 155, e11, 1–12. doi:10.4039/tce.2022.36
9. Uzma Afaq, Gyanendra Kumar, **Arshi Siddiqui** and Omkar (2024). *Zygogramma bicolorata* (Coleoptera: Chrysomelidae): an exotic biocontrol agent of the noxious weed, *Parthenium hysterophorus* (Asteraceae). **The Canadian Entomologist**. 156, e4, 1–23
10. **Arshi Siddiqui**, Omkar, Jon Andreja Nuotcla, Geetanjali Mishra (2024). An experimental evolution study deciphers differences between the life attributes of

- developmental variants in *Propylea dissecta* (Mulsant) (Coleoptera: Coccinellidae). **Animal Biology**. 74(1), 97-108. DOI 10.1163/15707563-bja10127.
11. Syed Khalida Izhar, Shareen Fatima Rizvi, Amina Shahab, Aliya Firdaus, Rohit Sharma, Shazia Qamar, Saba Siddiqui, **Arshi Siddiqui** and Uzma Afaq (2024). Synthesis and chemical characterization of secondary metabolites of weeds using FTIR and NMR techniques. **Asian Journal of Chemistry**. Vol. No. 36 (6), 1315-1320
 12. **Arshi Siddiqui**, Uzma Afaq, Omkar, Geetanjali Mishra (2023). Does developmental rate polymorphism exist or just an individual survival strategy? A Review. **Journal of Experimental Zoology:A. Communicated**
 13. Uzma Afaq, Aliya Firdaus, Syed Khalida Izhar, Shazia Qamar, **Arshi Siddiqui** (2024). Phytochemical analysis and antimicrobial potential of *Parthenium hysterophorous* and *Lantana camara*. **Journal of General Plant Pathology**. Communicated
 14. **Arshi Siddiqui**, Shaizee, Danish Khan (2024). Exploration of developmental variants of predatory ladybird, *Coccinella septumpunctata* L. (Coleoptera: Coccinellidae) on artificial diet. **Recent Patents in Biotechnology**. *Accepted*

Chapter in Book

- **Arshi Siddiqui**, Omkar & Geetanjali Mishra, Mhd Shahid (2018). Effect of food on developmental rate polymorphism in an aphidophagous ladybird, *Propylea dissecta*. **Science Communication: Issues and Challenges** published by Shanlax Publication (66, V.P. Complex, T.P.K. Main Road Near KVB, Vasantha Nagar Madurai-625003, Tamil Nadu, India (0452) 4208765, +91 7639303383). ISBN: 978-93-87871-36-6
- Uzma Afaq, Syed Khalida Izhar, Gyanendra Kumar and **Arshi Siddiqui** (2021). Phytoremediation: an ecofriendly and sustainable technique for heavy metal pollution. "Environmental challenges and Biodiversity (Impact, Peril and conservation)". Abhiram Prakashan House, Lucknow, Uttar Pradesh (UP). ISBN: 978-81-949061-7-9.
- **Arshi Siddiqui**, Hira Moeed, Sabroz Alam and Preeti Bajpai (2022). Evaluation of anticancer potential of *Moringa oleifera* methanolic extract against lung cancer. "Bioactive compounds Application and Significances". Aargon Press, New Delhi (www.aargonpress.com). ISBN: 978-93-94070-03-5

- **Arshi Siddiqui**, Shaizee, Shabroz Alam, Shahida Hamid, Preeti Bajpai (2022). Elucidating therapeutic potential of methanolic extract of *Moringa oleifera* on rodent glioblastoma cells. “Bioactive compounds Application and Significances”. Aargon Press, New Delhi (www.aargonpress.com). ISBN: 978-93-94070-03-5
- Shahida Hamid, Uzma Afaq, **Arshi Siddiqui**, Jahanarah Khatoon, Farina Mujeeb, Tabrez Faruqi, Preeti Bajpai (2022). Evaluation of free radicals scavenging activity of different extracts of *Grewia asiatica L.* “Bioactive compounds Application and Significances”. Aargon Press, New Delhi (www.aargonpress.com). ISBN: 978-93-94070-03-5.
- **Arshi Siddiqui**, Pragyesh Dixit, Hira Moid, Uzma Afaq. (2023). Various Metabolites and Bioactive Compounds from Fruits, and Their Use in Nanoparticles Synthesis and Applications. In: Husen, A. (eds) Nanomaterials from Agricultural and Horticultural Products. Smart Nanomaterials Technology. Springer, Singapore. https://doi.org/10.1007/978-981-99-3435-5_11. ISBN-978-981-99-3435-5
- Aliya Firdaus, Shazia Qamar, Syed Khalida Izhar, **Arshi Siddiqui**, Mhd. Shahid and Uzma Afaq (2024). Application of Marine Biomass in Biofertilizer Production: A Novel Approach for Environment Protection in a book entitled "Marine Biomass - Biorefinery, Bioproducts and Environmental Bioremediation" published by De Gruyter, Germany. <https://doi.org/10.1515/9783111353951-008>. ISBN-9783111353586

Book edited

- “Bioactive compounds Application and Significances” edited by Dr. Uzma Afaq and **Dr. Arshi Siddiqui** (2021). Published by Aargon Press, New Delhi (www.aargonpress.com). ISBN: 978-93-94070-03-5
- “Trends in Biological Research: Applications and Significances” edited by Dr. Mohd Salman Khan, Dr. Uzma Afaq and **Dr. Arshi Siddiqui** (2022). In-press: Aargon Press, New Delhi (www.aargonpress.com). ISBN: 978-93-94070-15-8

Volunteer activity and seminars

- 22nd All India Congress of Zoology & National Seminar On “Recent Advances in Biological Sciences: Biodiversity and human welfare” (NSBHW). December 29-31, 2011.
- Participated as a member of organizing committee of an awareness program on World Hemophilia Day organized by IIMSR (Integral Institute of Medical Science and Research), Department of Biosciences and Department of Bioengineering, Integral University, Lucknow at 19 April, 2022.

Seminar

- Participated in National seminar on “*Environmental Degradation and Aquaculture*” on 28 April, 2013 organized BSNV PG College, Lucknow (UP) in collaboration with Applied and Natural Science Foundation, Haridwar (UK), India.
- Participated in “*National Seminar on Science and Technology for New India*” on 20 November, 2017 organized by Sri Jai Narain PG College, Lucknow in collaboration with CSIR- National Botanical Research Institute.

Abstracts of papers presented/ accepted for presentation in conferences/ symposia/ seminars/ webinar/workshops / Refresher course etc

- **Arshi Siddiqui**, Omkar, Geetanjali Mishra (2015). Effect of parental larval diet on progeny developmental and reproductive attributes of *Propylea dissecta*. 26th All India Congress of Zoology & International Symposium on Innovation in Animal Sciences for Food Security, Health Security and Livelihood at Babasaheb Bhimrao Ambedkar University, A Central University Vidya Vihar, Raebareli Road, Lucknow. October 29-31, 2015. **(Presented)**.
- **Arshi Siddiqui**, Omkar, Geetanjali Mishra (2015). Effect of temperature on selected lines of developmental variants of *Propylea dissecta*. 3rd Lucknow science congress LUSCON-2015 and National conference on science for society an interdisciplinary approach at Babasaheb Bhimrao Ambedkar University, A Central University Vidya Vihar, Raebareli Road, Lucknow. 31 Oct–2 Nov, 2015. **(Presented)**.

- **Arshi Siddiqui**, Omkar, Geetanjali Mishra (2018). Effect of food on developmental rate polymorphism in an aphidophagous ladybird, *Propylea dissecta*. National Seminar on Science Communication: Issues and Challenges at Fakhruddin Ali Ahmad Govt PG College, Mahmoodabad, Sitapur (UP)- India. 16-17 Feb, 2018. **(Presented)**.
- **Arshi Siddiqui**, Omkar, Geetanjali Mishra (2018). Effect of food on sex ratio of developmental variants in *Propylea dissecta* against *Acyrtosiphon pisum*. International Symposium on Indiscriminate Development: Current Scenario & Socio-Environmental Challenges (IDCSC 2018) at Botanical Survey of India (BSI) Auditorium, Allahabad, India. 18-19 March, 2018. **(Presented)**.
- **Arshi Siddiqui**, Omkar, Geetanjali Mishra (2019). Effect of food rhythmicity on reproduction in consecutive generations in ladybird, *Propylea dissecta*. Global Conference on at Botanical Survey of India (BSI) Auditorium, Allahabad, India. 21-22 May, 2019. **(Presented)**.
- Participated in National webinar on “Spectroscopic Techniques (Microwave, IR, Raman and NMR Spectroscopy)” on 17 Mar, 2021 organized by Department of Chemistry, Govt MGM PG College, Itarsi
- Poster presentation on “Applications of insect derived antimicrobial peptides as a food preservatives.” ‘INDO-UZBEK MEET and international conference on trends and innovation in food technology’ organized by Department of Bioengineering, Integral University, India and Tashkent Chemical Technological Institute, Tashkent, Uzbekistan on 24-25 November, 2022.
- Participated on refreshers course on “Computational strategies for drug discovery and sustainable development” organized by Department of Chemistry and Human Resource Development Centre of Integral University in collaboration with Department of Applied Sciences, Indian Institute of Information technology, Allahabad from 9th August to 14th October, 2023.
- Participated in workshop on “Understanding Insects: Modern Scientific Approaches” organized by Department of Zoology, University of Lucknow from 3rd to 4th November, 2023.

Invited speaker/ guest lectures

1. Invited Speaker at ‘National conference on emerging trends in biological sciences’ held on 27-28 Jan 2023, organized by Department of Biochemistry, Dr. Ram Manohar Lohia Awadh University, Ayodhya, UP, India.
2. Invited Speaker at ‘National seminar on new dimensions of life sciences in the perspective of sustainable development goal and annual session of society of life sciences’ held on 8-9 Feb 2023, organized by Mahatma Gandhi Chitrakoot Gramodaya Visvidhaylaya, Satna, MP, India.
3. Invited Speaker at ‘Women in STEM-2023’ held on 10-14 Feb 2023, organized by Tashkent Institute of chemical technology, Tashkent, Uzbekistan.

FDPs/PDP/Workshop Attended

- Participated in Two-week PDP on “Future Prospects of Molecular Technologies in Biological Research” from 23 November to 08 December, 2021, Department of Bioscience, Integral University, Lucknow.
- Participated in eight days FDP on “Recent Pedogogy in Teaching and Research” from 04-12 March, 2021, organized by Faculty of Commerce and Management, Integral University.
- Participated in a Two-week International FDP on “Communication Skills: Theory & Practices” from 14-25 June, 2021, Department of Languages, Integral University, Lucknow.
- Participated in Two-week PDP on “New Trends and Advancement in Bioengineering” from 15-29 November, 2021 organized by Department of Bioengineering, Integral University, Lucknow.
- Participated in Two-week QIP workshop on “Spreadsheet Applications: Intermediate level” from 26 June-15 July, 2021 organized by Internal Quality Assurance Cell (IQAC) and Human Resource Development Cell (HRDC), Integral University, Lucknow.

- Participated in Two day symposium on “Gender equality and health promotion in females” from 22nd and 23rd August,2022 by Faculty of Pharmacy and Women’s study centre, Integral University Lucknow
- Participated in Two-week PDP on “Environmental sustainability” from 19 July to 01 August, 2022, Department of Environmental Science, Integral University, Lucknow.

Contributions made as a Organizing committee/member/co-ordinator

- Work as a organizing member in “Nano & Micro Formulations as Drug Delivery Systems” workshop sponsored by Department of Science and Technology under the SERB Scientific Social Responsibility (SSR) Policy, Govt of India from 09-10 March, 2021 organized by Department of Biosciences, Integral University.
- Work as a organizing member in “Awareness program to commemorate World Hemophilia Day” program organized by Department of Bioengineering and Department of Biosciences in collaboration with Integral Institute of Medical Sciences and Research (IIMSR) on 19 April, 2022.
- Work as a organizing member in “Synergistic Training program Utilizing the Scientific and Technological Infrastructure (STUTI)” workshop sponsored by Department of Science and Technology, Govt of India from 01-07 December, 2022 organized by Department of Biosciences, Integral University in collaboration with Jamia Hamdard, New Delhi.
- Work as a organizing committee member in “International seminar on application od microbes in synthetic biology and allied sciences” seminar organized by Department of Biosciences, Integral University on 18th September, 2023.

Participation in other Activities

I have been energetically involved in other activities as a Coordinator or member of different Committees at the University as well as Departmental level.

Departmental website	Co-ordinator
The BioScope, Departmental Quarterly Newsletter	Mentor
Departmental Library cell	Member

B.Sc Life Sciences II year	Coordinator (Under-Graduate course)
Student Council	Co-ordinator Literary Society
School Outreach	Resource Person
DST STUTI	Organizing member
Open Mic	Coordinator
Value Added Course (2022) on 'Integrated Pest Management'	Coordinators

Personal details:

Fathers Name : Mr. Ishrat Ullah Siddiqui
Gender : Female
Marital Status : Engaged
Nationality : Indian

Permanent Address:

7, Shama Vihar colony Bagh no.3 Post Manas
Nagar Kanpur road, Lucknow- 226023

Email: arshi.apda@gmail.com,
sarshi@iul.ac.in

Contact number: 7844017176,
7505847393 (watsapp no.)

Present Address:

Allocha Bagh, channa Mohalla, near Alnoor Masjid,
Srinagar, Kashmir-190008, India

Contact number: 79820055

Declaration

I hereby declare that the particulars furnished by me are true to the best of my knowledge and belief

Place: Lucknow (Uttar Pradesh)
India

Arshi Siddiqui

Signature