



Dr. S. Shweta

Centre/School: School of studies of Life Science

Department: Botany

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Qualifications:

2009-2015	Ph.D. in Systematics, Evolution and Biogeography of the genus <i>Crotalaria</i> L. Department of Botany, University of Delhi, Delhi - 110007
2007-2009	M.Sc. Botany (Gold Medalist) Department of Botany, University of Delhi, Delhi - 110007
2004-2007	B.Sc. Botany (Gold Medalist) University of Delhi, Delhi - 110007

Area of interest/specialization:

Systematics, Evolution, Biogeography and Reproductive ecology of selected groups of flowering plants

Experience: Research

2015-2016	Research Associate Department of Botany, University of Delhi, Delhi - 110007
2013	Research scholar (invited) Department of Systematic Botany and Mycology Ludwig Maximilians Universitat, Munchen, Germany
2009-2015	Ph.D. Scholar University of Delhi, Delhi - 110007

Experience: Teaching and Research

2020 - present	Assistant Professor – Botany Guru Ghasidas Vishwavidyalaya Bilaspur, Chhattisgarh – 495009
2018 - 2020	Assistant Professor – Botany (UPSC selection – 3rd Rank) Mahatma Gandhi Govt. Arts College, Mahe – 673311 Govt. of Puducherry

2016 - 2018	Assistant Professor – Botany Hansraj College, University of Delhi, Delhi - 110007
2015	Assistant Professor – Botany Zakir Hussain Delhi College, University of Delhi, Delhi - 110007
2014	Assistant Professor – Botany Dyal Singh College, University of Delhi, Delhi - 110007
2010 - 2014	University Teaching Assistant Department of Botany, University of Delhi, Delhi - 110007

Awards and Honors:

1. Elected as the “**Fellow of the Linnean Society of London**” on 19th October 2023
2. **Awarded YS Murty Medal (2020)** of the 43rd All India Botanical Conference of The Indian Botanical Society for “**Outstanding contributions in the filed of legume Systematics, Phylogeny and Evolution** held at CSIR- NBRI, Lucknow from 19-21 March 2021.
3. **Awarded best poster presentation** in International Association of Plant Taxonomy 2016, on the topic "Systematics and evolutionary significance of pod morphology and anatomy in the genus *Crotalaria* L.”
4. **Awarded** “Fr. Antony Mukkath K.S. Manilal Award for **best paper presentation** under the category “Modern Techniques in Plant Taxonomy” presented at the Annual Conference of the Indian Association of Angiosperm Taxonomy of the year 2010 for the paper entitled “Molecular Systematics of Indian *Crotalaria* inferred from ITS Sequences of nuclear ribosomal DNA on 28th November 2010.
5. Qualified joint **CSIR-UGC NET-JRF** examination held on 20-12-2009. Sr. No. 2120930672

Research Projects:

- **As PI: UGC start up grant sanctioned** for Rs. 10,00,000/- on 6th August 2020 in Minutes of 98th meeting of the empowered committee on Basic Scientific Research.

Patents:

- **Patent published** on 13th October 2023 by **Anurag Dwivedi** (Research Scholar, Department of Botany), **S. Shweta** (Assistant Professor, Department of Botany, GGV) and **Sandeep Kaushik** (Assistant Professor, Department of Environmental Science, IGNTU, Amarkantak) on “A taxonomic dissecting tool”.

Invited speaker/ resource person:

- **Delivered an invited lecture (online mode)** on “Systematics and biogeography of the genus *Crotalaria* L.” on 12th April, 2021 organised by Telangana University, Nizamabad.

- **Delivered an invited lecture on** “Molecular Systematics: Concepts, Methods and Applications” at Mansarovar Global University in a National Workshop in collaboration with NASI from 5-7th September, 2019.
- **Delivered a lecture on** “Taxonomic tools and Techniques” in a Workshop organized by Department of Botany, Hansraj College, University of Delhi, Delhi – 110007 from 21-23 January, 2017.

Member of organizing committee of workshops/conference etc.

- Organised a one week Summer School Programme on “Trends in Plant Reproductive Biology and Future Perspectives” from 29th May to 2nd June 2017 at Department of Botany, Hansraj College, University of Delhi, Delhi – 110007.
- Co-ordinator of National Workshop on “Ethnobotany” from 16-17th September, 2016 organised jointly by Department of Botany, Hansraj College, University of Delhi and Institute of Life Long Learning.
- Organised a Faculty Development Workshop on “Ecology : Modern Perspectives” from 12-13 December, 2016 at Department of Botany, Hansraj College, University of Delhi, Delhi – 110007
- Edited an e-manual of the workshop on “Basic Laboratory Techniques for Undergraduates” which was organized from 21-23 January, 2017 by Department of Botany, Hansraj College, University of Delhi, Delhi – 110007

Poster /Paper presentation:

- **Presented a paper entitled** “Systematic and evolutionary significance of pod morphological and anatomical variations in the Indian *Crotalaria* L.” in the XLII All India Botanical Conference of the **Indian Botanical Society** and National Symposium on “innovation and Inventions in Plant science Research” from 6-8 November 2019 held at Department of Botany, University of Calicut, Kerala.

International Collaboration:

- Updated the legume checklist of the genus *Crotalaria* L. under the **LEGUME PHYLOGENY WORKING GROUP** and part of the GLOBAL LEGUME TAXONOMIC EXPERT NETWORK alongwith Anne Bruneau, Ph.D., Professeure titulaire, Dépt. Sciences biologiques, Université de Montréal, Canada and Marianne Le Roux (e-Flora co-ordinator), South African National Biodiversity Institute (SANBI)

World checklist of vascular plants (Fabaceae): Citation

- Andrella G C, Atahuachi Burgos M, Bagnatori Sartori Â L, Balan A, Bandyopadhyay S, Barbosa Pinto R, Barrett R L, Boatwright J S, Broich S L, Brullo S, Bruneau A, Cardinal-McTeague W, Cardoso D, Castro Silva I C, Cervantes A, Choo L M, Cobra e Monteiro T, Compton J, Crameri S, Delgado-

Salinas A, Dorado O, Duan L, Egan A N, De la Estrella M, Falcão M, Farruggia F, Fortuna-Perez A P, Fritsch P, Giusso del Galdo G P, Goncharov M, Gregório B D S, Javadi F, Klitgaard B B, Kramina T, Lachenaud O, Lana C. Atunes L, Le Roux M M, Ledis Linares J, Lewis G P, Li S, De Lima H C, Mansano V, Mashego K S, Mattapha S, Montenegro Valls J F, Moteetee A, Murphy B, Ohashi H, Ohashi K, Pandey A, Pennington R T, Phillipson P, Povydysh M, Rakotonirina N, Ramos G, Ranzato Filardi F, Sanjappa M, Santos-Guerra A, Schley R, Schrire B, Schütz Rodrigues R, Seijo G, Seleme E P, Şentürk O, Silva de Carvalho C, Silva Flores A, Simpson C E, Sirichamorn Y, Soares Gissi D, Sokoloff D, Stirton C H, **Subramaniam Shweta**, Thulin M, Torke B M, Van der Burgt X, Vatanparast M, Wilding N, Wojciechowski M, Yi T, Zhang R (2022). The World Checklist of Vascular Plants (WCV): Fabaceae. **Royal Botanic Gardens, Kew**. Checklist dataset <https://doi.org/10.15468/mvhaj3> accessed via GBIF.org on 2022-07-18.

List of Publications:

1. **Subramaniam Shweta**, Pandey AK, Geeta R, Mort ME (2013) Molecular systematics of Indian *Crotalaria* (Fabaceae) based on analyses of nuclear ribosomal ITS DNA sequences. *Plant Systematics and Evolution* 299: 1089-1106. **Impact Factor: 1.6**
2. **Subramaniam Shweta**, Pandey AK (2013) Taxonomy and phylogeny of the genus *Crotalaria* (Fabaceae): an overview. *Acta Biologica Indica* 2: 253-264
3. Chauhan V, **Subramaniam Shweta**, Pandey AK (2013) Relationships of Indian *Indigofera* L. (Fabaceae) based on ITS sequences of nuclear ribosomal DNA. *Phytomorphology* 63: 157-167. **Impact Factor: 0.1**
4. **Subramaniam Shweta**, Pandey AK (2014) Reinstatement of *Crotalaria pellita* (Leguminosae, Papilionoideae) and a new combination for its variety. *Phytotaxa* 183: 051-055. **Impact Factor: 1.8**
5. **Subramaniam Shweta**, Pandey AK, Rather SA (2015) Systematics and adaptive significance of seed morphology in *Crotalaria* L. (Fabaceae). *International Journal of Plant Reproductive Biology* 7: 135-146.
6. **Subramaniam Shweta**, Pandey AK, Rather SA (2015) A revised circumscription of the species in Bracteatae complex (section *Calycinae*) in the genus *Crotalaria* L.: evidence from nuclear and chloroplast markers. *Plant Systematics and Evolution* 301: 2261-2290. **Impact Factor: 1.6**
7. Danda S, **Subramaniam Shweta**, Rather SA, Pandey AK (2016) A new species of *Crotalaria* (Fabaceae, Crotalariaeae) from Meghalaya, India. *Systematic Botany*. 41(2): 307-315. **Impact Factor: 1.89**
8. Gholami A, **Subramaniam Shweta**, Geeta R, Pandey AK (2017) Molecular systematics of Indian *Alysicarpus* (Fabaceae) based on analyses of nuclear ribosomal DNA sequences. *Journal of Genetics* 96 (2): 353-363. **Impact factor: 1.00**
9. Rather SA, **Subramaniam Shweta**, Danda S, Pandey AK (2018) Two new species of the legume genus *Crotalaria* L. (Fabaceae) from Maharashtra, India. *PLoS ONE*. pone0192226. **Impact Factor: 3.752**

10. **Subramaniam Shweta**, Rather SA, Danda S, Pandey AK (2020) Presence of air cavities in pods of an endemic legume *Crotalaria pusilla* DC. (Leguminosae, Papilionoideae). *Current Science*. 118 (18): 1492-1493. **Impact Factor: 1.102**
11. Kaushik S, Vashishtha A, **Shweta S**, Sharma KK, Lakhanpaul S (2020) Essential amino acid profiling of the four lac hosts belonging to genus *Flemingia*: its implications on lac productivity. *Physiology and Molecular Biology of Plants*. 26(9): 1867-1874. **Impact factor: 3.442**
12. **Shweta S**, Kurmi A, Kaushik S (2022) Master of disguise: Deceiving tactic employed by crab spider as an efficient strategy for predation. *Indian Journal of Entomology*. Accepted. **Impact Factor: 0.5**
13. **Subramaniam S**, Rather SA, Danda S, Pandey AK (2022) The systematic significance of pod morphological and anatomical variations in Indian *Crotalaria* L. (Leguminosae). *FLORA*. 290: 152059. Impact Factor: **2.253**
14. Saleem F, Singh Lal, **Subramaniam S**, Pandey AK (2023) *Crotalaria nicobarica* (Fabaceae): A new species from Andaman and Nicobar Islands, India. *Nordic Journal of Botany*. 2023 (11) : e04077. Impact factor: **0.931**
15. **Shweta S**, **Dwivedi A**, Sahu N, Kaushik S (2024) Plant Herbarium specimens: A valuable ecological resource of the time treasured historic specimens with unlimited research potential in ecosystem dynamics. *Environment, Development and Sustainability (ENVI)* (**provisionally accepted**) Impact factor: **4.9**

Recent Books/Book Chapters/Monographs etc.

- **Shweta S**, Subramaniam B, Rai MK, Danda S, Kurmi S, and Kaushik S (2023) Traditional Agriculture: A Sustainable Approach towards Attaining Food Security in book entitled Crop Sustainability and Intellectual Property Rights (**In Press**). CRC Press: Taylor and Francis Group. **ISBN: 978-1-77491-319-2**.

Research Supervision:

1. **As Supervisor:** Anurag Dwivedi (Enrollment number: GGV/21/13102).
2. **As Co-supervisor:** Praveen Shyam (Enrollment No. 1801365002), Department of Environmental Science, Indira Gandhi National Tribal University, Amarkantak, under the guidance of **Dr. Sandeep Kaushik, Assistant Professor, Department of Environmental Science, Indira Gandhi National Tribal University, Amarkantak**.

Orientation/Refresher Courses:

1. Attended Online 4-Week **Faculty Induction/Orientation Programme** organised by Teaching Learning Centre, Ramanujan College, University of Delhi, Delhi from June 04 to July 01, 2020 sponsored by Ministry of Human Resource Development -Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (**secured A+ Grade**).
2. Attended Online 2-Week UGC-sponsored **Refresher Course** organised by UGC-HRDC, Guru Ghasidas Vishwavidyalaya, Bilaspur – 495009, Chhattisgarh from

August 02 - August 14, 2021 sponsored by University Grants Commission (**secured A Grade**).

3. Attended Online 2-Week UGC-sponsored **Refresher Course** organised by UGC-HRDC, Guru Ghasidas Vishwavidyalaya, Bilaspur – 495009, Chhattisgarh from October 09 - October 21, 2023 sponsored by University Grants Commission (**secured A + Grade**).

Administrative responsibilities:

1. **Cultural co-ordinator** of Department of Botany from 10th January 2020 till present.
2. **Member-** Admission committee from 2020, Department of Botany, Guru Ghasidas Vishwavidyalaya from 16th January 2020 till present.
3. **Warden** of Bilasa Devi Girls Hostel of Guru Ghasidas Vishwavidyalaya from 18th August 2022 till 18 May 2023.
4. **NSS program officer** of the NSS Botany unit of Guru Ghasidas Vishwavidyalaya from 29th August 2022 till present.
5. **Assistant Dean Student Welfare** from 16th March 2023 till present.
6. **Member of Academic Council and Standing committee** from 15th July 2023 till present.
7. **Member – NIRF (Category - II)** from 10th October 2023 till present.
8. **Member - NIRF 2024 Research category** from 1st November 2023 till present.
9. **NCC Caretaker Officer (CTO)** from 6th November 2023 till present.

Memberships:

- Member of American Society of Plant Taxonomists
- Member of International Association of Plant Taxonomists
- Member of Indian Association of Angiosperm Taxonomy
- Member of Indian Botanical Society
- In review panel of the journal Phytotaxa and PIAS-Section B