

Curriculum Vitae

Full Name:	Dr. Rajendra Singh FARTYAL, F.R.E.S.; F.E.S.I. (डॉ. राजेंद्र सिंह फर्त्याल, एफ.आर.ई.एस.; एफ.ई.एस.आई.)				
Designation:	Professor & OSD Exam				
Department:	Fruit Fly Lab; Department of Zoology				
Campus:	Birla-Chauras				
Telephone:	+91	Fax:	+91		
Mobile:	+91 9412356050				
Email	fartyalrs@gmail.com; rs.fartyal@hnbgu.edu.in				
Education Qualification:	Degree, University, Year ➤ In 2001: Ph.D. ZOOLOGY . Thesis entitled " <i>Studies on the systematics and cytogenetics of Drosophilids of Kumaon region</i> ", under the supervision of Prof. B. K. SINGH, Cytogenetics Laboratory, Department of Zoology, DSB Campus, Kumaon University, Nainital, Uttarakhand, India. ➤ In 1995: M.Sc. ZOOLOGY from the Kumaun University, Nainital, Uttarakhand, India ➤ In 1993: B.Sc. BIOLOGY (Zoology, Botany & Forestry) from the Kumaun University, Nainital, Uttarakhand, India.				
Teaching Experience:	__24__ Years		Research Experience:	__29__ Years	
Research Interest and Fields of Specialization Research field: Entomology, Biodiversity, Taxonomy, Ecology, Evolutionary biology, Pest, Pollination, Molecular Taxonomy, altitudinal variations and Cytogenetics, of family-Drosophilidae (Insecta: Diptera - Drosophilids [fruit fly]) of Northern Western Himalayan Region.					
Honours & Awards Fellow of the Entomological Society of India (F.E.S.I.), Division of Entomology, ICAR-IARI, Pusa, New Delhi (Life Fellow 31 July 2025) Fellowship & Award: F.R.E.S. (Fellow of the Royal Entomological Society), London on 01.05.2019. Visiting Associate Professor under the institute program to invite foreign guest researchers (Japanese Fiscal Years 2009) from July 1st, 2009 to September 30th, 2009 in <i>The Institute of Low Temperature Science, Hokkaido University, Sapporo, JAPAN</i>. - Invited as a resource person by Department of Zoology, Dr. Harisingh Gour Vishwavidyalaya, Sagar for MOOCs SWAYAM Course, Annual Refresher Programme in Teaching (ARPIT) recording at EMMRC for National Resource Centre (NRC) in Zoology on 11 January 2019. <i>Two modules/presentations</i> entitled 'Population concepts and Metapopulation' and 'Allopatric and Sympatric Populations'. (Start Date 19/11/2018; End Date 28/02/2019; Enrollment End Date 15/01/2019)					
Membership of Scientific Organizations - The Indian Science Congress Association (Lifetime member) - Life Member of National Institute of Ecology (NIE) - The Entomological Society of Japan (B00109) - Royal Entomological Society, London, UK (3409) - The Entomological Society of India (ESI-L-1365 Lifetime member) - The International Society of Zoological Sciences, CAS, China - Vigyan Bharati, Uttarakhand [Devbhoomi Vigyan Samiti (DEVISA- Lifetime member)]					
Research Supervision (No. of Ph.D. Degree Awarded/Submitted/Registered) Awarded: 08 Submitted: Nil Registered: 04					
Research Projects/ MoU undertaken					
S.No.	Title of Research Project	Funding agency	Budget Rs.	Duration/ Year	Status

1.	“Faunistic studies on the systematics and cytogenetics of the Drosophilids of Garhwal region, India”.	University Grants Commission New Delhi	7,61,945=00	01.02.2010 to 31.07.2013; 3.6 years	Completed
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Administrative Experience

- **Member**, Committee for seniority of self-finance non-teaching staff member in Pharmacy dept. office order ref. HNBGU/Admin/2026/498 dt. 06/08/2026.
- **Observer**, Affiliated College Paramedical Exam 2024-25 office order ref. HNBGU/CoE./2026/506 dt. 31/07/2026. Centre MKP PG College Dehradun, from 03-14.08.2026, MKP Dehradun.
- **Observer**, Ph.D. entrance Exam 2025-26 office order ref. HNBGU/En. Ex./2026/52 dt. 06/07/2026. Centre no. 03 dt. 12.07.2026, Dolphin Instt. Dehradun.
- **Member**, Committee for Seniority of faculty members office order ref. HNBGU/Admin(Teaching)/2025/637 dt. 10/10/2025.
- **Member**, Intensive Review and Monitoring Committee office order ref. HNBGU/269/2025/Affiliation dt. 17/09/2025.
- **Co-Convener**, Degree Committee, revised office order committee for 12th Convocation ref. HNBGU/RO/2025/286 dt. 12/09/2025.
- **Officer on Special Duty (OSD), Examination** office order ref. HNBGU/RO/2025/223 dt. 04/08/2025.
- **Convener of NPS committee** “non-deposit or delayed deposit NPS contribution” HNBGU/FO/2024/FO/223/dt. 13/03/2024
- **Convener of Unfair Means (UFM) committee** HNBGU/CoE off./2023/540/dt. 03/04/2023 - 03/12/2024
- Fish Hatchery Co-coordinator Department of Zoology HNBGU Chauras campus 25/05/2023
- Member of Calculate the Earned Leave/Half Pay Leave encashment payment of retired faculty members HNBGU 15/05/2023
- Assistant Superintendent (AS Exam) AR, Programmer, Senior system analyst Examination 13/14 May 2023 – Chauras Campus HNB Garhwal University, Srinagar Garhwal
- Member of Collect Alumni Data for Wall of Fame committee, HNBGU 12/05/2023
- Member of Board of Studies (BoS) of the department of Horticulture, HNBGU 2022-23
- Member of Board of Studies (BoS) of the department of Himalayan Aquatic Biodiversity, HNBGU 2023-24
- Member of Child Care Leave (CCL) committee, HNBGU 13/04/2023
- Convener of ‘Action Group’ skill building program in different department, HNBGU 16/03/2023
- Member of Board of Studies (BoS) of the department of Zoology, HNBGU 2023- till date
- Secretary – HNB GU Teachers Welfare Society, Srinagar Garhwal 31 March 2022- till date
- Micro-Observer Assembly Election General Election 14.02.2022. Chaubattakhal/ Yamkeshwar
- Assistant Centre Superintendent (Ph.D. Entrance Exam) Examination 2022 – Birla/Chauras Campus HNB Garhwal University, Srinagar Garhwal
- Assistant Supervisor in UPSC - CDS Exam II 2021 dated 14.11.2021 HNBGU Chauras Campus.
- Coordinator of Zoology information for IQAC team of SOLS HNBGU three campus 2021-24
- Member of Task force MoU with University of Haifa committee
- Member of Constitution day and Citizens Duties celebration committee 2019-20
- Member of Social media committee, HNBGU
- Member of NIRF committee 2019-2020
- Member of NPS committee, HNBGU
- Sector Magistrate Garhwal 02 Lok Sabha General Election AC – 37 Pauri 18.02.2019 to 12.04. 2019.
- Member of Re-scrutiny committee – 25.01.2019 re-scrutiny of B.Sc. Nursing / MBBS courses
- Assistant Superintendent (AS Exam) Examination 2018 – Birla/Chauras Campus HNB Garhwal University, Srinagar Garhwal
- Secretary – HNB GU Teachers Welfare Society, Srinagar Garhwal 2022-2024
- Joint Secretary – HNB GU Teachers Welfare Society, Srinagar Garhwal May 2018-May 2020

Scientific Visits Abroad/ International Collaboration

1. Visited in *The Institute of Low Temperature Science, Hokkaido University, Sapporo, JAPAN* as a **Visiting Associate Professor** under the Institute program invited foreign guest researchers program in Japanese fiscal years 2009 from July 1st, 2009 to September 30th, 2009.
2. Visited in MNHN Museum for Modern Taxonomy programme 2013-2014, under **Distributed European School of Taxonomy (DEST) course ‘Zoological Nomenclature’** training program held in September 22-26th, 2014 at the **Muséum National d’Histoire Naturelle, Paris, France**.
3. Visited in **London School of Hygiene & Tropical Medicine (LSHTM)** in ENTO ’19 for attending International Symposium & Annual National Meeting organised by the Royal Entomological Society, London from August 20-22, 2019.
4. Attended the **27th International Congress of Entomology (ICE-2024), 25-30 August 2024, Kyoto, Japan** poster presentation title on “*Indian Drosophilid Taxonomy: Multidimensional Approaches*”

toward saving Taxonomy and Taxonomist” organized by Graduate School of Agriculture/ College of Agriculture, Tamagawa University, Tokyo, and collaboration meeting for future research on ‘Colocasiomyia ecology, phylogeny & evolution’ dated 31 August – 02 September 2024 with Dr. Toru Katoh in Hokkaido University, Sapporo Japan.

Collaborations International:

- Emeritus Prof. Masanori J. Toda, Hokkaido University Museum, Sapporo, JAPAN.
- Dr. Toru KATOH, Division of Biodiversity, Department of Biological Sciences, Faculty of Science, Hokkaido University, North 10 West 8, Kita-ku, Sapporo, Hokkaido 060-0810, JAPAN

Conference/Symposium/Workshop Attended during last five years (2020-2025)

International

1. Participated and presented poster in 06 days **27th International Congress of Entomology (ICE-2024)**, 25-30 August 2024, Kyoto, Japan organized by Graduate School of Agriculture/ College of Agriculture, Tamagawa University, Tokyo, and collaboration meeting on 31 August – 02 September 2024 with Dr. Toru Katoh in Hokkaido University, Sapporo Japan.
2. Participated in the five days online conference & virtual ‘Annual General Meeting’ poster presented entitled “Journey of world Drosophilid’s Taxonomy” (<https://youtu.be/yzJLDrsF4s8>) organised by the Royal Entomological Society, London in **ENTO 21** from August 23-27, 2021.
3. Participated in the online workshop on “**The Grand Challenges in Entomology**” organized by Royal Entomological Society, London held on 21 and 22 July 2021.
4. Participate in the three days International Symposium & Annual National Meeting ‘Vectors of diseases’ paper presented entitled “Diversity and Distribution Pattern of Drosophilids (Diptera: Drosophilidae) along an Altitudinal Transect in North India” organised by the Royal Entomological Society, London at **London School of Hygiene & Tropical Medicine (LSHTM)** in **ENTO ’19** from August 20-22, 2019.

National

- 1st Participated and presented a paper in one day भारतीय हिमालयी क्षेत्र में पर्यावरणीय मुद्दे, चुनौतियाँ और समाधान पर राष्ट्रीय कार्यशाला (हाइब्रिड माध्यम द्वारा) 15 जुलाई 2024 फलों की गुणवत्ता और कीट नियंत्रण को संतुलित करना: हिमालयी बागवानी के लिए सतत अभ्यास गोविंद बल्लभ पंत राष्ट्रीय हिमालयी पर्यावरण संस्थान (पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार का एक स्वायत्तभासी संस्थान) हिमाचल क्षेत्रीय केंद्र, मोहल, कुल्लू-175126, हिमाचल प्रदेश 14.07.2024.
2. Participated in the three days 4th Annual conference poster presented entitled “Celebrating taxonomy: red eyed insect” organised by the Indian Society of Evolutionary Biologists, ‘Revolutionizing Darwinian Synthesis: Fresh Perspectives and Future Challenges’ at Ahmedabad University from February 09-11, 2023.
3. Participated and presented a paper in one day राष्ट्रीय कार्यशाला हिमालयी क्षेत्रों में ग्रामीण आजीविका के विभिन्न आयाम 14 जुलाई 2022 (हाइब्रिड माध्यम द्वारा) ड्रोसोफिला सुजुकी के लिए कीट नियंत्रण उपायों पर एक समीक्षा (ड्रोसोफिला: डिप्टेरा)ए वतहंदप्रमक इल गोविंद बल्लभ पंत राष्ट्रीय हिमालयी पर्यावरण संस्थान (पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार का एक स्वायत्तभासी संस्थान) हिमाचल क्षेत्रीय केंद्र, मोहल, कुल्लू-175126, हिमाचल प्रदेश 14.07.2022.
4. Participated in the five days “**Indian Drosophila Research Meeting 2021**”, presented an online poster (P56) on 15th December titled “Five Decades of Drosophilidae Taxonomy in leadership of Late Prof. (Dr.) J. P. Gupta, in India: A tribute”, (<https://youtu.be/jgcVxhRB9pU>) in the **InDRC ’21** meeting organized by the Indian Institute of Science Education and Research (IISER) Kolkata under the auspices of Indian Society for Drosophila Researchers on 13 – 17 Dec 2021.
5. Participated in the online workshop on “DNA Bar-Coding: A Challenge to Linnaeus Classification” organized by CytoGene Research & Development, Lucknow held on 22nd & 23rd of May 2021.
6. Participated in the webinar on “Principles & Practices of Animal Taxonomy: Classical & Molecular Approach” organized by Western Ghats Regional Centre, Zoological survey of India, Kozhikode – 673006, Kerala held on 24th August 2020.
7. Participated in the webinar on “loss of Biodiversity and Solutions: Case Studies from Globe” organized by Department of Zoology and Botany, Indra Priyadarshini Govt. Girls P.G. College of Commerce, Hanldwani (Affiliated to Kumaon University, Nainital) Uttarakhand held on 27th July 2020.
8. Participated in the International webinar on COVID-19 AWARENESS organized by Department of Economics O.S. Government Degree College Devprayag, Uttarakhand on 5 May 2020.

Conference/Symposium/Workshop Organized during last five years (2020-2025)

Chairman/Convener/Organizing Secretary, Title of event, place, date, year

1. Actively organized “**Deeksharambh**” as a **Programme Coordinator** one day student induction programme on 13th September 2025 at ACL Hall, Birla Campus Srinagar for all students of Life Sciences.
2. Actively organized 28 Feb 2023 ‘**National Science Day**’ under five days vighan Mahutsaw [VM-23] (science week) as a organizing secretary at HNBGU Chauras Campus involve three campus and different school level events from 28 Feb to 04 March 2023.
3. Actively organized national online lecture on “Provisions in the constitution for human welfare” under program Celebration of 70th Anniversary of Constitution Day dated 30th June 2020.

Publications during last five years (2020-2025)

Journals

1. **Fartyal, R. S.**, Sati, P. C., Khan, M. Z., Kumar, K., Rahul, Pandram, B., Singh, S., Rawat, D., Saraswat, M., Asha, & Singh, N. (2026). Exploring Biodiversity: Description of two new species and three new records of *Drosophila* (Diptera: Drosophilidae) in the North Western Himalayas, India. *Ecologica Montenegrina*, 98, 95–107. <https://doi.org/10.37828/em.2026.98.8> (ISSN 2336-9744 (online) | ISSN 2337-0173 (print))
2. Sati, P.C., Kandpal, M., **Fartyal, R.S.**, Asha, K., Khali, S., Pradhan, S. & Rawat, D. (2025) A brief review of the genus *Stegana* Meigen, 1830 (Diptera: Drosophilidae) from India, with description of a new species and an updated identification key. *Journal of Insect Biodiversity and Systematics*, 11 (4), 1027–1038. (<https://doi.org/10.48311/jibs.11.4.1027>).
3. Khan, M. Z., Sati, P. C., Khali, S., Asha, K., & **Fartyal, R. S.** (2025). Molecular Characterization of Sibling Species of the Genus *Hirtodrosophila* (Diptera: Drosophilidae). *Indian Journal of Entomology*, 906–909. <https://doi.org/10.55446/IJE.2025.3330> (Online first 13.10.2025 (ISSN 0367-8288 for print and ISSN 0974-8172 for online).
4. Rawat, D., Pradhan, S., Sati, P.C., Khali, S., Kanita & **Fartyal, R. S.** (2025). A review of Drosophilids (Drosophilidae: Diptera) biodiversity in India: Insights from the Northern and Western-Southern regions. *Environment Conservation Journal*. Doi: <https://doi.org/10.36953/ECJ.31873039> ISSN: 2278-5124 (Online): ISSN: 0972-3099 (Print), (Scopus) 20 May 2025 (Online first)
5. Kanita, **Fartyal, R. S.**, Rawat, D., & Khali, S. (2025). Altitudinal influence on diversity and population flux of Drosophilids: Lesser Himalayan region, Garhwal. *Environment Conservation Journal*. Vol. 26 (1): pp 100-107. <https://doi.org/10.36953/ECJ.29432978> ISSN: 2278-5124 (Online): ISSN: 0972-3099 (Print), (Scopus) 05 Feb. 2025
6. Khali, S., Topal, P., Dubey K., Rawat, D., & **Fartyal, R. S.** (2025). Diversity and distribution of drosophilids (Diptera: Drosophilidae) in the Mandakini Valley of Western Himalaya, Uttarakhand, India: an altitudinal and seasonal study. *Biodiversity*, Vol.26(1), pp. 89-99 <https://doi.org/10.1080/14888386.2025.2450071> (ISSN of 0960-3115 (Print) and 1572-9710 (Electronic), and a 2023 Impact Factor of 2.1) Taylor & Francis, online: 27 Jan. 2025
7. Kumar, K., **Fartyal, R. S.**, Kanwal, K., Khanduri, S., & Topal, P. (2024). Diversity and flower-visiting frequency of insect pollinators associated with mustard blooms (*Brassica campestris*) in Kullu Valley, Himachal Pradesh. *Environment Conservation Journal*, 25(4), 1120–1126. (Scopus) (<https://doi.org/10.36953/ECJ.29882946>), ISSN: 2278-5124 (Online): ISSN: 0972-3099 (Print), 15 Nov. 2024
8. Kumar, K., Kanwal, K.S., **Fartyal, R.S.** and Pandey, A., Diversity and flower visiting patterns of insect pollinators in Malta (*Citrus sinensis*) Orchards of Kumaun, Western Himalaya, India. *Journal of Non-Timber Forest Products*, 31(3), pp.210-218. <https://doi.org/10.54207/bsmps2000-2024-7K5IKM> ISSN (Print) 0971-9415, 30 October 2024
9. Kumar, K., Kanwal, K.S., Nath, P., **Fartyal, R.S.** Assessment of Diversity and Flower Visiting Frequency of the Insect Pollinators Associated with the Lemon (*Citrus lemon*) Flowers in the Kullu Valley, Himachal Pradesh. *Journal of Environment and Bio-Sciences* Vol. 37(1), pp 5-9. Publisher *Connect Journal* (<https://doi.org/10.59467/JEBS.2023.37.5>); ISSN 0973-6913/ e-ISSN 0976-3384; 30 Jun 2023.
10. Sarah H. Luke, Helen E. Roy, Chris D. Thomas, Luke A. N. Tilley, Simon Ward, Allan Watt, Manuela Carnaghi, Coline C. Jaworski, Maximillian P. T. G. Tercel, Charlie Woodrow, Susmita Aown, Jennifer A. Banfield-Zanin, Sarah L. Barnsley, Iris Berger, Mark J. F. Brown, James C. Bull, Heather Campbell, Ruth A. B. Carter, Magda Charalambous, Lorna J. Cole, Martin J. Ebejer, Rachel A. Farrow, **Rajendra S. Fartyal**, Miriam Grace, Fiona Highet, Jane K. Hill, Amelia S. C. Hood, Eleanor S. Kent, Frank-Thorsten Krell, Simon R. Leather, Daniel J. Leybourne, Nick A. Littlewood, Ashley Lyons, Graham Matthews, Louise Mc Namara, Rosa Menéndez, Peter Merrett, Sajidha Mohammed, Archie K. Murchie, Michael Noble, Maria-Rosa Paiva, Michael J. Pannell, Chooi-Khim Phon, Gordon Port, Charlotte Powell, Stewart Rosell, Francisca Sconce, Chris R. Shortall, Eleanor M. Slade, Jamie P. Sutherland, Jamie C. Weir, Christopher D. Williams, Natalia B. Zielonka, Lynn V. Dicks. Grand challenges in entomology: Priorities for action in the coming decades. *Insect Conservation and Diversity*. ISSN : 1752-4598 Publisher Wiley <https://doi.org/10.1111/icad.12637> Vol. 16:2 pp. 173-189. 20.03.2023. **Impact factor: 4.266. Scopus.** [Cited as: Luke, S.H., Roy, H.E., Thomas, C.D., Tilley, L.A.N., Ward, S., Watt, A. et al. (2023) Grand challenges in entomology: Priorities

for action in the coming decades. *Insect Conservation and Diversity*, 16(2), 173–189. Available from: <https://doi.org/10.1111/icad.12637>

11. **Fartyal, Rajendra Singh**, Pragma Topal, Sonali Khali, Kishor Kumar, Kanita, Durga Rawat, and A.K. Singh. A tribute to the five decades of work done in Drosophilidae taxonomy under the guidance of Late Prof. J.P. Gupta in India. *Drosophila Information Service* (Norman Oklahoma, U.S.A.) Vol. **105**: pp 101-103. **2022**. (International, Indexed, Non reviewed, ISSN 0070-7333).
12. Khali Sonali, Pragma Topal, and **Rajendra Singh Fartyal**. Impact of elevation on the distributional pattern of Drosophilid diversity (Drosophilidae: Diptera) from Mandakini Valley, Uttarakhand. *Environment and Ecology* **40 (3C)** pp1751-1756, ISSN 0970-0420, 26 August 2022. Link: <https://environmentandecology.com/wp-content/uploads/2024/07/MS22-1.pdf>
13. KHAN, M. Z., BHARDWAJ, A., KHALI, S., SATI, P. C., TODA, M. J., & **FARTYAL, R. S.** Morphological comparison between a pair of wing-pigmented and non-pigmented sibling species of the genus *Hirtodrosophila* (Diptera: Drosophilidae), with description of a new species from Western Himalaya. *Journal of Insect Biodiversity*, **34(2)**, 45–56. <https://doi.org/10.12976/jib/2022.34.2.4> (Online: 2137-7612 Print: 2538-1318), Impact Score **0.46**, **30 September 2022**.
14. Khali, S., Khan, M.Z., Asha, K., Topal, P. and **Fartyal, R.S.** Biodiversity and molecular characterization of Drosophilids (Drosophilidae: Diptera) from Indian Himalayan region. In *Springer Journals-Proceedings of the Zoological Society, Kolkata*, (Proc. Zool. Soc.) Published online 18 August 2022, Doi: <https://doi.org/10.1007/s12595-022-00444-3> Vol. **75 (3)** pp 269-282, E-ISSN 0974-6919; P-ISSN 0373-5893, 18 August 2022.
15. Topal Pragma, **Fartyal, R .S.**, and Khali Sonali. Exploring the Pest Behaviour of Drosophilids on basis of their Presence in fruit belt region of Uttarakhand along with observation of their ovipositor. *Journal of Mountain Research*, Vol. 17 (1) pages 83-91. P-ISSN: 0974-3030, E-ISSN: 2582-5011, DOI: <https://doi.org/10.51220/jmr.v17i1.11> June 2022
16. **Fartyal, R .S.**, Pragma Topal and Kishor Kumar. Status of derailing taxonomy and list of Indian taxonomists working on various taxa of Phylum Arthropoda. *The Journal of Scientific Research*, Vol. 66 (3) pages 121-150. ISSN NO. 0447-9483 DOI: <http://doi.org/10.37398/JSR.2022.660317> April 2022.
17. Kumar kishor, Pashupati Nath and **R. S. Fartyal**. Population Ecology of the Dipteran Fauna of the Nanda Devi Biosphere Reserve, Western Himalaya, India. *Journal of Environment and Bio-Sciences (J.Env.Bio-Sci.)*, (under Connect Journal) Volume **35 (2)** Pages no. 115-125, ISSN: **0973-6913/e-ISSN: 0976-3384**. <https://connectjournals.com/pages/articledetails/toc034845> December 2021.
18. Sonali Khali, Mohd Zahier Khan, Akariti Sharma, Pragma Topal, **Rajendra Singh Fartyal**, A study on food preference of some species of *Drosophila* (Diptera: Drosophilidae) in natural and artificial conditions. *International Journal of Entomology Research*, Volume **5; Issue 4**; Page No. 07-10, ISSN: **2455-4758**; <http://www.entomologyjournals.com/archives/2020/vol5/issue4/5-3-39>; 27 June 2020.
19. Toda Masanori J., Hans Banziger, Pradeep C. Sati, **Rajendra S. Fartyal**, Awit Suwito & Toru Katoh. Taxonomy and evolution of asymmetric male genitalia in the subgenus *Ashima* Chen (Diptera: Drosophilidae: *Phortica* Schiner), with descriptions of seven new species. *Zootaxa*, 4789 (1) : 1-54, <https://doi.org/10.11646/zootaxa.4789.1.1> ISSN 1175-5326 (p), 1175-5334 (o) **IF 1.091**, 8 June 2020

Books Paper Published in Edited Book chapter:

1. **Rajendra Singh Fartyal**, 2025 Modern Parasitology: Unmasking Parasites Through A Book Review. “*Prajwalit Deepshikh Prof. Neelima Gupta*”(Edited book by Dr. Laxmi Pandey), Anugya Books New Delhi (ISBN no. 978-93-48214-52-2) page no. 397-402. (10.10.2024).
2. आर.एस. फर्त्याल, शिप्रा खंडूरी, प्रज्ञा तोपाल एवं किशोर कुमार 2024. “फलों की गुणवत्ता और कीट नियंत्रण को संतुलित करना: हिमालयी बागवानी के लिए सतत अभ्यास” ‘*भारतीय हिमालयी क्षेत्र में पर्यावरणीय मुद्दे, चुनौतियाँ और समाधान*’ (Edited book by सिंह, रा.कु., शाशनी, स., कुमार, कि., त्रिपाठी, म., अग्निहोत्री, व., चन्द, के. एवं लता, रे.) जी. बी. पंत राष्ट्रीय हिमालयी पर्यावरण संस्थान, (ISBN no. 978-93-341-7903-3) pages 1 से 110 (30.07.2024).
3. **Rajendra Singh Fartyal**, Pragma Topal, Pradeep Chandra Sati and Kishor Kumar March 2023. Preliminary Study of Drosophilids (Diptera, Drosophilidae) and their Host Plant Preference in the Subtropical and Temperate Forest of Central Himalayas. “*Biodiversity, Environmental and Ecosystem Services*”(Edited book by Dr. Manoj Kumar Arya), DPH Discovery Publishing House India New Delhi (ISBN no. 978-81-959169-3-1) Vol. I, page no. 156-167.
4. A. Bhardwaj, Mohd. Zahier Khan, Kishor Kumar² & **R.S. Fartyal** March 2022. Diversity of drosophilids and their host plant preference family Drosophilidae: Diptera: Insecta) from North India “*Environmental Management*”(Edited book by Dr. Pushpendra Sharma & Dr. V. K. Tyagi), Dhani Publishing House Haridwar (ISBN no978-81-952377-8-4) Vol. I, page no. 1-6
5. **Fartyal, R. S.** March 2022. Identification of Drosophilids (*Drosophila*, fruit fly) species based on their morphological characteristics. “*Environmental Management*”(Edited book by Dr. Pushpendra Sharma & Dr. V. K. Tyagi), Dhani Publishing House Haridwar (ISBN no978-81-952377-8-4) Vol. I, Page no. 46-55.
6. Pragma Topal, Divita Garg and **Rajendra S. Fartyal**. March 28th 2021. Fruit Flies (*Drosophila spp.*)

Collection, Handling, and Maintenance: Field to Laboratory. In Open Access Book: "*The Wonders of Diptera - Characteristics, Diversity, and Significance for the World's Ecosystems*," (book edited by Dr. Farzana Khan Perveen), book chapter 3, page no. 27-40. Online published by IntechOpen Limited, London. DOI: <http://dx.doi.org/10.5772/intechopen.97014> (ISBN 978-1-83968-883-6). Available from: <https://www.intechopen.com/chapters/75974>.

Total Number of Research Publications:

51+8=57

Collaborations (National/International):

- Emeritus Prof. Masanori J. Toda, Hokkaido University Museum, Sapporo, JAPAN.
- Dr. Toru KATOH, Division of Biodiversity, Department of Biological Sciences, Faculty of Science, Hokkaido University, North 10 West 8, Kita-ku, Sapporo, Hokkaido 060-0810, JAPAN
- Dr. Subhash Rajpurohit, Room107, BLS Building, Biological and Life Sciences, School of Arts and Sciences, Ahmedabad University, Ahmedabad, Gujarat 380009, INDIA

Research achievements:

- **38 species new to science and 18 species new records first time from India – total 56** new drosophilids species described/undescribed from Uttarakhand, West Bengal, India (some unpublished data), details as below:

08 species new to science and 08 species new recorded first time from India - RSF; 15 species new to science & 07 species new recorded first time from India – PCS;

07 species new to science & 03 species new recorded first time from India – Asha;

08 species new to science & 00 species new recorded first time from India – MZK

Total new = 56 new drosophilids

- We have five sequences for submissions to GenBank in NCBI with accession no. KF601930, KF601931, KF601932, KF601933, KF601934 of four different *Drosophila busckii*, *Drosophila immigrans*, *Drosophila melanogaster*, *Drosophila repleta* and *Zaprionus indianus*, Garhwal strains (India), respectively, Cytochrome oxidase subunit II (COII) gene, partial cds; mitochondrial (10- SEP-2013).
- We assessed genetic variations in three mitochondrial genes viz., 16S rRNA, cytochrome c oxidase subunit I and II (COI, COII) in 26 drosophilid species collected along altitudinal transect from 550m to 2700m AMSL. Overall, 543 sequences were generated 82 for 16S rRNA, 238 for COI, 223 for COII with 21, 47 and 45 haplotypes for 16S rRNA, COI and COII genes respectively (03-Feb-2015).

GenBank accession numbers for drosophilids nucleotide sequences:

file 16S: KP730750 - KP730831 = 82

file COI: KP730832 - KP731069 = 238

file COII: KP731070 - KP731292 = 223