

**CURRENT POSITION**

Professor of Botany

Institute of Botany

University of the Punjab, Lahore, Pakistan.

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Total Impact Factor = **125.757**

**ACADEMIC RECORD**

**2009 - Doctor of Philosophy (Ph. D) – Botany (Mycology)**

Department of Botany, University of the Punjab,  
Lahore, Pakistan.

**2001-2003- M. Sc. Botany**

Department of Botany, University of the Punjab,  
Lahore, Pakistan.

**2006-B.Ed.**

Allama Iqbal Open University, Islamabad, Pakistan

**1999-2001 - B. Sc. - Biology**

University of the Punjab, Lahore. Pakistan.

**1997-1999 - F. Sc. - Pre-Medical**

Govt Girls College, Sargodha. Punjab, Pakistan.

**1997 – Matriculation- Science**

Govt Girls High School, Sargodha, Punjab, Pakistan.

**SERVICE RECORD**

- WORKING AS ASSOCIATE PROFESSOR (TENURED) IN INSTITUTE OF BOTANY, UNIVERSITY OF THE PUNJAB, LAHORE SINCE 03-09-2019
- WORKED AS ASSOCIATE PROFESSOR OF BOTANY (TENURED) IN CENTRE FOR UNDERGRADUATE STUDIES, UNIVERSITY OF THE PUNJAB, LAHORE FROM 16-05-2019 TO 02-09-2019
- WORKED AS ASSISTANT PROFESSOR (TTS) IN CENTRE FOR UNDERGRADUATE STUDIES, UNIVERSITY OF THE PUNJAB, LAHORE FROM 05-10-2009 TO 15-05-2019
- WORKED AS LECTURER (BS) IN CENTRE FOR UNDERGRADUATE STUDIES, UNIVERSITY OF THE PUNJAB, LAHORE FROM 18-02-2009 TO 05-10-2009
- WORKED AS VISITING LECTURER IN DEPARTMENT OF BOTANY FROM 1<sup>ST</sup> SEPTEMBER 2005 TO 18-02-2009

**AWARDS**

- Ranked at 7<sup>th</sup> position among faculty members of Punjab university as young productive scientist (under 40 years) in Biological Sciences by Pakistan Council for Science & Technology (For year 2017)
- Ranked at 2<sup>nd</sup> position among faculty members of Punjab university as young productive scientist (under 40 years) in Biological Sciences by Pakistan Council for Science & Technology (For year 2016)

- Performance based increment/Honorarium by Punjab University in 2013, 2015, 2016, 2017 & 2018
- HEC approved Ph.D Supervisor since 2012
- HEC Scholarship holder for Ph.D., under Indigenous Scholarship Programme 2005
- Got 3<sup>rd</sup> position in oral presentation entitled “New Rust Fungi on Noxious Weeds from Pakistan” in Third International Conference on Plant Pathology that was held on November 19-21, 2007 at the Department of Mycology and Plant Pathology.
- Got merit scholarships in Middle, Matric & F. Sc.

### **RESEARCH EXPERIENCE**

- Vast experience in isolation, characterization and identification of Rusts, Smuts, Powdery Mildews, downy mildews etc. on cereals as well as on other Plants in different geographical regions of Pakistan.
- Working experience in the Fungal Biology & Systematics Research lab with mushrooms/Ectomycorrhizae/lichens, their characterization morpho-anatomically and molecularly.
- Experience in working with herbarium specimens, their preservation, documentation and computerization of data.

### **Countries Visited**

**USA:** Texas (2017)

Puerto Rico (2018)

New York (2018)

**Turkey:** Istanbul (2015)

**Qatar:** Doha (2018)

### **Administrative Responsibilities**

- Coordinator BS Programme, Institute of Botany University of the Punjab, Lahore since February 2021
- Member, “Departmental Scholarship Committee” University of the Punjab, Lahore
- Member, “Departmental Tenure Review Committee of Botany” University of the Punjab, Lahore
- Member, “Departmental Tenure Review Committee of Botany” Institute of Pure & Applied Biology, Bahauddin Zakariya University, Multan
- Member, “Departmental Tenure Review Committee of Botany” GC Women university, Sialkot

- Member, Board of Studies, Department of Botany, Sadiq women university, Bahawalpur
- Member, Board of Faculty of Life Sciences, University of the Punjab, Lahore
- Member, Board of Studies, Institute of Botany
- Member, Departmental Doctoral Program Committee (DDPC), Institute of Botany
- Controller of Examinations, Institute of Botany, University of the Punjab, Lahore
- Member, Admission Committee, Institute of Botany, University of the Punjab, Lahore
- Incharge Event Organizing Committee, Institute of Botany, University of the Punjab, Lahore (2019-2021)
- Focal Person for QEC, Institute of Botany, University of the Punjab, Lahore
- Member, Institutional Examination Committee
- Focal Person SAR Committee, Institute of Botany, University of the Punjab, Lahore
- Member, Entry Test Committee for admission in MS/M.Phil/Ph. D
- Member, Purchase Committee, Institute of Botany
- Coordinator, Centre for Undergraduate Studies (2016 to August 2019)
- Incharge Purchase committee, Centre for Undergraduate Studies (2011 to August 2019)
- Incharge Discipline committee, Centre for Undergraduate Studies (2011 to August 2019)
- Incharge Security committee, Centre for Undergraduate Studies (2015 to August 2019)
- Member Examination committee, Centre for Undergraduate Studies (2010 to August 2019)
- Member Anti-Dengue Awareness committee, Centre for Undergraduate Studies, (2013 to August 2019)
- Served as Assistant Superintendent, Girls hostel No. 4 (2005 to 2010)

**RESEARCH THESES EVALUATION AS EXTERNAL EXAMINER:****Ph. D. Theses Evaluation**

1. Dr. Muhammad Fiaz (2013) Species diversity of Basidiomycetes of district Hazara, Department of Botany, Hazara university, Mansehra.
2. Dr. Muhammad Binyamin Khan (2021) Studies on diversity and distribution of gilled mushrooms of district Battagram, KP, Pakistan, Department of Botany, Hazara University Mansehra.

**M. Phil./ MS Theses Evaluation**

1. Maria Rashid (2014-16), Diversity of Mycoflora on Food stuff at different temperature, Lahore College for Women University, Lahore.
2. Amna Sadaf (2014-16), Assessment of Drinking water quality and Diversity of Micromycetes from District Lahore, Lahore College for Women University, Lahore.
3. Kamran Habib (2014-16) A study on Diversity of lichens of District Hunza, Gilgit-Baltistan, Department of Botany, Hazara University, Mansehra.
4. Aneela (2015-17) Additions to the Agaricoid Fungi of Himalayan Moist Temperate Forests, Pakistan using Morphoanatomic Characterization, Lahore College for Women University, Lahore.
5. Aneesa Ali (2015-17) Diversity of Micromycetes from Indoor Environment of Different Areas of Lahore, Lahore College for Women University, Lahore.
6. Shomaila Zafar (2019-20), AN OVERVIEW OF FLESHY BOLETOID BASIDIOMYCETES OF PAKISTAN, Department of Botany, Lahore College for Women University, Lahore.
7. Amna Nawaz (2019-20), Macromycetes associated with Himalayan Fir from Pakistan, Department of Botany, Lahore College for Women University,
8. Sumayya Bokhary (2019-21) (*Staphylococcus sciuri* SAT-17 induced physio-biochemical changes in wheat (*Triticum aestivum* L.) grown under salt and drought stress, Department of Botany, Government College University, Faisalabad.
9. Ayesha Tanveer (2019-21) Diversity analysis of crop pathogenic fungi from different areas of district Lahore, Department of Botany, Lahore College for Women University, Lahore.

10. Tayyaba Ilyas (2019-21) Inhibition potential of *Zingiber officinale* and *Azadirachta indica* Leaves against aflatoxins production by *Aspergillus* species in *Pennisetum glaucum* and *Triticum aestivum* during storage, Department of Botany, Lahore College for Women University, Lahore.
11. Aroma Azhar (2019-21) Diversity assessment of crop pathogenic fungi from different areas of Kasur and Vehari, Department of Botany, Lahore College for Women University, Lahore.
12. Aleena Iqbal (2019-21) Inhibition potential of *Punica granatum* L. peels and *Azadirachta indica* A. Leaves against aflatoxins production by *Aspergillus* species in *Oryza sativa* and *Zea mays* during storage, Department of Botany, Lahore College for Women University, Lahore.
13. Tasbiah Naz (2019-2021) Extraction and Characterization of Natural dyes from fungi towards Industrial applications, Lahore Garrison University.
14. Rabia Sattar (Sp 2019-2021) Antifungal and antibacterial activity of plant extract against phytopathogenic fungi, Lahore Garrison University.
15. Javeria Idrees (2020-2022) Identification of white fleshy fungi from Galyat, Pakistan, Department of Botany, Lahore College for Women University, Lahore.
16. Maryam Sana Rizvi (2020-2022) Investigation of Macromycetes from Himalayan Moist Temperate forests of Pakistan. Department of Botany, Lahore College for Women University, Lahore.
17. Jasia Arshad (2020-2022) Taxonomic studies of Basidiomycetes (Gilled and Wood Rotting fungi) of Khyber Pakhtunkhwa. Department of Botany, Lahore College for Women University, Lahore.
18. Azka Asghar (2020-2022) Phenotypic and molecular characterization of multidrug resistant genes in *Klebsiella* spp. isolated from paediatric patients, Lahore Garrison University.
19. Aqsa Abid (2020-2022) *Lepista* species mediated synthesis of silver nanoparticles and their antifungal potential. Department of Botany, Lahore College for Women University, Lahore.

20. Rimsha Akmal (2020-2022) Diversity analysis of Agaricales fungi (Basidiomycetes) from Jhelum district, Punjab, Pakistan. Department of Botany, Lahore College for Women University, Lahore.
21. Amina Sahar (2020-2022) Preliminary Mycochemical analysis of the indigenous fruiting Polypores from Gujrat, Punjab, Pakistan. Department of Botany, Lahore College for Women University, Lahore.
22. Marwa Majeed Bhutta (2021-2023) Allelopathic Impact of Kikar (*Acacia nilotica* L.) on the growth of wild weeds of Chickpea (*Cicer arietinum* L.). Department of Botany, Bank road campus, Univeristy of Education, Lahore.
23. Haleema Sadia (2021-2023) Evaluation of Mineral and Nutritional Contents of common Weed species from Punjab, Pakistan. Department of Botany, Bank road campus, Univeristy of Education, Lahore.

**BS/ M.Sc. Theses Evaluation**

24. Iqra Khan (2018-2022) Morphological and Molecular characterization of *Parthenium hysterophorus* L. and *Helianthus annuus* L., Govt. Science College, Wahdat road, Lahore, affiliated with University of the Punjab, Lahore.
25. Muhammad Ibrar Hassan (2018-2022) Morphological and Molecular characterization of *Solanum nigrum* L. and *Solanum lycopersicum* L., Govt. Science College, Wahdat road, Lahore, affiliated with University of the Punjab, Lahore.
26. Maria Inam Ullah Shahid (2017-21) To study the Effect of Foliar Application of Micronutrients (ZnSO<sub>4</sub> and CuSO<sub>4</sub>) on the growth and flowering of *Petunia hybrida* Vilm. Government Graduate college for Women, Gulberg, Lahore, affiliated with Lahore College for Women University, Lahore.
27. Ghazala Naseem (2017-21) Assessment of ground water quality of Gulberg area of city Lahore by Chemical methods. Government Graduate college for Women, Gulberg, Lahore, affiliated with Lahore College for Women University, Lahore.
28. Kashmala Shahzadi (2017-21) Development and Nutritional analysis of food from natural resources and to study their effect and activities on humans. Government Graduate college for Women, Gulberg, Lahore, affiliated with Lahore College for Women University, Lahore.

29. Afra Nawaz (2017-21) To study the effect of plant growth regulator on *Gazania Rigens*l. Government Graduate college for Women, Gulberg, Lahore, affiliated with Lahore College for Women University, Lahore.
30. Nimra Mehmood (2017-21) Assessment of ground water quality of National Park area of city Lahore by Chemical methods. Government Graduate college for Women, Gulberg, Lahore, affiliated with Lahore College for Women University, Lahore.
31. Ghulam Fatima (2016-20), EXAMINATION OF MICROMYCETES IN FRESH MILK AND DIFFERENT LIQUID MILK PACKS, Department of Botany, Lahore College for Women University, Lahore.
32. Sarwat Batool (2016-20), A report on Micromycetes from rice fields of district Narowal, Department of Botany, Lahore College for Women University, Lahore.
33. Kiran Shahzadi (2016-20), Isolation and Identification of fungi from agricultural soils of Shakargarh and Narowal, Department of Botany, Govt. Post Graduate College for Women Samanabad, Lahore, affiliated with Lahore College for Women University, Lahore
34. Misbah Naz (2016-20), Effect of salt stress and seed priming with salicylic acid on germination and growth of *Zea mays* L. cultivar u-sg-2002, Department of Botany, Govt. Post Graduate College for Women Samanabad, Lahore, affiliated with Lahore College for Women University, Lahore
35. Muryam Muneeb (2016-20), Comparative study of different composts on the growth of *Apium graveolens* L., Department of Botany, Govt. Post Graduate College for Women Samanabad, Lahore, affiliated with Lahore College for Women University, Lahore
36. Umme-Hani (2016-20), Ethnobotanical studies on Weeds growing in Wheat Crop fields at University of Punjab, Department of Botany, Govt. Post Graduate College for Women Samanabad, Lahore, affiliated with Lahore College for Women University, Lahore
37. Shaher Bano (2016-20), Effect of Salt Stress and Foliar application of Salicylic acid on growth of *Zea mays* L., Department of Botany, Govt. Post Graduate

College for Women Samanabad, Lahore, affiliated with Lahore College for Women University, Lahore

38. Ramsha Liaqat (2015-19), *Comparative effect of chemical fertilizer and ectomycorrhizal fungus on growth of Eucalyptus seedlings*, Lahore College for Women University, Lahore.
39. Tayyaba Ilyas (2015-19), *Mycoremediation potential of selected Micromycetes against effluents of pharmaceutical industry of Multan Road, Lahore*, Lahore College for Women University, Lahore.
40. Ayesha Farooq (2012-16), *Diversity analysis of Micromycetes from soils of selected sites of Lahore and Vehari*, Lahore College for Women University, Lahore.
41. Ayesha Haq (2012-16), *Biodegradation capability of selected Micromycetes against dyeing unit effluents of sapphire industry Raiwind Road Lahore*, College for Women University, Lahore.
42. Saima Badar (2012-16), *Use of filamentous fungi for the purification of Chemical unit effluents of Polypaper industry near Sheikhpura*, Lahore College for Women University, Lahore.
43. Ayesha Riaz (2012-16), *Comparative study on Mycoflora associated with seasonal fruits from Lahore*, Lahore College for Women University, Lahore.
44. Umm-ul-Khair (2012-16), Division of Science and Technology, University of Education, Township Campus, Lahore

#### **Reviewer of Scientific Journals**

No.	Title of Paper	Journal/IF	Volume/Year
01	New records of rust fungi on sedges (Cyperaceae) from Pakistan	Mycotaxon/0.709	117/2011
02	<i>Puccinia cortusae</i> (Basidiomycota, Uredinales) on <i>Cortusa botheri</i> (Primulaceae), new to Southern Asia (Fairy Meadows, Pakistan)	Mycotaxon/0.709	117/2011
03	Prevalence, Incidence and severity of root rot of groundnut in rain fed areas of Punjab, Pakistan	African Journal of Biotechnology	2011
04	Additions to the smut fungi of Pakistan.	Mycotaxon/0.821	121/2012

05	<i>Suillus flavidus</i> and its Ectomycorrhizae with <i>Pinus wallichiana</i> in Pakistan	Mycotaxon/0.821	121/2012
06	<i>Lepiota himalayensis</i> (Basidiomycota, Agaricales) a new species from Pakistan	Mycotaxon/0.821	121/2012
07	A preliminary checklist of the Boletales in Pakistan	Mycotaxon/0.821	121/2012
08	Species of <i>Puccinia</i> (Basidiomycota, Uredinales) new to Indian subcontinent (Northern Areas of Pakistan)	Mycotaxon/0.643	123/2013
09	<i>Sporisorium linderi</i> , a new record for Asia	Mycotaxon/0.643	123/2013
10	Additions to the smut fungi of Pakistan	Mycotaxon/0.643	123/2013
11	<i>Tylophilus</i> , a new species and a new record from Pakistan	Mycotaxon/0.705	128/2014
12	Removal of Sulfide ions from water using Rice Husk	Journal of Sulfur Chemistry	2014
13	<i>Leucoagaricus lahorensis</i> , a new species of L. Sect. <i>Rubrotincti</i>	Mycotaxon/0.610	130 (2)/2015
14	<i>Phaeocollybia pakistanica</i> sp. nov., the first representative of the genus from Pakistan	Mycotaxon/0.538	131 (4)/2016
15	<i>Urocystis narcissi</i> , a new record from Asia	Mycotaxon/0.538	132 (1)/2017
16	<i>Phylloporus brunneiceps</i> from Pakistan	Mycotaxon/0.538	132 (3)/2017
17	<i>Amanita pallidrosea</i> in Pakistan and its ectomycorrhizal association with <i>Quercus oblongata</i>	Mycotaxon/0.538	132 (4)/2017
18	<i>Inocybe shawarensis</i> sp. nov. in the Inosperma clade from Pakistan	Mycotaxon/0.538	132 (4)/2017
19	<i>Thelephora iqbalii</i> sp. nov. from the Himalayan Moist Temperate forests of Pakistan	Mycotaxon/0.538	132 (4)/2017
20	<i>Jahnoporus oreinus</i> , an interesting and rare fungus found in high-altitude old growth forests of Pakistan	Mycotaxon/0.538	135(4)/2020
21	Domestication of a magic therapeutical wine glass fungus ( <i>Podoscypha petalodes</i> ) from Pakistan.	Process Biochemistry/ 4.781	2022
22	<i>Candolleomyces asiaticus</i> sp. nov. (Psathyrellaceae, Agaricales), a novel species from Punjab, Pakistan	EUROPEAN JOURNAL OF TAXONOMY/1.398	2022
23	<i>Collybiopsis pakistanica</i> a new	Nordic Journal of	2022

	mushroom species (Omphalotaceae, Agaricales, Basidiomycota) from Margalla Hills, Pakistan and two new combinations	Botany/0.931	
24	Morphology and Phylogeny reveal one new species and one new record of <i>Russula</i> in subg. <i>Heterophyllidia</i> for Pakistani mycobiota	Nordic Journal of Botany/0.931	2022
25	Domestication of a magic therapeutical wine glass fungus ( <i>Podoscypha petalodes</i> ) from Pakistan	Heliyon/3.776	2023
26	<i>Amanita punjabensis</i> , a new species of <i>Amanita</i> sect. <i>Lepidella</i> from Pakistan	Nordic Journal of Botany/0.931	2023
27	Identification and Taxonomic position of a new <i>Pseudoomphalina</i> species from Pakistan based on light, scanning electron microscopy and molecular analyses	Microscopy Research and Technique/2.893	2023

**Research Projects:**

- **From University of Punjab**

<b>Project Title</b>	<b>Duration</b>	<b>Total Amount Of Grant</b>	<b>Funding Agency</b>
<b>i) Characterization and Illustration of Rust fungi on members of Poaceae from Lahore District. (As Principal Investigator)</b>	2009-10 01 Year (completed)	125,000/-	University of the Punjab, Lahore
<b>ii) A Taxonomic survey of Rust fungi of Neelum valley, Azad Jammu &amp; Kashmir (AJ &amp; K), Pakistan. (As Principal Investigator)</b>	2010-11 01Year (Completed)	150,000/-	University of the Punjab, Lahore
<b>iii) Additions to the Poaceous and Cyperaceous rust flora of Pakistan (As Principal Investigator)</b>	2011-12 01 Year (completed)	150,000/-	University of the Punjab, Lahore
<b>iv) Taxonomic study of Rust fungi of Deosai Plains, Northern areas of Pakistan (As Principal Investigator)</b>	2012-13 01 Year (completed)	150,000/-	University of the Punjab, Lahore

v) Taxonomic study of some Basidiomycetous fungi of Malakand District, KPK, Pakistan <b>(As Principal Investigator)</b>	2013-14 01 Year (completed)	150,000/-	University of the Punjab, Lahore
vi) Taxonomic study of Rust fungi of Torgar (Kala Dhaka) District, KP, Pakistan <b>(As Principal Investigator)</b>	2014-15 01 Year (completed)	150,000/-	University of the Punjab, Lahore
vii) Taxonomic studies of Powdery Mildews (Erysiphales) on wild Plants of Pakistan <b>(As Principal Investigator)</b>	2015-16 01 Year (completed)	150,000/-	University of the Punjab, Lahore
viii) A study of Biotrophic parasites (Uredinales & Erysiphales) from Hazara Division, KPK, Pakistan <b>(As Principal Investigator)</b>	2017-18 01 Year (completed)	150,000/-	University of the Punjab, Lahore
ix) SYSTEMATIC STUDY OF SOME FUNGAL PATHOGENS ON WILD PLANTS OF KHYBER PAKHTUNKHWA, PAKISTAN <b>(As Principal Investigator)</b>	2019-20 01 Year (completed)	200,000/-	University of the Punjab, Lahore
x) Taxonomic and Phylogenetic Diversity of Powdery Mildew fungi in District Abbottabad, KP, Pakistan <b>(As Principal Investigator)</b>	2020-21 01 Year (completed)	200,000/-	University of the Punjab, Lahore
xi) A TAXONOMIC AND PHYLOGENETIC STUDY ON LICHENS OF SUDHAN GALI, DISTRICT BAGH, AZAD JAMMU & KASHMIR, PAKISTAN <b>(As Principal Investigator)</b>	2021-2022 (completed)	250,000/-	University of the Punjab, Lahore
xii) Phylogeny and Management of some Fungal Plant Pathogens using Mycogenic Silver Nanoparticles <b>(As Principal Investigator)</b>	2022-2023 (completed)	250,000/-	University of the Punjab, Lahore

• **From external sources (other than University of the Punjab)**

<b>Project Title</b>	<b>Duration</b>	<b>Total Amount Of Grant</b>	<b>Funding Agency</b>
I) Molecular and phylogenetic diversity of the rust fungi of Punjab and Khyber Pakhtunkhwa, Pakistan with emphasis on pathogens of agricultural crops and potential biological control agents for weeds <b>(As Principal Investigator)</b>	(2018-2021) (completed)	4.68M	Higher Education Commission of Pakistan (HEC)

**Membership of Scientific Societies:**

- Life Member of “Pakistan Botanical Society”
- Mycological Society of America
- Botanical Society of America
- American Phytopathological Society
- Botanical society of Bangladesh

**Participation as Jury:**

- Participated as judge in Punjab Science Fair 2014-2015, 27th-29th October 2014
- Participated as judge in Punjab Science Fair, 5th November 2015

**SEMINARS/WORKSHOPS/CONFERENCES****Organized/Chair & Co-Chair of Conferences**

- Member of Organizing committee for 8th International and 17th National Conference on “Advances in Plant Science in the Era of Climate Change” organized by Pakistan Botanical Society from October 26-28, 2022 at the University of the Punjab and GC University Lahore, Pakistan.
- Chair of Technical Session, Mycology and Plant Pathology, at 8th International and 17th National Conference on “Advances in Plant Science in the Era of Climate Change” organized by Pakistan Botanical Society from October 26-28, 2022 at the University of the Punjab and GC University Lahore, Pakistan.
- Member of Organizing committee for International Conference of Punjab University (ICPU 2019), RECENT INNOVATIONS IN MOLECULAR SCIENCES, from November 06-08, 2019
- Member of Organizing committee to arrange a talk by Dr. Thomas Hesse, Deputy Secretary General, Alexander von Humboldt Foundation Germany on 27-03-2019 in Center for Undergraduate Studies.

- Conducted “Two Days Interactive Training Workshop on New Trends in Protein Analysis” from April 24<sup>th</sup> - 25<sup>th</sup>, 2019 in Center for Undergraduate Studies.
- Co-Chair of Technical Session XXIX (Trends in Mycological Research), at 7<sup>th</sup> International and 16<sup>th</sup> National conference on “Plant Resources: Current Trends, Challenges and Solutions” organized by Pakistan Botanical Society at Islamia College Peshawar and University of Peshawar, **Pakistan** from March 23-26<sup>th</sup>, 2018
- Co-Chair of Technical Session, Mycology and Plant Pathology, at 2<sup>nd</sup> International conference on Plant Sciences (ICPS-2018) organized by Department of Botany GC University, Lahore, **Pakistan** from December 5-7<sup>th</sup>, 2018.
- CMAPS 2017, “Conventional and Modern Approaches in Plant Sciences (CMAPS-17)” 1<sup>ST</sup> international conference organized by Department of Botany, University of the Punjab, Lahore, Pakistan, from November 28-29, 2017. ORGANIZING COMMITTEE (Member of Reception/Refreshment/Hospitality committee, Printing/Press committee, Accommodation/Transportation committee, Tour Committee, Incharge Pre-conference Workshop, Incharge Technical Session-I)
- Conducted Workshop on “Use of Molecular Techniques for Naming Fungi” organized by Department of Botany, University of the Punjab, Lahore on 27 November 2017

**ATTENDED**

1. Participated in 1<sup>st</sup> International conference on Sustainable Development Goals organized by Lahore College for Women University, Lahore from March 30-31, 2022.
2. A workshop on ‘Mushrooms growing secrets & Entrepreneurship’ organized by Botany department in collaboration with ORIC, Kinnaird College for Women, on 14<sup>th</sup> March, 2022.
3. Participated in 9<sup>th</sup> International conference on Research in Education (ICORE 2021) organized by Institute of Education & Research, University of the Punjab, Lahore from November 16-18, 2021.

4. Training sessions for the HODs and their faculty on 'Course Development' organized by Quality Enhancement Cell of the University of the Punjab, Lahore, Pakistan from February 3<sup>rd</sup> to 4<sup>th</sup>, 2021.
5. Training sessions for the HODs and their faculty on 'Citation / Referencing styles', organized by Quality Enhancement Cell of the University of the Punjab, Lahore, Pakistan from February 11<sup>th</sup> to 12<sup>th</sup>, 2021.
6. Training sessions for the HODs and their faculty on 'Question Papers/ Tests Development and Marking', organized by Quality Enhancement Cell of the University of the Punjab, Lahore, Pakistan from February 18<sup>th</sup> to 19<sup>th</sup> & 26<sup>th</sup>, 2021.
7. First INTERNATIONAL SYMPOSIUM ON "CURRENT TRENDS AND FUTURE PERSPECTIVES IN BOTANICAL RESEARCH" organized by Department of Botany, University of Okara, Okara, on 10<sup>th</sup> November, 2020.
8. International conference "Smart Plantation: An ultimate solution to climate change" organized by Department of Botany, Lahore College for Women University (LCWU), from 2<sup>nd</sup> to 4<sup>th</sup> March, 2020.
9. Participated in International Seminar entitled "Extraction Methods for Commercialization of Herbal Products", organized by Department of Botany, GC University, Lahore on 29<sup>th</sup> January, 2019.
10. Three Day Workshop on Master Trainers "PhD Supervisors Capacity Building Program" held at HEC Regional Centre, Lahore, organized by Higher Education Commission, Pakistan from 31<sup>st</sup> December, 2018 to 2<sup>nd</sup> January, 2019.
11. 2<sup>nd</sup> International Conference on "Conservation of Medicinal and Aromatic plants for Improving the Livelihood of Mountain communities through Industrial Linkages" organized by Centre for Plant Sciences & Biodiversity (CPS & B), University of Swat in Collaboration with Higher Education Commission (HEC), from 3<sup>rd</sup> to 5<sup>th</sup> September, 2018.
12. HEC'S 8<sup>th</sup> National Conference on "Biodiversity Conservation in Pakistan: Challenges and Solutions" at Baragali Summer Campus organized by Centre of Plant Biodiversity and Botanical Garden, University of Peshawar, from 8<sup>th</sup> to 10<sup>th</sup> July, 2018.

- 13.** Third International Conference on Biosciences (ICBS-2018) at Government College University, Lahore, organized by Biological Society of Pakistan, from 9<sup>th</sup> to 11<sup>th</sup> May, 2018.
- 14.** Third International symposium on “Conservation issues of Edible wild resources of Hindukush Himalayas” at Baragali Summer Campus organized by Department of Botany, Islamia College Peshawar and University of Peshawar, from 21<sup>st</sup> to 24<sup>th</sup> July, 2017.
- 15.** HEC 7<sup>th</sup> National Conference on “Biodiversity Conservation, Livelihood and Sustainable Development” at Baragali Summer Campus organized by Centre of Plant Biodiversity & Botanical Garden, University of Peshawar, from 10<sup>th</sup> to 12<sup>th</sup> July, 2017
- 16.** Two-Day training Workshop on patent filing, introduction to intellectual property system of Pakistan at auditorium of Institute of Chemistry, Punjab University organized by Office of Research, Innovation and Commercialization, PU on 17-18 May 2017.
- 17.** One day Symposium on Awareness on HIV/AIDS on March 30, 2017 organized by Punjab AIDS control Programme (PACP) and Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.
- 18.** Participated in 5<sup>th</sup> Invention to Innovation Summit “The Innovation Expo to Buy and Sell Technology” from March 2-3, 2016 at University of the Punjab, Lahore.
- 19.** National workshop on Career Development on April 21, 2016 organized by National Academy of Young Scientists (NAYS) in Collaboration with Environmental Society of Pakistan at Institute of Agricultural Sciences, University of the Punjab, Lahore.
- 20.** “World Quality Day” on April 05, 2016 organized by University of the Punjab, Lahore and Virtual University of Pakistan.
- 21.** Attended International conference on “Significance of Potash use in Pakistani Agriculture” from November 24-25, 2016 at Institute of Agricultural Sciences, University of the Punjab, Lahore.

22. Participated in 4<sup>th</sup> International conference on Research in Education (ICORE 2016) organized by Institute of Education & Research, University of the Punjab, Lahore from November 23-25, 2016.
23. Participated in 5<sup>th</sup> International and 10<sup>th</sup> National conference of Pakistan Phytopathological society “Crop protection for Sustainable Agriculture” from November 23-25, 2015 at Institute of Agricultural Sciences, University of the Punjab, Lahore.
24. Attended the 4<sup>th</sup> Invention to Innovation Summit 2015 that held on March 4-5, 2015 at, University of the Punjab, Lahore.
25. Participated and attended the International Conference on “Stress Biology and Biotechnology: Challenges and Managements” that held on May 21-23, 2014 in Institute of Agricultural Sciences, University of the Punjab, Lahore.
26. The 1<sup>st</sup> International Seminar on “Soil Health Reclamation Approaches” that held on June 11, 2014 organized by College of Earth & Environmental Sciences, University of the Punjab, Lahore.
27. Participated in the 3<sup>rd</sup> Invention to Innovation Summit 2014 and Exhibition on “Technologies having potential for Commercialization” that held on March 19-20, 2014 at, University of the Punjab, Lahore.
28. Participated as Judge in Punjab Science Fair 2014-15 that held from October 27-29, 2014 at Shaukat Khanum Memorial Cancer Hospital and Research Centre in collaboration with Intel Education Initiative and Pakistan Science Foundation.
29. Participated in Indigenous On-campus Training Program 2014 that held from December 8-12, 2014 at University of the Punjab in collaboration with Higher Education Commission of Pakistan.
30. Participated as a Demonstrator in the HEC Workshop on “Identification and Conservation of Micromycetes” held at the Department of Mycology and Plant Pathology, Punjab University Lahore, from Aug 23- 28, 2004, 2007.

### **Presented papers**

#### **Oral Presentation**

1. “First report of *Erysiphe prunastri* var. *prunastri* on Peach trees from Pakistan” 2<sup>nd</sup> International Conference on Recent Approaches in Plant Sciences (RAPS-2023), organized by the Department of Botany, Division of Science and Technology, University of Education, Lahore in collaboration with Biological Society of Pakistan (BSP), Pakistan from 4-5 May, 2023.
2. “Morphological and molecular characterization of *Uromyces* species from Khyber Pakhtunkhwa, Pakistan (ASPECC-2022-OP-41)” 8<sup>th</sup> International and 17<sup>th</sup> National Conference on “Advances in Plant Science in the Era of Climate Change” organized by Pakistan Botanical Society from October 26-28, 2022 at the University of the Punjab and GC University Lahore, Pakistan.
3. “Occurrence of *Erysiphe friesii* var. *dahurica* on Purple Buckthorn from Pakistan (ASPECC-2022-OP-44)” 8<sup>th</sup> International and 17<sup>th</sup> National Conference on “Advances in Plant Science in the Era of Climate Change” organized by Pakistan Botanical Society from October 26-28, 2022 at the University of the Punjab and GC University Lahore, Pakistan.
4. “*Lepiota metulispota*: An imperative source of some secondary metabolites, antibacterial and antioxidant agents” in 4<sup>th</sup> International Congress and 5<sup>th</sup> National Conference on Biotechnology of Medicinal Plants and Mushrooms (Hybrid) held in the Ramsar- Iran, from 18 & 19 October, 2022.
5. “First report of powdery mildew caused by *Erysiphe platani* on *Platanus orientalis* in Pakistan” in 3<sup>rd</sup> International Eurasian Mycology Congress that was held in Van Yüzüncü Yıl University - Türkiye, from 7<sup>th</sup> – 9<sup>th</sup> September 2022.
6. “A new species of genus *Bacidina* (Ramalinaceae, Ascomycota) from Pakistan” in 3<sup>rd</sup> International Eurasian Mycology Congress that was held in Van Yüzüncü Yıl University - Türkiye, from 7<sup>th</sup> – 9<sup>th</sup> September 2022.
7. ‘*Phakopsora ziziphi-vulgaris*, A New Report of Rust Fungi on Molecular Basis from Pakistan” 1<sup>st</sup> International Conference (Online) Recent Approaches in Plant Sciences (RAPS-2022) organized by Department of Botany, University of Education, Lahore, Pakistan, March 30-31, 2022
8. ‘First molecular report of *Tranzschelia discolor* as the Causal Agent of Rust on Peach in Pakistan” 1<sup>st</sup> International Conference (Online) Recent Approaches in Plant Sciences (RAPS-2022) organized by Department of Botany, University of Education, Lahore, Pakistan, March 30-31, 2022

9. 'First report of powdery mildew caused by *Erysiphe quercicola* on *Quercus baloot* in Pakistan' in 3rd International Conference on Emerging Trends in Earth and Environmental Sciences, ETEES 2021 from November 16-18, 2021.
10. *Erysiphe urticae*, a new record for Pakistan, in 2<sup>nd</sup> International conference on Plant Sciences (ICPS-2018) organized by Department of Botany GC University, Lahore, **Pakistan** from December 5-7<sup>th</sup>, 2018. Abstract No. 059-OR-ICPS2018, Published, P. 53.
11. A review of fungal pathosystems, their role in Biodiversity and Conservation, in 2<sup>nd</sup> International conference on Plant Sciences (ICPS-2018) organized by Department of Botany GC University, Lahore, **Pakistan** from December 5-7<sup>th</sup>, 2018. Abstract No. 006-OR-ICPS2018, Published, P. 33.
12. Diversity and Distribution of Plant pathogenic fungi in district Upper Dir, KP, Pakistan, in 7<sup>th</sup> International and 16<sup>th</sup> National conference on "Plant Resources: Current Trends, Challenges and Solutions" organized by Pakistan Botanical Society at Islamia College Peshawar and University of Peshawar, **Pakistan** from March 23-26<sup>th</sup>, 2018. Abstract No. TAXPB-13, Published, P. 308.
13. Taxonomy and Phylogeny of some *Uromyces* species from Pakistan, in 7<sup>th</sup> International and 16<sup>th</sup> National conference on "Plant Resources: Current Trends, Challenges and Solutions" organized by Pakistan Botanical Society at Islamia College Peshawar and University of Peshawar, **Pakistan** from March 23-26<sup>th</sup>, 2018. Abstract No. BPC-41, Published, P. 63.
14. *Psathyrella fusiforma* sp. nov. (*Psathyrellaceae*), new species from Pakistan, in Botany 2017 – "Conventional and Modern Approaches in Plant Sciences (CMAPS-17)" 1<sup>ST</sup> international conference organized by Department of Botany, University of the Punjab, Lahore, **Pakistan**, from November 28-29, 2017. Abstract No. CMAPS17-OR256, Published, P. 47.
15. GIS-Based predictive modeling of rust fungi in Himalayan Box plants in Pakistan, in Botany 2017 – "Conventional and Modern Approaches in Plant Sciences (CMAPS-17)" 1<sup>ST</sup> international conference organized by Department

of Botany, University of the Punjab, Lahore, **Pakistan**, from November 28-29, 2017. Abstract No. CMAPS17-OR256, Published, P. 47.

16. *First Report of white Rust caused by Albugo bliti on Achyranthus from Shawar valley (Swat), Pakistan*, in Botany 2017 – “Conventional and Modern Approaches in Plant Sciences (CMAPS-17)” 1<sup>ST</sup> international conference organized by Department of Botany, University of the Punjab, Lahore, **Pakistan**, from November 28-29, 2017. Abstract No. CMAPS17-OR147, Published, P. 43.
17. *GIS-Based Predictive Modeling of Pistachio rust: An emerging challenge to forests in Pakistan*, in 6<sup>th</sup> International and 15<sup>th</sup> National conference of Botany, organized by Pakistan Botanical Society at Sardar Bahadur Khan Women’s University, Quetta, **Pakistan** that held on May 9-11<sup>th</sup>, 2017. Abstract No. DTPS3-O-40, Published, P. 189.
18. *First report of Pistachio rust in Pakistan*, in 2016 Rust Symposium, “Rusts, An Evolving problem in a Shrinking World” organized by The American Phytopathological Society (APS) at Pensacola Beach, Florida, **USA** from March 7-9, 2016.
19. *Biodiversity of Uredinales in Khyber Pakhtunkhwa, Pakistan*, in 14th National and 5th International Conference of Botany “Climate change and Phytodiversity: Challenges and Opportunities” organized by Pakistan Botanical Society at University of Karachi, Karachi, **Pakistan** on 15-18 January 2016. Abstract No. MMP-O 46, Published, P. 70.
20. *Rust fungi of Himalayas of Pakistan, An Overview*, In 1<sup>st</sup> International Symposium on “The Himalayas of Pakistan, Resources and Conservation issues” organized by Department of Genetics, Hazara University, Mansehra and Higher Education Commission of **Pakistan**, that held on November 27-30, 2014. Abstract No. 63, Published, P. 67.
21. *An Overview of Ustilaginales in Himalayan Moist Temperate forests of Pakistan*, In 1<sup>st</sup> International Symposium on “The Himalayas of Pakistan, Resources and Conservation issues” organized by Department of Genetics, Hazara University, Mansehra and Higher Education Commission of

- Pakistan, that held on November 27-30, 2014. Abstract No. 4, Published, P. 08.
22. *Taxonomic Study of Puccinia of Malakand region*, In 1<sup>st</sup> International Symposium on “The Himalayas of Pakistan, Resources and Conservation issues” organized by Department of Genetics, Hazara University, Mansehra and Higher Education Commission of **Pakistan**, that held on November 27-30, 2014. Abstract No. 83, Published, P. 89.
23. *Diversity of Puccinia on Poaceae in Pakistan*, In International conference of Plant Sciences (ICPS) organized by Department of Botany, GC University, Lahore, **Pakistan**, on September 22-24, 2014. Abstract No. OR-182, Published, P. 29.
24. *New species and host records of Rust fungi (Uredinales) on Ferns (Pteridophytes) from Khyber Pakhtunkhwa, Pakistan*, In 4<sup>th</sup> International and 13<sup>th</sup> National conference of Botany, organized by Pakistan Botanical Society at Shaheed Benazir Bhutto University, Upper Dir, KP, **Pakistan** that held on August 27-30, 2014. Abstract No. 197, Published, P. 112.
25. *A taxonomic and phylogenetic study of Polyporales (Basidiomycota) of Malakand region, Khyber Pakhtunkhwa, Pakistan*, In 4<sup>th</sup> International and 13<sup>th</sup> National conference of Botany, organized by Pakistan Botanical Society at Shaheed Benazir Bhutto University, Upper Dir, KP, **Pakistan** that held on August 27-30, 2014. Abstract No. 20, Published, P. 12.
26. *NEW AND NOTEWORTHY RUST FUNGI FROM DEOSAI PLAINS, PAKISTAN*, in 4<sup>th</sup> International and 13<sup>th</sup> National conference of Botany, organized by Pakistan Botanical Society at Shaheed Benazir Bhutto University, Upper Dir, KP, **Pakistan** that held on August 27-30, 2014. Abstract No. 196, Published, P. 112.
27. *STUDY ON SPECIES DIVERSITY OF RUST FUNGI IN USHU VALLEY, PAKISTAN*, in 4<sup>th</sup> International and 13<sup>th</sup> National conference of Botany, organized by Pakistan Botanical Society at Shaheed Benazir Bhutto University, Upper Dir, KP, **Pakistan** that held on August 27-30, 2014. Abstract No. 207, Published, P. 117.

28. *Rust fungi of Himalayan Moist Temperate forests of Pakistan, Their diversity and distribution: An Overview*. In: 80<sup>th</sup> Annual meeting of Mycological Society of America 2012 held on 15-18<sup>th</sup> July, 2012 at the Yale University, New Haven, **USA**, Abstract Published, Inoculum, supplement to Mycologia, vol. 63(3): 7.
29. *Occurrence of Rust Fungi on Poaceous members of Lahore District*. In 2<sup>nd</sup> International Conference of Plant Scientists that held on February 22-24, 2011 at the Govt. College University, Lahore, **Pakistan**. Abstract (ABGPB-10) Published, P. 16.
30. In Third International Conference on Plant Pathology that held on November 19-21, 2007 at the Department of Mycology and Plant Pathology, University of the Punjab, Lahore, **Pakistan** and got 3<sup>rd</sup> position in oral presentation.

### **Poster Presentations**

1. 'Morphological and molecular characterization of *Puccinia abrupta* var. *partheniicola* on Parthenium weed (*Parthenium hysterophorus*) in Pakistan with its evaluation as potential biocontrol agent' in the 90<sup>th</sup> meeting of the Mycological Society of America 'Mycology in the Swamp' in Gainesville, Florida, USA, from July 10-13, 2022.
2. 'First report of powdery mildew caused by *Erysiphe platani* on oriental plane tree (*Platanus orientalis*) in Pakistan' in the 90<sup>th</sup> meeting of the Mycological Society of America 'Mycology in the Swamp' in Gainesville, Florida, USA, from July 10-13, 2022.
3. "First report of *Erysiphe aquilegiae* on *Clematis montana* from Pakistan" in The Mycological Society of America's First Virtual Meeting (MSA 2020): Mycology from the Cloud from 21-22 July, 2020
4. "Status of genus *Helvella* (Pezizomycetes, Ascomycota) in Pakistan" in The Mycological Society of America's First Virtual Meeting (MSA 2020): Mycology from the Cloud from 21-22 July, 2020
5. "First report of *Podosphaera pannosa* on *Rosa* species from Pakistan" in International Horticulture conference (IHC-2020) from 26-28 February, 2020 at Institute of Agricultural Sciences (IAGS), University of the Punjab, Lahore.
6. "Isolation and characterization of *Cercospora calotropidis* from the leaves of *Calotropis procera*" in International Horticulture conference (IHC-2020) from 26-28 February, 2020 at Institute of Agricultural Sciences (IAGS), University of the Punjab, Lahore.

7. "*Alternaria burnsii*, the causal agent of leaf blight on *Taraxacum officinale*" in International Conference of Punjab University (ICPU 2019) RECENT INNOVATIONS IN MOLECULAR SCIENCES from November 06-08, 2019. Abstract No. P-289, Published, P. 265-266.
8. "First report of *Erysiphe urticae* on *Urtica dioica* (stinging nettle) from Pakistan" in International Conference of Punjab University (ICPU 2019) RECENT INNOVATIONS IN MOLECULAR SCIENCES from November 06-08, 2019. Abstract No. P-293, Published, P. 268.
9. *Golovinomyces artemisiae*, a new record for Pakistan, in 2<sup>nd</sup> International conference on Plant Sciences (ICPS-2018) organized by Department of Botany GC University, Lahore, **Pakistan** from December 5-7<sup>th</sup>, 2018. Abstract No. 305-P-ICPS-2018, Published, P. 126.
10. Status of Rust fungi on Polygonaceae in Pakistan; Some new reports and an updated checklist of recorded species, in 11th International Mycological Congress 2018 – "Mycological Discoveries for a Better World" an international conference organized by the Mycological Society of America (MSA) and the International Mycological Association from July 15 - July 21, 2018 at San Juan, Puerto Rico, USA. Abstract No. 1.2-145, Published, P. 279.
11. Diversity and Distribution of order Pezizales (Ascomycetes) in Pakistan, in 11<sup>th</sup> International Mycological Congress 2018 – "Mycological Discoveries for a Better World" an international conference organized by the Mycological Society of America (MSA) and the International Mycological Association from July 15 - July 21, 2018 at San Juan, Puerto Rico, **USA**. Abstract No. 1.2-142, Published, P. 277.
12. New records of rust fungi (Pucciniales, Basidiomycota) from the Himalayan Forests of Pakistan, in 11<sup>th</sup> International Mycological Congress 2018 – "Mycological Discoveries for a Better World" an international conference organized by the Mycological Society of America (MSA) and the International Mycological Association from July 15 - July 21, 2018 at San Juan, Puerto Rico, **USA**. Abstract No. 1.2-146, Published, P. 279.
13. *Podoshiera aphanis*, A new record for Pakistan, in Botany 2017 – "Conventional and Modern Approaches in Plant Sciences (CMAPS-17)" 1<sup>ST</sup>

international conference organized by Department of Botany, University of the Punjab, Lahore, Pakistan, from November 28-29, 2017. Abstract No. CMAPS17-P144, Published, P. 142.

14. *Aecidium Jasminicola*, a new pathogen for *Jasminum* sp. in Pakistan? in Botany 2017 – “Botanical Crossroads” an international conference organized by Botanical Society of America from June 24 - June 28, 2017 at Fort Worth Omni Hotel, Fort Worth, Texas, **USA**. Abstract No. 311, Published, P. 135.
15. *Sphaerophragmium*, a new holomorph for *Uredo dalbergiae*? and a common pathogen of Shisham tree in Pakistan, in Botany 2017 – “Botanical Crossroads” an international conference organized by Botanical Society of America from June 24 - June 28, 2017 at Fort Worth Omni Hotel, Fort Worth, Texas, **USA**. Abstract No. 312, Published, P. 136.
16. *Addition to the Coprinoid Mushrooms of Pakistan*, in 14th National and 5th International Conference of Botany “Climate change and Phytodiversity: Challenges and Opportunities” organized by Pakistan Botanical Society at University of Karachi, Karachi on 15-18 January 2016. Abstract No. MMP-P 15, Published, P. 203.
17. *Diversity & distribution of Pakistan’s Rust fungi: An overview*, in 2016 Rust Symposium, “Rusts, An Evolving problem in a Shrinking World” organized by The American Phytopathological Society (APS) at Pensacola Beach, Florida, **USA** from March 7-9, 2016.
18. *First report of rust caused by Pucciniastrum guttatum from Pakistan*, in 2016 Rust Symposium, “Rusts, An Evolving problem in a Shrinking World” organized by The American Phytopathological Society (APS) at Pensacola Beach, Florida, **USA** from March 7-9, 2016.

19. *Geographical distribution and Host Range of genus Uromyces (Pucciniaceae, Uredinales) in Pakistan*, in INTERNATIONAL CONFERENCE ON CHEMICAL, AGRICULTURAL AND BIOLOGICAL SCIENCES 2015 ORGANIZED BY Emirates association of Chemical, Biological and Environmental Engineers, held at Istanbul, **Turkey**, from 4<sup>th</sup>-5<sup>th</sup> September, 2015.
20. *Some new reports of Rust fungi from Sharan (Kaghan valley), Pakistan*, In 4<sup>th</sup> International and 13<sup>th</sup> National conference of Botany, organized by Pakistan Botanical Society at Shaheed Benazir Bhutto University, Upper Dir, KP, **Pakistan** that held on August 27-30, 2014. Abstract No. 204, Published, P. 116.
21. *Three new anamorphic rust fungi on Rosa spp. from Pakistan*. In 2<sup>nd</sup> International Conference of Plant Scientists that held on February 22-24, 2011 at the Govt. College University, Lahore, **Pakistan**. Abstract (P-206) Published, P. 212.
22. *Genus Uromyces (Link) Unger (Basidiomycota, Pucciniales) from Leepa valley, Azad Jammu & Kashmir (AJ & K) Pakistan*. In: 2nd International conference of Plant Scientists and 11th national meeting of plant Scientists that held on February 22-24, 2011 at G.C. University Lahore **Pakistan**, Abstract (P-277) Published, P. 250.

### **Botanical Trips (areas explored For Botanical/Mycolological Purposes)**

- **Salt Range of Pakistan:** Sakesar Hills, Kalar kahar etc.
- **Khyber Pakhtunkhwa:** Murree hills, Khanspur–Ayubia, Thandiani, Nathia gali, Chhangla gali, Dunga gali, Kuza gali, Khera gali, Bara Gali, Sharan, Naran, Battakundi, Jalkhud (Kaghan Valley), Oghi forests, Shimla, Mansehra, Swat, Kalam, Ushu, Mankial, Hazara, Lawat, Kohat.
- **Azad Jammu & Kashmir:** Neelum Valley, Leepa valley, Jhelum valley, Bagh, Sudhan Gali, Ganga Choti, Lasdana, Pir Chinasi
- **Northern Areas of Pakistan:** Gilgit-Baltistan, Hunza, Chilas, Fairy Meadows, Nanga Parbat base camp, Bial Camp, Skardu, Deosai plains.

- **Punjab:** Changa Manga, Sakesar hills, Pubbi forests, Margalla hills, Lal Suhanra Park etc.

## **THESIS SUPERVISION**

### **PhD Thesis Supervision/Co-supervision**

1. **Shah Hussain (2016).** Species diversity of Basidiomycetes of district Malakand. (Completed)
2. **Aamna Ishaq (2017).** Taxonomic Diversity of some Rusts and Smuts of Khyber Pakhtunkhwa and Adjacent Hills of Pakistan. (Completed)
3. **Ayesha Anwar.** Molecular Characterization of selected Plant Pathogenic fungi of Malakand Division, Pakistan (Thesis submitted)
4. **Iram Fayyaz.** Multigene Phylogenic and Phenotypic study of selected Lichens from Jhelum Valley and its Adjacent Areas, AJ & K, Pakistan (Completed)
5. **Irsa Zafar.** A Phenotypic and phylogenic study on Powdery Mildews associated with selected plants of Azad Jammu & Kashmir (Completed)
6. **Muhammad Aijaz Ahmad.** Multigene phylogeny and phenotypic characterization of Rust fungi on the wild plants of Khyber Pakhtunkhwa, Pakistan (Thesis submitted)
7. **Urooj Ashraf.** A Phenotypic and phylogenic study on gilled fungi in Conifer Domination Forests of Hazara and Malakand Divisions, KP, Pakistan (in process)
8. **Saliha Afzal.** A Systematic and Molecular Phylogenetic study on Powdery Mildews Parasitizing selected plants of Khyber Pakhtunkhwa, Pakistan (Completed)
9. **Ayesha Bibi.** A Phylogenetic and Phenotypic Study of Some Macrofungi from Kundian Forest, Central Punjab, Pakistan (in process)
10. **Afshan Akbar.** Investigation of fungi causing powdery mildew diseases on economically important plants of Battagram District (in process)

### **M.Phil/MS Thesis Supervised/Co-Supervised**

1. **Saima Khanum (2015-2017), M.Phil. thesis,** Taxonomic Study of Powdery Mildew (Erysiphales) From Lower Tanawal, Distract Mansehra, Pakistan (completed)

2. **Saba Saleem (2015-2017), MS thesis**, Systematic study of Erysiphales (Powdery Mildews) of some parts of Himalayas, Pakistan (completed)
3. **Irsa Zafar (2016-2018), MS thesis**, Addition to Some pathogenic fungi on wild plants of Malakand & Gilgit, Pakistan (completed)
4. **Hafiza Umair Mujahid (2017-2019), MS thesis**, Isolation and Characterization of Some Phytopathogenic Fungi Form Angiospermic Plant of Abbottabad and Mansehra District Pakistan. (completed)
5. **Ramesha Kiran (2017-2019), MS thesis**, Isolation of fungi Colonizing Needles of Some Conifers from Different Regions of Pakistan (completed)
6. **Javeria Majeed (2017-2019), MS thesis**, Systematic Study of Powdery Mildew (Erysiphales) of Some Wild Plants of District Abbottabad, KP, Pakistan (completed)
7. **Nida Liaquat (2017-2019), MS thesis**, Studies on the Identification and Characterization of Some Ascomycetous Fungal Pathogens from Different regions of KP and Punjab. (completed)
8. **Tayyaba Khaliq (2017-2019), MS thesis**, Systematic Study of Rust fungi (Uredinales) on Some Wild Plants of District Abbottabad, Pakistan. (completed)
9. **Afshan Yasin (2017-2019), MPhil thesis**, Systematic study of Fungal Pathogens Isolated from Different Plants of Punjab and Khyber Pakhtunkhwa, Pakistan. (completed)
10. **Khadija Ashraf (2017-2019), MPhil thesis**, Identification and Characterization of Some Fungal Plant Pathogens in Lahore (completed)
11. **Maria Riaz (2018-2020), MS thesis**, A Systematic Study of some Biotrophic Fungal plant Pathogens of Khyber Pakhtunkhwa, Pakistan (completed)
12. **Shazma Seerat (2018-2020), MS thesis**, A Systematic Study of Erysiphalian fungi of District Abbottabad, KP, Pakistan (completed)
13. **Iffat Fiza (2018-2020), MS thesis**, Characterization of Some Phytopathogenic Fungi from Plants of Punjab and KP, Pakistan (completed).
14. **Mariam Malik (2019-2021), MPhil thesis (Replica)**, Some additions to the Lichen Biota of Naltar Valley, Gilgit Baltistan, Pakistan (completed).
15. **Iqra Khan (2019-2021), MPhil thesis (Replica)**, Systematics of some crustose lichens from Dasu, District Kohistan, Pakistan (completed).

16. **Ayesha Tariq (2019-2021), MPhil thesis** (Replica), Further Additions to the Lichen Flora of Lower Kohistan, KP, Pakistan (completed).
17. **Ramsha Liaqat (2019-2021), MS thesis** (Replica), Identification of fungi from senescing leaves of some wild plants of Lahore (completed).
18. **Maria Shafique (2019-2021), MS thesis** (Replica), Systematics and evaluation of biocontrol potential of Rust on *Parthenium hysterophorus* L. (completed).
19. **Shifa Tariq (2019-2021), MS thesis** (Replica), Characterization and identification of some lichens from Mastung, Balochistan, Pakistan (completed).
20. **Tasneem Ashraf (2019-2021), MS thesis** (Replica), Geographical Distribution of Fungal Plant Pathogens reported from Pakistan (completed).
21. **Shaila Anjum (2019-2021), MPhil thesis** (Regular), Systematics and biocontrol of Powdery Mildews on some plants of District Lahore (completed).
22. **Uswah Amber (2019-2021), MS thesis** (Regular), Isolation and identification of mycopathogens from some Vegetables grown at Research Farm, University of the Punjab, Lahore (completed).
23. **Fatima Iftikhar (2020-2022), MS thesis** (Replica), A Taxonomic and Phylogenetic Study on Some Lichens of Kaghan valley, KP, Pakistan (submitted).
24. **Maria Jabeen (2020-2022), MS thesis** (Replica), A Taxonomic and Phylogenetic study on some Lichens of Khanspur-Ayubia, District Abbottabad, KP, Pakistan (submitted).
25. **Wajiha Asif (2020-2022), MPhil thesis** (Regular), Morpho-anatomical and Phylogenetic characterization of some lichens of Gahkuch, Gilgit Baltistan, Pakistan (completed).
26. **M. Muntazir Mehdi (2020-2022), MPhil thesis** (Replica), Morpho-anatomical and molecular study of some Powdery Mildews (Erysiphales) from Gilgit Baltistan, Pakistan (completed).
27. **Sawera Imtiaz (2021-2023) MS thesis** (Regular), A Taxonomic Study on Some Lichens of Banjosa Lake, District Rawalakot, Azad Jammu & Kashmir (completed)
28. **Muhammada Jabeen (2021-2023) MS thesis** (Regular), A Morpho-anatomical and Phylogenetic Study on Some Powdery Mildew Fungi of Kaghan Valley, Khyber Pakhtunkhwa, Pakistan (completed)

29. **Ammara Khan (2021-2023) MS thesis (Replica)**, Molecular Phylogenetics, Culturability Evaluation and Cultivation Potential of Some Edible Mushrooms of Pakistan (completed)
30. **Kainat Bukhsh (2021-2023) MPhil thesis (Regular)**, A Morpho-anatomical and Phylogenetic Study on Some Macrofungi of Mianwali, Punjab, Pakistan (completed)
31. **Aania Ashfaq (2021-2023) MPhil thesis (Replica)**, Morpho-anatomical and Molecular Characterization of Some Lichens from Shogran, KPK, Pakistan (completed)

### **M.Sc. Thesis Supervised**

1. **Lubna Choudry (2013-2015)**, TAXONOMIC STUDIES OF SOME ASCOMYCETOUS FUNGAL PATHOGENS OF WILD PLANTS FROM PAKISTAN (completed)
2. **Annum Saqib (2014-2016)**, Taxonomic characterization of Biotrophic parasites (Uredinales & Erysiphales) of plants from Hazara Division, KPK, Pakistan (completed)
3. **Mamoona Latif (2016-2018)**, A taxonomic study of some pathogenic fungi from Thandiani forest, KP (completed)
4. **Muhammad Ameer Riaz (2017-2019)**, ASSESSMENT OF POST INFECTIOUS PHYSIOLOGICAL CHANGES IN *HELIANTHUS ANNUUS* L. DUE TO POWDERY MILDEW INFECTION (completed)
5. **Shahnaz Arif (2019-2021)**, A study on some gilled mushrooms of Khanspur, District Abbottabad, KP, Pakistan (completed).
6. **Sana (2019-2021)**, Biocontrol efficacy of nano-extracts of *Trichoderma* species against Charcoal rot disease in Sunflower (completed).
7. **Amat-ur-Rehman (2020-2022)** A Morpho-Anatomical and Phylogenetic Study on Some Macrofungi from District Gujrat, Punjab, Pakistan (submitted).
8. **Ayesha Mushtaq (2020-2022)** Morpho-Anatomical and Molecular characterization of Mushrooms from Western Himalayas, KP, Pakistan (submitted).
9. **Layiba Aslam (2020-2022)** A Taxonomic and Phylogenetic study on some Lichens of Keran Valley, AJ & K (submitted).

10. **Fatima Hashmi** (2020-2022) A Taxonomic study on some lichens of District Muzaffarabad, AJ & K (submitted).

### **BS Thesis Supervised**

1. **Syeda Zainab Aslam** (2013-2017) Isolation and Identification of Phytopathogenic fungi from the crops grown in the area of Punjab university, Lahore (completed)
2. **Maria Riaz** (2014-2017) Taxonomic study of plant pathogenic fungi of Ayubia National Park, KP. (completed)
3. **Rameen Munir** (2015-2018) Isolation and Characterization of Some Fungal Pathogens Associated with Different Plants of Swat District, KP, Pakistan. (completed)
4. **Muhammada Jabeen** (2017-2021) A study on some powdery mildews colonizing wild plants in Swat, KP, Pakistan (completed).
5. **Sehar Zulfiqar** (2017-2021) Culturability assessment and cultivation potential of an indigenous Oyster Mushroom from Punjab, Pakistan (completed).
6. **Minahil Tahir** (2018-2022) Morpho-anatomical and Molecular characterization of Biotrophic Pathogens Parasitizing Some Plants of Jhelum valley, Azad Jammu & Kashmir (completed).
7. **Arooma Saleem** (2018-2022) A Taxonomic study on Powdery mildews Parasitizing some plants of Shogran valley, KP, Pakistan (completed).
8. **Khadija Abraq** (2019-2023) Morpho-anatomical and Molecular Characterization of Rust Fungi on Some Plants of Jhelum Valley, Azad Jammu & Kashmir (completed).
9. **Aqsa Kanwal** (2019-2023) A Systematic Study on Some Powdery Mildews Parasitizing Wild Plants of Jalkhand (Kaghan Valley), Khyber Pakhtunkhwa (completed).
10. **Bint-ul-Huda** (2021-2023) Taxonomic Study on Mycopathogens Parasitizing Some Plants of Lahore, Punjab, Pakistan (completed).
11. **Sarah Ashfaq** (2021-2023) A Morpho-anatomical and Phylogenetic Study on Some Macrofungi of Kundian forest, Punjab, Pakistan (completed).

12. **Mariam Fatima** (2021-2023) Further Additions to the Lichen Flora of Jhelum valley, Azad Jammu & Kashmir (completed).

### **Book Chapter Authored**

Afshan, N.S. (2023). Recent Advancement in Fungal Biocontrol Agents, In: Rashad, Y.M., Baka, Z.A.M., Moussa, T.A.A. (eds) Plant Mycobiome. Springer, Cham.

[https://doi.org/10.1007/978-3-031-28307-9\\_8](https://doi.org/10.1007/978-3-031-28307-9_8)

### **Achievements**

#### **Taxa described New to Science**

No.	Taxon	Appeared in	Country
50	<i>Ustilago pseudosyntherismae</i> S. Ullah, <b>Afshan</b> & Aime	Mycological Progress (2024)	Germany
49	<i>Bonomyces pakistanensis</i> Ashraf, <b>Afshan</b> and Khalid	Nordic Journal of Botany (2024)	USA
48	<i>Erysiphe neelamensis</i> I. Zafar, <b>Afshan</b> & Khalid	Nordic Journal of Botany (2023)	USA
47	<i>Buellia kashmirensis</i> <b>Afshan</b> , Fayyaz, and Khalid	Microscopy Research and Technique (2023)	USA
46	<i>Erysiphe ahmadii</i> Riaz, <b>Afshan</b> , Afzal, Zafar & Khalid	Microscopy Research and Technique (2023)	USA
45	<i>Bacidina pakistanica</i> <b>Afshan</b> , Fayyaz & Khalid	Herzogia (2023)	USA
44	<i>Sarcogyne crispula</i> <b>Afshan</b> , Fayyaz & K. Knudsen	Mycological Progress (2023)	Germany
42	<i>Circinaria pakistanica</i> Fayyaz, M. S. Iqbal, <b>Afshan</b> & Khalid	Botanica Serbica (2023)	Serbia
41	<i>Erysiphe machilicola</i> I. Zafar, <b>Afshan</b> & Khalid	Phytotaxa (2023)	New Zealand
40	<i>Diploschistes pakistanicus</i> Fayyaz, M. S. Iqbal & <b>Afshan</b>	Acta Botanica Brassilica (2023)	Brazil
39	<i>Squamulea chikarensis</i> <b>Afshan</b> , Fayyaz, Iftikhar & Khalid	The Lichenologist (2023)	UK
38	<i>Leucoagaricus gujratensis</i> A. Rehman, Usman, <b>Afshan</b> & Khalid	Phytotaxa (2023)	New Zealand
37	<i>Phyllactinia cornicola</i> I. Zafar, <b>Afshan</b> & Khalid	Nordic Journal of Botany (2023)	USA

36	<i>Erysiphe rumicicola</i> Darsaraei, Khodap., <b>Afshan</b> & U. Braun	Sydowia (2023)	Austria
35	<i>Erysiphe bistortae</i> I. Zafar, <b>Afshan</b> & Khalid	Mycotaxon (2022)	USA
34	<i>Phaeophyscia kashmirensis</i> Fayyaz, <b>Afshan</b> & Khalid	The Lichenologist (2022)	UK
33	<i>Buellia densipruinosa</i> <b>Afshan</b> , Fayyaz & Iftikhar	Herzogia (2022)	USA
32	<i>Diploschistes viridis</i> <b>Afshan</b> , Fayyaz & Khalid	Biology Bulletin (2022)	USA
31	<i>Phragmidium himalayanum</i> <b>Afshan</b> , Riaz & Khalid	Nova Hedwigia (2022)	Germany
30	<i>Lecidella iqbalii</i> Fayyaz, <b>Afshan</b> , Niazi & Khalid	Acta Botanica Brassilica (2022)	Brazil
29	<i>Lobothallia pakistanica</i> Razzaq, Fayyaz, Khalid & <b>Afshan</b>	Mycological Progress (2022)	Germany
28	<i>Iqbalia kashmirensis</i> Fayyaz, <b>Afshan</b> , Niazi & Khalid sp. nov.	Mycological Progress (2022)	Germany
27	<i>Iqbalia</i> Fayyaz, <b>Afshan</b> & S.Y. Kondr. gen. nov.	Mycological Progress (2022)	Germany
26	<i>Phyllactinia himalayensis</i> I. Zafar, <b>Afshan</b> & Khalid	Phytotaxa (2022)	New Zealand
25	<i>Aspicilia nigromaculata nigromaculata</i> Fayyaz, <b>Afshan</b> , Niazi & Khalid	Botanica Serbica (2022)	Serbia
24	<i>Erysiphe pakistanica</i> <b>Afshan</b> , Riaz & Khalid	Phytotaxa (2022)	New Zealand
23	<i>Porpidia kashmirensis</i> Fayyaz, <b>Afshan</b> , Niazi & Khalid	Nova Hedwigia (2022)	Germany
22	<i>Coprinopsis hispidus</i> S. Hussain & Afshan	Nordic Journal of Botany (2021)	Germany
21	<i>Urocystis piptatheri</i> <b>N.S. Afshan</b> , A. Anwar, M. Riaz, Sirajuddin & A. N. Khalid	Phytotaxa (2020)	New Zealand
20	<i>Leucoagaricus umbonatus</i> Hussain, Ahmad & <b>Afshan</b>	Mycologia (2018)	USA
19	<i>Leucoagaricus lahorensiformis</i> Hussain, Ahmad, <b>Afshan</b> & Khalid	Mycologia (2018)	USA

18	<i>Leucoagaricus badius</i> Hussain, Pfister, <b>Afshan</b> & Khalid	Mycologia (2018)	USA
17	<i>Xanthagaricus pakistanicus</i> Hussain, <b>Afshan</b> and Ahmad	Turkish Journal of Botany (2018)	Turkey
16	<i>Parasola malakandensis</i> S. Hussain, <b>N. Afshan</b> & H. Ahmad	Mycoscience (2017)	Japan
15	<i>Caeoma rosicola</i> <b>Afshan</b> , Niazi & Khalid	Mycotaxon, 120 (2012)	America
14	<i>Caeoma khanspurens</i> Khalid, <b>Afshan</b> & Niazi	Mycotaxon, 120 (2012)	America
13	<i>Caeoma ahmadii</i> <b>Afshan</b> , Khalid & Niazi	Mycotaxon, 120 (2012)	America
12	<i>Puccinia helictotrichi</i> var. <i>pakistanica</i> <b>Afshan</b> & Khalid	Mycotaxon, 112 (2010)	America
11	<i>Puccinia anaphalidis-virgatae</i> Khalid, <b>Afshan</b> & S.H. Iqbal	Mycotaxon, 112 (2010)	America
10	<i>Milesia kashmiriana</i> <b>Afshan</b> , S.H. Iqbal, Khalid & Niazi	Mycotaxon, 112 (2010)	America
9	<i>Puccinia sporoboli-coromandeliani</i> <b>Afshan</b> , Khalid & Niazi	Mycological Progress, (2010)	Germany
8	<i>Puccinia leersiae</i> Khalid & <b>Afshan</b>	Mycological Progress, (2010)	Germany
7	<i>Puccinia dichanthii</i> <b>Afshan</b> & Khalid	Mycological Progress, (2010)	Germany
6	<i>Puccinia subepidermalis</i> <b>Afshan</b> , Khalid & S.H. Iqbal	Mycotaxon, 110 (2009)	America
5	<i>Puccinia silenigena</i> S.H. Iqbal, <b>Afshan</b> & Khalid	Mycotaxon, 109 (2009)	America
4	<i>Puccinia khanspurica</i> Khalid & <b>Afshan</b>	Mycotaxon, 108 (2009)	America
3	<i>Puccinia sporoboli-arabici</i> <b>Afshan</b> , Berndt, Khalid & Niazi	Mycotaxon, 104 (2008)	America
2	<i>Puccinia agrostidis-caninae</i> <b>Afshan</b> , Berndt, Khalid & Niazi	Mycotaxon, 104 (2008)	America
1	<i>Puccinia cyperi-laevigati</i> <b>Afshan</b> and Khalid	Pak. J. Phytopathol. 20 (1) (2008)	Pakistan

## List of Publications

(Impact Factor = 135)

**(PUBLISHED)****YEAR 2024**

129. Ashraf, U., **Afshan, N.S.** & Khalid, A.N. (2024). *Bonomyces pakistanensis* (Pseudoclitocybaceae, Agaricales), a new species from Pakistan. *Nordic Journal of Botany* e04268 (**Impact Factor: 0.931**)
128. Rehman, A., Usman, M., **Afshan, N. S.**, Khalid, A. N. (2024). Taxonomy and phylogenetics of two noval species of *Lepiota* (Agaricaceae, Agaricales) from Punjab, Pakistan. *Plant Systematics and Evolution* (accepted) (**Impact Factor: 1.644**)
127. Sadiqullah, **Afshan, N. S.**, Ishaq, A., Riaz, M., Fiaz, M., Khalid, A. N. Aime, M.C., (2024). Notes on species of *Ustilago* and *Sporisorium* from Pakistan. *Mycological Progress* 23 (6) 10.1007/s11557-023-01942-0 (**Impact Factor: 2.847**).
126. **Afshan, N.S.**, Fayyaz, I., Iftikhar, F., Habib, K., Iqbal, I., Wang, Usman, M., Asif, W., Niazi, A.R., & Khalid, A. N. (2024). New species and new records of genus *Buellia* (Lichenized Ascomycota, Caliciaceae) from Pakistan using electron microscopy and DNA barcoding techniques. *Microscopy Research and Technique*, 87(1), 31–41. <https://doi.org/10.1002/jemt.24403> (**Impact Factor: 2.769**)
125. Ishaq, A., Yaseen, I., **Afshan, N.S.** & Khalid, A. N. (2024). First Report of Leaf Spot Caused by *Corynespora cassiicola* on *Jasminum sambac* in Pakistan, *Plant Disease* doi: 10.1094/PDIS-11-22-2547-PDN (**Impact Factor: 4.438**)
124. Bashir, H., Asif, M., Ghafoor, A., Niazi, A.R., Bibi, A., **Afshan, N.S.**, Harun, N., Khalid, A. N. & Callac, P. (2024). Multigene phylogeny and morphological descriptions of five species of *Agaricus* sect. *Minores* from subtropical climate zones of Pakistan, *PLOS ONE* (Accepted) (**Impact Factor: 3.752**)

**YEAR 2023**

123. **Afshan, N. S.**, Bibi, A., Akbar, S., Saleem, A. (2023). BIOCONTROL EFFICACY OF TRICHODERMA SPECIES AGAINST CHARCOAL ROT

- IN SUNFLOWER AND SYNTHESIS OF SILVER NANOPARTICLES FOR ENHANCED DISEASE MANAGEMENT, *Pak. J. Phytopathol.*, 35 (02): 279-292. (HEC recognized, Y category).
122. Zafar I., Afshan, N.S. & Khalid, A.N. (2023). *Erysiphe neelamensis*, a new powdery mildew fungus (Ascomycota: Erysiphaceae) from Azad Jammu & Kashmir, Pakistan. *Nordic Journal of Botany* e04203 (Impact Factor: 0.931)
121. Bibi, A., Afshan, N. S., Yaqub, F. (2023). IN VITRO ANTAGONISTIC EFFECTS OF *TRICHODERMA HARZIANUM* AGAINST WHEAT-BORNE FUNGAL PATHOGENS, *Pak. J. Phytopathol.*, 35 (01):67-74. (HEC recognized, Y category).
120. Fayyaz, I., Habib, K., Razzaq, F., Afshan, N.S., Niazi, A.R., & Khalid, A. N. (2023). Some additions to the lichen biota of Pakistan based on phenotypic and phylogenetic analyses. *Folia Cryptogamica Estonica* (accepted).
119. Ahmad, M.A., Afshan, N. S. & Khalid, A. N. (2023). Two new records of *Uromyces* from Khyber Pakhtunkhwa, Pakistan. *Biology Bulletin* 50: 860-869. (Impact Factor: 0.534)
118. Afshan, N.S., Iftikhar, F., Fayyaz, I., Habib, K. & Khalid, A. N. (2023). A new species of the genus *Bacidina* (Ramalinaceae, Ascomycota) from Pakistan, *Herzogia* 36 (2): 470–478 (Impact Factor: 0.848)
117. Afshan, N.S., Afzal, S., Riaz, M., Saleem, A., Niazi, A.R. & Khalid, A.N. (2023). Occurrence of *Erysiphe friesii* var. *dahurica* on purple buckthorn (*Rhamnus purpurea*) from Pakistan, *Canadian Journal of Plant Pathology*. 45, Nos. 5–6, 427–432. DOI: 10.1080/07060661.2023.2215208 (Impact Factor: 2.442)
116. Fayyaz, I., Knudsen, K.K., Afshan, N. S., Zulfiqar, R., Iftikhar, F., Niazi, A.R., & Khalid, A. N. (2023). Taxonomic and phylogenetic study of genus *Sarcogyne* (Acarosporales, Acarosporaceae) reveals two new species from Pakistan, *Mycological Progress* 22:45. <https://doi.org/10.1007/s11557-023-01893-6> (Impact Factor: 2. 847).
115. Zafar I., Afshan, N.S. & Khalid, A.N. & Götz, M. (2023). *Erysiphe machilicola*: a new powdery mildew species on Duthie's Bay Tree, *Phytotaxa* 594 (4): 283–291. (Impact Factor: 1.007)

114. Fayyaz, I., Iqbal, S., Afshan, N. S., Niazi, A.R. & Khalid, A. N. (2023). Taxonomic and phylogenetic study of the genus *Diploschistes* (Ostropales, Thelotremaaceae) from Pakistan reveals one new species. *Acta Botanica Brasilica* 37: e20220125 (Impact Factor: **1.395**)
113. Iqbal, S., Fayyaz, I., Afshan, N. S., Iftikhar, F & Khalid, A. N. (2023). A new species of *Circinaria* ((Pertusariales, Megasporeaceae) from Pakistan, *Botanica Serbica*. 47 (2): 235–239 (Impact Factor: **0.468**)
112. Asghar, H. S., Fayyaz, I., Iqbal, M.S., Afshan, N. S., Khalid, A. N. (2023). Two new records of *Diploschistes* (lichenized Ascomycota, Thelotremaaceae) from Pakistan. *Biology Bulletin*, 50 (5): 870-875.10.1134/S1062359023600071 (Impact Factor: 0.534)
111. Rehman, A., Usman, M., Afshan, N. S., Khalid, A. N. (2023). *Leucoagricus gujratensis* sp. nov. (Agaricaceae, Agaricales) from Pakistan. *Phytotaxa* 589 (1): 039–050 (Impact Factor: **1.007**)
110. Riaz, M., Afshan, N. S., Afzal, S., Zafar, I., Saleem, S., Khalid, A.N. (2023). DNA barcoding and Scanning electron microscopy reveals *Erysiphe ahmadii* sp. nov. and a new record *Erysiphe populicola* (Erysiphaceae, Helotiales) on salicaceous hosts from Pakistan. *Microscopy Research and Technique* 87(1), 21–30. <https://doi.org/10.1002/jemt.2440230RIAZET> AL. (Impact Factor: **2.769**)
109. Zafar I., Afshan, N.S. & Khalid, A.N. (2023). *Phyllactinia cornicola*, a new species of powdery mildews from Pakistan. *Nordic Journal of Botany*, 2023 (5): e03864. <https://doi.org/10.1111/njb.03864> (Impact Factor: **0.931**)
108. Niazi, A. R., Afshan, N. S., Naseer, A., Nadeem, M., Iftikhar, F., Fayyaz, I., Ashraf, A., Imtiaz, S., Fatima, Q. S. & Khalid, A. N. (2023). A new species and a new record of the genus *Phaeophyscia* Moberg (Lecanorales, Physciaceae) from Pakistan supported by phenotypic and molecular phylogenetic analyses. *Cryptogamie, Mycologie* 44 (4): 51-59. <https://doi.org/10.5252/cryptogamie-mycologie2023v44a4>. (HEC recognized, X category).
107. Darsaraei H., Afshan N.S., Afzal S., Zafar I., Anwar A., Götz M., Khodaparast S. A. & Braun, U. (2023). A re-assessment of *Erysiphe polygoni*: phylogenetic

- analyses suggest an undescribed species. – *Sydowia* 75: 233–242 (**Impact Factor: 1.81**).
106. **Afshan, N. S.**, Fayyaz, I., Iftikhar, F., Jabeen, M & Khalid, A. N. (2023). A new species and a new record of genus *Squamulea* (Teloschistaceae, lichenized Ascomycota) from Pakistan. *The Lichenologist* 1–8. (Impact Factor: **1.651**)
105. **Afshan, N. S.**, Fayyaz, I., Iftikhar, F., Habib, K., Jabeen, M., Niazi, A. R., & Khalid, A. N. (2023). Contributions to the lichen biota of Pakistan supported by phenotypic and molecular phylogenetic analyses *Nova Hedwigia* 116 (1-2): 171-189. (Impact Factor: **1.254**)
104. **Afzal, S., Afshan, N.S.** & Khalid, A.N. (2023). First report of *Erysiphe verniciferae* causing Powdery Mildews on Smoke Tree (*Cotinus coggygia* Scop.) from Pakistan, *Canadian Journal of Plant pathology*, 45:1, 35-40. <https://doi.org/10.1080/07060661.2022.2122081> (**Impact Factor: 2.442**)
103. **Zafar I., Afzal, S., Afshan, N.S.,** Khalid, A.N. (2023). *Golovinomyces artemisiae* & *Golovinomyces sonchicola*, additions to the Erysiphales of Pakistan, *Biology Bulletin*, 50 (03): 348-355. (Impact Factor: **0.534**)
102. **Fayyaz, I., Afshan, N.S.,** Iftikhar, I., Niazi, A. R. & Khalid, A. N. (2023). *Diploschistes viridis* sp. nov. (Lichenized Ascomycota, Thelotremataceae) from Pakistan. *Biology Bulletin* 49 (3): S77–S82. (Impact Factor: 0.534)

#### **YEAR 2022**

101. **Afshan, N.S.** & Khalid, A. N. (2022). Checklist of rust fungi (Pucciniales) in Pakistan *Mycotaxon* 137 (3): 615. (Impact Factor: **0.538**)
100. Ashraf, K., Nawaz, M., Yousaf, N., **Afshan, N.S.** (2022). First report of Leaf spot of *Chlorophytum comosum* caused by *Thielavia terrestris* from Pakistan, *Plant Protection*, 06 (03): 247-252 (HEC recognized, Y category).
99. Afzal, S., **Afshan, N.S.** & Khalid, A. N. (2022). First Report of *Neoerysiphe galeopsidis* on *Lamium album* in Pakistan Proven by Molecular Phylogenetic Methods, *Biology Bulletin*, 49, Suppl. 2: S67–S72. DOI: 10.1134/S1062359022140023. (Impact Factor: **0.534**)

98. Zafar I., **Afshan, N.S.**, Majeed, J., Niazi, A. R. & Khalid, A.N. (2022). *Erysiphe bistortae* sp. nov., a new powdery mildew on *Bistorta amplexicaulis* from Pakistan ***Mycotaxon*** 137 (4): 883–891. (Impact Factor: **0.538**)
97. **Afshan, N.S.**, Riaz, M., Ahmad. M.A., Khalid, A.N. (2022). *Puccinia malvacearum* and *P. xanthii* newly recorded from Pakistan ***Mycotaxon*** 137 (4): 893–897. (Impact Factor: **0.538**)
96. Kondratyuk, S. Y., Persson, P.-E., Hansson, M., Lőkös, L., Kondratiuk, A. S., Fayyaz, I., Kouser, R., **Afshan, N.S.**, Niazi, A.R., Rizwana, Z., Khalid, A.N., Kärnefelt, I., Farkas, E., Hur, J.-S., Thell, A. (2022). CONTRIBUTIONS TO MOLECULAR PHYLOGENY OF LICHENS 4. New names of the Teloschistaceae, ***Acta Botanica Hungarica*** 64(3–4): 313–336. DOI: 10.1556/034.64.2022.3-4.X (Impact Factor: **1.085**)
95. Afzal, S., **Afshan, N.S.**, Seerat, S., Zafar, I., Jabeen, M., Riaz, M., Khalid, A.N. (2022). New records of *Podosphaera* species (Ascomycota: Erysiphaceae) on members of Rosaceae from Pakistan, ***Nova Hedwigia*** 115 (3–4): 417–429. (Impact Factor: **1.254**)
94. Niazi, A. R., Ghafoor, A., **Afshan, N. S.** & Moreno, G. (2022). *Tulostoma loonbanglaense*: A new species from Azad Jammu and Kashmir using light and scanning electron microscopy and DNA barcoding technique, ***Microscopy Research and Technique***, 85(12): 3720–3725. <https://doi.org/10.1002/jemt.24240> (Impact Factor: **2.769**)
93. Fayyaz, I., **Afshan, N.S.**, Iftikhar, F., Khalid, A.N. (2022). A new species of lichen genus *Buellia* (Lichenized Ascomycota, Caliciaceae) from Pakistan, ***Herzogia*** 35 (2): 613–620. (Impact Factor: **0.848**)
92. Iftikhar, F., Fayyaz, I., **Afshan, N.S.**, Niazi, A.R., Khalid, A.N. (2022). Additions to the list of Teloschistaceae (Teloschistales, Ascomycota) from Pakistan, ***Biology Bulletin***, 49(1): S95–S100. (Impact Factor: **0.534**)
91. **Afshan, N. S.**, Anwar, A., Majeed, J., Riaz, M., Khalid, A. N. and Sirajuddin (2022). First report of *Erysiphe bunkiniana* on *Isodon rugosus* from Pakistan ***Mycotaxon*** 137 (3): 569–575. (Impact Factor: **0.538**)
90. Zulfiqar, R., Razzaq, F., **Afshan, N.S.**, Fayyaz, I, Habib, K., Khalid, A.N., Paukov, A. G. (2022). Three new species of *Lobothallia* (Megasporeaceae, Pertusariales,

- Ascomycota) from Pakistan and a new combination in the genus. *Mycological Progress* 21: 80. <https://doi.org/10.1007/s11557-022-01830-z> (Impact Factor: 2. 847).
89. Afshan\*, N.S., Riaz, M., Zafar, I., Ahmad. M.A., Khalid, A.N. (2022). Morphological and molecular characterization of *Phragmidium himalayanum*, a new species of rust fungi from Pakistan, *Nova Hedwigia* 115 (3-4): 405–416. (Impact Factor: 1.254)
88. Fayyaz, I., Afshan, N.S., Khalid, A.N. (2022). *Phaeophyscia kashmirensis* sp. nov. (Lecanorales, Physciaceae) from Azad Jammu and Kashmir, Pakistan, *The Lichenologist* 54: 355–361. doi:10.1017/S0024282922000275 (Impact Factor: 1.651)
87. Ghafoor, A., Niazi, A.R., Afshan, N.S. (2022). Domestication and element analysis of the giant edible *Macrocybe gigantea* from Pakistan, *Journal of Applied Botany and Food Quality* 95: 167–173. DOI:10.5073/JABFQ.2022.095.021 (Impact Factor: 1.483)
86. Fayyaz, I., Kouser, R., Afshan, N.S., Niazi, A.R., Rizwana, Z., Khalid, A.N. & Kondratyuk, S. Y. (2022). *Iqbalia kashmirensis* gen. et sp. nov. from Pakistan, with new names and synonyms of the Teloschistaceae (lichenized ascomycetes) based on multigene phylogeny, *Mycological Progress* 21:68 (Impact Factor: 2. 847).
85. Afzal, S., Afshan, N.S., Mehdi, M. M. & Khalid, A. N. (2022). Morphological and Molecular Characterization of *Erysiphe convolvuli* var. *convolvuli* DC. causing Powdery Mildew disease on Field Bindweed (*Convolvulus arvensis* L.) from Pakistan. *Biology Bulletin* 49, Suppl. 1: S109–S113. 10.1134/S1062359022130027 (Impact Factor: 0.534)
84. Afshan, N.S., Fayyaz, I., Iftikhar, F., Habib, K., Razzaq, F., Niazi, A. R., & Khalid, A. N. (2022). A taxonomic and Phylogenetic study of some *Cladonia* species from Pakistan. *Nova Hedwigia* 3-4 (115), 535-548. (Impact Factor: 1.254)
83. Fayyaz, I., Afshan, N. S., Niazi, A. R., Khalid, A. N., & Ruprecht, U. (2022). A new species of *Lecidella* (Lecanorales, Ascomycota) from Azad Jammu and Kashmir, Pakistan, *Acta Botanica Brassilica* 36: e2021abb0324 (Impact Factor: 1.395)

82. **Afshan\*, N.S.**, Zafar, I., Jabeen, M., Liaqat, N. & Khalid, A. N. (2022). New records of powdery mildews on Oak trees in Pakistan ***Nova Hedwigia*** 115(1-2): 79-88. [10.1127/nova.hedwigia/2022/0696](https://doi.org/10.1127/nova.hedwigia/2022/0696) (Impact Factor: **1.254**)
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