

MALKA SABA

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Place of Birth: Gujrat, Pakistan.

Education and Degrees:

- University of the Punjab, Lahore, Pakistan: Ph.D. in Botany– 2016.
- University of the Punjab, Lahore, Pakistan; M.Phil. in Botany– 2011.
- University of the Punjab, Lahore, Pakistan; M.Sc. in Botany– 2008.
- UOG College for Women, Marghzar Colony, Gujrat, Pakistan; B.Sc.– 2006.
- Govt. College for Women Fawara Chowk, Gujrat; F.Sc. – 2004.
- Govt. Girls Model High School Gujrat; Matriculation – 2002.

Present Position:

Assistant Professor, Department of Plant Sciences, Quaid-i-Azam University, Islamabad, Pakistan.

Past Positions:

- 2017–2018: Assistant Professor, Department of Botany, University of Gujrat, Gujrat.
- 2008–2011: Research Associate, Department of Botany, University of the Punjab, Lahore.

Foreign Research Experience:

- Visiting Research scholar
 - Department of Organismic and Evolutionary Biology, Harvard University, USA. – February to July, 2015.
 - Plant Ecological Genetics group, ETH, Zürich, Switzerland. – August to October, 2011.

Distinctions and Awards:

- Gold medal from University of the Punjab, Lahore, in M.Sc. (Botany).
- Gold medal from University of the Punjab, Lahore, in M.Phil. (Botany).
- Gold medal from Pakistan Tobacco Company.
- Awarded Hesler Visiting Scholar Fellowship – 2023, sponsored by the L.R. Hesler Herbarium Support Fund.
- Awarded travel grant by Punjab Higher Education Commission (PHEC), Pakistan to attend Mycological Society of America (MSA) meeting 2017.
- Awarded travel grant by Botanical Society of America (BSA) to attend BOTANY 2017 conference.
- Awarded scholarship under International Research Support Initiative Program by HEC, Pakistan (2015).
- Awarded scholarship under Indigenous 5000 PhD fellowship Program by HEC, Pakistan (2012–2016).
- Invited as Academic guest at ETH, Zürich, Switzerland (2012).
- 3rd position in poster presentation at 11th National conference of plant scientists and 2nd International conference of plant scientists (2011).
- Merit Scholarships in M.Sc. (2006–2008)

Membership of Societies:

- Botanical Society of America
- Botanical Society of Pakistan
- The Organization for Women in Science for the Developing World (OWSD)

Conferences Organized:

Worked as convener of Editorial and Publication committee in organizing 1st International Conference on Plants: Their Chemical and Biological applications for today and tomorrow organized by Department of Botany, University of Gujrat, Gujrat – 2017.

Courses Taught and other services:

- Biodiversity and Conservation (BS)
- Plant systematics, anatomy and development (BS)
- Phycology and Bryology (BS)
- Environmental Biology (M.Sc.)
- Environmental Pollution (M.Phil. and Ph.D.)
- Mycosymbiosis (M.Phil. and Ph.D.)
- Lower Fungi Practical (M.Sc.)
- Higher Fungi Practical (M.Sc.)
- Phycology and Bryology Practical (BS)
- Served as course coordinator for BS, M.Phil and PhD for one year (2022).
- Member of grievance committee, BS, M.Phil and Ph.D admission committee.
- Member of Board of studies and Board of Faculty at Quaid-i-Azam University.

Conferences/Workshops Participated:

- International workshop and exhibition on “Research commercialization: Challenges and opportunities” organized by COMSTECH–14 to 15 June, 2022.
- Fourth International conference on Biosciences (ICBS-2021) organized by Biological Society of Pakistan at Pakistan Academy of Sciences–15 June, 2021.
- 2nd International conference on Plant Sciences (ICPS-2018), as keynote speaker, organized by Department of Botany, GC University, Lahore–5 to 7 December, 2018.
- Three days hands on skills workshop of SPSS organized by Department of Statistics, UOG, Gujrat–6 to 8 February, 2018.
- BOTANY 2017 organized by Botanical Society of America in Fort Worth, Texas, USA–24 to 28 July, 2017.
- MSA 2017 Annual meeting organized by Mycological Society of America in Athens, Georgia, USA– 15 to 19 July, 2017.
- 1st International conference on Plants: Their Chemical and Biological applications for today and tomorrow organized by Department of Botany, University of Gujrat, Gujrat – 2017.
- 5th International and 14th National conference of Botany, organized by Pakistan Botanical Society – 2016.

- 4th International and 13th National conference of Botany, organized by Pakistan Botanical Society – 2014.
- 3rd International and 12th National conference of Botany, organized by Pakistan Botanical Society – 2012.
- 2nd International conference of Plant Scientists and 11th National conference of Plant Scientists, organized by Pakistan Botanical Society – 2011.

Publications:

- Saba, M., Khalid, A. N. & Sarwar, S. 2023. New species of *Mallocybe* (Agaricales, inocybaceae) from Pakistan, based on morphological and molecular evidence. *Myckeys*, 99: 171–186.
- Crous, P. W., Osieck, E. R., Shivas, R. G., Tan, Y. P. et al. 2023. Fungal Planet description sheets: 1478–1549. *Persoonia*, 50: 158–310.
- Kamal, A., Saba, M., Kamal, A., Batool, M., Asif, M., Al-Mohaimed, A. M., Al Farraj, D. A., Habib, D., Ahmad, S. 2023. Bioinspired Green Synthesis of Bimetallic Iron and Zinc Oxide Nanoparticles Using Mushroom Extract and Use against *Aspergillus niger*; The Most Devastating Fungi of the Green World. *Catalysts*, 13, 400.
- Kamal, A., Saba, M., Ullah, K., Almutairi, S. M., AlMunqedhi, B. M., Ragab AbdelGawwad, M. 2023. Mycosynthesis, Characterization of Zinc Oxide Nanoparticles, and Its Assessment in Various Biological Activities. *Crystals*, 13: 171.
- Ullah, T., Ullah, K., Saba, M., & Shah, F. H. 2023. *Conocybe karakensis* sp. nov. (Bolbitiaceae, Agaricales) from Pakistan. *Phytotaxa*, 584(3): 135-148.
- Sarwar, S., Saba, M., Hanif, M., Abrar, A., Ulfat, M. & Khalil, H. 2023. Utilization of fruit peels to inhibit aflatoxins synthesis by *Aspergillus* species: A biotreatment of two pulses *Cicer arietinum* and *Vigna radiata* for safe long-term storage. *Pakistan Journal of Botany*, 55(2), 799-805.
- Kamal, A. Saba, M. & Farooq, M. 2022. Biocompatible formulations based on mycosynthesized iron oxide nanoparticles: Fabrication, characterization, and biological investigation. *Journal of Basic Microbiology*, 1–12.
- Tedersoo, L. Mikryukov, V. Zizka A. et al. 2022. Global patterns in endemism and vulnerability of soil fungi. *Global Change Biology*, 28 (22): 6696–6710.
- Razzaq, F., Saba, M., Niazi, A. R. & Khalid, A. N. 2022. Two New Records of Genus *Lepiota* (Agaricaceae) from Pakistan. *Biology Bulletin*, 49: 458–465.
- Ullah, T., Saba, M. & Syed M. F. 2022. *Coprinopsis afrocinerea* (Agaricales, Psathyrellaceae): First record from Asia (Pakistan). *Microscopy Research and Technique*, 84:955–966.
- Alam, A., Shaheen, S., Sarwar, S., Jaffer, M., Saba, M., Hanif, M., Sajjad, S. & Khan, F. 2021. Pollen morphological assessment of specific selected species of district Sheikhpura, Punjab, Pakistan under LM and SEM. *Microscopy Research and Technique*, 84:955–966.
- Tedersoo, L., Mikryukov, V., Anslan, S. et al. 2021. The Global Soil Mycobiome consortium dataset for boosting fungal diversity research. *Fungal Diversity*, 111, 573–588.
- Khan, M.B., Ishaq, M. & Faiz, M. 2021. A new record of Pluteaceae (Agaricales) from Pakistan. *Studies in Fungi*, 6(1): 514–518.
- Saba, M., Khalid, A. N., Haelewaters, D. & Pfister, D. H. 2020. New species of *Pseudosperma* (Agaricales, Inocybaceae) from Pakistan revealed by morphology and multi-locus

- phylogenetic reconstruction. *Myckeys*, 69: 1–31.
- Saba, M., Khan, J., Sarwar, S., Sher, H. & Khalid, A. N. 2020. *Gymnopus barbipes* and *G. dysodes*, new records for Pakistan. *Mycotaxon*, 135: 203–212.
- Saba, M. & Khalid, A. N. 2020. *Mallocybe velutina* (Agaricales, Inocybaceae), a new species from Pakistan. *Mycoscience*, 61: 348–352.
- Sarwar, S., Aziz, T., Hanif, M., Ilyas, S., Saba, M., Khalid, S. & Fiaz, M. 2020. Plectological and molecular identification of economically important wild russulales mushrooms from Pakistan and their antifungal potential against food pathogenic fungus *Aspergillus niger*. *Bangladesh J. Plant Taxonomy*, 27(1): 67–77.
- Saba, M., Haelewaters, D., Fiaz, M., Khalid, A. N. & Pfister, D. H. 2019. *Amanita mansehraensis*, a new species in section *Vaginatae* from Pakistan. *Phytotaxa*, 409(4): 189–201.
- Adamcik, S., Looney, B., Cabon, M. et al. 2019. The quest for a globally comprehensible *Russula* language. *Fungal Diversity*, 1: 5.
- Saba, M., Haelewaters, D., Iturriaga, T. et al. 2019. *Geopora ahmadii* sp. nov. from Pakistan. *Mycotaxon*, 134: 377–389.
- Caboň, M., Li, G. J., Saba, M. et al. 2019. Phylogenetic study documents different speciation mechanisms within the *Russula globispora* lineage in boreal and arctic environments of the Northern Hemisphere. *IMA Fungus*, 99: 369–449.
- Sarwar, S., Saba, M., Khalid, A. N. & Dentinger, B. M. 2018. *Suillus himalayensis* (Boletales: Basidiomycota: Fungi) and its symbiotic association with roots of *Pinus wallichiana*, first report from coniferous forests of Pakistan. *The Journal of Animal and Plant sciences*, 28(2): 576–583.
- Crous, P. W., Wingfield, M. J., Burgess, T. I. et al. 2018. Fungal Planet description sheets. *Persoonia*, 40: 240–393.
- Saba, M., Khalid, A. N., Sharif, S. & Iqbal, M. S. 2018. The *Heterobasidion insulare* complex from Pakistan. *Mycotaxon*, 133: 261–270.
- Zhao, C. L., Saba, M., Khalid A. N., Song, J. & Pfister, D. H. 2017. *Heterobasidion amyloideopsis* sp. nov. (Basidiomycota, Russulales) evidenced by morphological characteristics and phylogenetic analysis. *Phytotaxa*, 317(3): 199–210.
- Saba, M., Khalid, A. N., Jabeen, S. & Dima, B. 2017. *Cortinarius longistipitatus*, a new species in subgenus *Telamonina*, section *Cinnabarini*, from Pakistan. *Phytotaxa*, 328(3): 257–266.
- Adamčík, S., Caboň, M., Eberhardt, U., Saba, M., Hampe, F., Slovák, M., Kleine, J., Marxmüller, H., Jančovičová, S., Pfister, D. H., Khalid, A. N., Kolařík, M., Marhold, K. & Verbeken, A. 2016. A molecular analysis reveals hidden species diversity within the current concept of *Russula maculata* (Russulaceae, Basidiomycota). *Phytotaxa*, 270(2): 071–088.
- Saba, M. & Khalid, A. N. 2015. *Russula sichuanensis* and its ectomycorrhizae from Himalayan moist temperate forests of Pakistan. *Mycotaxon*, 130: 629–639.
- Saba, M., Ahmad, I. & Khalid, A. N. 2015. New reports of *Inocybe* from pine forests in Pakistan. *Mycotaxon*, 130: 671–681.
- Jabeen, S., Fiaz, M., Saba, M., Ahmad, H. and Khalid, A. N. 2015. Molecular phylogeny and morphological characterization of *Russula livescens* and its ectomycorrhiza from mixed

- coniferous forests of Pakistan. *Austrian Journal of Mycology*, 24: 145–154.
- Sarwar, S., Saba, M., Khalid, A. N., Dentinger, B. M. 2015. *Suillus marginielevatus*, a new species and *S. triacicularis*, a new record from western Himalaya, Pakistan. *Phytotaxa*, 203(2): 169–177.
- Saba, M. & Khalid, A. N. 2014. New reports of *Gymnopus* from Pakistan based on ITS sequences. *Mycotaxon*, 129(1): 63–72.
- Saba, M. & Khalid, A. N. 2014. First report of *Callistosporium luteoolivaceum* from Western Himalaya, Pakistan. *Mycotaxon*, 129(1): 73–77.
- Saba, M. & Khalid, A. N. 2014. New record of *Melanoleuca cinereifolia* in Himalayan moist temperate forests of Pakistan. *Mycotaxon*, 129(2): 317–327.
- Saba, M. Niazi, A. R. & Khalid, A. N. 2013. New records of Uredinales (Basidiomycota) from Azad Jammu & Kashmir and adjacent Northern Areas of Pakistan. *International Journal of Agriculture and Biology*, 15: 878–884.
- Saba, M. & Khalid, A. N. 2013. New rust species and hosts from Northern Areas of Pakistan. *Mycotaxon*, 123: 147–155.
- Saba, M. & Khalid, A. N. 2013. Species diversity of genus *Puccinia* (Basidiomycota; Uredinales) parasitizing Poaceous hosts in Pakistan. *International Journal of Agriculture and Biology*, 15: 580–584.
- Saba, M., Berndt, R. & Khalid, A. N. 2012. *Hyalopsora nodispora* is the new holomorph name for *Uredo capilli-veneris* (Uredinales; Pucciniastraceae) from Pakistan. *Mycological Progress*, 11: 967–969.
- Saba, M. & Khalid, A. N. 2011. New records of rust fungi on some sedges (*Cyperaceae*) from Pakistan. *Mycotaxon*, 117: 115-122.
- Khalid, A. N. & Saba, M. 2011. *Puccinia cortusae* (Basidiomycota; Uredinales) on *Cortusa brotheri* (*Primulaceae*) new to south Asia (Fairy Meadows, Pakistan). *Mycotaxon*, 117: 317-320.
- Saba, M., Khalid, A. N. & Afshan, N. S. 2011. Species of the genus *Uromyces* (Basidiomycota; Pucciniales) from Leepa valley, Azad Jammu & Kashmir, Pakistan. *African Journal of Biotechnology*, 10(73): 16480-16483.