

On the occasion of the honorary membership of the German Society for Biological Systematics (GfBS) for Prof. Dr. Susanne Renner

Professor Dr. Susanne Renner is well-known nationally and internationally for her outstanding contributions to biological systematics. Her research has had a significant impact on our understanding of plant systematics and evolutionary biology. She has worked on a diverse spectrum of topics and taxa and her work stands out by crossing several disciplines ranging from integrative taxonomy, evolutionary biology and ecology to cytogenetics.

From 1980-1983, Susanne did her doctoral research at the University of Hamburg and in Brazil. She then moved on to the USA to conduct her postdoctoral studies at the Smithsonian US National Herbarium in Washington DC (1985-1987). Afterwards, she had faculty positions in Denmark, Germany and in the USA, before she got appointed 2003 as Professor for Systematic Biology and Mycology at the Ludwig-Maximilians-University of Munich (LMU) and as Director of the Munich Botanical Garden and the Munich State Botanical Collection. Since 2021 she is Honorary Professor of Biology at the Washington University in St. Louis, USA, and Research Associate at the Missouri Botanical Garden.

Her high-quality research generally focused on the evolution of sexual systems including sex chromosome biology in plants, ranging from diploid-dominant angiosperms to haploid-dominant bryophytes. Susanne's broad interest in the evolution of unisexual and bisexual taxa as well as in chromosomal sex-determining X-Y, Z-W and U-V systems resulted in a plethora of comprehensive studies that have greatly advanced science. At her time in Munich, she also worked on various other topics on plant evolutionary biology, such as on the biogeography and dispersal mechanisms of plants as well as on the evolution of functional traits. Another focus at her time in Munich were all kinds of research questions related to plant-animal interactions and here the topics of ant-plant interactions and her experimental approaches in pollination biology using the Munich Botanical Garden as study site are worth mentioning. Bridging the three institutions – the LMU Munich, the Botanical Garden and the herbarium in Munich – resulted in several outstanding studies bringing together the morphological and genetic treasure that is hiding in historical collections with experimental ecological analyses using living plant material. This was very evident in her work on climate change effects on the phenology of different tree species. In more recent times Susanne also got interested in understanding domestication and crop plant evolution, such as of the agriculturally important watermelon. Again, her research here was characterized by integrating over several methods and data to obtain a holistic view on biological processes and the evolution of plant taxa. Besides her deep interest in evolutionary research, she has never forgotten the importance of classical taxonomic work for biological sciences. Susanne was the founder and speaker of the DFG funded Priority Programme "Taxon-Omics: New approaches for discovering and naming biodiversity" from 2017-2020. The major aim of that consortium, that is still running, is to develop and test new methods for taxonomic research and to train systematists and evolutionary biologists.

Susanne inspired several generations of biology students by sharing her deep interest in evolutionary biology and plant related topics in university lectures and beyond. The institute

seminar series at the LMU during the semesters, in which (inter-)nationally highly-ranked scientists were invited but also young researchers could present and discuss their recent work were legendary. Specifically, the mixture of different topics and methods that were presented, as well as the lively discussions that Susanne moderated were exceptional.

These are just a few of the many highlights of Susanne's research that have heavily impacted our current understanding of plant evolution and systematics. Susanne was awarded the honorary membership of the German Society for Biological Systematics (GfBS) during the annual meeting from May 29 to June 1, 2025, held in Hamburg. We are very happy to have you, Susanne, as such a distinguished researcher as honorary member of our society and look very much forward to your future studies!

Prof. Dr. Julia Bechteler

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