

Curriculum vitae **Mgr. Martina Janoušková Ph.D.**

Personal information

Address: Institute of Botany, Czech Academy of Sciences, Zámek 1, 25243 Průhonice
E-mail: martina.janouskova@ibot.cas.cz
www: http://www.ibot.cas.cz/mykosym/os_mja.html
Citizenship: Czech Republic

Education

1994-1997 Bc. studies of environmental sciences, Faculty of Science, Charles University in Prague
1999 M.Sc. in invertebrate zoology – soil biology, Faculty of Science, Charles University
2007 Ph.D. in plant anatomy and physiology, Faculty of Science, Charles University

Professional career:

1999 - present Institute of Botany, Czech Academy of Sciences; positions: study stay, Ph.D. student, postdoc, researcher since 2009
(2007-2009, 2014-2016 part-time maternity leaves)
2012 - 2014 Institute of Microbiology, Czech Academy of Sciences (researcher, part-time)
2012 - present Head of Department of Mycorrhizal Symbioses, Institute of Botany CAS

Publication activity: 42 papers in WOS Core Collection (2001-2023), H-index 23

Educational activities: Supervision of students at Faculty of Science, Charles University - Ph.D. (1 defended, 1 ongoing), Master (2 defended, 2 ongoing) and Bachelor (4 defended); participation at practical course of plant physiology, Department of Experimental Plant Biology, Faculty of Science, Charles University (2017-2019).

Per-reviewing and consultancy: manuscripts for scientific papers (e.g. Journal of Ecology, Plant and Soil, Microbial Ecology, New Phytologist, Soil Biology and Biochemistry); member of editorial board of Mycorrhiza journal (since 2018); evaluation of research projects for Czech Science Foundation (member of panel P505 in 2017-2019, since 2020); evaluation of student projects for Grant Agency of University of South Bohemia (since 2018)

Professional interests and activities since 2019

- **Relationship between community composition of arbuscular mycorrhizal fungi (AMF) and mycorrhiza functioning:** We utilize simplified model systems to follow how composition of AMF communities relates to the mutualistic functioning of mycorrhizas
- **AMF in agricultural systems:** I am interested in the composition and functional parameters of native AMF communities present in agricultural soils
- **Functioning of arbuscular mycorrhiza as depending on C, N and P availability:** We quantify mycorrhizal costs and benefits in model systems with natural or artificial gradients of availability of the three crucial elements

Principal investigator of projects

since 2023 Czech Science Foundation, 23-05453S: Mycorrhiza as complex insurance of plants for variable conditions
2019 - 2021 Czech Science Foundation, 19-14872S: Arbuscular mycorrhizal fungi in conventionally managed arable soils: survivors, helpers or parasites?

- 2019 - 2020 Ministry of Education, Youth and Sports of the Czech Republic, 8J19FR014 (bilateral mobility project): Interplay of nitrogen and phosphorus availability in the nutrient uptake of arbuscular mycorrhizal plants
- 2017 - 2019 Ministry of Education, Youth and Sports of the Czech Republic, LTAUSA17166 (Inter-Action): Role of root-associated fungi in plant response to climatic change

List of publications since 2019

- Buil PA, Jansa J, Blažková A, Holubík O, Duffková R, Rozmoš M, Püschel D, Kotianová M, Janoušková M (2023) Infectivity and symbiotic efficiency of native arbuscular mycorrhizal fungi from high-input arable soils. *Plant Soil* 482:627-645
- Boussageon R, Marro N, Janoušková M, Brule D, Wipf D, Courty PE (2022) The fine-tuning of mycorrhizal pathway in sorghum depends on both nitrogen-phosphorus availability and the identity of the fungal partner. *Plant Cell Environ* 45:3354-3363
- Marro N, Grilli G, Soteras F, Caccia M, Longo S, Cofré N, Borda V, Burni M, Janoušková M, Urcelay C (2022) The effects of arbuscular mycorrhizal fungal species and taxonomic groups on stressed and unstressed plants: a global meta-analysis. *New Phytol* 235:320-332
- Forczek ST, Bukovská P, Püschel D, Janoušková M, Blažková A, Jansa J (2022) Drought rearranges preferential carbon allocation to arbuscular mycorrhizal community members co-inhabiting roots of *Medicago truncatula*. *Environ Exp Bot* 199:104897
- Marro N, Lidoy J, Chico MÁ, Rial C, García J, Varela RM, Macías FA, Pozo MJ, Janoušková M, López-Ráez JA (2022) Strigolactones: New players in the nitrogen–phosphorus signalling interplay. *Plant Cell Environ* 45:512–527.
- Fernandez N, Knoblochová T, Kohout P, Janoušková M, Cajthaml T, Frouz J, Rydlová J (2022) Asymmetric interaction between two mycorrhizal fungal guilds and consequences for the establishment of their host plants. *Front Plant Sci* 13: 873204
- Blažková A, Jansa J, Püschel D, Vosátka M, Janoušková M (2021) Is mycorrhiza functioning influenced by the quantitative composition of the mycorrhizal fungal community? *Soil Biol Biochem* 157:108249
- Nouri E, Matinzadeh M, Moshki A, Zofaghari A, Rajaei S, Janoušková M (2020) Arbuscular mycorrhizal fungi benefit drought-stressed *Salsola laricina*. *Plant Ecol* 221:683-694
- Janoušková M, Caklová P (2020) Molecular quantification of arbuscular mycorrhizal fungal root colonization. N. Ferrol, L. Lanfranco (Eds.), *Arbuscular Mycorrhizal Fungi. Methods in Molecular Biology* 2146, Humana, New York, pp. 73-91
- Duffková R, Fučík P, Jurkovská L, Janoušková M (2019) Experimental evaluation of the potential of arbuscular mycorrhiza to modify nutrient leaching in three arable soils located on one slope. *Appl Soil Ecol* 143:116–125.
- Voříšková A, Jansa J, Püschel D, Vosátka M, Šmilauer P, Janoušková M (2019) Abiotic contexts consistently influence mycorrhiza functioning independently of the composition of synthetic arbuscular mycorrhizal fungal communities. *Mycorrhiza* 29:127–139.
- Rocha I, Ma Y, Carvalho MF, Magalhaes C, Janoušková M, Vosátka M, Freitas H, Oliveira RS (2019) Seed coating with inocula of arbuscular mycorrhizal fungi and plant growth promoting rhizobacteria for nutritional enhancement of maize under different fertilisation regimes. *Arch Agron Soil Sci* 65:31-43
- Ma J, Janoušková M, Ye L, Bai LQ, Cong RR, Yan Y, Yu XC, Zou ZR, Li YS, He CX (2019) Role of arbuscular mycorrhiza in alleviating the effect of cold on the photosynthesis of cucumber seedlings. *Photosynthetica* 57:86-95