

Gyöngyi BARNA

📍 Hungary, 1022 Budapest, Herman Ottó street 15., Institute for Soil Sciences, Centre for Agricultural Research

☎ +36/1/212-2265 📠 +36-30-234-3314

✉ [barna.gyongyi@atk.hu](mailto:barna.gyongyi@atk.hu)

Gender: female | Nationality: Hungarian

#### POSITION

2014- Junior research fellow  
Department of Soil Physics and Water Management, Institute for Soil Sciences, Centre for Agricultural Research

2010 - 2012 Research assistant  
Department of Plant Production and Soil Science, Georgikon Faculty, Pannon University

#### STUDIES

environmentalist - University of Szeged

#### RESEARCH AREA

Laboratory and field soil physical measurements with water and/or non-polar liquids; changes of soil properties caused by biochar

#### SELECTED PROJECTS

Development of new soil structure indicators to characterize the hydrophysical effects of soil degradation processes (NKFIH K134563; 2020-2025) **participant**

Use of structural soil properties for improving prediction methods in soil systems wetting by water or non-polar liquids (NKFI K119475; 2016-2022) **participant**

Mobility and Environment: Research in the fields of motor vehicle industry, energetics and environment in the Middle- and West-Transdanubian Region (TÁMOP-4.2.1/B-09/1/KONV-2010-0003; 2010-2014) **participant**

#### LANGUAGE SKILLS

mother language: Hungarian;  
English: intermediate  
German: basic

#### 5 MAIN PUBLICATIONS

- Ladányi Zs., Balog K., Tóth T., Barna Gy., 2023. Longer-term monitoring of a degrading sodic lake: landscape level impacts of hydrological regime changes and restoration interventions (SE Hungary). *Arid Land Research and Management*, 37:3. 389-407.
- Barna Gy., Makó A., Takács T., Skic K., Füzy A., Horel Á., 2020. Biochar alters soil physical characteristics, arbuscular mycorrhizal fungi colonization, and glomalin production. *Agronomy*, 10:12. 1933.
- Horel Á., Barna Gy., Makó A. (2019): Soil physical properties affected by biochar addition at different plant phenological phases. Part I. *International Agrophysics*, 33:2.255–262.
- Makó A., Szabó B., Rajkai K., Szabó J., Bakacsi Zs., Labancz V., Hernádi H., Barna Gy. 2019. Evaluation of soil texture determination using soil fraction data resulting from laser diffraction method. *International Agrophysics*, 33:4. 445–454.
- Bieganowski A., Ryzak M., Sochan A., Barna Gy., Hernádi H., Beczek M., Polakowski C., Makó A. 2018. Laser Diffractometry in the Measurements of Soil and Sediment Particle Size Distribution. *Advances in Agronomy*, 151: 215–279.