

CURRICULUM VITAE
MÁTYÁS ÁRVAI PH.D.

Current position

- senior research fellow; Centre for Agricultural Research, Institute for Soil Sciences
Department of Soil Mapping and Environmental Informatics
Hungary, Budapest, Herman Ottó str. 15, 1022
- 2ka Palaeoclimatology Lendület researchgroup, member

Personal info

Date and place of birth: Budapest, 07-06-1985

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Studies

- Geosciences Ph.D. – ELTE TTK 2020
- Geografer MSc (Geomorphology) – ELTE TTK 2013
- Geographic BSc (Environment geographic) – ELTE TTK 2011

Language skill

- Hungarian (native)
- English (intermediate)
- German (basic)

Research

- Investigation of drought sensitivity of lowland oak stands with analysis of tree-ring chronologies
- 3D surface modeling with photogrametric methods
- Hyperspectral proximal remote sensing based on UAV platform

Selected publications

- Kozma, Zs; Decsi, B; Ács, T; Kardos, MK; Hidy, D; Árvai, M; Kalicz, P; Kern, Z; Pinke, Zs: Supposed Effects of Wetland Restoration on Hydrological Conditions and the Provisioning Ecosystem Services — A Model-Based Case Study at a Hungarian Lowland Catchment. SUSTAINABILITY 15:15 Paper: 11700, 18 p. (2023)
- Garamszegi, B; Nagy, L; Ács, T; Morgós, A; Árvai, M; Pinke, Zs; Kern, Z: Coupled Hydro-Climatic Signals in the Radial Growth of Oaks Benefitting from Groundwater Availability. WATER 14:20 Paper: 3328, 16 p. (2022)
- Gedeon, Cs; Árvai, M; Szatmári, G; Takáts, T; Brevik, E; Kovács, Zs; Mészáros, J: Identification and counting of European souslik burrows from UAV images by pixel-based image analysis and random forest classification: a simple, semi-automated yet accurate method for estimating population size. REMOTE SENSING 14:9 Paper: 2025, 15 p. (2022)
- Papp, L; Leeuwen, B van; Szilassi, P; Tobak, Z; Szatmári, J; Árvai, M; Mészáros, J; Pásztor, L: Monitoring Invasive Plant Species Using Hyperspectral Remote Sensing Data. LAND 10:1, 18-29. (2021)

- Árvai, M; Morgós, A; Kern, Z: Growth-climate relations and the enhancement of drought signals in pedunculate oak (*Quercus robur* L.) tree-ring chronology in Eastern Hungary. IFOREST-BIOGEOSCIENCES AND FORESTRY 11:2. 267-274. (2018)

Publication list: <https://m2.mtmt.hu/gui2/?type=authors&mode=browse&sel=authors10037338>