

EGU2020-17487

<https://doi.org/10.5194/egusphere-egu2020-17487>

EGU General Assembly 2020

© Author(s) 2021. This work is distributed under the Creative Commons Attribution 4.0 License.



Harmonizing, merging and publishing hydropedological data for the Czech Republic

Luděk Strouhal¹, Petr Kavka¹, Hana Beitlerová², and Daniel Žížala²

¹Czech Technical University, Faculty of Civil Engineering, Dept. of Irrigation, Drainage and Landscape Engineering, Prague, Czechia (ludek.strouhal@fsv.cvut.cz)

²Research Institute for Soil and Water Conservation, Dept. of soil service, SOWAC GIS Lab, Prague, Czechia

Czech soil data is a mess. Modelling infiltration, or its probably most watched companion - runoff, has been quite a painful process for any researcher or practitioner studying any site larger or more heterogeneous than a few parcels of arable land. There are at least three main national soil databases in the Czech Republic, each of different age, scope, classification system and - most unfortunately - different administrator. So far Research Institute for Soil and Water Conservation has taken good care of data for agricultural land, while The Forest Management Institute did his job considering forest soils. A few other research institutes manage their own specific databases. There has been no service available providing consistent data for the whole country, nor methodology giving some guidelines on how to cope with differences in existing datasets, though a few large-scale applications and studies do exist. This contribution presents preliminary results of a running project TJ02000234 - Physical and hydropedological soil properties of the Czech Republic. It aims at harmonizing and combining available datasets and deriving layers of soil texture and hydropedological properties. Next the project aims at gathering available measurements of hydraulic properties of Czech soil types and their partial validation and extending with field measurements in the scope limited by the 2-years of project duration. The derived database and data products will be published in the form of a certified map as well as offered to professionals through an online GIS portal. Design planners in the Land consolidation, flood and soil erosion mitigation projects as well as professionals in public administration and researchers in environmental disciplines will benefit from the publication of this consistent data.