

# Magnetic Imprint in the Soils as a Consequence of War Impact in Ukraine

**Authors** [O. Menshov<sup>1</sup>](#), [V. Bakhmutov<sup>2</sup>](#), [D. Hlavatskyi<sup>2</sup>](#), [I. Poliachenko<sup>2</sup>](#) and [K. Bondar<sup>3</sup>](#)

[View Affiliations](#)

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## Summary

The soil magnetism is the indicator of the physical and chemical processes occurring in the pedosphere. The current war in Ukraine arise the new challenge related to the studying soil magnetic properties at the areas of the military activities, different drones and missiles attacks, unexploded ordnance (UXO), and other weapon pieces and particulate matter which are constant sources of organic and inorganic pollution. The study area Ozero-15 is located in the Forest zone of Ukraine. The predominant soil is Umbric Albeluvisols Abruptic according to WRB-FAO. The measurements included high-resolution magnetometer survey and magnetic susceptibility mapping. The results confirmed that slightly magnetic soil can reflect to the man-made pollution of the military origin, detect the places of the redistribution of the soil genetic horizons and their pollution with iron particles of the different size. The application of the results to the environmental pollution assessment, military hazard evaluation and quantification of soil degradation will accelerate the development of Ukraine's post-war recovery strategy.

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