

**JULY 22-27, 2017, LATVIA AND ESTONIA  
INTERNATIONAL WRB SOIL CLASSIFICATION FIELD WORKSHOP**

**Organized by:**

Soil Science Society of Latvia

University of Latvia, Faculty of Geography and Earth Sciences

Soil Science Society of Estonia,

Estonian University of Life Sciences

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**Report**

The development of the international soil classification system World Reference Base for Soil Resources (WRB) has progressively improved the characterization of the functioning of soil systems and the understanding of soil processes and soil functional qualities for agriculture, forestry and the environment.

The International WRB Soil Classification Field Workshop held in Latvia and Estonia (July 22-27, 2017) was a great opportunity for soil scientists to stimulate deep reflections on the strong links between soil classification, soil quality and sustainable soil management and conservation. We were able to test the WRB in the boreo-nemoral region, where soils are the result of very complex factors and processes at different scales.

The participants of the workshop came from 13 countries: Estonia, Latvia, Russia, Poland, Germany, Austria, Italy, Spain, Belgium, The Netherlands, Norway, Mexico, and South Africa, among them a significant number of young scientists.

The soil profiles were developed mainly from Late Weichselian glacial deposits (formed by loamy sand, sandy clay, loam, clay, gravel, and sand) that have been altered to some extent by postglacial aeolian, marine, lacustrine, alluvial and mire sediments, as well as formed on pre-Quaternary sedimentary rocks.

This workshop showed terrestrial, semihydromorphous and hydromorphous soils. We saw 22 soil profiles, which belong to the following Reference Soil Groups: Histosols, Gleysols, Planosols, Stagnosols, Phaeozems, Luvisols, Retisols, Podzols, Cambisols, Calcisols, Arenosols, Fluvisols, and Anthrosols. They were located in intensively and extensively used agricultural lands and in deciduous and coniferous forests. Some had thick organic surface layers, and the humus forms and related biological activities were discussed: mull, moder, mor, amphi etc. Many peatlands had been drained resulting in enhanced decomposition of organic matter. Some of them still are Histosols, in the WRB characterized by the Murshic qualifier, and some passed to other Reference Soil Groups. Soils characterized by groundwater (Gleysols) or stagnant water (Planosols, Stagnosols) are very common and led to an intensive discussion how to differentiate them.

Such field workshops with discussions of specialists from different countries and different disciplines of soil science, like soil morphology, soil genesis, soil management, soil conservation, and soil classification, are important for the further development of our science.



Participants of the International WRB Soil Classification Field Workshop during discussions at a soil profile (photo: Raimonds Kasparinskis)



Profile 6: Hypereutric Endoluvic Planosol (Anoarenic, Aric, Ochric, Endoraptic, Bathyclayic) (photo: Peter Schad)

The Guidebook of the International WRB Soil Classification Field Workshop in Latvia and Estonia (compiled before the workshop) is available here: <https://store.lu.lv/?vid=61815177-241c-6729-923f-00002e3f8d1f>

A series of soil profile pictures is available here: [http://iuss.org/index.php?article\\_id=73](http://iuss.org/index.php?article_id=73)

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