

*Intro**Translations and Publications**Reports on Activities**Upcoming Activities**Introduction*

This newsletter wants to inform all interested people about recent activities of the WRB Working Group. It has been some time that a WRB Newsletter has been issued. Not that we have not been active (WRB members are involved in the organization of several conferences and in publications, see below) but most of the activities have been already announced through various IUSS Alerts and IUSS Bulletins. Yet it seems appropriate to record them again through this Newsletter and to remind you of our plans.

We look forward meeting you at one (or several) of the events planned for the second half of 2008. With best wishes

Erika Michéli, Peter Schad and Otto Spaargaren

Translations and Publications

The World Reference Base for Soil Resources 2006 has now been translated into several languages: German, Latvian, Russian and Spanish, while several other translations are underway: Arabic, Chinese, French and Polish. We want to thank everyone involved in the translations for a job well-done!!!

A review has taken place of the text of WRB 2006 and an updated electronic version has been prepared. Obvious mistakes have been corrected and some definitions have been re-written because they were cause for confusion. The 2007 electronic version can be downloaded from http://www.fao.org/ag/agl/agll/wrb/doc/wrb2007_corr.pdf.

Part of the activities of the past year has seen WRB contributions to several important publications: the Atlas of Northern Circumpolar Soil, The Soil Atlas of Africa, and the Encyclopedia of Soil Science.

The Atlas of Northern Circumpolar Soil, a joint production of the Institute for Environment and Sustainability of the European Commission, Agriculture and Agri-Food Canada, the University of Vechta, Germany, the University of Alaska, the Russian Academy of Sciences, the International Permafrost Association, the European Soil Bureau Network, and ISRIC-World Soil Information (hopefully no one is forgotten). Its release is expected by the end of 2008 as contribution to the International Polar Year and the International Year of Planet Earth.

The Soil Atlas of Africa is a new initiative in the series of the Soil Atlas of Europe and the Atlas of Northern Circumpolar Soils. Involved in this are the Institute for Environment and Sustainability of the European Commission, the Food and Agriculture Organization of the United Nations, The African Soil Science Society, The European Soil Bureau Network and ISRIC-World Soil Information. Its publication is envisaged by the end of 2009.

Early 2008 a new version of the Encyclopedia of Soil Science, edited by Ward Chesworth, was published by Springer. It is a follow-up of the first encyclopedia of 1979, compiled by Fairbridge and Finkl, and, among many other items, contains the definitions and descriptions of soils according to WRB 2006.

Currently a WRB database (in MS-ACCESS format) is being compiled that contains field descriptions and analytical data from the international database of USDA, the ISIS database of ISRIC, WRB excursions, and data from selected literature. A first release can be expected the second half of this year through the WRB website at FAO and the WRB pages of the ISRIC website.

Reports on Activities

WRB-Excursion on Technosols and Stagnosols, Germany in August 2007 taken from IUSS Newsletter 111

The soil groups Technosols and Stagnosols which were introduced very recently into the WRB (world reference base on soil resources) have been studied during an eight days lasting excursion throughout Germany. This excursion started in the Ruhr area in North-West-Germany, on-going in the area of Halle and South of Halle in Central Germany, finally forwarding to South-West Germany. Proposals for the improvement of the WRB taxonomy were formulated during the in-door discussion at Hohenheim University at the last day. Twenty-eight participants from twelve countries shared the excursion which traced back to a proposition from A. Lehmann (Hohenheim) during the IUSS conference in Philadelphia in 2006. Hence, he took over the general organization of the tour. The WRB working group of the IUSS (O. Spaargaren/ Wageningen und P. Schad/ Weihenstephan) was invited by the AK Bodensystematik (Working group on soil systematic of the German Soil Science Society, G. Milbert/ Krefeld).

In total 35 main and some additional soil profiles were shown, 26 anthropogenic soils and 9 formed by stagnant water from natural rocks. The time spent on anthropogenic soils and the time spent on the hydromorphic soils was nearly the same. This, because of longer distances to travel between the different soils with stagnant water.

The first part of the excursion took place at the starting point of the industrialization in Germany. This was in the anthropogenic strongly influenced Ruhr area.

The Technosols shown there were developed from transported soil material with addition of rubble, ashes, slags and mine spoil. These soils differed substantially in points of their functionality, in regard to the amount of in situ accumulated organic carbon, of decalcification, of alteration by stagnant water and in the occurrence of pedogenic formed minerals.

The natural soils influenced by stagnant water shown in the Ruhr area (annual precipitation: 820 to 930 mm, mean annual temperature: 9.6°C) were from unconsolidated sedimentary rock. Either from marine clay covered with fluvial sand and gravel or from Loess. An intense discussion about the interfering definitions of Stagnosols and Albeluvisols arose at the profiles.

In the evening of the second day, the excursion moved by train from the Ruhr area to Halle in Central Germany. There, the tour continued in the following morning. After a sound introduction into the area of Saxony-Anhalt, the excursion focuses on anthropogenic soils. Here, mainly soils developed from lignite ashes and other residues (oil residues and lime) of industrial processing have been discussed. Some discussions focused on the similarity and differences between Technosols from ashes and Andosols as well as of the current definition of artefacts.

The part of the tour in Central Germany was closed by the presentation of a natural soil in the Wermersdorfer forest (annual precipitation: 650 mm, mean annual temperature: 8,4 °C) influenced by stagnant water. There, Gustaf Adolf Kraus (1888-1968) developed the concept of "gleiartige Böden" which leads to the soil type Pseudogley in the German soil classification. Again, the overlap between Stagnosols and Albeluvisols was discussed at this site.

In the afternoon of the fourth tour-day, the group moved to Stuttgart and arrived there at late night. The following day and the morning of the last tour day was dedicated to a wide range of natural soils formed by stagnant water which were located on the Swabian Alb, in Upper Swabia and in the "Obere Gäue". Most of the presented hydromorphic soils were developed under 7-8° C mean annual temperature and 800-900 mm total annual rainfall. Only the hydromorphic soils presented on the following day in Stuttgart experienced 9 to 10°C annual temperature and 700 mm total annual rainfall.

At the last tour day again anthropogenic soils have been the main topic in the city area of Stuttgart. First, a dump site was visited. There, a Garbic Technosol heavily influenced by reductic gases, was developed. Starting from this 25 years old Technosol, three older anthropogenic urban soils have been shown. The oldest Technosol (from wastes and undisturbed for 85 years) showed intense in situ darkening.



Participants of the AK Bodensystematik – WRB Working Group excursion on Technosols and Stagnosols 2007 in the "Lehenpark" in Stuttgart-West

The following day was up to constructive discussion for completions and changes of the WRB-framework. The Techno-/ Stagnosols-Tour was also the 25th jubilee of the WRB working group, which was initiated from FAO in 1980 as a follow up of the "Soil Map of the World" project and established in 1982 from the ISSS. We all were glad to have the WRB-veterans R. Dudal und H.-P-Blume with us on the Techno-/ Stagnosols-Tour. This, in order to benefit from their long-term memory. Finally, we want to thank the numerous here not namely mentioned contributors for their support during the preparation and running of the excursion. Also, we want to thank the generous sponsors, notably the DFG (German Research Foundation), the Universitätsbund Hohenheim, the Farny- and the Eiselen foundation, the DBG (German Soil Science Society) und the IUSS.

A. Lehmann, R. Jahn, , G. Milbert, K. Stahr, W. Burghardt, P. Schad

**Latin American Soil Science Congress
and International Soil Science Courses
Mexico 2007**

The Latin American Soil Science Congress was held from September 17 to 21 in the city of León. In many symposia oral presentations discussed WRB and its relevance from the worldwide level over Latin America to Mexico. There were also two interesting excursions showing Central Mexican landscapes (see 2 photos), organized by Carlos Omar Cruz Gaistardo from the Mexican National Institute of Statistics, Geography and Informatics (INEGI). The congress was combined with two WRB workshops held by Mabel Susana Pazos.



Left: Thaptoluvic Pisocalcic Solodic Planosol (Albic, Endohyposodic, Bathythaptopetroduric)
Right: The excursion group standing in gypsum-rich sediments

Directly after the congress an intensive soil science course started in the city of San Luis Potosí which took one month and was lead by Norma Eugenia García Calderón from the National Autonomous University of Mexico (UNAM). The participants were students and professionals working in public or private areas. Within that course WRB was an important topic and was taught by Peter Schad.

Upcoming Activities

WRB activities at Eurosoil, 25 to 29 August 2008 in Vienna (Austria)

<http://www.ecsss.net/>

Symposium 20 “Soil Classification” (26 August, 11:30 - 18:00, room 18):

The topics of the papers will cover the conceptual developments, the experiences of applications and the challenges of the WRB in serving as correlation framework to link national soil classification systems and as a tool for digital soil mapping.

WRB Business meeting: Right after the symposium, same room.

We will discuss the experiences of the activities since the last business meeting, the planned activities and future meetings of the Working Group.

All working group members and interested colleagues are welcome!

Problems of soils classification and diagnostics, 25 to 28 September 2008 in Cernivtsi (Ukraine)

http://bio.chnu.cv.ua/soilconf08/index_eng.htm

An international scientific-practical conference will be held in the Yuri Fedkovych Chernivtsi National University (department of soil science and land management). The meeting features 3 symposia:

1. Soils classification: state, approaches and applied aspects.
2. Principles and methods of soils diagnostics.
3. Correlation of national (local) soils classifications with WRB; anthropogenic soils.

The meeting is concluded by a one-day field trip.

Soil Science Society of America Meeting, 5 to 9 October 2008 in Houston (USA)

<https://www.acsmeetings.org/>

The Soil Science Society of America (SSSA) will hold its annual meeting from October 5 to 9 in Houston. It will be organized together with the American Society of Agronomy, the Crop Science Society of America and the Geological Society of America. There will be a symposium entitled “The WRB (World Reference Base for Soil Resources) - concept and applicability for different scales from local soil survey to global earth observation systems” with 5 oral presentations. Additionally a short course is offered with the title “The WRB (World Reference Base for Soil Resources) - an International Soil Classification System” organized by Peter Schad and Erika Micheli on October 5 (half a day). This course is addressed to university teachers, professionals and graduate students. Registration is still possible. There are also interesting pre congress tours offered which lead to different regions of southern Texas.

***International Conference & Field Workshop on Soil Classification
9 to 17 November 2008 in Santiago (Chile)***

<http://www.scc2008.uchile.cl/>

This meeting is organized jointly by the International Union of Soil Sciences (responsible: Commission on Soil Classification), the Chilean Society of Soil Sciences, the Chilean Ministry of Agriculture, the University of Chile, the University of Concepcion, the University of La Serena and the Center of Advanced Studies in Arid Zones. The aim of the meeting is to bring together scientists and researchers in the fields of soil classification and related areas from all over the world. One of the topics is to discuss recent progress and future trends in the WRB. This meeting stands in the tradition of soil classification meetings in Hungary (2001) and Russia (2004). The event consists of:

Pre Conference Tour (North: Ovalle – Tongoy - Ovalle): 9 to 11 November 2008

Oral and Poster Sessions (Santiago): 12 to 14 November 2008

Post Conference Tour (South: Chillán - Talca): 15 to 17 November 2008