

*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.

As of July 2009 WRB has its own email address: [worldreferencebase@gmail.com](mailto:worldreferencebase@gmail.com). Please use this for any future communications.

We look forward meeting you at one (or several) of the events planned. 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: Arabic, Chinese, German, Latvian, Russian, Spanish and Ukrainian, while French, Polish and Romanian translations are underway. 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](http://www.fao.org/ag/agl/agll/wrb/doc/wrb2007_corr.pdf).

In March 2009 a meeting was held at Ispra, Italy, to discuss how WRB can be used in small-scale mapping. Subsequently, guidelines have been prepared outlining group by group which qualifiers are to be used at various small-scale levels and how they are to be reported in legends and databases. These guidelines are still for discussion and testing, and can be downloaded from the WRB website <http://www.fao.org/ag/agll/wrb/>.

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

The Atlas of Northern Circumpolar Soil is 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. Its release is expected by the end of 2009 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 subsequent to the Atlas of Northern Circumpolar Soil.

Currently a World Archive of Soil Profiles (WASP) database (in MS-ACCESS format) is being compiled that contains field descriptions and analytical data from several WRB excursions, the ISIS database of ISRIC, the international

database of USDA, the FAO-SWALIM database and data from selected literature. The database also contains tables with classifications according to the FAO-UNESCO Legend of the Soil Map of the World, the FAO-UNESCO-ISRIC Revised Legend, WRB 1998 and WRB 2006 as well as the local classification if available. The release of version 1.0 is planned toward the end of 2009 and will be made available through the ISRIC website (<http://www.isric.org>).

---

### ***Reports on Activities***

#### **EUROSOIL, 25 to 29 August 2008 in Vienna (Austria)**

The symposium on “Soil Classification”, in which WRB played a considerable role, was well-attended by some 80 scientists from all over the world. Topics of the papers covered conceptual developments, experiences in applications and the challenges facing WRB in serving as correlation framework to link national soil classification systems and as a tool for digital soil mapping. Also the symposium on “Soil Forming Processes and Soil Morphology” gave new insights into the state-of-art in soil classification. A number of posters on the application of WRB in Europe were also presented.

The next EUROSOIL Congress will be held in 2012 in Bari (Italy).

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

An international scientific-practical conference was held at the Yuri Fedkovych Chernivtsi National University. During the symposium on “Correlation of national (local) soils classifications with WRB”, Otto Spaargaren presented a paper on the “World Reference Base for Soil Resources - Its principles of classification and potential for correlation”. During the meeting the Ukrainian translation of WRB was distributed to the participants, who came from Austria, Belarus, Czech Republic, Moldova, Netherlands, Poland, Romania, Russia and the Ukraine.

The meeting was concluded by a one-day field trip to the foothills and outliers of the Carpathian Mountains in SW Ukraine. Soils studied during the tour were an Albeluvisol, a Cambisol and a Stagnosol.



Stagnosol in the foothills of the Carpathian Mountains in SW Ukraine



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

From October 5 to 9, the Annual Meeting 2008 of the SSSA was held in Houston (Texas). Celebrating the International Year of Planet Earth it was organized as a joint meeting together with the Geological Society of America and other societies. In the symposium „The WRB (World Reference Base for Soil Resources) — Concept and Applicability for Different Scales from Local Soil Survey to Global Earth Observation Systems”, for the first time WRB was brought to a broader audience during an SSSA meeting. And many interesting discussions evolved on WRB and its relationship to Soil Taxonomy.

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

This meeting was 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 conference comprised three parts: a pre-conference tour to the semi-arid part of Chile north of Santiago (region of Ovalle – Tongoy), the three-day conference and poster exhibition itself at the University of Chile in the centre of Santiago, and a post-conference tour to the Mediterranean part of Chile south of Santiago (region of Chillán - Talca).

The conference was attended by some 50 participants from Argentina, Belgium, Brazil, Ecuador, Germany, Hungary, Ireland, Italy, Japan, Mexico, Netherlands, Peru, Poland, South Africa, Spain, Russia and the USA, and about 40 Chileans, out of which a considerable number of students from various local universities. During the sessions of the conference, papers were presented on ethno-pedological studies, developments in various soil classifications, extreme soils, and applications of soil classification. The poster competition was won by N. Roca and M.S. Pazos from Argentina.

During the pre-conference tour, the participants visited an Arenosol and a Solonetz near Huentelauquén, a Durisol at Las Cardas and a Vertisol near Ovalle and another Solonetz near Tongoy on the Pacific coast. In particular, the Arenosol and the Solonetz near Tongoy raised some discussions, both on the genesis of these soils (“To what extent influences sea fog the soil formation?”) as well as on classification issues.



The pre-conference tour group visiting the Solonetz near Huentelauquén

The post-congress tour took the participants to the vineyards of San Pedro where lively discussions took place if the lahar deposit on which the Stagnic Cambisol there was developed, had to be considered a petroduric horizon. The group then went on to the region around Chillán, which is heavily influenced by volcanic activity. The participants visited an Andosol, an Alisol and a Lixisol near Chillán, and the University of Concepcion hosted a reception. Finally, near Talca the group studied a Cambisol with strong volcanic influence, and a Luvisol.

The conference was very well organized. Thanks to the USDA National Soil Survey Laboratory in Lincoln, Nebraska, USA, the field tours were supplied with very well documented and analysed soil profiles.



The post-conference tour participants visit a ripped Alisol near Chillán

**FAO Summer School on Soil Survey and Land Management**  
***Tackling new challenges under changing environmental, political and climatic condition***  
**27 to 31 July, 2009, Szent István University (SZIU), Gödöllő, Hungary**

The summer school was jointly organized by FAO and Szent István University. The WRB WG was represented, and the related lectures were given by Erika Michéli, Otto Spaargaren and Peter Schad.

The program included 3 days of classroom sessions and 2 days of field activities:

1. Functions of soils and the threats to soils *as identified in the Communication on the Thematic Strategy for Soil Protection*
2. Soil information needed for sustainable land use and soil protection
3. The World Reference Base for Soil Resources (WRB) – *the common scheme for correlation of soil classification systems and the tool for harmonizing and building international soil databases.*
4. Land evaluation and land tenure
5. Climate change and land use

In the field activities, the exercise with the FAO Guidelines for Soil Description and the WRB were in focus.

***Upcoming Activities***

**Bridging the Centuries: 1909-2009**  
***Celebration of 100 years of soil science since the 1st International Conference of Agrogeology in Budapest, Hungary***

The 1st International Conference of Agrogeology was held 14-27 April, 1909, in Budapest, Hungary. The celebration of the legacy from Agrogeology and the 100 years of advances in soil science are organized as a series of meetings held in Budapest in September 2009.

Central event: „**Bridging the Centuries: 1909 – 2009**” will be a one-day conference followed by a one-day of field excursion on **16 and 17 September, 2009**. The conference will take place in the same buildings of the Hungarian Academy of Sciences and the Geological Institute of Hungary, and the field excursion will visit some of the same locations, where the participants (including Glinka, Murgoci, Ramann, Sigmond and others) of the 1909 conference discussed their ideas on soils.



Complementary events will be organized before and after the central event as follows.

- The annual plenary meeting of the European Soil Bureau Network 14-15 September, 2009
- From the Dokuchaev School to numerical soil classifications 18 September, 2009
- IUSS Conference and field excursion on salinization 20-22 September, 2009

Registrations and paper contributions are still accepted. For further information visit: [www.mta/soil2009.hu](http://www.mta/soil2009.hu) or contact by email: [soil2009@szie.hu](mailto:soil2009@szie.hu)

### **International Conference „Soil Geography: New Horizons” in Mexico, November 2009**

<http://www.soilgeography09.fciencias.unam.mx/Conference2.html>

In the city of Huatulco Santa Cruz (Oaxaca, Mexico) the Congress “Soil Geography: New Horizons” will be held from November 16 to 20, 2009. Organizers are the National Autonomous University of Mexico (UNAM), the National Council for Research and Technology of Mexico (CONACYT) and the National Institute for Statistics, Geography and Informatics (INEGI). One symposium (Soil classification and soil mapping units: theory and application) will be directly related to classification, and many others will touch the topic indirectly. A seven-day pre-congress field tour and a four-day post-congress field tour are offered.

### **The 19th World Congress of Soil Science**

[www.19wcss.org.au](http://www.19wcss.org.au)

The 19th World Congress of Soil Science will be held in Australia, 1-6 August 2010. The conference theme “*Soil Solutions for a Changing World*” provides a tremendous opportunity for a broad range of presentations – among them two organized by Commission 1.4. Soil classification and another by the WRB working group as given below.

We urge you to contribute to those sessions. The “[Call for Papers](#)” has now opened - papers must be submitted by 31 October 2009 to be considered.

#### **1.4.1 Soil classification and information demand - Challenges for soil classification in an era of great global digital information demand**

Soil classification systems are devised by humans as a means of communication and as an attempt to find order to a natural system. Digital soil maps are built on varying amounts of soil data along with models used to predict soil properties. Can soil classification help verify the digital soil information? Or is soil classification useful or even needed in a digital soil information world? This symposium examines the challenges that soil classification systems have in a digital world, and the digital world has challenges with soil classification systems.

#### **1.4.2 Soil classification - benefits and constraints to pedology**

Soil classification systems are necessary as a means of communication, as well as a tool for soil mappers to track and compare soils. It seems that pedology and, soil science in general, have spent tremendous resources devising, revising, and disseminating soil classification information. Have we devoted too much time and resources to soil classification at the expense of other endeavours? Or has soil classification guided research activities in a positive direction? This symposium should challenge us to examine our science and continue moving in a positive direction

#### **WRB Working Group - The WRB @evolution**

The World Reference Base for Soil Resources was established with the intent of creating a framework through which ongoing soil classification could be correlated. The final objective was to reach international agreement on the major soil groups to be recognized at a global scale, as well as on the criteria and methodology to be applied for defining and separating them. Much progress has been made in harmonizing the diagnostic horizons among classification systems, including Soil Taxonomy. WRB workshops and tours held in many parts of the world have generated a renewed excitement in soil classification, and pedology in general, and has been the spring board for further collaborations. What are the next steps? Where does WRB go from here?

### **2010 WRB excursion Norway**

Plans are underway to organize some time in September 2010 a four or five-day WRB field trip in Norway, focussing particularly on Cambisols and Stagnosols, but also on some other soils. In order to continue the preparations, we would like to know who is interested in participating. Please mail before 15 October 2009 to [worldreferencebase@gmail.com](mailto:worldreferencebase@gmail.com) your intentions, so that we can inform the local organizers for how many people they should prepare.