NEWSLETTER

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ESSC EUROPEAN SOCIETY for SOIL CONSERVATION

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Soil erosion beneath tea plants of old plantation in Sri Lanka (photo from Samir El-Swaify, University of Hawaii, USA).

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Contents

This issue of the ESSC Newsletter presents the ninth of our 'Guest Editorials.' This is an opportunity for leading authorities in the soil science community to offer their perspectives on issues relating to soil conservation. This contribution is from Samir El-Swaify (Hawaii, USA). Eventually, we envisage this collection of essays developing into an authoritative book.

Conserving natural resources: Under the Shadow of the Global Economic Crisis

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The UNEP Millennium Ecosystem Assessment (MEA) (2005) has compiled conclusive evidence that humans have changed ecosystems more rapidly and extensively over the past 50 years than in any comparable period of time in human history. While such changes have resulted in many benefits for meeting the growing population needs, *"these gains have been achieved at growing costs in the form of the degradation of many ecosystem services, increased risks of nonlinear changes, and the exacerbation of poverty for some groups of people."* Furthermore, the MEA warns that the degradation of ecosystem services could grow significantly worse during the first half of this century (MEA, 2005). Combating this degradation must involve significant changes in policies, institutions and practises.

From the land and soil resources perspectives, degradation has been well documented over recent decades as the primary threat to the sustainability of the earth's ecosystems and declining stock of productive natural resources. On-site and off-site impacts of degradation have been globally recognized, especially for soil erosion by water, which is the most serious form of human-induced degradation. Ample observations and research have been completed to understand and control soil degradation, especially erosion under natural rainfall and simulated rainfall.

From the economic perspective, billions of dollars have been spent investigating every degradation mechanism, develop alternative quantitative predictive models, design conservation and restoration technologies and demonstrate the utility of these technologies at many scales and under diverse environments. While predictive models as well as conservation technologies and approaches now abound, many constraints, primarily economic ones, still act as major barriers to the wide-scale and effective implementation of conservation practises and sustaining agricultural enterprises. Even as agronomists and conservation experts advocate land husbandry and other 'holistic' approaches to soil conservation, presumably less expensive and more sustainable; financial subsidies and other incentives continue to

Plate 1. Massive rill erosion damages soil quality (Khon Kaen, north-east Thailand; photo by S.A. El-Swaify).

Plate 2. Runoff pollution impairs water quality. Aerial view of the outlet of the Vallata River (western Mexico) during the rainy season (photo by S.A. El-Swaify).

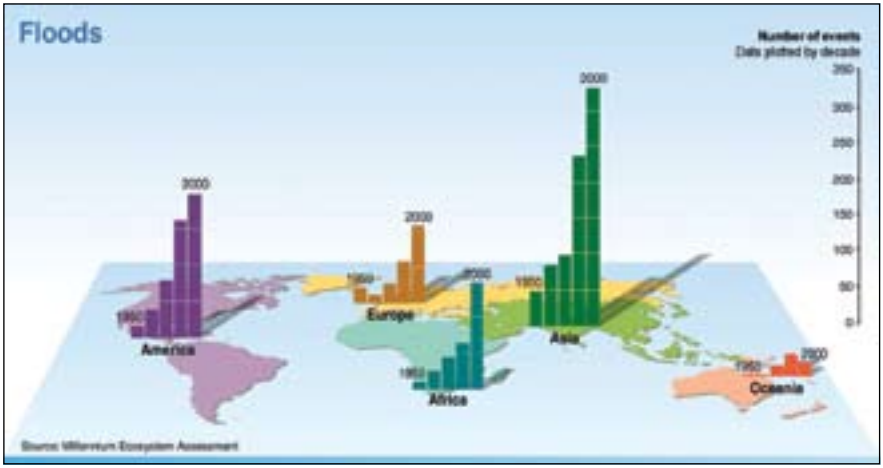

Figure 1. MEA's illustration of progressive increases in flood hazards due to declining buffering capacity of natural ecosystems (e.g. forests, wetlands and mangroves).

Plate 3. Modelling rill erosion on Oxisols in Hawaii (photo by S.A. El-Swaify).

be necessarily used by many governments to lure farmers and other stakeholders into adopting prescribed practises for land and soil conservation and wise stewardship. These dependencies are now at greater risk than ever before.

With the world economy currently taking serious downturns without a clear end in sight, governments in every country and at every level are scrambling to balance their budgets and to do so, must redefine their spending priorities. The impacts of economic decline are clearly reaching critical proportions in the industrialized states. However, these impacts are even more evident in the developing countries whose financial health is fragile, natural resource capital is already subject to massive degradation, and societies may have more 'pressing' needs. Everywhere, conservation of natural resources, including soil and water, must now compete for scarce funds with other priorities, especially food security and health care. To exacerbate the problem, costs of food production are soaring because of increasing petroleum costs and the sudden conversion of land

Plate 4. Waterfall in northern Iraq. With careful management, we can move to efficient use of water resources and environmental stability (photo by S. El-Swaify).

use to energy production in commodity exporting countries. As an example, maize (corn) production has been increasing in the USA, not as a food staple but for biofuel (ethanol) production.

These developments are bound to profoundly influence the fate of the world's natural resources and overall integrity of ecosystems. Policy makers may now resort increasingly to compulsory rather than voluntary compliance with protective land use regulations. Conservation subsidies and other economic incentives may decline or disappear altogether.

Soil conservationists must now go back to fundamentals that can inspire land users to adopt conservation ethics without being financially overwhelmed. At the same time, it is imperative that over-generalizations be avoided, because local conditions and human influences are always very diverse and demand site-specific answers and interventions. As we have learned repeatedly from past difficult lessons, there are no panaceas. No single model, practise or recommendation is universally applicable. To be sure, broad elements of land-use planning are still the responsibility of governments and other public institutions. However, conservationists and land users have the essential task of protecting soil and land resources at the source under use. Working together positively, realistic and feasible conservation actions can be taken, the economic crises notwithstanding. Some fundamental principles and derived practises are summarized below.

Summary: Some soil conservation principles and affordable practises that promote sustainability:

1. Respect and learn from traditional techniques of water and soil management that are in harmony with the physical, social and economic environment.
2. Consider mechanical and structural approaches only in complement of biological/agronomic/land husbandry ones to reduce expenses and enhance effectiveness.
3. Apply practises that build up soil 'life and health,' including soil biota, organic matter and essential nutrients.
4. Advocate interventions that maximize soil cover for erosion protection and surface temperature moderation.

5. Tailor tillage practises (depth, intensity and frequency) to balance specific soil characteristics with crop requirements, energy consumption and effective recycling of plant residues.
6. Minimize water and nutrient losses by runoff or leaching, and maximize water and nutrient use efficiency especially in arid and semi-arid lands.
7. Choices are not black or white. Choose combinations that are 'grey' to optimize expenses and benefits.
8. Manage farm or ranch animals such that pastures are not degraded by over use.
9. Incorporate perennial plants (e.g. agroforestry) in farm design as much as possible to minimize seasonal soil exposure, enhance protection against wind, provide alternative sources of fuel and fodder, and enhance overall sustainability.

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Introduction

Much international concern exists about poverty amongst small farmers in developing countries. It has prompted interest about topics of research that are most likely to improve productivity in these regions. Many scientists believe that the key to advance lies in biotechnology and this has attracted much publicity (Annals of Applied Biology, 2009; FAO, 2009; Sawaya and Arundel, 2009). Other opportunities for advance have received far less publicity, despite including research that is aimed at relieving processes that limit crop production in much of the world. In particular there is relatively little work and publicity on soil related problems, even though it can be argued that major constraints to crop yields and, thus, prosperity in many developing regions of the world are soil degradation; lack of water; and plant nutrient stress. This paper summarizes some recent progress in relieving these constraints.

Soil degradation

Soil degradation is a major threat to much of agriculture and to the lives of millions of people. The Global Assessment of Soil Degradation (Hammond *et al.,* 1992) concluded that over the period 1945-1990 an area approximately equal to the size of China and India had suffered moderate to extreme degradation. Recent work (Scherr, 2008) indicates that the problem is becoming even more serious. About 80% of the degradation results from water and wind erosion. Within each of these types of erosion there is much diversity; thus, serious water erosion in Russia occurs every spring on sloping land when the snow and ice melts, whereas in other countries erosion seldom occurs but when it does, it is devastating. Erosion in highlands often depresses crop production in far away catchments by inducing silting of dams and flooding. Studies on these broader aspects of erosion involves surveying, often with the satellite imagery (Abdallah *et al.,* 2007), geographic information systems (GIS) and mathematical interpretative techniques (Kheir *et al.,* 2008). They can reveal effects of natural processes and how practises such as soil cultivation, animal grazing and forest felling and planting have affected erosion. The best way of reducing erosion varies considerably depending on the environmental, economic and social conditions. It is, therefore, not always easy to identify an appropriate procedure from the many that have been used in the past. Indeed new techniques for particular situations are continually being introduced. For example, a simple technique has enabled smallholders and their families to make coarse meshed mats, from locally grown palm leaves, that when laid on the ground are extremely effective in minimizing erosion (Smets *et al.,* 2007). In China pumping Yellow River water, which contains much suspended silt, onto eroded land has enabled it to be reclaimed (Fullen *et al.,* 1995). Much research (e.g. Huang *et al.,* 2006) is, however, concerned with the development of simulation models (e.g. EPIC) that predict the extent of erosion on soils

in terms of crop, agronomic practise, and soil and weather conditions. Methods are being developed for estimating the required inputs reliably and at minimum cost. They include airborne radiometric surveys for soil organic matter and inorganic elements (Rawlins et al., 2009a), and pedofunctions that can enable particle size distributions to be deduced from the concentrations of some elements in soil (Rawlins *et al.,* 2009b). These models provide an objective basis for comparing probable benefits from different practises for several situations, and may be used for guiding some government policies on erosion. There are, therefore, many ways in which erosion can be reduced and, thus, crop yields increased within a short time.

Lack of water

The world-wide water shortage is emphasized by the reliance of much agriculture on mining of geological water which is not renewable and is running out. FAO (2008) considered that by 2025 two-thirds of the world will be under water-stress conditions. I think considerable scope exists for improving efficiency of irrigation across the world. At present many growers irrigate to obtain maximum yield whereas it would, in drought stricken regions, be better to irrigate so as to obtain maximum increase in yield per unit of water applied. My main concern, however, is that many of the conclusions from irrigation work and the consequent advice to growers, including that provided by FAO (Allen *et al.,* 1998) are diffuse. Even so, the basic theories of water transport in soil are thoroughly established and good models have been developed for estimating the dependence of evapotranspiration and plant growth on soil water and evaporative conditions. They promise to provide a much improved way of predicting optimal irrigation practise. However, they have seldom been applied in practise (Bastiaanssen, 2007). Their use involves solving a range of equations by finite difference methods that are difficult to master. However, the advent of modern PCs, with their considerable computing power, enables the models to be formulated in such a way that they are easy to run (Yang *et al.,* 2009).

Variation of hydraulic properties across fields affects irrigation needs, but irrigators seldom take account of this variation. It is a problem even in deep apparently uniform soils (Ahuja and Nielsen, 1990). Ideally direct measurements of hydraulic properties should be made across irrigated areas but the high cost generally makes it impossible to do so. An alternative is, however, to estimate the hydraulic properties from pedofunctions that related them to readily available soil properties (Wősten *et al.,* 1999). Once estimates have been made of variation of hydraulic properties, it is possible by using kriging techniques to draw contour maps to show how the hydraulic properties vary across the area. By combining this information with the crop/water models described above it should also be possible to draw maps of variation in irrigation need.

Spatial variability of many cropped soils is however considerable; roots have to penetrate several horizons with vastly different properties, such as differences in the stone content or that are an impenetrable barrier to rooting.. Moreover, the depths of these horizons can vary considerably over short distances as can the depths of the water table and the extents of lateral flow. For such soils modelling based techniques for estimating lateral variation in irrigation requirements appear to be inappropriate. A better solution might be to base irrigation on the use of soil water-sensors, many of which have now been introduced. The most advanced use of this technology is described by Vellidis *et al.* (2008). He described a system in which water sensors are installed at different depths at each of different locations over the irrigation area. The data recorded at each location is transmitted by wireless to a PC at a control centre that

processes the data and controls the irrigation across the field according to need. It is claimed this system is inexpensive. The possibilities could result in more efficient use of water in some drought stricken countries.

The use of mulches and growing crops in polythene tunnels are effective ways of minimizing evapotranspiration. In addition novel methods of applying irrigation have been devised. Amongst the newer ones that have improved water use efficiency are subsurface irrigation (Banedjschafie *et al.*, 2008) and irrigation with partial root zone drying (i.e. irrigating one side of a row crop whilst leaving the other side dry and then at the next irrigation irrigating the dry side and leaving the previously irrigated side dry) (Saeed, 2008). The development of agronomic techniques could be of immense importance. On the GM front, my colleague, Andrew Thompson has produced a cultivar that at least, under greenhouse conditions, grows as fast as normal cultivars, but transpires less rapidly. If this also occurs in the field the development could be a major breakthrough.

Plant nutrition

The importance of added nutrients in world cereal production is illustrated by the sharp linear increase in cereal yields over the years with increase in fertilizer-N, fertilizer-P and irrigation (Tilman *et al.,* 2002). I am not arguing that yields will increase with increase in fertilizer, but I believe, from other evidence, that no country can get high yields without substantial applications of nutrients. In many developing countries, however, fertilizers are very expensive and can only be used sparingly. Furthermore, matters are made much worse because many of their soils are highly weathered and their chemical and physical properties are dominated by pedogenic reactions that have taken place over thousands of years (Walker and Syers, 1976; Vitousek and Farrington, 1997). They are acutely deficient in nutrients. A particularly important feature of highly weathered soils is that they contain almost no mineral P that is available to plants: it can in fact only be extracted by fusion with sodium carbonate. These soils quickly immobilize applied P into the inorganic matrix and thus render it useless for plants; in such soils plants have to rely on P released by mineralization of soil organic matter but inevitably over the generations less and less plant available-P remains in the soil. Such highly weathered soils are widespread in Africa and occur in many countries elsewhere. In my view, to raise yields on such soils it will be essential to add some phosphate but it will have to be added in such a way that most of it goes into the plant and organic residues. Procedures need to be developed for doing this. A good starting point would be starter fertilizer technology (not to be confused with band placement) (Stone *et al.,* 1999; Stone, 2000). In this technique very small amounts of P and N fertilizer are placed in a precise position relative to the drilled seed; it has resulted in high recoveries of added P by the crop and substantial improvements in yield on European soils. Unless ways can be found of overcoming the problem of the high P- irreversible immobilizing power of the soil there may be no benefits from the introduction of new cultivars or potentially useful agronomic practises.

Let me turn to the general problem of adjusting fertilizer levels on different soils and for different crops. As mentioned previously, in view of the high costs of fertilizer it is essential that it is not wasted. Fertilizer practises must be modified according to the crop, the soil and the weather conditions. It is impracticable to carry out trials that cover more than a small number of the possible combinations. Principles have emerged about soil and nutritional processes and many of them are expressed as equations which have been combined into dynamic models that calculate the day-to- day increments in crop growth

(e.g. van Ittersum and Donatelli, 2003; Zhang *et al.,* 2007). At least one of these models runs interactively on the Internet, for free, and is used for giving practical advice (Zhang *et al.,* 2008). We need to improve the basic equations from which they are derived, provide more rigorous tests of the models, find where they need amendment, and find ways of simplifying them and presenting them in a manner that makes them more acceptable to users.

I think there could be merit in trying to devise by molecular biological techniques or by selection, cultivars that could grow at low soil nutrient concentrations, probably by modifying the root system (Lynch, 2007). Of course the nutrients removed from soil by such crops would have to be replaced by fertilizer or other nutrient additions, but such plants would enable crops to be grown at lower soil nutrient levels than is presently often the case, which would reduce waste by such processes as irreversible immobilization in soil, denitrification and leaching.

Acid soils

About one-third of the world's arable soils that do not require irrigation are acid and plant growth on them is severely restricted by Al and trace element toxicities. Application of lime is generally not an option, because there are no such deposits within a reasonable distance. Alternative remedies are urgently required. Under certain circumstances pH has been altered by water-logging to impose anaerobic conditions which increase pH, but this is generally not feasible. I think the most promising solution is to select species, or devise GM crops, for tolerance to acidity.

Conclusions

I believe that considerable improvements in global food production can be achieved by improving agronomic practises and by developing and applying models for forecasting how best to adjust practises for differences in conditions. I think this approach gives much quicker benefits than can be achieved by developing and introducing new cultivars.

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Lithuania: The celebration of the Millennium of the State Name

In 2009, Lithuania celebrates the millennium of its name: a symbolic borderline between its pre-history and the starting point of its civilization. The millennium of the name of Lithuania urged the capital of the State of Lithuania, Vilnius, to seek the status of the 2009 European Capital of Culture. It was officially granted on 14 November 2005 by the Resolution of the European Council (No. 2005/815/EU). The programme of major events celebrating the Millennium of Lithuania are reported in:
http://www.culturelive.lt/en/2009/millennium/

Photos from the opening ceremony of the Millennium Year in Vilnius.
(source: www.delfi.lt http://foto.delfi.lt/album/12473/?view=)

The first reference to the name of Lithuania in written sources comes to us in the story related to the tragic end of St. Bruno's mission in 1009, as described in the annals of Quedlinburg, Germany (*Annales Quedlinburgenses*). Today, most of the national population are Lithuanians (83.5%), but there are altogether 115 ethnicities in Lithuania. Lithuanian communities exist in at least 36 countries. Lithuanians participate in many international organizations, including the ESSC. The Publisher 'Versme' initiated the distribution of a commemorative pennant in Lithuanian (Fig. 1) (www.versme.lt). The pennant states:

"9th March 2009 is the Millennium (1000 years) anniversary from the ancient spring day in 1009, when the Chronicler of another country wrote the name of Lithuania as 'Lituae' in the Annals of Kvedlinburg. It took many years and centuries, until we Lithuanians started it to write and continuing writing as we pronounce it for centuries – LIETUVA (LITHUANIA).

Therefore, on that date or any time later, just go ahead and everyone write – LIETUVA (LITHUANIA). Thus simply let everyone commemorate this millennium inscription and Lithuania. Without spending millions of any currency, but just doing it millions of times! Because so many there are our hands and hearts. Everyone and all. Separately and together. For Lithuania and for the World. By chalk on the board, by pen, by pencil, or by computer. Let us write today. All, who are with Lithuania. All this year of the Millennium. As a prayer, and as an oath. Only this one word – LIETUVA (LITHUANIA)."

Fig. 1. The pennant of the Publisher 'Versme.' On the sides: 'Lithuania's Millennium Way of books across Lithuania 2009.'

We hope the presented information will enable readers to learn more about the history of Lithuania.

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The Newsletter and supporting Ph.D. research

Editor's note:

At the ESSC Council meeting in Lleida (Spain) in September 2006, the interactions between the ESSC and younger soil scientists were discussed (see Newsletter 2006/3, p. 5-8). It was decided that the ESSC should be more proactive in its support of younger scientists. As part of that initiative, we welcome articles from both Ph.D. researchers and supervisors. We would like to hear from recent Ph.D. graduates; what advice and experience do you have which you would like to share with your colleagues in earlier stages of their research? We would also like to hear from current Ph.D. researchers; what are the factors which both encourage and limit progress? What are the particular challenges facing part-time Ph.D. researchers? We also invite contributions from experienced Ph.D. supervisors. What experience would you like to share with less experienced colleagues? If you are a less experienced Ph.D. supervisor, what supervisory issues do you find challenging? In short, please tell us "what I know now, which I wish I knew then!"

Editor's note:
The citation details of Ph.D. theses by ESSC members since and including 2004 have been added as an additional page to the ESSC web site. To date, 46 Ph.D. theses are quoted. On the ESSC web site, please look under 'Publications.' Please forward the citation details of any additional Ph.D. thesis completed since the year 2000 by an ESSC member to any of the Editorial team. We will then add the thesis citation details to the web site. One new Ph.D. thesis is reported in this issue.

Effect of zeolites on soil characteristics, leaching and surface pollutant losses from soils of contrasting textures (2008). Ph.D. thesis, 195 pp.

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Abstract
The excessive use of fertilizers in unfertile soils can risk the loss of nutrients through leaching or erosion which can contribute to eutrophication in water bodies. Many studies have been conducted on the use of clinoptilolite zeolite (CZ) to increase crop yields, however there are not many studies on its use to reduce water pollution and also what is the most effective method of its application in soils. Therefore the aims of this study are to study the effects of CZ on soil characteristics and its ability to reduce nutrient pollution in water as well as to find out what is the most effective method of application to soils in order to reduce water pollution by nutrients. An inorganic soil amendment - CZ from Texas, (ZT) as well as CZ from Manisa, Turkey (ZM) were evaluated for their effects on physical (aggregate stability, water retention properties, saturated hydraulic conductivity, flow characteristics and soil loss) and chemical (effects on ammonium, nitrate and phosphorus) properties on three soils; Quernmore sands (QS), Rosemaund silt (RSi) and Quernmore clays (QC).

The leaching study was conducted using QS in a glass funnel (5 cm diameter and 20 cm depth). 5 ml of ammonium salt solution (equivalent to 121 kg ha^{-1}) was applied to the soil surface and the leaching process used 100 mL water solution five times. The five treatments used were: soil only (S), soil with nitrogen (SN), soil with nitrogen and 1.25% zeolite (SNZT125), soil with nitrogen and 2.5% zeolite (SNZT250), and soil with nitrogen and 5.0% zeolite (SNZT500). The five treatments were tested with three methods of ZT placement; zeolites mixed throughout soils (M1), the zeolites were placed on soil surfaces (M2) and incubation of nitrogen with zeolites was for 12 hours prior to application on the soil surface (M3). It was found that ZT effectively absorbed ammonium and the order of effectiveness was: SNZT500>SNZT250>SNZT125 for the zeolite amount and M3>M2>M1 for the zeolite application methods.

The effects of ZT on soil physical properties were evaluated on aggregate stability using the Le Bissonnais method, hydraulic conductivity (Ksat) from a permeability cell and water

retention properties at low suction using a sand table and at high pressure using a suction plate. The results showed that ZT significantly ($P < 0.05$) increased soil aggregate stability, but had no significant effect on water retention properties or soil hydraulic conductivity (Ksat).

The effect of ZT on soil erosion was evaluated using splash cups (7.2 cm diameter and 5.5 cm depth) and soil boxes (25 cm width x 50 cm length x 30 cm depth) experiments. Rainfall was simulated in a laboratory, using a gravity fed rainfall simulator (RFS) at 237 cm height. Splash erosion was measured from two rainfall intensities: 15 mm hr^{-1} and 56 mm hr^{-1}. The splash cups experiment shows that the addition of ZT has no significant effect on the total soil loss at both rainfall intensities.

In the soil box experiments, 35 mm hr^{-1} of rain for two hours duration was used to test the effect of ZT on water flow, soil and nutrient loss. NPK fertilizers (equal to 121 kg ha^{-1} N) in solution form was used in the four treatments each in QC and QS; control (QC), addition of fertilizer (QCF), addition of 2.5% zeolites and mixed throughout the soils (QCFZm) and incubation fertilizer with zeolites for three hours then applied on the soil surface (QCFZs). The same treatments were applied for QS. Only surface flow from QC and subsurface flow from QS were analysed because both accounted for >90% of total water flows. The flows were analysed for flow characteristics, sediment concentration, nutrients contents (ammonium, nitrate, dissolved and total phosphorus) and pH. The results show that the addition of ZT significantly decreased (up to 99%) ammonium and had no effects on nitrate, although increased the amount of phosphorus. The application of ZT on the soil surfaces had reduced surface flow and soil loss in QC.

Two major findings of this study were the effects of ZT on soil physical properties, such as aggregate stability and infiltration rate. The second effect of ZT was on ammonium absorption using the incubation method. The study found that 1.25% ZT effectively decreased ammonium pollution in water bodies by the incubation method. The decreased surface flow decreased soil loss, which also diminished eutrophication in water bodies through erosion.

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Recent publications by ESSC members

Included are the citation details of papers and books produced by ESSC members. These provide a growing resource for exchange of valuable information to both research and teaching. The cumulative citation list is being added to and updated on the ESSC web site. Students of ESSC members (both undergraduate and postgraduate) are increasingly accessing this facility in their literature searches. Currently, the number of quoted publications cited on the web page is 438. Please e-mail the citation details of papers in international refereed journals since and including the year 2000 to any member of the Editorial team.

As mentioned in the report on recent Ph.D. theses, the citation details of Ph.D. theses by ESSC members since and including 2000 have been added as an additional page to the ESSC web site. To date, 46 Ph.D. theses are quoted. On the ESSC web site, please look under 'Publications.' Please forward the citation details of any additional Ph.D. thesis completed since 2000 by an ESSC member to any of the Editorial team. We will then add the thesis citation details to the web site.

PAPERS

Bhattacharyya, R., Fullen, M.A. and Booth, C.A. (2009). Utilizing palm-leaf geotextile mats to conserve loamy sand soil in the United Kingdom. Agriculture, Ecosystems and Environment 130(1-2), 50-58.

Rios, C.A., Williams, C.D. and Fullen, M.A. (2009). Hydrothermal synthesis of hydrogarnet and tobermorite at 175°C from kaolinite and metakaolinite in the CaO-Al2O3-SiO2-H2O system: A comparative study. Applied Clay Science 43(2), 228-237.

Rios, C.A., Williams, C.D. and Fullen, M.A. (2009). Nucleation and growth history of zeolite LTA synthesized from kaolinite by two different methods. Applied Clay Science 42(3-4), 446-454.

Smets, T., Poesen, J., Langhans, C., Knapen, A. and Fullen, M.A. (2009). Concentrated flow erosion rates reduced through biological geotextiles. Earth Surface Processes and Landforms 34(4), 493-502.

Subedi, M. and Fullen, M.A. (2009). Temporal changes in soil temperature at the Hilton Experimental Site, Shropshire, UK (1982-2006): Evidence of a warming trend? Archives in Agronomy and Soil Science 55(1), 105-113.

Subedi, M., Hocking, T.J., Fullen, M.A., McCrea, A.R., Milne, E., Mitchell. D.J. and WU Bo Zhi (2009). An evaluation of the introduction of modified cropping practices in Yunnan Province, China, using surveys of farmers' households. Agricultural Sciences in China 8(2), 188-202.

Web Based Bulletin Board

The ESSC wishes to rapidly disseminate information to its members. Please forward information to the ESSC web site to be placed on our ESSC Bulletin Board. These could include searches for potential collaborators for research proposals, calls for research proposals, job opportunities, research studentship opportunities, impending conferences and other items of important information for rapid dissemination. Of course, we will also continue the regular circulation of information via our Newsletter. The ESSC web site is:

http://www.essc.sk

ESSC membership list and contact details

The full ESSC membership list is held on the ESSC web site. Under 'members' you can get a full listing. Also under 'members' you can click on any member country and find a listing of members in the selected country.

We are trying to keep the membership list on the web site up-to-date. Please check your details and let us know if there are any necessary correction(s). If your details change, also please let us know. Some members have requested that we do not add their e-mail addresses to the web site, to avoid uninvited 'spam' e-mails. Of course, we respect this request. Therefore, while we retain a list of the e-mail addresses of ESSC members, this list will not be available on the web site.

Editorial matters in Bratislava are handled by Ida Kurincová Kriegerová. In terms of membership lists, contact details and the ESSC web site, please send updated information to Ida at:

E-mail: i.kriegerova@vupop.sk

Please also use and refer to the 'Directory of European Organizations and Persons Working on Soil Protection' as a reference source for European colleagues, both members and non-members of the ESSC. This publication contains the e-mail addresses of most ESSC members and will be subject to periodic updates. The reference citation is:

Rubio, J.L., Imeson, A.C., Bielek, P., Fullen, M.A., Pascual, J.A., Andreu, V., Recatala, L. and Ano, C. (2006). Directory of European Organizations and Persons Working on Soil Protection. Soil Science and Conservation Research Institute, Bratislava, 190 pp. (plus CD-Rom).

FORTHCOMING DATES FOR YOUR DIARY

FIRST ANNOUNCEMENTS

IUSS Conference on Salinization
(Soil salinity/sodicity/alkalinity in new perspectives)
20-22 September 2009, Budapest, Hungary

Background

Salinization of land and water is a widespread problem that has serious consequences. Although salinization is a natural process, human-induced salinization has far-reaching negative effects. In spite of the fact that there are similarities in salt-affected lands all over the world, many differences occur in their formation processes and characteristics. Salinization of agricultural lands can be prevented if the process is better understood. There are two aspects of salinization that call for special attention: if the accumulation of sodium is not accompanied by large concentrations of soluble salts, the physical properties, and the resulting soil-water relationship, become a major obstacle to cultivation. Furthermore, improper irrigation will typically result in off-site effects, and therefore cause not only physical and financial, but also political-societal, conflicts. The study of salt-affected soils is rather advanced and represents the forefront of soil research. Hopefully the upcoming meeting will make an important contribution towards solving the problems related to salinization.

Conference Topics

- Remote sensing and GIS in the assessment, mapping and monitoring of salinity/sodicity/alkalinity status of soils.
- Assessment of soil salinity/sodicity/alkalinity with new laboratory and field techniques.
- Agrogeological problems related to salinization/sodication/alkalization.
- Ecology and soil-plant correlations in native salt-affected habitats.
- Mapping of salt-affected soils based on environmental correlation.
- The role of geological and other environmental conditions in the genesis of saline and sodic soils.
- Groundwater depth, concentration and its relationship with salinization/sodication/alkalization of soils.
- Classification of salt-affected soils for international correlation, land use and land evaluation.
- Modern methods for the characterization and diagnosis of physico-chemical and colloidal-chemical properties of sodic soils.
- New approaches and results in the amelioration of sodic soils, under irrigation and rain-fed conditions (chemical, agrotechnical, biological and complex amelioration practises, afforestation measures).
- Protection of saline lakes, grasslands and other salt-affected habitats.
- Ecological consequences of soil amelioration.
- Spatial and temporal changes in salinity/sodicity/alkalinity status of salt-affected areas.

- Prevention and prediction of secondary salinization/sodication/alkalization due to irrigation.
- Use of saline waters in agriculture.
- Legal aspects of irrigation-induced salinization.
- Prevention of ecological catastrophes and other off-site consequences of secondary salinization.
- Increase of public awareness and education for the prevention of secondary salinization.

Presentation Guidelines

Format of Extended Abstracts: Length: max 15 lines A4 (210 x 297 mm) text: in English, 12 point letters, with single spacing between the lines, justified. Times (New) Roman script; left and right margins spaced at 35 mm; top and bottom margins at 35 mm. Title: bold, 14 point letters, centred, maximum 2 lines. Author(s): First names in bold 12 point letters, surname in bold, 12 point capital letters. Underline the name of the author presenting the paper. Institution(s) and full address(es) of author(s): in 12 point letters, authors' titles need not be included.

Registration fee: Before 1 May 2009: €150; after 1 May 2009 €200.

Deadlines Abstract submission: 31 May 2009.
Registration and early payment: 31 July 2009.

Organizers

Working Group 'Salt Affected Soils' of the International Union of Soil Sciences.

Research Institute for Soil Science and Agricultural Chemistry of the Hungarian Academy of Sciences.

Geological Institute of Hungary.

Hungarian Soil Science Society.

Hungarian Geological Society.

Commission of Soil Science and Agrochemistry of the Hungarian Academy of Sciences.

Contacts

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Conference Secretary
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Tel.: 00 36 1 2243 616

Tibor Tóth
Chief Organizer
Research Institute for Soil Science and Agricultural Chemistry of the Hungarian Academy of Sciences.
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1022 MTA TAKI Budapest,
Herman O. 15, Hungary.

Practical information

For all kinds of information (i.e. visa obligations, consular services, tourist information, currency exchange, events, customs, weather) please visit the website of the Hungarian Ministry of Foreign Affairs:

www.kum.hu

More details of the Conference are available at the following web site:

http://www.taki.iif.hu/sasconf/home.html

15TH INTERNATIONAL SYMPOSIUM ON ENVIRONMENTAL POLLUTION AND ITS IMPACT ON LIFE IN THE MEDITERRANEAN REGION, 7-11 OCTOBER 2009, BARI (ITALY)

Organized by

MEDITERRANEAN SCIENTIFIC ASSOCIATION OF ENVIRONMENTAL PROTECTION (MESAEP)

MESAEP
Mediterranean Scientific Association
of Environmental Protection

In collaboration with:
European Commission (Joint Research Centre).
International Union of Pure and Applied Chemistry (IUPAC).
European Confederation of Soil Science Societies (ECSSS).
Società Italiana della Scienza del Suolo (SISS).
Balkan Environmental Association.
University of Bari (Italy).
University of Ioannina (Greece).
University of Antalya (Turkey).
Politecnico di Torino (Italy).
Helmholz Zentrum München (Germany).
General State Chemical Laboratory (Cyprus).

Regione Puglia, Provincia di Bari, Comune di Bari.
Italian Ministry of the Environment.
Istituto Agronomico Mediterraneo (IAM), Bari.
Agenzia Regionale per l'Ambiente (ARPA) Puglia.

First Announcement

Previous symposia were held in Athens, Greece (1981), Crete, Greece (1983), Istanbul, Turkey (1985), Kavala, Greece (1987), Blanes, Spain (1989), Como, Italy (1991), Antibes, France (1993), Rhodes, Greece (1995), Sorrento, Italy (1997), Alicante, Spain (1999), Limassol, Cyprus (2001), Antalya, Turkey (2003), Thessaloniki, Greece (2005) and Seville, Spain (2007).

The Executive Committee of MESAEP has the pleasure to present a warm invitation to attend the 15th International MESAEP Symposium to be held in Bari (Italy) from 7-11 October 2009.

OBJECTIVES

The objectives of the Symposium are to offer opportunities for scientists from different countries to:

- Exchange recent results related to environmental pollution processes and their effects on natural resources, public health and economy in the Mediterranean region.
- Discuss current scientific, technological and legal issues to avoid or reduce the degradation of the Mediterranean environment.
- Provide suggestions and recommendations to regulatory authorities on environmental quality and safety in the Mediterranean and neighbouring countries.

MAIN SUBJECTS

The General Theme of the Conference is:
'Environmental Threats in the Mediterranean Region: Problems and Solutions.'
This overarching theme will be discussed in sessions dealing with the following specific topics:

- Agricultural, domestic and industrial wastes.
- Soil quality and pollution by metals, pesticide residues and other chemicals.
- Soil degradation and desertification.
- Water quality and pollution.
- Outdoor and indoor air quality and pollution.
- Intercompartmental element fluxes.
- Crops, food quality and pollution.
- Environment and human health.
- Animal health risks.
- Climate changes and effects on the ecosystem and human health.
- Biodiversity.
- Sustainable mobility.
- Renewable energy use to combat pollution.
- Natural and artificial radioactive pollution.

All of these topics will be addressed in an interdisciplinary manner, including aspects of science, technology, policy and education.

ORAL AND POSTER PRESENTATIONS

The programme of the Symposium will include plenary and keynote lectures, and voluntary oral and poster presentations. Oral and poster contributions will be regarded as

scientifically equivalent in the programme. Selected posters will be invited to be presented briefly in full audience sessions. All presentations (oral and posters) should be in English.

PAPER PUBLICATION

For both oral and poster contributions, a one-page abstract should be submitted by e-mail, as an attached file, to the following address: symp09@mesaep.org

The Abstract should be arranged as shown on the pdf example or the Word file.

The book of abstracts will be printed before the opening of the Symposium and distributed to all participants upon registration at the Symposium.

Poster or oral presentations will be accepted if at least one of the authors is registered and present at the Symposium.

The Steering Committee of the Symposium will notify the authors on the acceptance and on the form of presentation by 31 May 2009.

All papers presented at the symposium will be eligible, upon refereeing, for publication in the peer- reviewed international journal FRESENIUS ENVIRONMENTAL BULLETIN (FEB), the official journal of MESAEP.

SPECIAL EVENTS

- Welcome reception.
- General Assembly of MESAEP.
- Gala Dinner.
- Social and cultural events.

REGISTRATION FEES (€)

	MESAEP Members	Non-members	Students	Accompanying persons
Before 30 June 2009	350	450	180	150
After 30 June 2009 or on-site	400	500	220	180

The registration fee includes the final programme, the book of abstracts, access to the hospitality desk, coffee and refreshments during the Symposium, the welcome reception, social and cultural events (excursion fee not included) and Certificate of Participation (upon request). Accompanying guests will be entitled to all the above receptions and activities.

The Gala dinner will cost €60 and the excursion will cost €60 for each participating person.

Please use the recommended on-line registration on the homepage of MESAEP: http://www.mesaep.org/symp2009/regform.php

DEADLINE SCHEDULE

31 May 2009: Notice to authors on the acceptance and form of presentation.

30 June 2009: Payment of early registration fee.

7-11 October 2009: Symposium, on-site registration and submission of full papers for publication.

SYMPOSIUM LOCATION

The City of Bari is located in south-east Italy on the sunny and warm Adriatic coast, in the Region of Puglia of which the City is the regional capital. Bari has some 400,000 inhabitants

and is a very active commercial and tourist port, featuring several daily ferry connections with Greece, Albania, Montenegro and Croatia.

The City features an old medieval area rich in renowned monuments, including the Basilica of San Nicola and the 10-11th Century Cathedral, several other churches and buildings of various styles, narrow streets and small squares permeated by a charming ancient atmosphere, and several small restaurants, pubs and bars.

The active and crowded City centre surrounds the Old City, featuring long straight streets, several buildings of the 18-19th century, including the central University building, the Ateneo, and elegant shops for all needs, restaurants of all types, pubs and bars. A typical feature of Bari is the impressive boulevard along the seashore (Lungomare), about 2 km long, with the old small harbour, where there are still small fishing boats. The modern, wider City, surrounds the City centre and includes the scientific campus of the University of Bari, buildings hosting several other University Faculties and Research Institutes, and the Polytechnic of Bari.

The beaches south and north of the City are renowned for their fine white sands often surrounded by pine woods and cliffs of calcareous rock. The Province of Bari and the Region of Puglia offer several beautiful towns, both on the coast and on the hills, rich in culture, monuments and architectural features, and an agricultural land rich with centuries-old olive trees, vineyards and orchards.

The Symposium will take place at the Palace Hotel in the City centre. The 2nd circular will include detailed information on the venue and the facilities available to participants.

ACCOMMODATION

Rooms at a discounted price have been reserved at the Palace Hotel (Symposium venue) and other central hotels. The 2nd circular will include detailed information on hotel reservation and transportation.

VISA

Visas are required for nationals of some countries. Please check with the Italian Consulates or the official representatives of the Italian Government in your country. No visa is required for citizens of the European Union and several South-Mediterranean countries.

FELLOWSHIPS

A limited number of fellowships will be available for young scientists from Balkan, Asian and African countries upon specific request, and on the basis of their CV and the scientific quality of the submitted paper.

INFORMATION AND CONTACTS

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Links
Homepage of Mesaep: http://www.helmholtz-muenchen.de/mesaep/
Fresenius Environmental Bulletin: http://www.psp-parlar.de

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ROMANIAN NATIONAL SOCIETY OF SOIL SCIENCE

INVITATION

19th NATIONAL SOIL SCIENCE CONFERENCE
Iaşi, Romania, 23-29 August 2009

EVALUATION AND USE OF SOIL RESOURCES, ENVIRONMENTAL PROTECTION AND RURAL DEVELOPMENT IN NORTH-EAST ROMANIA

(Iaşi, Vaslui, Neamţ and Suceava Counties)

TOPICS

1. Soil genesis and classification; soil mapping and geography.
2. Soil physics, chemistry and mineralogy.
3. Soil biology, microbiology, biodiversity and ecology.
4. Soil tillage and water conservation (ISTRO).
5. Organic matter, soil fertility and plant nutrition.
6. Soils and extreme climatic phenomena (floods, landslides, severe droughts, desertification).
7. Forestry in relation to soils and forestry stations.
8. Soil evaluation and land use planning.
9. Soil conservation.
10. Soil degradation (natural or human induced processes), remediation and amendment technologies.
11. Soils and land improvement measures.
12. Soils and environment, interactions within the ecosystem, soil quality.
13. Soils and human health.
14. Education regarding soil's importance for society and public awareness.
15. Mathematical modelling and informatics in soil science.
16. Land use and soil protection policies in Romania; European perspectives.
17. Rural development.

Conference programme

Sunday August 23	Participants' arrival and accommodation ('Ion Ionescu de la Brad' University of Agricultural Sciences and Veterinary Medicine, Iaşi, M. Sadoveanu Alley nr.3).	
Monday August 24	08.00-8.30	Breakfast at USAMV Iaşi Restaurant.
	10.00-11.45	Opening ceremony in Aula Magna U.S.A.M.V. Iaşi.
	12.15-13.30	Plenary presentations in Aula Magna U.S.A.M.V. Iaşi.
	15.00-17.00	Topic sessions
	17.00-19.00	
Tuesday August 25	09.00-11.00	
	11.30-13.00	
	15.00-17.00	Visiting Iasi: the City and the Botanical Garden.

August 26 – 29 – FIELD APPLICATIONS

Wed. August 26	**Moldavian Plateau** (central-eastern part): Four soil profiles, sightseeing. Accommodation in Iasi.
Thursday August 27	**Moldavian Plateau** (northern part): Three soil profiles, sightseeing. Accommodation in Iasi.
Friday August 28	**Moldavian Plateau** (central part), **Moldavian Sub-Carpathians, Eastern Carpathians** (Stânişoarei Mountains): Two soil profiles, sightseeing. Accommodation in Târgu Neamţ.
Saturday August 29	**Moldavian Plateau** (Sucevei Tableland), **Eastern Carpathians:** Three soil profiles; sightseeing. Accommodation in Vatra Dornei.

Venue: 'Ion Ionescu de la Brad' University for Agricultural Sciences and Veterinary Medicine, Iaşi, Mihail Sadoveanu Alley nr. 3.

PARTICIPATION FEES

Participation fee (€) / term	1 March 2009	1 July 2009
Conference only	150	225
Conference plus field trip	350	475

The registration fee covers:

Admission to all scientific sessions, the conference volume, map, badge.
The guide of the field trip (only for participants).
Breakfast, lunch and dinner.
Festive dinner in Iaşi.
Festive dinner in Vatra Dornei.
Transportation for the field trip.

Accommodation during the Conference and the transportation to and from Iasi will be paid separately by each participant.

Estimated prices for accommodation (€)*

Location	Hotel***		Hotel****		Boarding house***
	single	double	single	double	double
Iaşi	45	60	80	100	-
	50	70	110	140	-
	60	80	-	-	-
Târgu Neamţ	30	40	-	-	30-40
	40	50	-	-	
Vatra Dornei	40	60	-	-	-

For students or Ph.D. students accommodation will be available in hostels (USAMV Iasi) at an estimated price of €20.

REGISTRATION FORM

Name:	
Surname:	
Institution:	
Address:	
Telephone	Fax
E-mail	
Paper title:	
Presentation form: Oral	Poster
Necessary equipment (video projector, laptop, etc.)	
Accompanying persons: Yes /No	

Please confirm your participation by 15 February 2009, by sending the registration form to one of the following postal or e-mail addresses:

Universitatea de Ştiinţe Agricole şi Medicină Veterinară Iaşi
Aleea Mihail Sadoveanu nr. 3, Iaşi, Cod 700490, ROMÂNIA

Tel: 00 40 0232 407435
Fax: 00 40 0232 260650

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Rusu Constantin	00 40 232201482 00 40 744525635	cvrusu@uaic.ro cvrusu69@yahoo.com

Presentation format

- Plenary sessions: **15 minutes + 10 minutes discussion.**
- Topic sessions: **10 minutes + 5 minutes discussion.**
- Poster dimensions: **90 cm width, 110 cm height.**

During the paper presentations adequate electronic equipment will be available.

A maximum one-page abstract (in English) should be sent by e-mail to the Conference Secretary by **15 April 2009.**

The notification regarding paper acceptance will be sent to the authors before **15 May 2009.**

The presented materials will be published in the Conference volumes (in the subsequent 4–6 months).

Scientific committee

- **Professor Gerard Jităreanu,** Executive President of RNSSS, Rector of 'Ion Ionescu de la Brad' Iaşi University of Agricultural Sciences and Veterinary Medicine.
- **Professor Mihail Dumitru,** President of RNSSS, Director of National Institute for Research and Development in Pedology, Agrochemistry and Environmental Protection (ICPA) Bucharest, Member of the Agricultural and Forestry Studies Academy, Bucharest.
- **Professor Constantin Rusu,** Executive Vice-President of RNSSS; Faculty of Geography and Geology, University 'Al.I.Cuza' Iaşi.
- **Eng. Ioan Munteanu, Ph.D.,** Honorary Vice-President of RNSSS, Member of the Agricultural and Forestry Studies Academy, Bucharest.
- **Professor eng. Valeriu Moca,** President of Iaşi Branch of RNSSS, University of Agricultural Sciences and Veterinary Medicine.
- **Conf. Feodor Filipov,** Vice-President of Iaşi Branch of RNSSS, University of Agricultural Sciences and Veterinary Medicine.
- **Prof. Nicolae Florea,** National Institute for Research and Development in Pedology, Agrochemistry and Environmental Protection (ICPA) Bucharest.
- **Professor Radu Lăcătuşu,** Faculty of Geography and Geology, 'Al. I. Cuza' University of Iaşi; Member of the Agricultural and Forestry Studies Academy. Bucharest.
- **Constantin Crăciun, Ph.D.,** National Institute for Research and Development in Pedology, Agrochemistry and Environmental Protection (ICPA) Bucharest.
- **Daniela Răducu, Ph.D.,** National Institute for Research and Development in Pedology, Agrochemistry and Environmental Protection (ICPA) Bucharest.
- **Ion Râşnoveanu, Ph.D.,** National Institute for Research and Development in Pedology, Agrochemistry and Environmental Protection (ICPA) Bucharest.
- **Valentin Coteţ, Ph.D.,** National Institute for Research and Development in Pedology, Agrochemistry and Environmental Protection (ICPA) Bucharest.

INTERNATIONAL CONFERENCE ON DESERTIFICATION IN MEMORY OF PROFESSOR JOHN B. THORNES, 16-18 SEPTEMBER 2009

ORGANIZED BY THE GEOGRAPHY DEPARTMENT AT MURCIA UNIVERSITY AND THE Spanish Geomorphological Society

Objectives

The Physical Geography Group at the Murcia University and the Spanish Geomorphological Society are organizing an International Symposium dedicated to the memory of Professor John B. Thornes. The Symposium will be held from 16-18 September 2009.

Professor Thornes (1940-2008), Professor of Physical Geography and Head of the Geography Department at King's College, University of London, was an exceptional researcher and Physical Geographer. He had a very special relationship with Spain throughout his life. In 1967 he completed his Doctoral Thesis on the Upper Duero and since then he conducted numerous research projects, especially in the Mediterranean area. Several institutions and universities from different countries have distinguished him with honours, including scientific societies, universities and research centres in Spain. In 1998 the Spanish Geomorphological Society named him 'Honour member' and in 2006 the University of Murcia also awarded Professor Thornes the title of 'Doctor Honoris Causa.'

With this Symposium we want to offer a deserved tribute both to this person of enormous human qualities, as well as a serious, rigorous and innovative researcher. This is reflected in the numerous publications of Professor Thornes and in the memories of those he met and worked with. All those people who worked directly with Professor Thornes, and those who did not but are investigating some of the research subjects that he developed, are invited to participate in the Symposium.

Organizing Committee

Professor Francisco López Bermúdez. University of Murcia (Spain).
Professor Asunción Romero Díaz. University of Murcia (Spain).
Dr Francisco Alonso Sarria. University of Murcia (Spain).
Dr Francisco Belmonte Serrato. University of Murcia (Spain).
Dr. Ramón García Marín. University of Murcia (Spain).

Scientific Committee

Professor Juan Albaladejo Montoro. CEBAS, C.S.I.C., Murcia (Spain).
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Professor Maria José Roxo. New University of Lisbon (Portugal).
Professor José Luis Rubio. CIDE, C.S.I.C., Valencia (Spain).
Dr José Damián Ruíz Sinoga. University of Málaga (Spain).
Dr Susana Schnabel. University of Cáceres (Spain).

Topics

Several topics have been selected, which all relate to the research areas that Professor Thornes developed throughout his life:

1. Modelling in physical geography.
2. Soil erosion and desertification.
3. Fluvial geomorphology.
4. Relations between water, land and vegetation.
5. Impact of livestock and agriculture on terrestrial ecosystems.

Abstracts

Authors wishing to submit contributions to the Symposium should send an abstract as soon as possible to: arodi@um.es

After receipt of abstracts and their acceptance by the Scientific Committee, authors will be invited to send the full texts. Abstracts should not exceed one-page. Abstracts should be in block letters 'Arial' font and single-space, DIN-A4 paper and 2.5 cm margins on all sides. Tables, figures, references or plates should not be included.

The format is as follows:

Title in capital letters, centred and with font size 12. The title will be both in English and Spanish.

Separated by a blank line, indicate the name of the author(s) with initials and then name(s) (i.e. J.B. Thornes) in font size 11.

With a blank separating line and with font size 10, indicate the author(s) institution and then the mailing and e-mail addresses.

After another two blank lines, there should be the abstract (font size 11 and full justification).

Keys words: 4-6 keywords.

It is requested that author(s) indicates the topic in which the contribution should be included (see the six options above). In Annex 1 there is a standard format (template).

Papers

Communications will have a maximum length of 4 single-spaced pages. The format for submissions will be indicated shortly. The Scientific Committee will select those communications which will be presented orally or as posters. Presentations will have a maximum of 10 minutes. All communications, posters and oral presentations will be published in the Conference Proceedings.

Regardless of the Proceedings of the Symposium, the Spanish Geomorphological Society plans to edit a Special Issue of the journal 'Cuaternario y Geomorfología' (Quaternary and Geomorphology). Those who wish to do so, after their presentation at the Symposium, may send a definitive manuscript following the author's guide of the journal. The papers will be peer-reviewed following the 'Cuaternario y Geomorfología' journal system.

Posters

Posters will have a maximum size of 80 cm wide and 100 cm height.

Language

All papers and communications of the Symposium can be sent and presented in either English or Spanish. The Organizers do not plan to have simultaneous translations. The detailed scientific programme will be circulated shortly.

Schedule of contributions

Abstract submission deadline: **31 January 2009.**
Review and suggestions by the Scientific Committee for authors: **28 February 2009.**
Full text submission deadline: **31 April 2009.**
Full-text review by the Scientific Committee: **30 May 2009.**

Registration

The registration form must be completed and e-mailed to: arodi@um.es. Please send the completed registration form as soon as possible. Registration payment must be made through a cash payment or transfer to bank account No. 00496670492916006326 of the Bank of Santander. The receipt of the transfer or deposit should be sent by mail or fax.

REGISTRATION FEES

CATEGORY	Registration fees (€) until 30 June 2009	Registration fees (€) after 30 June 2009
General	100	110
Member of the SEG	75	85
Students (with justification)	50	60
Closing dinner (optional)	30	30

Web links of interest:

University of Murcia: http://www.um.es/
Spanish Geomorphological Society: http://www.geomorfologia.es/
Spanish Journal 'Cuaternario y Geomorfología' (Quaternary and Geomorphology): http://tierra.rediris.es/CuaternarioyGeomorfologia

Contact

Asunción Romero Díaz
Departamento de Geografía
Facultad de Letras
Universidad de Murcia
Campus de La Merced
30.001-Murcia
Spain
E-mail: arodi@um.es
Tel: 00 34 968 36 31 44
Fax: 00 34 968 36 76 83
Symposium web site: http://fobos.bio.um.es/thornes/doku.php

Annex 1:

ABSTRACT SUBMISSION FOR THE INTERNATIONAL SYMPOSIUM IN MEMORY OF PROFESSOR JOHN B. THORNES AND HIS CONTRIBUTION TO SPANISH GEOGRAPHY

F. Belmonte Serrato[(1)], J.D. Ruiz Sinoga[(2)]

(1) Department of Geography, University of Murcia, Campus de La Merced, 30.001 Murcia (Spain). E-mail: franbel@um.es

(2) Department of Geography, University of Malaga, Campus de Teatinos, 29.071 Málaga (Spain). E-mail: sinoga@uma.es

ABSTRACT

This paper is an example of the format in which the abstract should be submitted to the "International Symposium in memory of Professor John B. Thornes and his contribution to Spanish Geography" to be held from 16–18 September 2009 at the University of Murcia (Spain).

The abstract should not exceed one page. It should be written in block letters "Arial" and a space, DIN-A4 paper and 2.5 cm in all its sides. It should not include tables, figures, references or pictures.

The title should not be very long and the abstract should contain clear and concise objectives, content and conclusions of the research work.

At the bottom of the page it should indicate the topic in which the author considers that must be included their contribution to the symposium

Topic:

International Symposium in memory of Professor John B. Thornes and his contribution to Spanish geography

REGISTRATION FORM

PERSONAL INFORMATION	
Title	
Name	
Surname	
Address	
City	
Country	
E-mail	
Telephone	
Fax	

PRESENTATIONS	
Oral. Authors	Title
Poster. Authors	Title
Field trip attendance	
Closing dinner attendance	

If you want proof of payment of registration, please complete the following data

FISCAL DATA	
Company	
NIF/CIF	
Address	

Please send this form as an attachment to: arodi@um.es

THIRD AND FOURTH ANNOUNCEMENTS

The International Conference of the ESSC

'Protection of The Ecological and Productivity Functions of Soil in a PAN European Context'



Held on the occasion of the 55th Anniversary of the foundation of the Research Institute for Soil and Water Conservation

Congress and Education Centre 'Floret'
Průhonice, Czech Republic
23-25 June 2009





Auspices

Ministry of Agriculture of the Czech Republic.
Ministry of Environment of the Czech Republic.

Organizers

Research Institute for Soil and Water Conservation.
European Society for Soil Conservation
Czech Society of Soil Science.

Co-organizers

Czech University of Life Sciences Prague.
Mendel University of Agriculture and Forestry in Brno.

Organizing Committee

Jiří Hladík (Czech Republic).
Michaela Budňáková (Czech Republic).
Jarmila Čechmánková (Czech Republic).
Jana Doležalová (Czech Republic).
Ivo Hauptman (Czech Republic).
Karel Jacko (Czech Republic).
Marcela Rohošková (Czech Republic).
Jana Uhlířová (Czech Republic).
Radim Vácha (Czech Republic).

Scientific Committee

Jana Podhrázská (Czech Republic).
Pavol Bielek (Slovak Republic).
Carmelo Dazzi (Italy).
František Doležal (Czech Republic).
Ivan Holoubek (Czech Republic).
Sigbert Huber (Austria).
Ádám Kertész (Hungary).
Josef Kozák (Czech Republic).
Jiří Kulhavý (Czech Republic).
Pavel Novák (Czech Republic).
Alois Prax (Czech Republic).
José Luis Rubio (Spain).
Jaroslava Sobocká (Slovak Republic).
Milan Sáňka (Czech Republic).
Jaroslav Staňa (Czech Republic).
Ivan Suchara (Czech Republic).
Bořivoj Šarapatka (Czech Republic).
Miodrag Zlatič (Serbia).

Topics

1. Soil sealing (e.g. brownfields, urban development and transport construction).
2. Soil degradation (e.g. contamination, erosion, floods and drought).
3. Soil reclamation (e.g. drainage, irrigation, and improving the retention ability of agricultural and forest soils).
4. Methods of soil monitoring.

Preliminary programme

22 June 2009	Arrival of participants
Registration	
Welcome party	
23 June 2009	Registration.
	Opening ceremony.
	Oral and poster presentations.
	Castle park: guided walk.
24 June 2009	Oral and poster presentations.
	Conclusions.
Social dinner	
25 June 2009	Field excursion.
26 June 2009	Optional cultural-historical excursion to Prague.

Conference fees

On or before 28 February 2009 **after 28 February 2009**
€260 **€290**

The conference fee includes the following items:
- Conference programme, book of abstracts and Conference proceedings (on CD).
- Admission to the Conference rooms.
- Welcome party. • Coffee breaks. • Two lunches.
- Conference excursion (including bus, lunch and excursion guide).

The conference fee does not include:
- Social dinner on 24 June: €45.
- Optional cultural-historical excursion to Prague on 26 June: €60 (including lunch).

Excluded items may be paid together with the conference fee.

Cancellations and refunds

Registration fees to be refunded as follows:	On or before 30 April 2009	50% refund,
	After 30 April 2009	no refund.

Deadlines

30 September 2008	2nd announcement with the registration form and call for abstracts.
30 November 2008	Registration, abstract submission.
10 February 2009	Notice of abstract acceptance.
28 February 2009	Payment of reduced conference fee.
30 Apri 2009	Payment of non-reduced conference fee, hotel reservation, full papers submission, last announcement and final programme.

Field excursion

The Excursion will be to West Bohemia and focus on soil conservation, soil degradation and anthropogenic influences on soil and land reclamation. Details will be provided later.

Accommodation

Accommodation is provided by Anthony Production, s.r.o. Rooms can be booked exclusively through the Agency on the following e-mail address: anthony@anthony.cz.

Offered hotels Hotel Floret: www.floret.cz,
Parkhotel Průhonice: www.park-hotel-prague-pruhonice.cz
Hotel Magnolia: www.magnoliahotel.cz.

Travel

For information about transport or transfer e-mail: anthony@anthony.cz .

Informations and contacts

Research Institute for Soil and Water Conservation
Dep. for Land Use Planning
Lidická 25/27, 602 00 Brno
Czech Republic
www.vumop.cz
Ing. Jana Uhlířová
uhlirova@vumopbrno.cz
Ing. Jana Podhrázská, Ph.D
podhrazska@vumopbrno.cz

Anthony Production, s.r.o
Počernická 96, 108 00 Praha 10
Czech Republic
Mgr. Jana Doležalová
anthony@anthony.cz

16th Workshop

University of Turin
University of Milan

Connecting Different Scales of Nitrogen use in Agriculture

The 16th Nitrogen Workshop will be held in Turin (Italy), from 28 June–1 July 2009.
The Workshop is jointly organized by the Department of Crop Science of the University of Milan and by the Department of Agronomy, Forest and Land Management of the University of Turin.

Themes to be discussed include:

- Soil biology and the N cycle.
- Physiology of N in plants and soil micro-organisms.
- Gaseous losses.
- Short and long term modelling of N and C.
- N management at the cropping system scale.
- N management at farm and regional scales.
- Assessment of N efficiency and diagnostic tools.
- N management and crop quality.
- Sustainable N use in horticulture, viticulture and tree crops.
- Manure processing for sustainable N management.
- Integrated management of N and other nutrients.
- Education, dissemination and demonstration.

General programme:
Sunday 28 June (afternoon): Registration and Welcome 'Aperitivo.'
Monday 29 June: Workshop sessions.
Tuesday 30 June: Workshop session, field trip and Workshop Dinner.
Wednesday 1 July (morning): Working groups and closing session.

Workshop website: www.nitrogenworkshop2009.org
For further information, please contact us at the e-mail address: info@nitrogenworkshop2009.org

To subscribe the workshop mailing list, please send an empty e-mail to: sympa@liste.unimi.it with Subject: SUBSCRIBE nitrogenworkshop2009

International Symposium on Soil, Sediment and Dust Magnetism (SoilSEDUMA) 29 June-1 July 2009

Venue: Upper Silesia (southern Poland): exact location will be given late 2008.
Registration fee: €180.

Target group: scientists who study problems of:
Magnetic properties of soils and sediments, occurring as a result of both anthropogenic or technogenic (urban and industrial pollution) and natural processes (caused by pedogenic, geogenic or sedimentary features); magnetic properties of urban and industrial dusts and magnetic pollutions in living organisms.

Organizers: Institute of Environmental Engineering, Polish Academy of Sciences; Zabrze, Poland; Opole University, Poland.

Aims of the Symposium:

- Presentation of scientific results of studies conducted in different laboratories in the fields of soil, sediment and dust magnetism, and magnetic pollutants in living organisms.
- Exchange of experiences of scientists from different disciplines (geophysics, geochemistry, soil science, environmental geology and geography, biology, archeology, medicine) and analysis of new trends in this field of study.
- Possibility of practical application of magnetic methods and techniques for assessment of ecological state and changes of natural environment, pollution monitoring and health related problems.
- Building of scientific platform (working group) for promotion of magnetic methods as a complementary method supporting classical chemical and geochemical analysis in studies of soil, sediment and dust environments.

Contact:

Doc. dr hab. Tadeusz Magiera
Institute of Environmental Engineering
Polish Academy of Sciences
Zabrze
Poland

Tel: 00 48 32 271 64 81
Fax: 00 48 32 271 69 50
E-mail: magiera@ipis.zabrze.pl

Preliminary Symposium Programme

29 June 2009	
Session I: Pedogenic and geogenic soil magnetism.	
Possibility of practical application.	Open discussion
Session II: Anthropogenic soil magnetism.	
Possibility of practical application.	Open discussion
30 June 2008	
Session III: Magnetism of lake and river sediments.	
Possibility of practical applications.	Open discussion
Session IV: Magnetic particles in industrial and urban dusts.	
Possibility of practical application.	Open discussion
1 July 2008	
Session V: Magnetic pollution in living organisms.	
Possibility of practical application.	Open discussion

Deadlines:
ASAP Expressions of interest.
31 May 2009: Final registration and payment of registration fee.

Registration Form:
If you are interested in this event, please complete and send ASAP by e-mail to:
Tadeusz Magiera
Fax: 00 48 32 271 69 50
E-mail: magiera@ipis.zabrze.pl
Keyword (for mail): SoilSEDUMA Symposium

Please note that, wherever possible, information about this Conference will be sent by e-mail

Title	(Prof/Dr/Mr/Mrs/Ms)
Initial	Surname
Organization	
Address	
Telephone	
Fax	
E-mail	

Participation: Please mark the session of your interest
Session I: Pedogenic and geogenic soil magnetism. Session II: Anthropogenic soil magnetism. Session III: Magnetism of lake and river sediments.
Session IV: Magnetic particles in industrial and urban dusts.
Session V: Magnetic pollution in living organisms.
Title and form of your contribution (oral/poster):

Your specialization:

	Geophysics
	Geochemistry
	Environmental geology
	Environmental geography
	Soil science
	Biology
	Medicine
	Archeology
	Other (please specify)

Dear Colleagues

We are pleased to invite you to the special session on:
'Fire Effects on Geomorphology and Environmental Processes' at the **7th International Conference on Geomorphology, 7-12 July 2009, Melbourne.** (See session description below). The IAG meeting is ideally placed to bring together the global research community on wildfire impacts.

Wildfire can lead to considerable geomorphological and environmental change, both directly by weathering bedrock surfaces and changing soil structure and properties, and indirectly through the effects of changes to the soil and vegetation on hydrological and geomorphological processes. Thus, for example, investigations of accelerated hillslope erosion and post-fire debris flow have been at the forefront of fire impact research in recent years. A recent surge in these and related areas of fire research highlights the challenges faced by researchers and land managers in predicting and addressing the on-site and off-site effects of fires. This surge has accompanied a trend of increased fire activity with particularly destructive fires in many parts of the world, which is likely to continue with climate change for the foreseeable future. Notwithstanding this need to focus on contemporary fire impacts, fires have influenced landscape development in various ways over many millions of years as a recurring agent in most environments that produce sufficient biomass to sustain a burn.

We welcome presentations on all aspects of wildfire-related research addressing geomorphological and broader environmental processes at any spatial or temporal scale.

This session focuses on:

(i) The understanding, predicting and mitigating of fire effects in contemporary environments.

(ii) The role of fire as an agent in shaping landscapes and their ecosystems over medium- or geological timescales.

http://www.geomorphology2009.com

With best wishes,

Stefan Doerr and Artemi Cerda

E-mail: S.Doerr@Swansea.ac.uk

Federal Ministry of Education and Research

INTERNATIONAL CONFERENCE ON LAND AND WATER DEGRADATION: PROCESSES AND MANAGEMENT

6–9 September 2009

There is an urgent need to improve our practical and theoretical understanding of land and water degradation processes; in particular the physical, chemical and biological deterioration of soils and water bodies in various regions of the world. This Conference will bridge the gap between land and water and will bring together scientists from various disciplines with different methodological backgrounds.

Topics

- Nutrient dynamics in the land-sediment-water system.
- Function of buffer strips and floodplains for catchment health.
- Physical, chemical and biological processes of soil degradation.
- Methodological approaches to estimate and regionalize non-point source pollution.
- Spatial heterogeneity, variation and prediction of land degradation.
- Methods to review outcomes of mitigation strategies and catchment management.
- Regional studies of land and water degradation, especially in industrialized and urbanized areas, cold climates and Mediterranean regions.

Field trip

The *mid-conference field trip* will focus on land and water management problems in the vicinity of Magdeburg.

The *post-conference field trip* (10-13 September) will introduce general environmental characteristics of the region and will focus on:

- Farm management under changing environmental and socio-economic conditions with visits to a loess region, a low mountain area and the lowlands of north Germany.
- Water and catchment management, with emphasis on mining lakes, mining activities and visits to a low mountain region and a research mine.

Keynote lectures

John Quinton, Lancaster University, United Kingdom.
Rattan Lal, Ohio State University, USA.

Web site: www.ufz.de/comland2009

'Human Impact on Gully Erosion,' 20-25 April 2010, Lublin, Poland

Organized by the Institute of Earth Sciences, Maria Curie-Sklodowska University and the Association of Polish Geomorphologists.

Hosted by Maria Curie-Sklodowska University.

Scope and objectives

The formation and development of gullies is one of the most important geomorphological processes influencing agricultural landscapes all over the world. Human impact plays major roles in gully erosion and causes major on-site and off-site consequences.

Good recognition of factors influencing the intensity of gully erosion constitutes not only a scientific problem but also an applied one. In many regions it is a major impediment to the sustainable development of agricultural areas. That is why the number of scientific meetings focusing on the problem is progressively increasing.

The First Symposium on Gully Erosion was held in Leuven (Belgium) in 2000. This was followed by Symposia in Chengdu (China) in 2002, Oxford (USA) in 2004 and in Pamplona (Spain) in 2007. The present Symposium, planned for April 2010 in Lublin (south-east Poland), will focus on interactions between human activities and gully erosion.

Several topics will be discussed, including:

- Historical gully erosion all over the world.
- Present day intensity of gully erosion processes.
- Human impact on gully erosion, especially the role of land use.
- Prevention and restoration of gullies.

Please visit the Symposium website:
http://gullyerosion.org/

Wojciech Zglobicki

E-mail: zglobek@hektor.umcs.lublin.pl

Reminder for the next issue:

Articles, reports, letters, views or comments on any aspect of soil erosion and conservation in Europe are always welcome.

We invite proposals for special thematic issues of the Newsletter. We also welcome any comments on the ESSC Newsletter and suggestions on how it can be improved and developed.

Do not forget to send in your details of the following information:

(i) Reviews of recent conferences.
(ii) Recent grant awards.
(iii) The citation details and abstracts of completed Ph.D. and M.Sc. theses.
(iv) Newly enrolled Ph.D. research students, title of their research topic and names of research supervisors.
(v) Recent staff institutional movements/promotions.
(iv) A reference list of your 'new' international refereed scientific journal papers, which have been published recently (since and including the year 2000).

Send these details to either:
Professor Mike Fullen: m.fullen@wlv.ac.uk
or
Dr Colin Booth: c.booth@wlv.ac.uk
and they will include this information in the next issue.

PLEASE NOTE:
We publish four Newsletter issues per year. The deadlines are:
10 January; 1 April, 1 July and 1 October.

Some Closing Thoughts:

"In the past, the long-term effects of our actions were less evident. But today, thanks to science and technology, we are capable of bringing about either great benefits or terrible disasters. The threat of nuclear weapons and man's ability to destroy the environment are really alarming. And yet there are other almost imperceptible changes – I am thinking of the exhaustion of our natural resources, and especially of soil erosion – and these are perhaps more dangerous still, because once we begin to feel there repercussions it will be too late" .

(His Holiness, The Dalai Lama, 1996)

"Do not plough wet soil and do not drive cart or livestock on a rain-soaked field. Be careful, otherwise you will lose three years' yields where the field was trodden on" .

(Cato, 234-149 BC)

"Nothing causes as much damage as does neglected land".

(Plinius Secundus, 23-79 AD).

"The trouble with some lies in neglecting their own fields but cultivating the fields of others – they are strict with others, but lenient with themselves".

(The Chinese sage Mencius (Meng Tzu), 372-289 BC)

"But all things in existence, from microbes to human beings to galaxies, are not really separate things or entities, but form part of a web of interconnected multidimensional processes".

(Ekhart Tolle, 2005)

"I make mistakes, perhaps mistakes make me". *(Marc Gafni, 2001)*

"Do not grieve for what does not come. Some things that do not happen keep disasters from happening". *(Jalaluddin Rumi, 1207-1273)*

"When you're doing something wrong, doing it more intensely isn't going to help".

(Vince Lombardi)

"An error only becomes a mistake if you refuse to correct it". *(David Baird, 2000)*

"Regret is the beclouding of the mind and not its chastisement". *(Kahlil Gibran, 1926)*

AIMS OF THE SOCIETY

The ESSC is an interdisciplinary, non-political association, which is dedicated to investigating and realizing soil conservation in Europe. The ESSC pursues its aims in the scientific, educational and applied sectors by:

Supporting investigations on soil degradation, soil erosion and soil conservation in Europe,

Informing the public about major questions of soil conservation in Europe,

Collaborating with institutions and persons involved in practical conservation work in Europe.

The ESSC aims at co-ordinating the efforts of all parties involved in the above cited subjects: research institutions; teachers and students of geosciences, agriculture and ecology; farmers; agricultural planning and advisory boards; industries and government institutions.

ZWECK DER VEREINIGUNG

Die ESSC ist einer interdisziplinäre, nicht politische Vereinigung. Ihr Ziel ist die Erforschung und Durchführung des Schutzes der Böden in Europa. Die ESSC verfolgt dieses Ziel auf wissenschaftlichem, erzieherischen und angewandtem Gebiet:

durch Unterstützung der Forschung auf den Gebieten der Boden-Degradierung, der Bodenerosion und des Bodenschutzes in Europa,

durch Information der Öffenlichkeit über wichtige Fragen des Bodenschutzes in Europa,

durch Zusammenarbeit mit Institutionen und Personen, die an der Praxis des Bodenschutzes in Europa beteiligt sind.

Die ESSC will alle Personen und Institutionen zusammenführen, die sich für die genannten Ziele einsetzen: Forschungsinstitutionen, Lehrer und Studenten der Geowissenschaften, der Landwirtschaftswissenschaften und der Ökologie, Bauern, landwirtschaftliche Planungs- und Beratungsstellen, Industrieunternehmen und Einrichtungen der öffentlichen Hand.

BUTS DE L'ASSOCIATION

L'ESSC est une association interdisciplinaire et non politique. Le but de l'association est la recherche et les réalisations concernant la conservation du sol en Europe. L'ESSC poursuit cette finalité dans les domaines de la recherche scientifique, de l'éducation et de l'application:

en encourageant la recherche sur la dégradation, l'érosion et la conservation du sol en Europe,

en informant le public des problemes majeurs de la conservation du sol en Europe,

par la collaboration avec des institutions et des personnes impliquées dans la pratique de la conservation du sol en Europe.

L'ESSC souhaite favoriser la collaboration de toutes les personnes et institutions poursuivant les buts définis ci-dessus, en particulier: institutions de recherche, professeurs et étudiants en géosciences, des agriculteurs, des institutions de planification et des conseil agricole, de l'industrie, et des institutions gouvernementales.

OBJECTIVOS DE LA SOCIEDAD

La ESSC es una asociación interdisciplinar, no-politica, dedicada a la investigación y a la realización de acciones orientadas a la conservación del suelo en Europa. La ESSC persigue sus objectivos en los sectores cientificos, educacionales y aplicados, en al ámbito europeo:

promocionando la investigación sobre degradación, erosión y conservación de suelos,

informanto al público sobre los principales aspectos de conservación de suelos,

colaborando con instituciones y personas implicadas en la práctica de la conservación de suelos.

La ESSC aspira a coordinar los esfuerzos, en los temas arriba mencionados, de todas las partes implicadas: centros de investigación, profesores y estudiantes de geo-ciencias, agricultura, selvicultura y ecología, agricultores, servicios de extensión agraria, industrias e instituciones gubernamentales.

Visit the ESSC Website: http://www.essc.sk

MEMBERSHIP FEES

I wish to (please mark appropriate box):

- Join the ESSC
- Renew my membership of the ESSC
- Know whether I have outstanding membership contributions to pay

Membership rates:

Standard Rates:

- One year € 25.00
- Three years € 70.00

Members in Albania, Armenia, Azerbaijan, Belarus, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Latvia, Lithuania, Macedonia, Moldova, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia and Ukraine:

- One year € 10.00
- Three years € 25.00

Students:

50 % reduction on above rates for three years
Your supervisor must provide written confirmation of student status

I wish to pay my membership contribution by (please mark appropriate box):

- Eurocard / Mastercard
- Visa Card
- American Express Card
- Bank Transfer

Branch address: Fortis Bank, Zonnestraat 2, B-9000 Gent, Belgium;
International transaction codes:
IBAN - BE29 0014 5139 8064 and BIC - GEBABEBB;
Account name: European Society for Soil Conservation;
Account number 001-4513980-64

CARD NO. ..... EXPIRY .....

Amount: € ..... Date: ..... Signature: .....

NAME: .....

ADDRESS: .....

.....

E-MAIL: .....

MEMBERSHIP NUMBER (if known): M0 .....

Please send this form to: ESSC Treasurer, Dr Wim Cornelis, Department of Soil Management and Soil Care, Coupure links 653, B-9000 Gent, BELGIUM.

wim.cornelis@UGent.be