

WASWAC

HOT NEWS

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WASWAC President's New Year Message of 2021



Dear WASWAC Councilors, Advisors, Regional Representatives, and all members,

Time flies. Look back to the very different year of 2020, all members of WASWAC stayed together to fight with COVID-19, to share ideas through the internet, and to expect a brighter future for -post-COVID-19 time. Affected by the pandemic, we lost a lot of face to face communications this year. However, we still worked closely pushing all the WASWAC activities forward. Under your support, the WASWAC has made great progress, I would take this opportunity to provide you with a very brief summary.

(1) New WASWAC Advisory Committee and Council have been both established. Total 14 advisors and 47 councilors are served for the term of 2020-2022. All the efforts from them are very important for the future of WASWAC. The list for our advisors and councilors are available in the fifth issue of Hot News:

<http://www.waswac.org.cn/waswac/rootfiles/2020/05/28/1586518002094676-1586518002124138.pdf>

The Council Working Committees including Academic Conference Committee, Award Committee, Committee for International Cooperation and Development, Publication Committee, Financial Committee, and Youth Committee, were updated, to provide more specific services to our

members. Details for these committees please check out our 9th issue Hot News:

<http://www.waswac.org.cn/waswac/rootfiles/2020/12/05/1608498081778768-1608498081793807.pdf>

(2) This year, COVID-19 created one of the biggest global crisis. WASWAC councilors, advisors, and all members have expressed their thoughts, opinions, and recommendations about WASWAC development concerning strategies, activities, etc. in the post-COVID-19 time, details about these inputs could be found in the fourth issue Hot News, which is available on our official website:

<http://www.waswac.org.cn/waswac/rootfiles/2020/04/21/1586514795324027-1586514795341008.pdf>

(3) Our journal – International Soil and Water Conservation Research (ISWCR) has received its first Impact Factor (IF) of 3.770 according to the 2019 Journal Citation Report released by Clarivate Analytics. Among the total of 94 journals in the category of Water Resources, ISWCR was ranked 13 and as a Q1 journal. In the categories of Soil Science and Environmental Science, ISWCR was ranked as 7th out of 38 (Q1) and 76th out of 265 (Q2), respectively. ISWCR has becoming a very important journal in soil, water, and related fields. Welcome to check out our ISWCR website for more content about the Journal:

<http://www.keaipublishing.com/en/journals/international-soil-and-waterconservation-research/>

(4) The special issue from the Global Symposium on Soil Erosion 2019 (Rome, FAO HQ) – Soil erosion assessment tools and data: creation, consolidation, and harmonization has been organized and published in the fourth issue of ISWCR, with great support from the following guest editors: Richard Cruse, Costanza Calzolari, Lucia Anjos, Nigussie Haregeweyn and Clara Lefèvre. More details are available on the websites of the Journal and WASWAC website:

<http://www.waswac.org.cn/waswac/uploadfile/2020/12/18/20201218155132718.pdf>

(5) To celebrate the International Soil Decade (2015-2024), in collaboration with the Spanish Society of Soil Science (SECS, Delegation of Galicia), the Institute of Agrobiological Research of Galicia of the Spanish National Research Council (IIAG-CSIC), and the Chinese Soil and Water Conservation Society (CSWCS), WASWAC has completed the translation of comic “Living in the Soil” from English to Chinese. This comic with the aim of raising awareness amongst young people about the importance of soil was firstly published in the Galician language. Now, it has been

translated into several languages including English, Spanish, Italian, Polish, etc. Details please find here:

<http://www.waswac.org.cn/waswac/LatestNews/webinfo/2020/12/1608497991000953.htm>


(6) The third International Youth Forum on Soil and Water Conservation (3rd IYFSWC) is planned to be held in 2021 in Iran. During this forum, the WASWAC Youth Outstanding Paper Award will be presented. This year, the WASWAC secretariat and the 3rd IYFSWC organizer - The Watershed Management Society of Iran (WMSI) have launched a website for the 3rd IYFSWC (<http://iyfswc.modares.ac.ir/>). Welcome all our members to be involved in this great event, and also welcome our younger members to apply for the Youth Outstanding Paper Award (DATUM) 2021. Details about this forum please go to:

<http://www.waswac.org.cn/waswac/LatestNews/webinfo/2020/11/1606431549220563.htm>

Soil and water are the most fundamental resources and most important safeguards for human's life. We should pay more attention to sustainable utilization and overall protection. I believe that WASWAC is able to provide useful and meaningful guides continually to the wise use of soil and water resources, and I believe that all of you are one of the essential contributors.

Finally, with the arrival of 2021, I wish all of you and all your families a very merry Christmas and a prosperous New Year. I hope that all of you can take care of yourself and the families well in this challenging time. Please stay safe and keep healthy.

All the best,



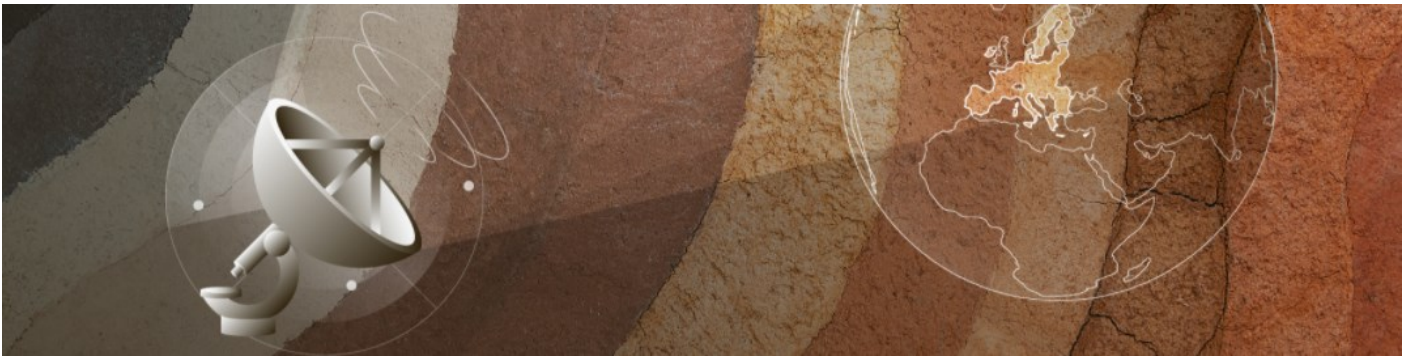
Prof. Ning Duihu

The president of WASWAC



EU Soil Observatory launched on December 4

The launch of JRC's EU Soil Observatory took place on December 4, 2020. The new EU Soil Observatory will be a dynamic and inclusive platform that will provide information and data needed to safeguard soils to the European Commission and the broader soil user community.



Over the next two years, the EU Soil Observatory (EUSO) will become a dynamic and inclusive platform that aims to support policymaking by:

- Providing the Commission Services and the broader soil user community with the soil knowledge and data flows needed to safeguard soils
- Supporting EU Research & Innovation on soils
- Raising societal awareness of the value of soils

Healthy soils are at the heart of the Green Deal for Europe

In addition to providing us with food, fibres and fuel, soils play a key role in regulating the Earth's climate, provide us with clean water, protect us from floods and preserve our cultural heritage.

A unique habitat in its own right, life within soils underpins all terrestrial ecosystems and is a potential source of new medicines.

However, soils are being degraded by unsustainable land use, together with growing population pressure, changes in consumption patterns and increasingly extreme weather events.

The recent proposal by the European Commission for a Soil Health and Food Mission - 'Caring for soil is caring for life' - has set the ambitious challenge of ensuring that, by 2030, 75% of EU soils are healthy for food, people, nature and climate.

EU Soil Observatory launched on December 4

It is no surprise that soil is the glue that binds the different strategies of the Green Deal.

Sustainable soil management

Sustainable soil management and the restoration of degraded land is critical if biodiversity protection targets are to be achieved.

Efficient nutrient management, including carbon sequestration to offset climate change, are key measures in the Common Agricultural Policy, while reducing pesticide residue levels are aspirations under both the Farm to Fork Strategy and the Zero Pollution Action Plan. Reduced soil sealing and organic waste cycles are both targets of the Circular Economy Action Plan.

Key tasks

- The EU Soil Observatory has been established to support these strategies by:
- Collecting high-resolution, harmonised and quality-assured soil information (showing status and trends) to track and assess progress by the EU in the sustainable management of soils and restoration of degraded soils;
- Supporting the outcomes of targeted research;
- Fostering networking, cooperation and partnerships among users of soil data and information;
- Underpinning policy development through meaningful indicators and assessments.

As the EUSO is in its infancy, its content is expected to change and grow quickly over the coming months.

For more information please check their official website:

<https://ec.europa.eu/jrc/en/eu-soil-observatory>



Protecting soil biodiversity essential in adapting to climate change

by David Thompson, Western Sydney University

Efforts to adapt to a rapidly changing climate are entirely dependent on protecting the life in our soils.

These are among findings compiled by more than 300 researchers for the United Nation's Food and Agriculture Organization (FAO). Lead author of the second chapter of the report, Professor Brajesh Singh and colleagues at the Global Centre for Land-Based Innovation at Western Sydney University have linked diverse soil flora and fauna, and a dramatically-changing global climate, to the sustainability of human civilization and our natural world.

"Every one of us is standing upon the world's most important natural resource," said Professor Singh.



Credit: CC0 Public Domain

"Soil biodiversity drives the processes that humankind almost takes for granted—high-quality food, fresh clean water and healthy economies. There is extensive evidence that

the world could make significant progress towards the United National Sustainable Development Goals just by protecting the life and health of our soils," Professor Singh said.

Rapid advances in DNA and genetic sequencing technologies are driving massive global research efforts to identify and adopt the most promising soil biodiversity practices.

Already, techniques such as no-till agriculture, carbon farming and satellite mapping are used to grow food and fiber with much more emphasis on keeping soils healthy and biologically-active, all of which originated from the adoption of science and research.

"What governments around the world must do immediately is include soil biodiversity as one of the main priorities to address climate change and ensure that the Australian agriculture industry can reach its stated goal of being a \$100 billion industry by 2030," Professor Singh said.

"We cannot keep treating our soils like dirt," said Professor Singh. Western Sydney University scientists Dr. Catriona Macdonald, Dr. Eleonora Egidi and Associate Professor Uffe Nielsen also contributed to the report.

Sources: <https://phys.org/news/2020-12-soil-biodiversity-essential-climate.html>

Best Farming Practices for Soil Health Vary by Region

By Emily Matzke

Farmers can use a variety of practices to keep their soils healthy. Some of these practices include not tilling the land, planting cover crops between growing seasons and rotating the type of crop grown on each field.

However, research published in *Agricultural & Environmental Letters*, notes that information regarding soil health is often too generalized.

"Soil health is difficult to define, measure and track over time, although methods are improving," says Grace Miner, a member of the American Society of Agronomy, Crop Science Society of America and Soil Science Society of America. "Linking changes in soil health to farm management is complex."

Not all outcomes are equal amongst farms. While one practice may benefit one, it may bring challenges to another depending on location. These challenges stem from the U.S. having diverse geography.

"We recognize there are potential benefits with soil health, but caution against blanket statements," says Miner. "The best farming practices, in terms of costs and benefits, need to be understood at the regional level. What works for someone in Colorado may not work in Wisconsin."

Farmers worldwide are faced with the challenge of producing high-quality food while using practices that minimize environmental impacts. They are encouraged to practice conservation while producing enough nutritious

food to feed a growing population.

"There is positive momentum and commitment surrounding soil health from the agriculture industry, conservation groups and policy makers," says Miner. "However, when they provide too generalized of statements, information is lost."

There are many factors that affect the outcomes of soil health management on a farm. Soil health improvement is often a lengthy process that depends on things like soil type,



No-till is a beneficial practice for soil health. In a no-till system, farmers plant directly into crop residue left behind from previous growing seasons. Here, soybeans are planted into a field where corn was previously grown. Credit: R. Schutte

climate, cropping system and available tests.

"Healthy soils are the foundation for food production," says Miner. "We need to pursue the most sustainable and economical forms of production. But outcomes need to be understood over a long range of time at regional levels."

Researchers emphasize the importance of identifying the pros and cons of different farm management systems. Consideration of soil health, yield and nutritional quality need to be taken. For some, decisions may need to be made in terms of farmer goals.

Miner notes that generalizations are useful to



Researchers evaluate a field of radish cover crop. Among other benefits, cover crops protect soil from wind and water erosion. Matt Ruark

a point. But to answer questions about how farm management practices impact soil health, yields and other outcomes, practices need to be tested at a regional scale for multiple years.

“Locally sourced data will help farmers use the best practices for their land,” says Miner. “The investment and outcomes involved over time is a complex, yet worthwhile challenge.”

The question of whether healthier soils will lead to a better nutritional value of crops is another area of research. Improving the soil health doesn’t automatically mean the crop yield and nutritional quality will increase.

“In some crops, the mineral nutrient quality goes down as yields go up,” explains Miner. “It’s dependent on the type of crop and the growing environment, among other factors.”

There is a lot left to be understood about this complex subject, which is why Miner and her team are continuing their research. Ultimately, their goal is to understand the most regionally appropriate farm management practices.

“Meeting future global food demands while responsibly caring for the land is a grand challenge before us,” says Miner. “There are important questions to answer in terms of soil health, crop production and nutritional quality. By investing time, energy and funding into these questions at the regional scale, we can determine the benefits of soil health management practices for farmers.”



A researcher collects a soil sample from a long-term research plot. Credit: Bradley Floyd

Grace Miner is a postdoctoral scientist at Colorado State University.

Sources: <https://www.soils.org/news/science-news/best-farming-practices-soil-health-vary-region>

Updated CiteScore of ISWCR in December 2020

Calculating the CiteScore is based on the number of citations to documents (articles, reviews, conference papers, book chapters, and data papers) by a journal over **four years**, divided by the number of the same document types indexed in Scopus and published in those same **four years**. Below is the updated information on Scopus website:

International Soil and Water Conservation Research

Open Access

Scopus coverage years: from 2013 to present

Publisher: International Research and Training Center on Erosion and Sedimentation & China Water and Power Press

ISSN: 2095-6339

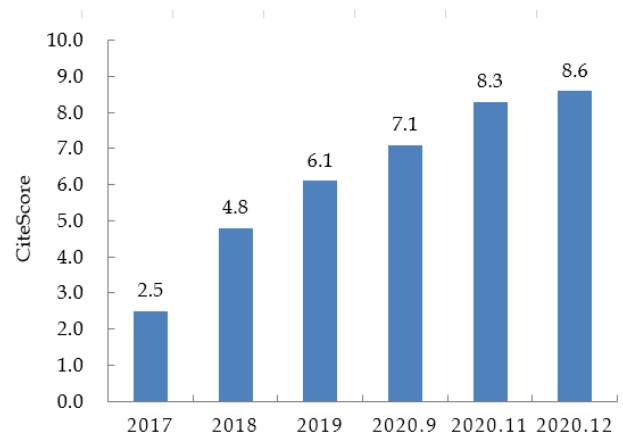
Subject area: Environmental Science: Water Science and Technology

Environmental Science: Nature and Landscape Conservation

Agricultural and Biological Sciences: Agronomy and Crop Science

Agricultural and Biological Sciences: Soil Science

Category	Rank	Percentile
Environmental Science		
└ Water Science and Technology	#17/217	92nd
Agricultural and Biological Sciences		
└ Agronomy and Crop Science	#28/334	91st
Environmental Science		
└ Nature and Landscape Conservation	#14/160	91st
Agricultural and Biological Sciences		
└ Soil Science	#17/126	86th



CiteScoreTracker 2020 ⓘ

8.6 = $\frac{1,226 \text{ Citations to date}}{143 \text{ Documents to date}}$

Last updated on 07 December, 2020 • Updated monthly

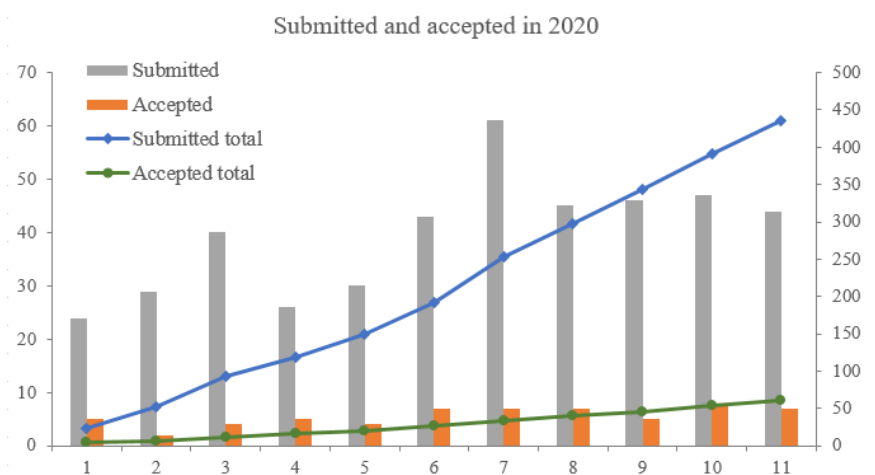
Annual Volume of Submissions and Publishing since 2013

Year	Published	Submitted
2013	27	27
2014	32	32
2015	30	67
2016	38	124
2017	38	231
2018	36	214
2019	39	264
2020	44	460



Monthly Submissions & Acceptance

Month	Submitted	Accepted
1	24	5
2	29	2
3	40	4
4	26	5
5	30	4
6	43	7
7	61	7
8	45	7
9	46	5
10	47	8
11	44	7



The International Soil and Water Conservation Research (ISWCR), initiated in June 2013, is a quarterly academic journal in English and publishes in Science Direct of Elsevier with open access globally. Since initiation, ISWCR has developed rapidly and established a good reputation in both international academia and publishing industry. It was indexed by Chinese Science Citation Database (CSCD) in April 2015, covered by SCOPUS in January 2017, and was indexed by Emerging Sources Citation Index (ESCI) of Clarivate Analytics in October 2017. In July 2019, ISWCR was officially indexed by SCIE and **the first impact factor, obtained in June 2020, is 3.770.**

Contents of Issue 4, 2020 for ISWCR

Evaluation of soil erosion risk and identification of soil cover and management factor (C) for RUSLE in European vineyards with different soil management

M. Biddoccu, G. Guzmán, G. Capello, T. Thielke, ... J.A. Gómez

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<https://www.sciencedirect.com/science/article/pii/S2095633920300484>

Assessing spatial variability and erosion susceptibility of soils in hilly agricultural areas in Southern Italy

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Impacts of horizontal resolution and downscaling on the USLE LS factor for different terrains

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Effect of time resolution of rainfall measurements on the erosivity factor in the USLE in China

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The use of remote sensing to detect the consequences of erosion in gypsiferous soils

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Assessment of deforestation impact on soil erosion in loess formation using ¹³⁷Cs method (case study: Golestan Province, Iran)

Mohammadreza Gharibreza, Mohammad Zaman, Paolo Porto, Emil Fulajtar, ... Hossein Eisaei

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The assessment of soil loss by water erosion in China

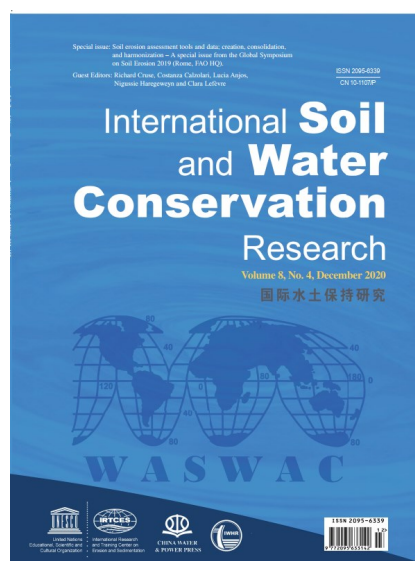
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Study on a soil erosion sampling survey in the Pan-Third Pole region based on higher-resolution images

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Contents of Issue 1, 2021 for IJSR

Papers Published in the *International Journal of Sediment Research* Volume 36, No. 1, 2021
Pages 1-163 (February 2021)

Numerical investigation of the effect of seasonal variations of depth-of-closure on shoreline evolution

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A 2D well-balanced, coupled model of water flow, sediment transport, and bed evolution based on unstructured grids with efficient variable storage strategy

Zhiyuan Yue, Qingquan Liu, Wei Huang, Peng Hu, Zhixian Cao
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Full papers are available at ScienceDirect:

<https://www.sciencedirect.com/journal/international-journal-of-sediment-research> with free access to the paper abstracts.





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