HOT NEWS

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WASWAC

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Officially Released Impact Factor of ISWCR in 2020

Clarivate officially released the 2020 Journal Citation Reports™ (JCR) on June 30, 2021. JCR publish each SCIE indexed journal a rich array of citation metrics, including the Journal Impact Factor™ (JIF), alongside descriptive data about a journal's open access content and contributing authors.

According to the newest JCR, **the 2020 Impact Factor for the WASWAC official journal - International Soil and Water Conservation Research (ISWCR) is 6.027**. If you are interested in other indexes in JCR, please check the JCR of ISWCR on Web of Science.

ISWCR was officially indexed by Science Citation Index Expanded（SCIE）in July, 2019, and is classified into three subject areas of Water Resources, Soil Science, and Environmental Sciences. ISWCR received its first official Impact Factor (IF) of 3.770 in June 2020. The impact factor of 6.027 is the second official IF for ISWCR.

Amongst the total of 98 journals in the categories of Water Resources, ISWCR was ranked 6, which rises 3 place compared to that in last year. In the categories of Soil Science and Environmental Sciences, it is ranked as 4 out of 37 (Q1) and 45 out of 274 (Q1), that rises 3 and 31 place compared to those in last year, respectively. ISWCR is now a Q1 journal in all three categories of Water Resources, Soil Science, and Environmental Sciences.

The specific rankings are as follows:

JCR Category	Ranking	Quartile
Environmental Sciences	45/274	Q1
Soil Science	4/37	Q1
Water Resources	6/98	Q1

Officially Released CiteScore of ISWCR in 2020

Elsevier officially released the 2020 CiteScore on June 3, 2021. This is the latest assessment of thousands of peer-reviewed research journals, book series, conference proceedings, and trade publications covered in Scopus. The CiteScore of ISWCR increased from 6.1 to 8.5 this year.

ISWCR was officially indexed by Scopus in 2017, and is classified into four subject areas: Water Science and Technology, Agronomy and Crop Science, Nature and Landscape Conservation, and Soil Science. According to 2020 CiteScore released this year, ISWCR is ranked as the top ten journals in three subject areas.

International Soil and Water Conservation Research

Open Access

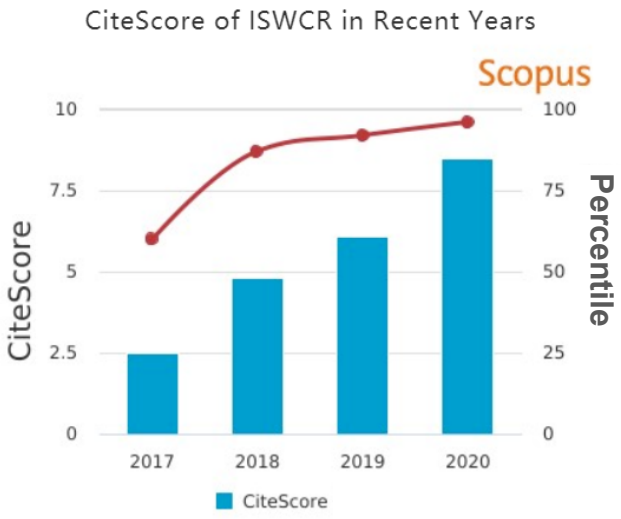
Scopus coverage years: from 2013 to present

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

ISSN: 2095-6339

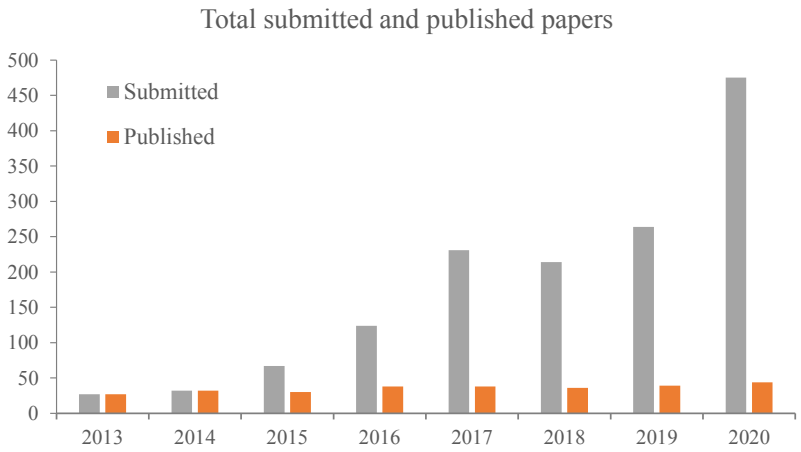
Subject area: Environmental Science: Water Science and Technology
Environmental Science: Nature and Landscape Conservation
Agricultural and Biological Sciences: Agronomy and Crop Science
Agricultural and Biological Sciences: Soil Science

- **Water Science and Technology: 9/225**
- Agronomy and Crop Science: 16/347
- **Nature and Landscape Conservation: 10/177**
- **Soil Science: 10/135**



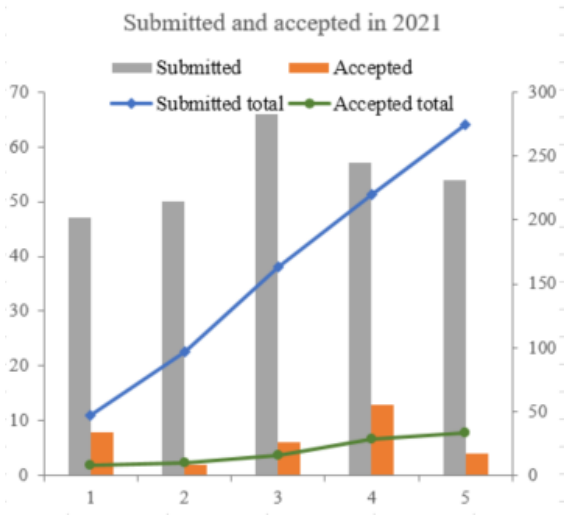
Annual Volume of Submissions and Publishing since 2013

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	475



Monthly Submissions & Acceptance in the current year (2021)

Month	Submitted	Accepted
1	47	8
2	50	2
3	66	6
4	57	13
5	54	4

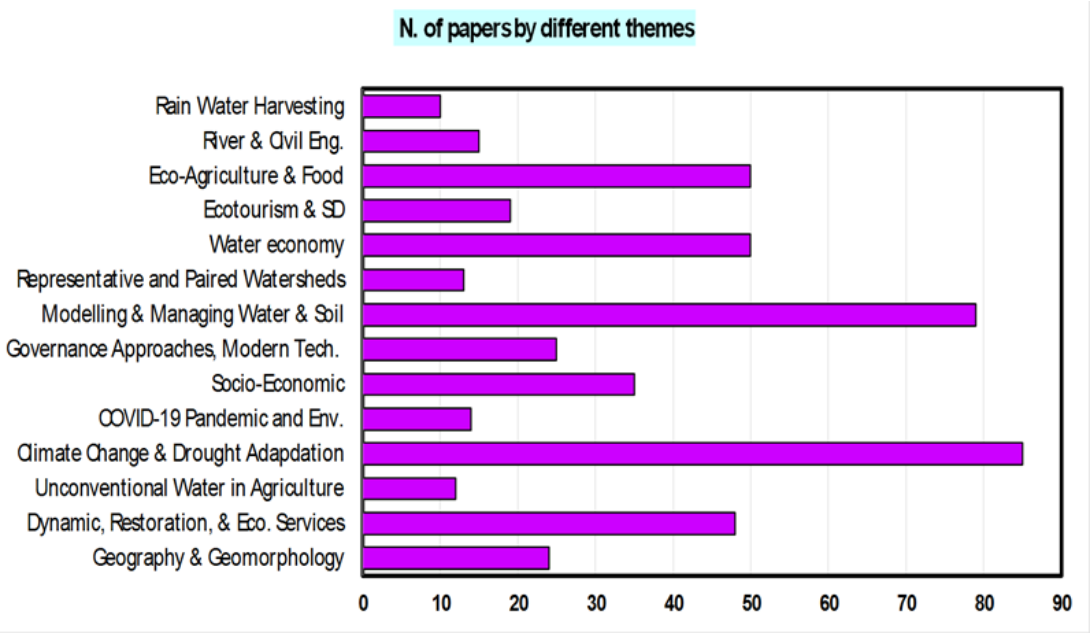


The International Soil and Water Conservation Research (ISWCR), initiated in June 2013, is a quarterly academic journal in English and publishes in Science Direct of Elsevier with open access globally. Since initiation, ISWCR has developed rapidly and established a good reputation in both international 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.

2nd International Conference and 5th National Conference on Conservation of Natural Resources & Environment

The 2nd International and 5th National Conference on Conservation of Natural Resources & Environment was held in Ardabil, Iran, June 09-10, 2021. This conference was organised by the Watershed Management and Hydrology Research Group (Water Management Research Center), Recycling and Waste Management of Lignocellulosic Materials Research Group, University of Mohaghegh Ardabili, Balkan Scientific Association of Agricultural Economics (NDAE-BSAAE), and Geo Eco-Eco Agro (GEA). The aim of this conference was to address ongoing controversies and timely topics in natural resources and environment research, review available data related to these topics and controversies, and ultimately promote discussion to help resolve lingering issues.

Totally, 493 papers received; among them 392 and 33 were respectively accepted for oral and poster presentation and 68 papers were rejected. The following figure showed the number of papers in each theme.



Four scientific workshops:

Multivariate modeling of hydroclimate processes: copulas and multi-hazard analysis (English) - Amir AghaKouchak- Mojtaba Sadegh

Familiarity with the application of CROPWAT model in determining water needs and crop irrigation program (Persian) - Seyed Pedram Nainava

Explain the instructions for monitoring and evaluating natural resource management and watershed management plans (Journal No. 505 of the technical and executive system of the country) (Persian) - Morteza Behzadfar-Amir Reza Heyrani

Modeling and optimization by response level method (RSM) (Persian)- Isa Hazbavi

Four keynote speakers:

How to restore the rain for climate of the thirsty regions: New Water Paradigm - Michal Kravčík

IRRISAT: the Italian experience in satellite-based advisory services for smart agriculture - Giovanni Battista CHIRICO

Water and national security: water for regional peace - Seyed Mukhtar Hashemi

Water, drought, erosion, and environment technologies development - Nader Gholi Ebrahimi

For More Information:
Website En: http://envprouma.ir/en/
Instagram: https://instagram.com/conf.conserv.nat.resour.enviro?igshid=1pr55h2g7s3de

Brief report from an Ecohydrology lecture

A lecture entitled **Ecohydrology** was held with the virtual participation of some 90 attendees on Wednesday 2021/05/26 by **Prof. Dr. Seyed Hamidreza Sadeghi** organized by the Student Scientific Association of Forest Science and Engineering, Faculty of Natural Resources and Marine Sciences, Tarbiat Modares University, IRAN.

At the beginning of the session, Prof. Dr. Sadeghi described the water cycle at the watershed scale. It was mentioned that the water cycle takes place in the form of several interactions, including precipitation, evaporation, transpiration, through fall, stem flow, runoff, and various other processes such as soil erosion and sediment yield. He continued his talk by designating the importance of ecohydrology studies in the field of planning studies, management, operation, and policy-making. He further discussed the importance of **ecohydrology** in finding solutions to issues surrounding water, people, and the environment. Prof. SHR Sadeghi also mentioned that knowing the role and status of various hydrologic components, including infiltration, throughfall, runoff, stemflow, flow type, soil loss, and even sediment yield in different ecosystems can provide important information for the better management of the ecosystem under consideration. He ultimately tried to realize the importance of ecohydrology with the help of documents published in the same field. He ultimately concluded that the importance of the management approaches in determining hydrological behaviors of different ecosystems is much more important than the type of land-uses.

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Benefits of wheat in corn-soybean crop rotations

by Adityarup "Rup" Chakravorty

The United States grows a lot of corn and soybeans. Some researchers think it's a good idea to add wheat into that mix.

Long-term tillage, crop rotation, and nitrogen trial at Ridgetown Campus in Ontario, Canada in early July. Credit: Adam Hayes

A new study shows including winter wheat once every 4 years in rotations with corn and soybean can have many benefits. The research was recently published in Agronomy Journal.

In 2019, farmers across the U.S. harvested corn from 81.5 million acres of farmland. That's just smaller than the areas of Nebraska and Iowa combined.

More than half the corn harvested in the U.S. came from just four states in the Northern Corn Belt – Iowa, Nebraska, Illinois, and Minnesota.

The Northern Corn Belt also extends into Canada. The province of Ontario produced more than 350 million bushels of corn in 2020.

Across most of the Northern Corn Belt, farmers typically rotate between growing corn and soybean. But occasionally growing wheat could help those farmers.

"Corn and soybean yields were higher when crop rotations included wheat," said Ken Janovicek, member of the American Society of Agronomy and lead author of the new study.

For the study, researchers grew winter wheat once every three or four years with corn and soybean.

They found that longer-term corn-soybean ro-

When added to a corn and soybean crop rotation, wheat can increase economic return, improve the soil, and help prevent runoff. Credit: David Hooker

tations that contain winter wheat can be more profitable. "The greatest yield increases occurred in rotations that included winter wheat once in four years," said Janovicek.

Farmers tend to focus on corn and soybean because these crops typically have higher financial returns than wheat.

But the study made a key financial discovery. "The increase in corn and soybean yields when these crops are grown in rotation with wheat more than offset the lower sale returns associated with winter wheat," said Janovicek. "Farmers would need to continue to grow wheat every 4-5 years," says Janovicek. "The increased corn and soybean yields associated with including wheat in rotations disappear over time if wheat is dropped from rotations."

Rotating wheat with corn and soybean crops also has other benefits.

For example, soils tend to be healthier and have better structure when crop rotations include small grains or forages in addition to corn and soybean.

Good soil health and structure can have far-reaching consequences.

"Inferior soil structure increases soil erosion and runoff risk," says Janovicek. "In turn, that increases the risk of surface water pollution."

"On the other hand, good soil structure and health may increase water availability for crops," says Janovicek.

As global climate changes, water availability may become unreliable. Limited water could even limit crop yields. Improving soil structure by including winter wheat in crop rotations could help address both these issues.

The Northern Corn Belt in the United States produced 7 billion bushels of corn, which is more than half of the total U.S. corn harvest. Credit: Debolina Chakraborty

"We will probably see even greater benefits of more complex crop rotations in the future," says Janovicek.

In fact, the researchers observed the highest increases in corn and soybean yields in the later years of the study.

The crop rotation studies were carried out in two study sites in Ontario, Canada. At one of the sites near Elora, Ontario, the trial has been ongoing for more than 36 years.

The researchers observed continued increase in soybean yields over time when winter wheat was included in rotations throughout

the trial. However, the largest yield increase was recorded in the past 2 years.

Janovicek and colleagues are exploring more ways farmers can benefit economically from wheat crops.

For example, "When markets exist, straw sales can increase revenue associated with wheat," says Janovicek.

Wheat straw was baled at the Elora trial. Removing the wheat straw did not reduce subsequent corn or soybean yields. "That demonstrates that retention of straw is not needed to obtain greater corn and soybean yields when in rotation with wheat," says Janovicek.

Ken Janovicek is a researcher at the University of Guelph. This work was supported by Grain Farmers of Ontario and the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) through the Ontario Agri-Food Innovation Alliance.

Source: *https://www.soils.org/news/science-news/benefits-wheat-corn-soybean-crop-rotations*

The present and future of soil conservation in Europe

by Layla M. San-Emeterio & Olga Vindušková

Soil is a fragile and finite natural resource that must be carefully managed and protected to ensure future food and fiber provision as well as delivery of many other ecosystem services such as water purification or flood regulation [1]. Soil health and preservation at global scales has been receiving increasing attention, for example, in discussions at the 2019 UN climate conference, COP25 in Madrid. Backed by robust scientific evidence, COP25 sought support for new programs in which soil scientists are (and must be) included. It was during COP21 in 2015 with the Paris Agreement when it was recognized that agricultural soils play a significant role as sinks and sources of carbon and the 4 per 1000 Initiative "Soil for Food Security and Climate" was launched. Despite persistent skeptical opinions due to lack of awareness, climate change is being accelerated exponentially and the role of soil organic carbon in the global carbon cycle is gaining visibility and relevance in politics. However, soil carbon is only one of many important aspects of soil health that we should be paying attention to. There is work for everybody. Developed nations should reconsider their industrial agriculture models and start managing their soils towards higher

quality in terms of erosion susceptibility, drought resilience, and soil biodiversity. Special attention should be paid to developing nations which are most vulnerable to climate change effects and still struggle to provide enough food and clean water to support livelihoods of their communities. We should all look together for innovative solutions that can maintain, restore and actively improve the quality of our soils, which can support ecosystems and human well-being in the long-term. So let's start in our "backyard".

What is the status of soils in Europe?

European soils face several threats which include soil erosion, soil organic matter decline, soil compaction, loss of soil biodiversity, soil and water pollution, salinization, soil sealing, and desertification [2]. Soil erosion by water is the most prominent form of soil degradation in Europe although wind erosion also affects certain areas. It is estimated that EU countries lose 970 M tonnes of fertile soil every year which is equivalent to a loss of 1 meter of soil from the area of Berlin [3]. A thousand years can be required to produce 1 cm of fertile soil which can be lost in only a few years [3]. Almost a third of European agricultural areas have erosion rates higher than the sustainable rates (2 tonnes per hectare per year) and 11% of EU soils are affected by moderate to severe water erosion [2].

As elsewhere in the world, arable soils of Europe are depleted in soil organic matter (SOM) when compared to both grasslands and natural soils. Intense cropping, tillage and insufficient use of cover crops and organic fertilizers contribute to SOM decline in well-drained agricultural soils while drainage is the major driver of SOM decline in waterlogged soils. It is estimated that around 75% of EU's arable land have less than 2% organic carbon [2]. They contain only about a quarter of the organic carbon found in natural soils and less than half of what grasslands store [2], which means that if properly managed, carbon could be stored in these soils while concurrently improving their quality.

What is the European Commission doing for soil conservation?

The Common Agricultural Policy (CAP) is a common policy for all EU countries and has been in place since 1962. An expensive policy, even though its relative cost has been decreasing over time, CAP represented more than a third of the EU's budget in 2018.

The original objectives of CAP were to support farmers and their standard of living in order to ensure a stable supply of affordable food to EU citizens, and maintain rural areas and landscapes across the EU. Increasingly, it has been recognized that CAP also has great potential to assure better standards of soil management by requiring farmers to apply good farming practices in order to be eligible for subsidies. To some extent, this potential is already being embraced in the two main pillars of CAP since its reform in 2003. Pillar 1 consists of direct payments and market measures and pillar 2 concerns rural development policy. Under the first pillar, farmers are required to maintain landscapes in the so-called "Good Agricultural and Environmental Conditions". These standards are aimed at building-up soil organic matter, enhancing soil biodiversity, reducing soil erosion and protecting water resources. In addition to these requirements, part of the direct payments available to farmers are conditioned by applying 'greening measures'. These sustainable farming measures are practices such as crop diversification, maintaining permanent grassland and dedicating 5% arable land to Ecological Focus Areas such as trees, hedges or land left fallow to support biodiversity and soil regeneration. More support can be obtained by farmers from the second pillar within rural development schemes which are developed by each member country.

The CAP reform process has now restarted. It is therefore time to act on urgent challenges and address citizens' demands for sustainable agriculture, using the full breadth of available scientific evidence and knowledge.

On 1 June 2018, the European Commission presented a proposal on the future reform of CAP for the period after 2020. The new CAP promises to be more ambitious in terms of environmental care and climate action. Firstly, the mandatory requirements with which farmers have to comply will be further strengthened. New obligations will include:

(1) preserving carbon-rich soils through protection of wetlands and peatlands, (2) nutrient management to improve water quality and reduce ammonia and nitrous oxide levels and (3) crop rotation instead of crop diversification. In addition, farmers will be rewarded for going beyond mandatory requirements. For these, each member country will develop their own system of eco-schemes and agri-environment-climate measures to incentivize farmers towards practices that fit the local context of each country. Digitalization and precision agriculture receives attention in the future CAP as an important tool to optimize soil fertility and reduce pollution by supporting better farm management and matching fertilizer inputs with actual plant nutrient requirements. Despite the on-going "greening" of CAP, scientists in a recent critical statement demand that EU is even more ambitious and rather than light green aspires for dark green.

The agricultural European Innovation Partnership (EIP-AGRI) was launched by the EU in 2012 as a platform to bring together farmers, advisors, researchers, businesses, and NGOs to support innovation in agriculture. EIP-AGRI supports innovation towards competitive and sustainable farming and forestry that 'achieves more and better from less' and contributes to ensuring a steady supply of food, feed and biomaterials in harmony with the essential natural resources on which farming depends.

The European Soil Data Centre (ESDAC) is a thematic centre for soil-related data in Europe. Its ambition is to be the single reference point for and to host all relevant soil data and information at European level. It contains a number of resources that are organized and presented in various ways: datasets, services/ applications, maps, documents, events, projects and external links. It also releases a newsletter.

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[2] https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/key_policies/documents/cap-specific-objectives-brief-5-soil_en.pdf

[3] https://ec.europa.eu/info/news/soil-matters-our-future-2019-dec-05_en

Source: *https://blogs.egu.eu/divisions/sss/2020/02/12/the-present-and-future-of-soil-conservation-in-europe/*

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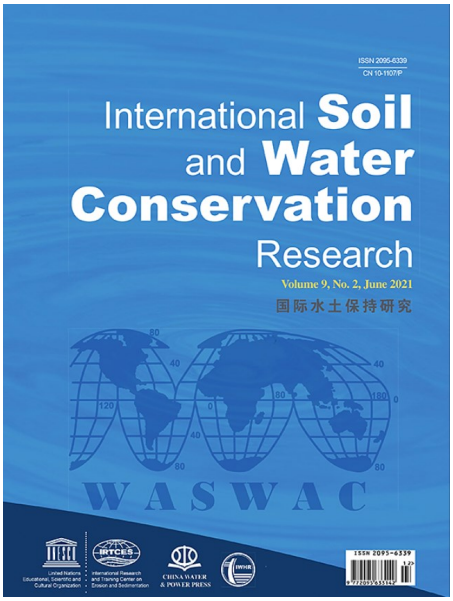

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