WASER
WORLD ASSOCIATION FOR SEDIMENTATION AND EROSION RESEARCH

World Association for Sedimentation & Erosion Research – WASER

NEWSLETTER

Reporting WASER news to you regularly

2016 No.3
(Nov.5, 2016)

IN THIS ISSUE

世界泥沙研究学会简报

本期内容

PRESIDENT'S MESSAGE: Speech at the 5th WASER Assembly

Dear Colleagues,

The World Association for Sedimentation and Erosion Research, commonly abbreviated as WASER, is an independent non-governmental, non-political, non-profit organization, free of racial, gender or national prejudice. The web page of WASER is http://www.waser.cn/. WASER aims to promote the understanding and application of erosion and sedimentation, through international contacts among scientists, engineers, and governments. The Secretariat of WASER is based in the International Research and Training Center on Erosion and Sedimentation (IRTCES) in Beijing, China. The International Symposia on River Sedimentation is one of the main forums of WASER.

The International Journal of Sediment Research is the journal jointly sponsored by WASER and IRTCES. The International Journal of Sediment Research has played an important role in increasing the exposure of WASER to the international community. The average impact factor of the Journal is about 1.3 and the impact factor for 2015 is 1.39. I would like to extend my thanks to the Chief Editor, Prof. Hongwei Fang and the Editorial Team for their excellent work. To encourage members to publish papers and cite papers in the journal, WASER awards Best Paper Awards to the top papers published in the journal.

WASER awards prizes to scientists and engineers who have made great contributions in the field of sedimentation and erosion. WASER Honorary Membership is awarded to WASER members who have made great contributions to the science of sediment transport and development of the Association. The International Ning Chien Prize is awarded to scientists and engineers who have worked in the field of sedimentation and erosion for a long period of time and have made outstanding contributions.

In 1996 Prof. Bingnan Lin proposed the establishment of an international organization to be known as WASER. I assisted Prof. Lin to obtain international support and Prof. Dingzhong Dai helped Prof. Lin in obtaining support from the Chinese Government. Prof. Bingnan Lin drafted the petition and the statutes of WASER. After many trials and vicissitudes over a period of 8 years, WASER was finally established in 2004, supported by UNESCO and the Ministry of Water Resources of China. Prof. Bingnan Lin is regarded as the father of WASER.

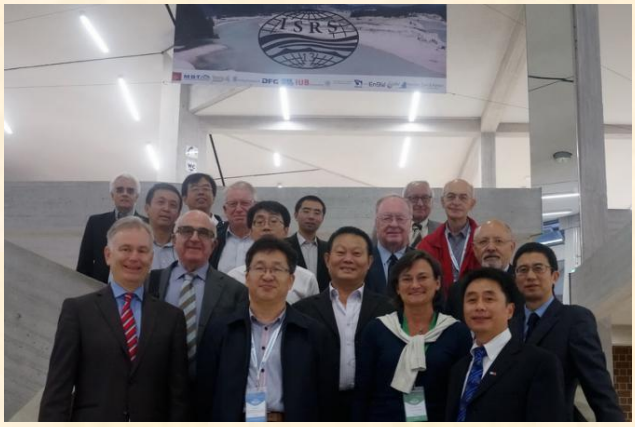
After the establishment of WASER, Prof. Des Walling was elected President for the first and second terms of the presidency. He was succeeded by Prof. Giampaolo Di Silvio was elected President for the third and fourth terms. Under the excellent leadership of Prof. Des Walling and Prof. Di Silvio, WASER has seen many important developments and passed successfully through its infant and young child stages. They brought our new-born Association to maturity with an established reputation among the numerous international associations dealing with water and sediment research. I am pleased to succeed Prof. Di Silvio and to serve as the President for the fifth term. In the coming 3 years I will follow the trail of Prof. Des Walling and Prof. Di Silvio to promote the mission of WASER in the international context, by making its structure and activities better known to both the membership and the outside world.

Sediment research has entered a new era, moving from a focus on the mechanics of sediment transport and fluvial processes to integrated management of erosion and sedimentation. The theme of the 13th ISRS Symposium held in Stuttgart is Innovative Management Strategies in Riverine Systems: From Old Problems to New Solutions. Ecological aspects of hydraulic and sediment transport processes and Social, Economic and Political aspects of Sediment Management have become important topics for the Symposium. Moreover, people are aware of the importance of sediment transport to land creation and to continental and global material balances. I believe that sediment research has a bright future and that our Association will continue to attract increasing numbers of scientists and engineers.

Zhaoyin Wang, President of WASER

NEWS

The Fifth WASER Council Meeting and Assembly held in Stuttgart, Germany



The Fifth Council Meeting of the World Association for Sedimentation and Erosion Research (WASER) was held in Stuttgart, Germany on September 18, 2016. The Council Meeting was attended by 18 members representing both the Fourth Council and the newly elected Fifth Council, as well as several observers. Prof. Giampaolo Di Silvio, President of the Fourth Council, and Prof. Zhaoyin Wang, President of the Fifth Council, presided over the meeting successively.

Approval of the nominations for the new Secretary General (Prof. Guangquan Liu) and the Executive Secretary General and Treasurer (Prof. Cheng Liu) was confirmed at the beginning of the meeting. Six reports were presented at the meeting. These included the President's report by Prof. Giampaolo Di Silvio; the Treasurer's report by Prof. Cheng Liu; a report on the nomination of Honorary Members by Prof. Des Walling; a report on the recent development of the "International Journal of Sediment Research" and the papers from the journal selected for Awards by the Editor in Chief, Prof. Hongwei Fang; reports on the work of the Secretariat during the period 2013-2016 and the work plan for 2016-2019 by Prof. Guangquan Liu and an overview of the venue, sponsors and central theme of the forthcoming 14th ISRS (Chengdu, China, 2019) by Prof. Pengzhi Lin.

The meeting received the result of the poll for the election of members to the WASER Council for 2016-2019, and noted additional Council members, including the automatically Co-opted Members (Prof. Giampaolo Di Silvio and Prof. Ulrich Zanke), a Co-opted Member (Prof. Des Walling) and an Ex-officio Member (Prof. Hongwei Fang).

The meeting also formally noted the award of Honorary Membership of WASER to Prof. Chih Ted Yang (USA), as reported by Prof. Des Walling, Past President; and the three papers nominated for the 2016 Awards for Distinguished Contributions to Sediment Research, representing the best papers published in the International Journal of Sediment Research (IJSR) between 2013 and 2015, as reported by the Editor in Chief, Prof. Hongwei Fang.

Issues related to the future development of the Association, changes to the statutes, recruiting of members, revised membership dues, the IJSR impact factor and the co-sponsoring of international conferences were also discussed.

The Fifth WASER Council Meeting

(The meeting; Prof. G. Di Silvio delivering his President's Report; the new President Prof. Z.Y. Wang chairing the meeting and discussions; Secretary General Prof. G.Q. Liu presenting the Secretariat Report; IJSR Editor in Chief Prof. H.W. Fang reporting the award papers; Representative of the Organizing Committee of the 14th ISRS, Prof. P.Z. Lin reporting preparations for the Symposium.)

The Fifth WASER Assembly was held during the 13th International Symposium on River Sedimentation (ISRS 2016) in Stuttgart, Germany on September 22, 2016. The new President Prof. Zhaoyin Wang chaired the Assembly and delivered a speech. He reviewed the establishment and development of the Association and indicated that sediment research was entering a new era, having shifted its focus from emphasis on the mechanics of sediment transport and fluvial processes to the integrated management of erosion and sedimentation, with ecological aspects of sediment

transport processes and fluvial morphology and the social, economic and political aspects of sediment management becoming increasingly important. He believed that sediment research had a bright future and that the Association would become increasingly attractive to scientists and engineers, by virtue of its multidisciplinary focus.

Awards including Honorary Membership of WASER and the 2016 Distinguished Contributions to Sediment Research Awards, awarded for the best papers published in IJSR during the period 2013-2015 were announced at the Assembly. Past Vice President Prof. Chih Ted Yang (USA) received Honorary Membership of the Association in recognition of both his outstanding contribution to sediment research and his important service to the Association. Three papers with first authors of Prof. Xixu Lu (Singapore), Ms. Shang Qianqian (China) and Mr. Moritz Thom (Germany) received awards for Distinguished Contributions to Sediment Research.

The Fifth WASER Assembly

(The Assembly; New President Prof. Z.Y. Wang delivering his speech; Past President Prof. Des Walling announcing the award of Honorary Membership to Prof. Chih Ted Yang; Past President Prof. G. Di Silvio handing the Honorary Membership plaque to Prof.Matt Romkens, who received it on behalf of Prof. Yang)

The 13th International Symposium on River Sedimentation held in Stuttgart, Germany

The 13th International Symposium on River Sedimentation (ISRS2016) was held at the University of Stuttgart, Germany from September 19-22, 2016. About 300 participants from over 51 countries and regions attended the Symposium. The Symposium was organized by the University of Stuttgart, sponsored by the International Research and Training Center on Erosion and Sedimentation (IRTCES) and the World Association for Sedimentation and Erosion Research (WASER), and co-sponsored by UNESCO, UNESCO-IHP-ISI, IAHR, etc.

The opening ceremony was held in the morning of September 19 and was chaired by Prof. Silke Wieprecht, the Chairperson of the Local Organizing Committee. Six welcome speeches were made between musical frameworks provided by the Academic String Quartet of the University:

- Welcome message from the ISRS 2016 Chair Prof. Dr.-Ing. Silke Wieprecht (Professor of the Institute of Modelling Hydraulic and Environmental Systems, University of Stuttgart);
- Welcome message from the Rector of the Host University Prof. Dr.-Ing. Wolfram Ressel (Rector of the University of Stuttgart);
- Welcome message from the Ministry of the Environment, Climate Protection and the Energy Sector Baden-Württemberg Mdgt Dr. Peter Fuhrmann (Head of Department Water and Soil);
- Welcome message from the City of Stuttgart Dr. Hans-Wolf Zirkwitz (Head of Environmental Protection Agency of the state of Baden-Württemberg);
- Welcome message from the President of WASER Prof. Giampaolo Di Silvio (Professor of the University of Padua, Italy);
- Welcome message from IRTCES by Prof. Guangquan Liu (IRTCES Deputy Director and WASER Secretary General).

The ISRS2016 main theme was ‘Sediment on the Move - Innovative Management Strategies in Riverine Systems: From Old Problems to New Solutions’ with the following six main topics:

A. Integrated Sediment Management at the River Basin Scale
B. Sediment Transport
C. River Morphodynamics
D. Hydromorphology meets Ecology
E. Reservoir Sustainability
F. Social, Economic and Political Aspects of Sediment Management

The programme also included a WISA workshop (Workshop on International Sediment Advancements) and five special sessions including:

SS 1 Hydropower and Sediment Management
SS 2 Navigation and River Morphology

SS 3 Innovative Measurement Techniques
SS 4 Sediment Transport in Fluvial, Estuarine and Coastal Environment
SS 5 Sustainable Land Management

The programme included three keynote presentations, six presentations in WISA including a panel discussion, 183 technical presentations in up to 5 parallel sessions, and 39 poster presentations. The keynote lectures were:

- Advances and challenges in mixed cohesive/noncohesive sediment transport research by Prof. Weiming Wu, Clarkson University, Potsdam, N.Y. (USA);
- Form, function and physics: The ecology of biogenic stabilization by Prof. David M. Paterson, University of St Andrews, St Andrews (UK);
- Local scour at hydraulic structures by Prof. Bruce W. Melville, The University of Auckland, Auckland (NZ).

Two one-day technical tours and two local tours were arranged on September 21. One technical tour included a visit to the Iffezheim barrage, a hydropower station with one of the largest fish passages in Europe, where participants were also able to ride on a hopper barge to see the artificial sediment feeding. The second tour involved a visit to the Schluchseewerk AG and its Pumped Storage Power system, including the upper reservoir, the cavern powerhouse and the outlet into the river Rhine. The two local tours also involved a visit to the hydraulic laboratory of the Institute for Modelling Hydraulic and Environmental Systems, University of Stuttgart.

The Symposium Proceedings were published by CRC Press/Balkema (Taylor & Francis Group) and contained the keynote papers and one-page abstracts of 185 technical papers. Full copies of the technical papers were provided on a flash disk included with the volume.

The closing ceremony was organized on the afternoon of September 22. Prof. Zhao-Yin Wang, the new President of WASER, gave a brief overview and made recommendations for the ISRS 2016. Prof. Guangquan Liu, the representative of the ISRS permanent Secretariat, announced that the 14th ISRS will be held in Chengdu, China in 2019 and will be organized by Sichuan University. Prof. Liu took the symposium banner from Prof. Silke Wieprecht, representative of the ISRS 2016 LOC and handed it over to Prof. Pengzhi Lin, representative of the next host University. Prof. Lin gave a speech and showed a video to introduce Chengdu and to invite and welcome all participants to meet again in Chengdu in 2019 for the 14th ISRS. The symposium was rounded off with a symposium dinner at the grand pump room at Bad Canstatt during the same evening.

Welcome speeches at the Opening Ceremony

(Prof. Silke Wieprecht; Prof. Wolfram Ressel; Mdgt. Peter Fuhrmann; Dr. Hans-Wolf Zirkwitz; Prof. Giampaolo Di Silvio, and Prof. Guangquan Liu)

Keynote Presentations (Dr. Weiming Wu, Prof. David M. Paterson and Prof. Bruce W. Melville) and WISA plenary discussion

Laboratory visit as part of the local tours and group picture from the technical tour to the HPP Schluchsee

ISRS symposium banner hand over

Awards for Distinguished Contributions to Sediment Research in 2013-2015 (IJSR) presented at the WASER Assembly held during ISRS 2016

The Awards for Distinguished Contributions to Sediment Research for the period 2013-2015 were announced and presented at the WASER Assembly held on September 22, 2016, during the 13th International Symposium on River Sedimentation (ISRS 2016) held in Stuttgart, Germany.

The World Association for Sedimentation and Erosion Research (WASER) established the Awards for Distinguished Contributions to Sediment Research in 2004. These Awards provide international recognition for distinguished contributions to sediment studies through original and illuminating research papers published in the International Journal of Sediment Research (IJSR).

The 139 papers published in the International Journal of Sediment Research during 2013- 2015 were screened by the Editorial Board and the Editor in Chief and a shortlist of 12 papers was produced. The 12 papers were read by a Selection Committee comprising 15 members, who indicated their selections for the three best papers, based on scientific merit. Three papers were finally selected for the best paper award based on the total number of votes received. These are:

(1) Sediment loads response to climate change: A preliminary study of eight large Chinese rivers

Authors: Xi-xi LU, Li-Shan RAN, Song LIU, Tong JIANG, Shurong ZHANG and Jian-jun WANG

Publication information: Vol.28, No.1; Pages: 1-14; Year: 2013

(2) Biofilm effects on size gradation, drag coefficient and settling velocity of sediment particles

Authors: Qianqian SHANG, Hongwei FANG, Huiming ZHAO, Guojian HE, and Zhenghui CUI

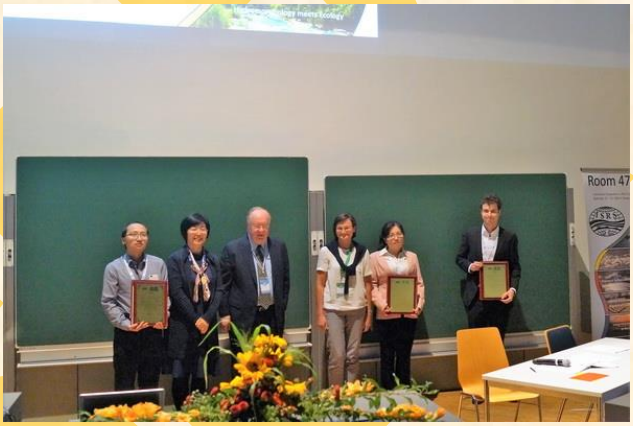
Publication information: Vol.29, No.4; Pages: 471-480; Year: 2014

(3) Seasonal biostabilization and erosion behavior of fluvial biofilms under different hydrodynamic and light conditions

Authors: Moritz THOM, Holger SCHMIDT, Sabine U. GERBERSDORF, and Silke WIEPRECHT

Publication information: Vol.30, No.4; Pages: 273-284; Year: 2015

IJSR Associate Editor Prof. C. Liu announcing the IJSR award papers during the WASER Assembly



Prof. Des Walling, Prof. X.P. Dou and Prof. S. Wieprecht handing Award plaques to the winners

Workshop on International Sediment Advancements (WISA) organized in Stuttgart

A Workshop on International Sediment Advancements (WISA) was held on September 20, 2016, during the 13th International Symposium on River Sedimentation (ISRS 2016) held in Stuttgart, Germany. The Workshop was an inter-organizational event aimed at disseminating more widely recent progress and advances associated with different scientific associations and organizations active within the field of sediment research and management. These associations and organizations included WASER, IAHR, IAHS, ISI (International Sediment Initiative) and CONSOWA.

The workshop included the following presentations and a Plenary Discussion.

- Hydraulic, Morphological and Biological Interactions in Sediment Management, by Prof. G. Di Silvio, WASER;
- Eco-sedimentology: A new area in sediment studies, by Prof. Z. Wang, IAHR;
- Changing perspectives on the suspended load of rivers, by Prof. D. Walling, IAHS;
- Hydrological processes in soils of sloping lands as a basis for sediment production and sediment yield, by Prof. I. Pla Sentis,

CONSOWA;

- Developments in reservoir sediment management, by Prof. R. Hotchkiss, UNESO ISI;
- Influence of morphological changes on ecology: a cascade of scales, by Prof. S. Wieprecht, LOC;
- A hydro-, morpho-, bio-dynamic model for long-term, basin-scale river simulations, by Prof. G. Di Silvio, WASER





NEWS FROM THE SEDIMENT WORLD

The Third WASWAC World Conference held in Belgrade, Serbia

The 3rd WASWAC World Conference was held in Belgrade, Serbia, during the period Aug. 22-26, 2016. The theme of the conference was “New Challenges and Strategies of Soil and Water Conservation in the Changing World, Sustainable Management of Soil and Water Resources”. This conference was organized by the World Association of Soil and Water Conservation and Belgrade University – Faculty of Forestry. The cooperating organizations include 15 government agencies or academic societies based in Serbia, Spain, Italy, and USA. More than 200 participants from 33 counties or regions attended this conference.

During the opening ceremony, Prof. Li Rui, the President of WASWAC and Miodrag Zlatic, the President of the Organizing Committee of the Conference gave welcome speeches. Besides the keynotes speech by Dr. Panos Panagos from the European Commission in Italy, Prof. Miodrag Zlatic from the University of Belgrade, Prof. Guobin Liu from the Institute of Soil and Water Conservation, China, Prof. Mingchang Shi from Beijing Forestry University, and Prof. Jose Luis Rubio from the University of Valencia also made contributiions. Prof. Rattan Lal from Ohio State University, USA presented a video report entitled “Conserving Soil and Water Resources for Climate-Resilient Agriculture”.

The programme of the three day conference included plenary sessions devoted to the following issues and topics: new challenges to soil and water resources under condition of climate change, land degradation processes and mechanisms, assessment of the benefits of soil and water conservation measures, sustainable watershed management, social and economic aspects, and policies related to soil and water conservation.

The Award winners for several awards established by WASWAC were announced by the Secretary-General of WASWAC, Prof. Duihu Ning. During the conference, the winners of the 2016 Outstanding Youth Paper Awards were also presented with a Certificate from the WASWAC and a $1000 (USD) honorarium for each winner. This year, 10 young scientists from 6 countries received awards.

Most participants attended the post-conference tour on Aug. 26 which visited the Radmilovac Center of the Faculty of Agriculture with its terraced vineyards and orchards. Measures to control soil and water loss were presented and discussed. (Source: WASWAC)

IRTCES held the International Training Workshop on River Basin Management Strategies and Techniques for Soil and Water Conservation

The International Training Workshop on River Basin Management Strategies and Techniques for Soil and Water Conservation was held in Beijing from October 9 to 15, 2016. This training workshop was hosted by the International Research and Training Center on Erosion and Sedimentation (IRTCES), and co-hosted by the China Institute of Water Resources and Hydropower Research

(IWHR) and the World Association of Soil and Water Conservation. The opening ceremony was held on the afternoon of October 9 at Beijing Zi Yu Hotel. Professor Kuang Shangfu, President of IWHR and Director of IRTCES, Professor Guo Suoyan, Deputy Director of the Department of Soil and Water Conservation of the Ministry of Water Resources, and Mr. Hao Zhao, Division Director of the Department of International Cooperation, Science and Technology of the Ministry of Water Resources attended and addressed the opening ceremony.

This Training Workshop was an international training project funded by the Asia Regional Cooperation Fund, which was commissioned by the Ministry of Water Resources. The aims of the workshop were to improve the participants' overall understanding of river basin management strategies and policies for the development of water resources, to broaden and master key techniques for the control of water-induced soil erosion in river basins, and to learn and share advanced techniques for the management of water resources and the conservation of soil and water. It was hoped that this workshop would promote the development of water resources in river basins and the conservation of soil and water, and foster international cooperation and exchanges among the participants. Twenty-six international participants from 11 countries, including Cambodia, Indonesia, Iran, Laos, Malaysia, Pakistan, Philippines, Sri Lanka, Thailand, Timor-leste, and Vietnam, and six domestic students from the three IRTCES Research Bases participated in the one-week training course. A number of well-known experts and scholars in the fields covered by the Workshop were invited to contribute. They included Professor Wang Zhongjing from Tsinghua University, Professor Zhang Guanghui from Beijing Normal University, Research Fellow Li Rui from the Institute of Soil and Water Conservation, Professor Zhou Shichun from the China Renewable Energy Engineering Institute, and Senior Engineer You Jinjun of the IWHR, who provided training courses on the development and management of river basin water resources, soil and water conservation strategies in river basins, the monitoring and evaluation of water and sediment discharge from river basins, and the development of soil and water conservation techniques. IRTCES Deputy Director Ning Duihu also gave the participants a lecture summarizing the conservation of soil and water in China. In addition, the training workshop also extended a special invitation to a technical representative of the Beijing Datum Science and Technology Development Co., Ltd. Company to present new services and applications for geological information system technologies in the field of soil and water conservation. During this period, the participants also visited the Shangxinzhuang Soil and Water Conservation Science and Technology Park and the IWHR's Yanqing Laboratory Base in Beijing. (Source: IRTCES)

New evidence suggests China's legendary 'great flood' might have actually happened

According to legend, Chinese civilization began around 4,000 years ago in the Yellow River basin, when an Emperor called Yu the Great successfully managed to control a huge flood.

After all these years, the story has taken on an almost mythological status, but despite frequent retelling, evidence for the 'great flood' and the Xia dynasty itself has remained patchy.

Now researchers have found the first geological evidence that the flood actually happened - and it was just as big as the legends suggest.

An international team of scientists has shown that, around 1920 BCE, an earthquake triggered the Yellow River to burst its banks, creating one of the largest freshwater floods in human history.

The evidence suggests that this flood occurred several centuries later than the legend of Yu the Great, but the timing matches up with the region's major transition from the Neolithic to the Bronze Age.

It also supports the hypothesis that ruins in the area attributed to the 'Erlitou culture' are actually an archaeological manifestation of the Xia dynasty.

Researchers have long suspected that this Bronze Age Erlitou culture might represent Yu the Great's Xia dynasty, but they needed evidence of the flood to tie it all together.

"Great floods occupy a central place in some of the world's oldest stories," geologist David Montgomery from the University of Washington, who wasn't involved in the study, wrote in a commentary accompanying the results published in the journal *Science*.

"Emperor Yu's flood now stands as another such story potentially rooted in geologic events. How many other ancient stories of intriguing disasters might just have more than a grain of truth to them?" (We're looking at you, Noah).

There are several different versions of Yu's Great Flood story, but the gist of it is that a flood large enough to "assail the heavens" was raging through the region, before Yu figured out how to dredge and channel the flooded rivers to control the water - a task that apparently took decades and the help of dragons and a giant turtle to accomplish.

As a result, Yu earned his spot as the ruler of the Xia dynasty.

The evidence for the flood came from unusual sediment found in the Jishi Gorge of the Yellow River. By analysing and dating this sediment - as well as the remains of children who died in an earthquake in the nearby archaeological site of Lajia - the researchers were able to put together a rough timeline of the events.

They estimate that the same earthquake that killed the children in Lajia also caused a landslide that damned the Yellow River in the Jishi Gorge. The water built up behind the dam until it spilled over the top and eventually caused the entire wall to collapse, sending a backlog of water downriver to flood the lowlands.

"The flood shares the main characteristics of the Great Flood described in ancient texts," the study authors write. And it was just as devastating as the ancient stories suggest.

According to modelling projections, the flood water would have risen around 38 metres (124 feet) above normal river level, with flood discharges of up to 500,000 cubic metres (132 million gallons) per second.

"That's equivalent to the largest flood registered on the Amazon River, and the largest known flood on Earth in the last 10,000 years," one of the researchers, David Cohen from National Taiwan University, told reporters during a press conference.

Verification of these results is needed before we can say for sure whether this historical flood was Yu's 'great flood', but it seems there's definitely some truth to the legends, and hopefully further research in the region will help us to better understand how Chinese civilization was born. (Source: http://www.sciencealert.com/)

PUBLICATIONS

Papers Published in the International Journal of Sediment Research Volume 31, No. 3, 2016

Pages 195-278

Managing reservoir sedimentation by venting turbidity currents: A review
Pages 195-204
Sabine Chamoun, Giovanni De Cesare, Anton J. Schleiss

A study on limit velocity and its mechanism and implications for alluvial rivers
Pages 205-211
Yanhong Jia, Zhaoyin Wang, Xiangmin Zheng, Yanfu Li

Impact of climate change on sediment yield for Naran watershed, Pakistan
Pages 212-219
Farooq Azim, Abdul Sattar Shakir, Habib-ur-Rehman, Afshan Kanwal

Critical caving erosion width for cantilever failures of river bank
Pages 220-225
Yangui Wang, Shangfu Kuang, Jialin Su

Distribution of trace metals and Pb isotopes in bottom sediments of the Murucupi River, North Brazil
Pages 226-236
Diomar Cavalcante Oliveira, Jean Michel Lafon, Marcelo de Oliveira Lima

Field measurements of settling velocities of fine sediments in Three Gorges Reservoir using ADV
Pages 237-243
Wenjie Li, Shengfa Yang, Jiang Hu, Xuhui Fu, Peng Zhang

Effect of pier shape and pier alignment on the equilibrium scour depth at single piers
Pages 244-250
Cristina Fael, Rui Lança, António Cardoso

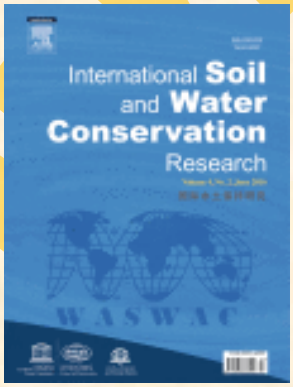
Modification of the Engelund bed-load formula
Pages 251-256
Zhen Meng, Danxun Li, Xingkui Wang

Numerical modeling of sedimentation control scenarios in the approach channel of the Nakdong River Estuary Barrage, South Korea
Pages 257-263
Un Ji, Eun-Kyung Jang, Gwonhan Kim

Morph- and hydro-dynamic effects toward flood conveyance and navigation of diversion channel
Pages 264-270
Min Xu, Li Chen, Qihui Wu, Dongfeng Li

Listen to the sound of moving sediment in a small gravel-bed river
Pages 271-278
Andreas Krein, Reimar Schenkluhn, Andreas Kurtenbach, Reinhard Bierl, Julien Barrière

Full papers are available at ScienceDirect: http://www.sciencedirect.com/science/journal/10016279 with free access to the paper abstracts.



Contents of ISWCR (Vol. 4, No.2, 2016)

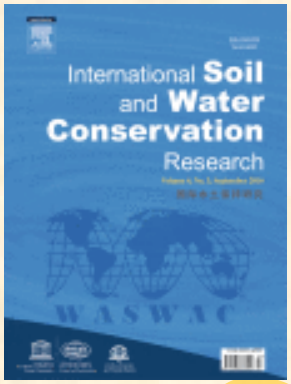
International Soil and Water Conservation Research
Volume 4, Issue 2, Pages 75-150 (June 2016)

A review of concentrated flow erosion processes on rangelands: Fundamental understanding and knowledge gaps
Pages 75-86
Sayjro K. Nouwakpo, Christopher J. Williams, Osama Z. Al-Hamdan, Mark A. Weltz, Fred Pierson, Mark Nearing

Determination and impact factor analysis of hydrodynamic dispersion coefficient within a gravel layer using an electrolyte tracer method
Pages 87-92
Xiaonan Shi, Tingwu Lei, Yan Yan, Fan Zhang

Evaluating spectral indices for determining conservation and conventional tillage systems in a vetch-wheat rotation
Pages 93-98

Free full papers and open access are available at ScienceDirect:
http://www.sciencedirect.com/science/journal/20956339



Contents of ISWCR (Vol. 4, No.3, 2016)

International Soil and Water Conservation Research
Volume 4, Issue 3, Pages 151-236 (Sep. 2016)

Free full papers and open access are available at ScienceDirect:
http://www.sciencedirect.com/science/journal/20956339

COMING EVENTS

CONSOWA 2017 (Spain, 12-16 June 2017)

1st World Conference on Soil and Water Conservation under Global Change
Date: 12-16 June 2017
Venue: Lleida, Spain
Summary: A joint Conference of the "International Soil Conservation Organization" (19th ISCO Conference), the "World Association of Soil and Water Conservation" (Conference on Soil and Water Conservation of WASWAC), the "European Society for Soil Conservation" (8th ESSC Congress), the "International Union of Soil Science (USS-Comnmissions 3.2, 3.6), the Soil and Water Conservation Society (SWCS), the "International Erosion Control Association" (IECA) and the "World Association for Sedimentation and Erosion Research " (WASER), in parallel with the VIII Simposio Nacional sobre Control de la Degradación y Restauración de Suelos (SECS).
Sponsors: Universitat de Lleida (UdL), Spanish Society of Soil Science (SECS), ISCO, WASWAC, ESSC, IUSS, SWCS, WASER, IECA and ICEA
URL: http://www.consowalleida2017.com/
Contacts:
Email: fundacio@udl.cat

2nd International Workshop on Sediment Bypass Tunnels (Kyoto Japan, May 9-12 2017)

Workshop Statement: Sediment bypass tunnels (SBT) are hydraulic structures that gain worldwide importance as a measure to counter reservoir sedimentation. Sediments are bypassed around a dam to the tailwater reach reducing sediment aggradation in the reservoir on the one hand and allowing for re-establishing sediment continuity on the other. The latter is more and more aimed at from an ecological point of view since river bed erosion downstream of the dam is decelerated along with an increase of morphological and ecological variability. The 1st IWSBT in April 2015 hosted by the Laboratory of Hydraulics, Hydrology and Glaciology at ETH Zurich, Switzerland, was a great success with 89 participants from 12 countries gathering to exchange and discuss latest research findings and experiences. We joyously invite you to participate at the 2nd IWSBT taking place in Kyoto, Japan, to further discuss newest SBT-related topics. A 1.5 day workshop will be held at Kyoto University, Uji Campus, accompanied by a 2 day field trip to Nagano Prefecture to visit the Miwa, Koshibu and Matsukawa sediment bypass tunnels. The workshop encompasses keynotes, oral presentations, poster sessions and sound discussions. We look forward to seeing you in Kyoto!
Themes: We kindly invite you to submit your abstract on one of the following topics:
A Upstream Aspects
1 Hydrology
2 Sediment Erosion & Inflow
B Tunnel
1 Hydraulics & Sediment Transport
2 Planning & Design
3 Tunnel & Inlet Works
4 Invert Abrasion
5 Maintenance
C Downstream Aspects
1 Morphological Changes
2 Ecological Effects
D Operation
1 Monitoring & Instrumentation
2 Real-time Operation
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The 14th International Symposium on the Interactions between Sediments and Water (Italy, May 21-26, 2017)

Date: 21st to 26th May, 2017
Venue: Taormina, Italy
Invitation: The role of sediment in aquatic systems has attracted increasing attention in the last few decades from both an applied and a research perspective. Sediments act as both a pollutant in natural habitats as well as a vector for the transfer of chemicals such as nutrients and contaminants. Recognition of the environmental influence of both sediment and sediment-associated chemical (nutrients and contaminants) transfers and storage on aquatic ecosystems has generated much concern within both research and regulatory agencies. Studies have been undertaken by a variety of individuals in a wide range of disciplines as the environmental problems are found in rivers, lakes, wetlands, estuaries and oceans and affect the biological, chemical, physical and social components of the system.
The International Association for Sediment Water Science (IASWS), bringing together a wide range of researchers from different disciplines, seeks to

promote, encourage and recognize excellence in scientific research related to sediments and their interactions with water and biota in fluvial, lacustrine and marine systems and with particular reference to problems of environmental concern.

The symposium that began in Amsterdam, Netherlands (1976) has continued on a three-year cycle, meeting in Canada (1981), Switzerland (1984), Australia (1987), Sweden (1990), U.S. (1993), Italy (1996), China (1999), Canada (2002), Slovenia (2005), Australia (2008), England (2011) and South Africa (2014). These tri-annual symposiums provide a forum for interdisciplinary discussions with the aim of better integrating knowledge of the biological, physical and chemical processes between sediments and water. The scale of the meeting is such that the exchange of ideas, techniques and approaches is fostered encouraging this integration and enabling future collaboration.

We invite you to participate in this conference. We hope that your attendance at the 14th International Symposium on the Interactions between Sediments and Water will be interesting and enjoyable for you, both scientifically and socially, and that you will enjoy your stay in Taormina.

Paolo Porto & Vito Ferro, Conference Chairs, Local organising Committee, IASWS 2017

IASWS 2017 website:
http://www.iasws2017.altervista.org/

Deadline for abstract submission is August 15th 2016.

The selected papers presented in the conference will be published in a special issue of “Journal of Soils and Sediments”.

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KEY THEMES OF THE CONFERENCE

During the IASWS 2017 the following main topics will be addressed:

Theme A: Assessing and/or Restoring Disturbed Watersheds
Sediment Related Risk Assessment
Fine Particle Behavior
Sediment Geochemistry
Disturbed Catchments: Modelling and Measurement
Organic Matter and Particle Behavior
Contaminant fluxes and storage in disturbed systems
Sediment fluxes in natural and disturbed systems
Managing sediment quality/remediation of sediments
Catchment research platforms and management policy
Contaminant and nutrient behaviour in disturbed systems
Impact of wildfires on water ecosystems

Theme B: Sediment-Water Linkages in Terrestrial and Aquatic Environments
Sediment Budgets: Catchment Transfers
Sediment Budgets: Supply and Storage
Floodplain Sediment Storage Sediment Associated Contaminant Transfers
Sediment Associated Nutrient Transfers
Sediment Transport
Soil Erosion
Monitoring/modelling sediment yields at multiple scales
Use of tracer technologies in sediment-water science
Dynamics of fine cohesive sediments

Theme C: Evaluating Change in Saline and/or Freshwater Habitats
Bio-Sediment Interactions
Sediment Associated Contaminants
Sediment Dynamics in Aquatic Systems
Hydrodynamic Effects on Sediment Processes
Paleo-sediment Approach
Sediment reconstruction, contaminants
Wood and fluvial ecosystems
Effect of wood on sediment structure and sorting

Theme D: Developments in monitoring and measuring sediment-water interactions and dynamics

Theme E: The role of sediment within catchment, river basin and coastal management

World Association for Sedimentation & Erosion Research

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