

# INTERNATIONAL SEDIMENT INITIATIVE

# NEWSLETTER

*Reporting ISI news to you quarterly*

No. 30 Sep. 30, 2013

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## NEWS

### Workshop on the International Sediment Advancements (WISA) is organized in Kyoto



The special plenary session Workshop on the International Sediment Advancements (WISA) was launched during the 12th International Symposium on River Sedimentation (ISRS2013) in Kyoto, Japan, on September 3, 2013. The Workshop was an inter-organizational workshop organized under the auspices of UNESCO-IHP-ISI and was devoted to disseminate beyond the limits of each membership the most significant progresses attained by several scientific associations operating in the field of sediment research and management. These associations include WASER, IAHR, IAHS (International Association of Hydrological Sciences), ISI (International Sediment Initiative) and ICOLD (International Commission on Large Dams). Representatives of those organizations and Japanese sediment research community: Prof. Giampaolo Di Silvio (representative of WASER, Universita di Padova, Italy), Prof. Rollin H. Hotchkiss (representative of IAHR, Brigham Young University, USA), Prof. Mike Stone (representative of IAHS, University of Waterloo, Canada), Prof. Manfred Spreafico (representative of ISI, University of Berne, Switzerland), Prof. Gerrit Basson (representative of ICOLD, University of Stellenbosch, South Africa) and Prof. Hajime Nakagawa (representative of LOC, Kyoto University, Japan), made short summaries on the activities and advancements in sediment research conducted in their representing organizations. Reports on the international cooperation on sediment research and panel discussions focusing on impact of dams and sediment management were also made during the workshop. The regular oral and poster sessions covered a wide spectrum of river sediment related issues such as sediment yield, sediment transport and morphology in rivers and lakes, local scour and erosion, reservoir sedimentation and management, sediment in estuarine and coastal area, environmental and ecological aspects of sediment, modeling and measurement techniques, sediment related disasters and integrated sediment management.

### IAHR World Congress kicks off in Chengdu (China)

The 35th congress of the International Association for Hydro-Environment Engineering and Research kicked off in Chengdu, Sichuan province on Monday.



Hosted by the Ministry of Water Resources of China and the IAHR, the congress attracted more than 1,000 delegates from over 70 countries.

Its theme is "The wise find pleasure in water: meandering through water science and engineering", and the congress features around 130 technical sessions on topics such as hydro-engineering and social civilization, hydro-environment and hydro-ecology, river and ocean management, climatic change and disaster response.

The Dujiangyan irrigation system, which was built in 256 BC, was recognized as a hydro-environment world heritage by the IAHR at the congress. Other awards were also handed out. (by By Li Yu and Lai Li, <http://chinadaily.com.cn>)



General Reports by Dr. JIAO Yong, Vice Minister of Water Resources of P. R. China (left); and Dr. Gretchen KALONJI, Assistant Director-General for Natural Sciences, UNESCO (right)

### ISI steering committee members have a meeting during ISRS2013



A meeting was organized among UNESCO-ISI steering committee members who participated in the 12th International Symposium on River Sedimentation (ISRS2013) in Kyoto, Japan on September 3, 2013.

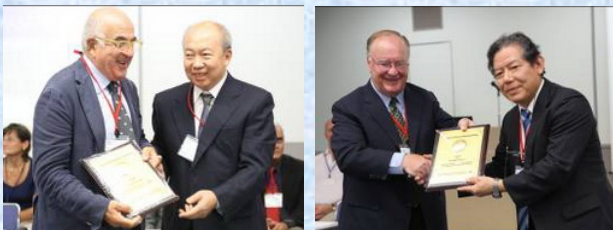
Recent developments of ISI activities and the ISI Secretariat and some new information from UNESCO related to the future of ISI were reported; and future activities, potential fund raising and futures of ISI were also discussed. The participants were: Prof. Manfred Spreafico, Chairman of the ISI Steering Committee; Prof. Hu Chunhong, Secretary-General of ISI Secretariat; and Prof. Des. Walling; Prof. Giampaolo Di Silvio, Prof. Rollin H. Hotchkiss, Prof. Gerrit Basson and Prof. Liu Cheng, members of the ISI Steering Committee.

### The 3rd International Qian Ning Prize is awarded in Kyoto

The award ceremony of the 3rd International Qian Ning Prize for Erosion and Sedimentation Technology was held at TERRSA Hall, Kyoto, Japan, on Sept 5, 2013. Prof. Chunhong Hu declared the winners of the International Qian Ning Prize are Prof. G. Di Silvio and Prof. Hajime Nakagawa.

G. Di Silvio, a full professor of Hydraulics at the University of Padua, Italy, a world-wide renowned expert in the field of sediment research, especially on River and estuarine morphological processes, Reservoir sedimentation and Hydro-morphological processes. Hajime Nakagawa, a Professor of the Disaster Prevention Research Institute (DPRI) of Kyoto University, Japan. He made great contributions to the advancement of sediment research, especially on debris flows, sediment transport and computer fluid dynamics for sediment transport.

To commemorate Professor Qian's outstanding contribution to research on erosion and sedimentation, foster further advancement of the state-of-the art and recognize current leadership and major contributions in the field of erosion and sedimentation research, the International Qian Ning Prize for Erosion and Sedimentation Technology was jointly established by the WASER and the Chinese Qian Ning Prize Foundation Committee in 2007. A foundation office is set up by IRTCES in Beijing, China, to manage the daily work of the Foundation. The Qian Ning Prize shall be awarded once every 3 years. (by Zhang Yanjing)



Prof. G. Di Silvio (left in left pic.) and Prof. H. Nakagawa (right in right pic.) receive the awards

### Award for Distinguished Contributions to Sediment Research in 2013 (IJSR) is announced in the ISRS2013

The Award for Distinguished Contributions to Sediment Research in 2013 was announced in the WASER Assembly during the 12th International Symposium on River Sedimentation in Kyoto, Japan on the afternoon of September 5 2013.

The World Association of Sedimentation and Erosion Research (WASER) established the Award for Distinguished Contributions to Sediment Research in 2004. This award is to provide international recognition for

distinguished contributions to the sediment studies through original and illuminating research papers published in the International Journal of Sediment Research (IJSR).

Seven members of the Selection Committee for the Award for Distinguished Contributions to Sediment Research in 2013 were formed and screened 125 papers published on International Journal of Sediment Research during 2010 – 2012. A short list of 15 papers was worked out. The voting for the best paper award started from November, 2012 to January 2013. All the seven members of the Selection Committee have read the 15 papers and voted for the best paper award based on scientific merits of these papers. Up to January 10, 2013, all the seven members have sent back their votes for the best paper award, and the results are therefore valid. Four papers were selected for the best paper award according to the total numbers of votes:

Year	Vol.(No.)	Pages	Author	Title
2012	27(4)	426-438	Yu G.A. et al.	Bed load transport under different streambed conditions – a field experimental study in a mountain stream
2011	26(4)	445-459	Wu B.S. et al.	Delayed response model for bankfull discharge predictions in the Yellow River
2011	26(3)	269-282	Afzalimeher, H. et al.	Investigation of turbulence characteristics in channel with dense vegetation
2012	27(2)	141-157	Zhang H. et al.	Bed morphology and grain size characteristics around a spur dyke



### UN opens high-level meeting on combating desertification



NDHOEK, Sept. 23 (Xinhua) -- Government ministers and other heads of delegation from 195 parties to a UN special convention on fighting expanding deserts across the globe started on Monday a two-day meeting here. The high-level gathering begins as the 11th session of the Conference of the Parties (COP11) to the UN Convention

to Combat Desertification (UNCCD), which opened in the Namibian capital on Sept. 16, went into its second week. The participants will discuss in the form of three round tables on topics including achieving a land degradation neutral world, promoting good practices in implementing the convention, and scaling up investments in avoiding land degradation and restoring degraded land.

In a message sent to the meeting, UN General Secretary Ban Ki-moon pointed out that healthy land is a prerequisite for food and water security and necessary to avert political instability. "We need a paradigm shift to land stewardship. We need to work with countries and local communities to protect and sustain the world's fragile drylands and restore degraded land. This conference, under the theme 'A Stronger UNCCD for a Land-Degradation Neutral World', can make a valuable contribution in defining the way forward", said Ban.

Luc Gnacadja, outgoing Executive Secretary of UNCCD, said government officials and other key stakeholders participating in this high-level segment are supposed to share their guidance on how to build a stronger UNCCD, on how to overcome the hurdles of scaling up and disseminating good practice as well as their reaction to the promising evidence emerging from the work on the economics of land degradation. They are also expected to bring political momentum to the deliberations of parties on the best options to foster the implementation of the convention, which was adopted in 1994 to counter the destructive force of desertification and mitigate the effects of drought through international cooperation.

A summary of the outcomes of the round-table discussions will be submitted to the COP11 meeting for further consideration. At last year's "Rio+20" summit on sustainable development, world leaders pledged to strive to achieve a land degradation neutral world. Such a world will be realized by way of preventing the degradation of healthy lands through sustainable land management and restoring land that is already degraded, according to the UN's plan.

To this end, the UNCCD secretariat is proposing that UN member states agree to a Sustainable Development Goal (SDG) on realizing zero land degradation by 2030. "Land degradation and drought are drying up the future we want. I am fully convinced that our generation can go land-degradation neutral and can stop creating man-made barren lands or deserts", said Gnacadja.

**Chinese entrepreneur wins UN Global Drylands Champions award:** The founder of a Chinese enterprise was honored on Monday with the Global Drylands Champions award by a special UN body on anti-desertification. Wang Wenbiao, chairman of the Elion Resources Group in China and also a member of the standing committee of the National Committee of the Chinese People's Political Consultative Conference, has spent the last 25 years in combating desertification in the Kubuqi Desert. Wang received the award at a gala dinner party held on the sidelines of the ongoing 11th Conference of the Parties (COP 11) to the UN Convention to Combat Desertification (UNCCD), which opened here on Sept. 16.

The Global Drylands Champions award is a UNCCD initiative that recognizes individuals who have made significant contributions to the UNCCD process and leadership in sustainable land management, especially in the drylands. At the awarding ceremony, Wang said his Elion Resources Group has turned more than 5,000 square km of the Kubuqi Desert into green lands, an equivalent of 1.43 percent of the global desertification area. He stressed that only through the joint efforts of the government, businesses, individuals and the civil society, can the arduous task of combating desertification be achieved successfully. (Source: Xinhua)

### More News in ISI Website

- UN opens high-level meeting on combating desertification
- ICIWaRM Deputy Director Dr. Logan Visits IRTCES
- WASWAC World Conference II was held successfully in Chiang Rai, Thailand, Sept. 4-7, 2013
- The 2013 Stockholm Statement (2013 World Water Week)
- The Fourth WASER Council and General Assembly held in Kyoto, Japan
- The 3rd International Qian Ning Prize is awarded in Kyoto, Japan on Sep. 5, 2013
- IAHR World Congress kicks off in Chengdu (China)
- Award for Distinguished Contributions to Sediment Research in 2013 (IJSR) is announced in the ISRS2013
- ISI steering committee members have a meeting during ISRS2013
- Workshop on the International Sediment Advancements (WISA) is organized in Kyoto on September 3, 2013
- The 12th International Symposium on River Sedimentation is held in Kyoto, Japan
- NE China mudslide kills two
- Sizzling summer tops the record list (China)
- Nigerian state seeks World Bank loan for erosion control
- Dam to control Mount St. Helens sediment working (USA)
- China: Protecting the Environment and Improving Livelihoods of Farmers (WB)
- Sediment Trapped Behind Dams Makes Them 'Hot Spots' for Greenhouse Gas Emissions
- International Workshop on Remote Sensing and Eco-hydrology in Arid Regions
- Climate Change Impacts in Major Mountainous Regions of the World
- Vietnam failing to combat coastal erosion
- Erosion renders 300 families homeless in a week (Bangladesh)
- Updated Information of the 12th International Symposium on River Sedimentation (Kyoto, Japan, Sep. 2-5, 2013)
- Death toll rises to 43 in SW China landslide

More .....

[\(http://www.irtces.org/isi/\)](http://www.irtces.org/isi/)

## CONFERENCE REPORT

### The 12th International Symposium on River Sedimentation is held in Kyoto, Japan



The 12th International Symposium on River Sedimentation (ISRS2013) was held in Kyoto TERRSA, Japan on Sep. 2 – 5, 2013, more than 370 registered participants from over 30 countries and regions attended the Symposium. The Symposium was organized by the Kyoto University, sponsored by the International Research and Training Center on Erosion and Sedimentation (IRTCES) and World Association of Sedimentation and Erosion Research (WASER), and co-sponsored by UNESCO, UNESCO-IHP-ISI, IAHR, Japan Society of Civil Engineers, Japan Society of Erosion Control Engineering, Japan Society for Natural Disaster Science, Japan Society of Dam Engineers, etc. The main theme is 'Integrated Sediment Management for River Basin Sustainability: Challenges & Prospects towards Mid-21st Century' with following topics:

1. Integrated sediment management in river basin scale
2. Sediment yield
3. Sediment transport & morphology in rivers & lakes
4. Local scour & erosion
5. Reservoir sedimentation and management
6. Sediment issues in estuarine & coastal area
7. Environmental & ecological aspects of sediment management
8. Modeling & measurement techniques
9. Sediment related disasters
10. Social, economic & political problems related to sediment management.

The opening ceremony was held in the Terrsa Hall on September 1 chaired by Prof. Hajime Nakagawa, the Symposium Secretary General. The Symposium Chair Prof. Shoji Fukuoka, President of WASER Prof. Giampaolo Di Silvio, IRTCES Deputy Director and Secretary General Prof. Hu Chunhong, Vice-Governor of Kyoto Prefecture Mr. Akamasa Yamashita (on behalf of the Governor Mr. Yamada Keiji), Former Vice President of Kyoto University Prof. Yuzo Ohnishi, and Director-General of Kinki Regional Development Bureau, Ministry of Land, Infrastructure, Transport and Tourism, Japan Mr. Koji Ikeuchi, made welcome speeches.

Two Keynote presentations, a Workshop on the International Sediment Advancements (WISA), over 200 technical presentations in 5 parallel sessions, and over 70 poster presentations were delivered. Keynote lectures are:

Tamotsu Takahashi (Professor Emeritus of Kyoto University): A reverse flow system for the sediment flushing from large reservoirs

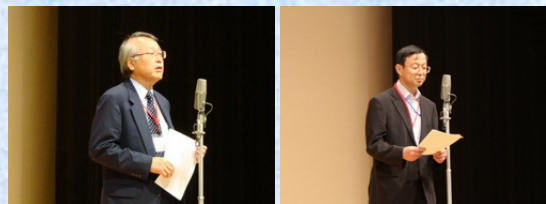
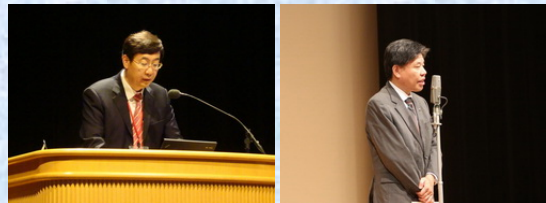
Li Yitian (Professor of Wuhan University): Mechanism and prediction of bank failure

Invited lectures are:

D.E. Walling (UK): Sediment source: a key parameter of catchment sediment yield

T. Tsujimoto, K. Moriyasu & T. Sugita (Japan): Integrated sediment management along a river - lessons in the Yahagi River, Central Japan

S. S. Wang, Y. Jia, M. Altinakar & T. Zhu (USA): River sedimentation research by integrated modeling



The Symposium Chair Prof. Shoji Fukuoka, President of WASER Prof. Giampaolo Di Silvio, IRTCES Deputy Director and Secretary General Prof. Hu Chunhong, Vice-Governor of Kyoto Prefecture Mr. Akamasa Yamashita (on behalf of the Governor Mr. Yamada Keiji), Former Vice President of Kyoto University Prof. Yuzo Ohnishi, and Director-General of Kinki Regional Development Bureau, Ministry of Land, Infrastructure, Transport and Tourism, Japan Mr. Koji Ikeuchi, made welcome speeches



Keynote Lecture by Prof. Tamotsu Takahashi (Professor Emeritus of Kyoto University)



Keynote Lecture by Prof. Li Yitian (Professor of Wuhan University):

The WISA was organized in the Terra Hall on the morning of September 2. Prof. Giampaolo Di Silvio, Prof. Rollin H. Hotchkiss and Prof. Mike Stone made short reports on the activities and advancements in sediment research by representative associations, WASER, IAHR and IAHS. In the second part of WISA "the international cooperation on sediment research", first Prof. Manfred Spreafico presented the International Sediment Initiative (ISI) of UNESCO, followed by panel discussions "Impact of dams and sediment management". Presentations were made and discussed:

Rollin H. Hotchkiss (IAHR): Sustainable dams and creative financing

Mike Stone (IAHS): Reservoir sedimentation and water supply

Hajime Nakagawa (LOC): Catastrophic events and reservoir sedimentation

Giampaolo Di Silvio (WASER): Grain-size segregation in reservoirs and sediment management

Gerrit Basson (ICOLD): Morphological impact of dams on rivers

A technical tour were arranged on September 4 for visiting Ujigawa Open Laboratory (Kyoto University), Amagase Dam, Aqua Biwa, Seta River Weir and Lake Biwa Cruise.



Technical Tour

A Symposium Proceedings were published by CRC Press/Balkema(Taylor & Francis Group) containing 2 keynote and 274 technical papers, with abstract version in publication and full paper version in CD-Rom.

During the Symposium, the 4th WASER Council meeting and General Assembly were held on the afternoons of September 1st and 5th, respectively. WASER President's Report, Treasurer's report, List of the 4th Council members and Workplan were discussed and passed through. Honorary members of WASER, best papers of "International Journal of Sediment Research" and Qian Ning International Prizes for Erosion and Sedimentation Technology were awarded in the General Assembly.

The ISRS2013 closing ceremony were organized on the afternoon of September 5. Chaired by the WASER Past President Prof. Des Walling, the WASER President Prof. Di Silvio made a speech on brief overview and recommendation of the ISRS2013, and the LOC Chair Prof. Fukuoka made a closing remarks. Prof. Hu Chunhong, the representative of the ISRS Permanent Secretariat, announced that the 13th ISRS will be held in Germany in 2016 by the University of Stuttgart. Prof. Hu took the symposium banner from Prof. H. Nakagawa, representative of the ISRS2013 LOC and handed it to Prof. Silke Wieprecht, representative of next host. Prof. Wieprecht made a speech welcoming all participants meeting again in Stuttgart in 2016.

More ISRS2013 pictures:

<http://www.irtces.org/isi/photo/ISRS2013/>



Symposium Banner hand over

## WASWAC World Conference II was held successfully in Chiang Rai, Thailand



The 2nd WASWAC World Conference with topic "Threats to land and water resources in the 21st century: prevention, mitigation and restoration" was held in Chiang Rai, Thailand, during the period of Sept. 4-7, 2013. This conference was organized by World Association of Soil and Water Conservation, Sub-committee on Water Resources of Engineering Institute of Thailand, and Department of Civil Engineering in Faculty of Engineering at Thammasat University of Thailand. The cooperating organizations include 22 government agencies or academic societies distributed in Thailand, China, Japan, Philippines, India and USA. More than 300 participants from 24 counties or regions attended this conference.

On the opening ceremony, Prof. Li Rui, the president of WASWAC, gave a welcome speech, Prof. Winfried E.H. Blum made a theme report with title "Soil and land resources: general trends and future scenarios – a worldwide perspective". Prof. Liu Zhen, the honorary president of WASWAC and the director for soil and water conservation department, the Ministry of Water Resources of China, attended conference and presented the newly achievement of soil erosion census in China.

Over two days conference, a series of sessions have been involved, 65 excellent reports were given in the related aspects such as methodologies to assess the extent of land degradation, soil loss and landslide, debris flow, sedimentation, effects of global climate change, evaluation of impacts of land degradation, ecological aspect of land degradation and restoration, SWAT achievements, control measures to prevent/mitigate land degradation and for restoration, integrated measures that enhance soil and water conservation, water resource management, law and policy, farmers' role in conserving soil and water resources, land use change and consequences.

The Award-winner for several awards set up by WASWAC have been released by Dr. Samran Sombatpanit, the president of Award Committee of WASWAC. Outstanding scientists in soil erosion and conservation research have shared the honors.

Most participants attended the post-conference tour on Sept. 7 to visit Chiang Rai Land Development Station, Mae Fah Luang University and Land Development Study Center. Measures to control soil and water loss were discussed and communicated.

In addition, prior to this conference, the council meeting was held on Sept. 4. President Li Rui introduced the process of council building and main progresses. Prof. Ning Duihu, the secretary-general of WASWAC, gave a 5 summary report on structure building, member management, conference, communication, publicity, publication and financial status. This reports showed clearly that what have been done by the secretariat in the last three years and what will be done in the following three years. The Nomination Committee of WASWAC pronounced the next term candidates of councilor, which have been discussed and agreed by all councilors. Finally, Serbia was chosen to be the organizer of WASWAC WC III, which will be held in Serbia in 2016, after discussion on the application proposal mentioned by Serbia delegate and Columbia delegate.



Council Meeting

(Source: WASWAC, <http://www.waswac.org/>)

## The 35th IAHR World Congress [PIC]

The 35th IAHR World Congress, jointly hosted by Ministry of Water Resources of P. R. China and International Association for Hydro-Environment Engineering and Research (IAHR), and organized by IWHR and other three Chinese universities, has been concluded successfully in Chengdu on September 13, 2013.



Opening Ceremony



Dr. JIAO Yong, Vice Minister of Water Resources of P. R. China  
Mr. QUMUSHIHA, Vice Governor of Sichuan Province  
Mr. GE Honglin, Mayor of Chengdu Municipality  
IAHR President Roger Falconer



From left to right: IAHR President Prof. Roger Falconer with the three new Honorary Members: Prof. Nobuyuki Tamai, Prof. Wolfgang Rodi and Prof. Willi Hager and Executive Director Dr. Christopher George



IAHR World Heritage Award to Dujianyan irrigation System



5th Research Institute Workshop On Managing Change



Young Professionals Meeting



Young Professionals Night!



Prof. Marian Muste and Student Chapters Representatives



11th John F. Kennedy Student Paper Competition: Sylvie Van Emelen (1st prize) Rafael Duarte (2nd prize) and Mengzhen Xu (3rd prize) with Robert Ettema (Student Paper Committee) and Roger Falconer (IAHR President)



2013 Willi H. Hager JHR Best Reviewer Award to Dr Oscar Castro-Orgaz and Dr Stefano Pagliara (and absent Dr Stuart Cameron)



IWHR President Kuang Shangfu (left) with the IAHR Executive Committee (left to right) Prof. Wang Zhaoyin, Dr. Christopher George, Prof. Roger Falconer, Prof. Jean-Paul Chabard and Prof. Marian Muste



Global Water Security Meeting



In conversation with the new IAHR Honorary Members (Nobuyuki Tamai, Wolfgang Rodi and Willi Hager)

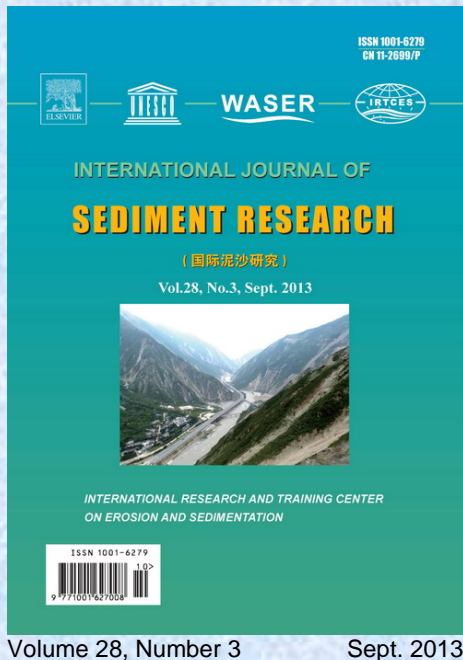


(Source: IWHR, <http://www.iwhr.com/>)



## PUBLICATION

### Papers Published in Issue 3 Volume 28, 2013, International Journal of Sediment Research



Volume 28, Number 3

Sept. 2013

#### Technical Papers

Simulation of dam-break waves on movable beds using a multi-stage centered scheme

Stefania EVANGELISTA, Mustafa S. ALTINAKAR, Cristiana DI CRISTO, and Angelo LEOPARDI pp.269–284

Petrography of alluvial sands as a past and present environmental indicator: case of the Loire River (France)

Jean-Jacques MACAIRE, Isabelle GAY-OVEJERO, Michel BACCHI, Constantin COCIRTA, Luc PATRYL, and Stéphane RODRIGUES pp.285–303

Numerical study of the effects of check dams on erosion and sedimentation in the Pachang River

Hui-Ming HSIEH, Ching-Ruey LUO, Jinn-Chuang YANG, and Rou-Fei CHEN 304–315

Numerical modeling of tidal currents, sediment transport and morphological evolution in Hangzhou Bay, China

Dong-feng XIE, Shu GAO, Zheng-bing WANG, and Cun-hong PAN pp.316–328

The interrill erosion for a sandy loam soil

Gabriella BALACCO PP.329–337

Modeling shoreline sand waves on the coasts of Namibia and Angola

Francesca RIBAS, Albert FALQUÉS, Niels VAN DEN BERG, and Miquel CABALLERIA pp.338–348

Flow near a model spur dike with a fixed scoured bed

ROGER Kuhnle AND CARLOS Alonso PP.349–357

Dimension and frequency of bar formation in a braided river

Hsuan-Pei AN, Su-Chin CHEN, Hsun-Chuan CHAN, and Yi HSU pp.358–367

Sensitivity analysis and calibration of the Modified Universal Soil Loss Equation (MUSLE) for the Upper Malewa Catchment, Kenya

V. O. ODONGO, J. O. ONYANDO, B. M. MUTUA, P. R. van OEL, and R. BECHT 368–383

Temporal and spatial variation in the sediment volume along the beaches between Ovari and Kanyakumari (SE INDIA)

S. SARAVANAN, and N. CHANDRASEKAR, V. JOEVIVEK pp.384–395

Numerical prediction of turbidity currents on unsteady sediment-supply

Ming-Yang LIU, You-cai TUO, Rui-Dong AN, and Jia Li pp.396–405

#### Technical Notes

Vertical profiles of fluid velocity and suspended sediment concentration in nearshore

Jun ZHENG, Rui-jie LI, Qing FENG, and Sha-sha LU 406–412

On the numerical analysis of bed-load transport of saltating grains

Robert J. BIALIK and Wlodzimierz CZERNUSZENKO 413–420

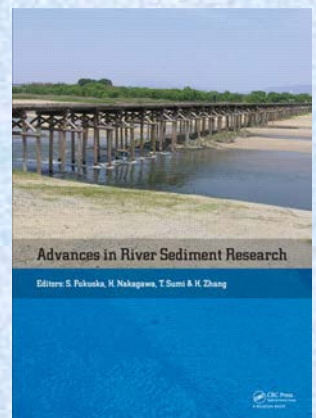
The bedform morphology of Chinese sturgeon spawning sites in the Yangtze River

Yu-jun YI, Shang-hong ZHANG, and Zhao-yin WANG 421–429

Cover Photo: Minjiang River in southwestern China has been experiencing a long term incision

### Advances in River Sediment Research

Sediments, which constitute the surface of the Earth, start their journey to rivers with the energy obtained from rainfalls, floods and other natural processes. Due to transport of sediments, rivers develop with various appearances and functions, and play a crucial role in the activities of human beings and the life cycles of other species. River sediment, as a conventional topic for river management, has been the topic of continuing research since ancient times, and since then significant progresses in river sediment research has been made. Nowadays, river sediment is much more connected to the activities of mankind and other species, following the increasing awareness of the co-existence of humans and nature.



**Advances in River Sediment Research** comprises the proceedings of the 12th International Symposium on River Sedimentation (ISRS2013, Kyoto, Japan, 2-5 September 2013). The book contains two keynote papers and 274

peer-reviewed regular contributions from all over the world, and covers recent accomplishments in theoretical developments, numerical simulations, laboratory experiments, field investigations and management methodologies of river sediment related issues. The book may serve as a reference book for graduate students, researchers, engineers and practitioners in disciplines of hydraulic, environmental, agricultural and geological engineering.

Edited by Shoji Fukuoka, Hajime Nakagawa, Tetsuya Sumi, Hao Zhang

CRC Press – 2013 – 232 pages

## Publications in ISI Information System

- Advances in River Sediment Research (Fukuoka et al.)
- Eroding Soils Darkening Our Future (Brown)
- Morphodynamic signatures of braiding mechanisms as expressed through change in sediment storage in a gravel-bed river (Wheaton et al.)
- Sediment Quality in Central Puget Sound, Changes over a Ten-Year Period (Partridge et al.)
- IRBM Publications (UNESCO)
- Changes in the sediment load of the Lancang-Mekong River over the period 1965-2003 (Liu et al.)
- Bulletin of First National Census for Water (China)

More .....

(<http://www.irtces.org/isi/info.asp>)

## COMING EVENTS

### 8th International SedNet conference (Portugal, 6-9 November 2013)

**Date:** 6-9 November 2013

**Venue:** Libson, Portugal

**Summary:** Sediment management has proven to be a significant issue in European rivers, estuaries and coastal areas. This has both a quantity and a quality aspect, as prior SedNet activities have clearly shown. Human interventions, such as river regulation, dredging, coastal and port construction and soil degradation often have large impacts on sediment supply, sediment transport and river and coastal morphology. Sediment-starved systems, particularly in coastal, lowland areas, are more vulnerable to extreme events, putting people, infrastructure and natural capital at risk. Mitigation measures may be technically feasible, but are quickly becoming too costly. Sediment and biota in river systems have been exposed to multiple and interacting stressors for decades or even centuries. Europe has responded to the most apparent contaminants and pressures with a range of policies and measures since the 1970s. Clear improvements in water quality can be attributed to integrated river basin action plans and to the Programmes of Measures that resulted from the major and coordinated effort of the Water Framework Directive. However, improvements in sediment and longer-lived or bottom feeding biota lag behind due to storage and accumulation of contaminants, costly and laborious monitoring techniques, and sometimes lack of sufficient legal integration of sediment management into legislation. To sustainably manage sediments, innovative and cost-efficient approaches and solutions are needed. Sediment management, which tends to be focused only on the apparent areas of concern, comes with the challenge of avoiding measures which have only short-term and locally positive effects, whilst having unforeseen negative consequences elsewhere. Against this background SedNet is organising its 8th international conference in Lisbon. Given the tremendous diversity of Europe's southwest coast, Lisbon is a highly appropriate venue for a conference that will pay special attention to estuarine and coastal sediment management.

#### CALL FOR ABSTRACTS

SedNet would be pleased to receive abstracts addressing one or more of the following topics:

- Sediment and ecosystems (and their services);
- Sediment quantity issues;
- Sediment quality issues;

- Interaction between fluvial, estuarine and coastal sediment (dynamics);
- Sustainable dredged material management.

Abstracts on these topics will preferably relate to improved sediment management in terms of more efficient, less costly, more sustainable solutions. Conceptual approaches (such as for instance eco-engineering or 'working-with-nature' approaches), and application of scientific results will be particularly welcomed. Case studies are of special importance in these fields; success stories but also accounts of actions that did not work out as planned are specifically invited. Abstracts should address sediment management in the context of rivers, lakes, estuaries, coastal and/or marine areas.

Abstracts will be selected by the SedNet Steering Group either for platform presentation or for poster presentation.

#### SPECIAL SESSIONS

Special sessions will form part of the conference program. Two special sessions are scheduled already:

- 1) Changing hydrodynamics of estuaries and tidal river systems; organised by ECSA (Estuarine & Coastal Sciences Association)
- 2) Management of multiple pressures on estuaries and lagoons in a changing climate; organised by ARCH (Architecture and roadmap to manage multiple pressures on lagoons).

#### YOUR ABSTRACT

A template for abstracts can be downloaded from [www.sednet.org](http://www.sednet.org). On the website you will also find a format for submitting proposals for special sessions. Abstracts and session proposals can be sent to the SedNet secretariat: [marjan.euser@deltares.nl](mailto:marjan.euser@deltares.nl)

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### International Conference on the Status and Future of World's Large Rivers (Brazil, 21-25 July 2014)

**Date:** 21-25 July 2014

**Venue:** Manaus/Amazon/Brazil

**Summary:** This conference aims to provide a global forum for a wide-ranging discussion of key issues related to research on large rivers and to their effective and sustainable management, involving both scientists and decision makers. We strongly encourage scientists and practitioners to present their research results and experiences in the fields of

- Hydrology, hydraulics & water quality
- Sediment transport & river morphology
- Ecology & restoration

as well as in a special session about

- Amazonia (incl. ORE-HYBAM research)

**URL:** <http://worldslargerivers.boku.ac.at>

**Contacts:**

Naziano Filizola

Chair of Local Organizing Committee (LOC)

Helmut Habersack

Chair of International Scientific Committee (ISC)

[worldslargerivers@boku.ac.at](mailto:worldslargerivers@boku.ac.at)

### 6th International Conference on Flood Management (Brazil, Sep. 16-18, 2014)

**Date:** September 16-18, 2014

**Venue:** São Paulo – Brazil

**Summary:** The 6th International Conference on Flood Management (ICFM6) marks the continued advancement of flood management practices and policies around the world. The name change from "Defence" as used in the previous four events to "Management" is reflective of the more integrative approaches to flood management that nations are increasingly employing. The first International Symposium on Flood Defence, held in Kassel, Germany in 2000, emphasized flood defence measures with each successive event (Beijing 2002, Nijmegen 2005, Toronto 2008 and Tsukuba 2011) evolving towards more integrative approaches, including risk, vulnerability and capacity building. The ICFM6 theme is "Floods in a changing Environment". ICFM6 is the only recurring international conference wholly focused on flood related issues. It is designed to bring together practitioners and researchers alike, including engineers, planners, health specialists, disaster managers, decision makers, and policy makers engaged in various aspects of flood management. It provides a unique opportunity for these various specialists to come together to exchange ideas and experiences. ICFM6 will be held in São Paulo (SP), Brazil September 16-18, 2014, and will be organised by the Brazilian Water Resources Association and Acquacon Consultoria.

**Key Themes:** The event will focus on the following seven key themes:

1. Urban Floods
2. Floods in a changing climate
3. Flood risk management in mega cities
4. Impact of climate change on flood risk
5. Land use and Floods, landslides and erosion
6. Flood forecasting and early warning systems
7. Flood resilient societies through community preparedness

**URL:** <http://icfm6.com/>

**Executive Secretariat:**

Acqua Consultoria

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### ECSA 53: Estuaries and coastal areas in times of intense change (China, Oct. 13–17, 2013)

**Date:** Oct. 13–17, 2013

**Venue:** Shanghai, China

**Summary:** ECSA's next major Symposium, ECSA 53 will take place in partnership with the State Key Laboratory of Estuarine and Coastal Research (SKLEC) at East China Normal University, Shanghai, China. The close links between ECSA and Elsevier (Estuarine Coastal and Shelf Science) have already proven to be very beneficial and based on that historical success we propose to further intensify our long lasting co-operation. This time this co-operation is to organize a meeting in a part of the world from where we expect further excellent scientific results: China. The fast economic growth and related human activities in China during the last few decades are dramatically influencing the environment, from river catchments to estuaries and seas; and natural phenomena further amplify these effects. One of these rapidly changing systems is the Yangtze estuary, with Shanghai, the largest city in China, located close to it. The Yangtze is the 3rd largest river in the world, and constitutes an excellent case study for large scale impacts on ecosystems due to human activities and an excellent place for one of the major global events in 2013. Submit abstracts by 12 April 2013. Abstracts for oral and poster presentations are invited on the below topics and should be submitted using the online submission system.

#### Conference Topics

- Functioning of estuarine and coastal waters
- Estuarine Wetlands, their understanding, restoration, rehabilitation, filter function and role in human health
- Inputs to aquatic ecosystems of contaminants, nanoparticles, nutrients; partitioning, bioavailability, bioaccumulation and health
- Coastal water - Catchment links, implications and sustainable solutions
- Eutrophication, anoxia and harmful algal blooms
- Environmental challenges and remediation in view of climate change and related phenomena
- Geomorphological, physical and ecological effects of engineering constructions within estuarine systems and coastal waters
- Estuarine ecosystem health and governance
- EMECS Session "Environmental Management of Enclosed Coastal Seas"
- Quantifying economic and ecological sustainability
- Economic development and ecological and socio-cultural risks: the socio-cultural-economic-ecology interface
- Technical developments in detecting change and managing heavily modified estuaries
- Strategies and Tools for improved estuarine management
- Special Session/Workshop "Writing, refereeing and publishing scientific papers"

#### Conference Chairs:

Victor N. de Jonge, University of Hull, UK

Yunxuan Zhou, State Key Laboratory of Estuarine and Coastal Research, East China Normal University, Shanghai, China

Zhongyuan Chen, State Key Laboratory of Estuarine and Coastal Research, East China Normal University, Shanghai, China (Conference Co-chair)

**URL:** <http://www.estuarinecoastalconference.com/>

### River Flow 2014 (Switzerland, Sep. 3-5, 2014)

**Date:** Sep. 3-5, 2014

**Venue:** Lausanne, Switzerland

**Summary:** On behalf of the IAHR Committee on Fluvial Hydraulics it is our pleasure to invite you to participate at River Flow 2014 – the 7th International Conference on Fluvial Hydraulics – at EPFL, Lausanne, Switzerland. The conference intends to create an environment for reflection, discussion and exchange of knowledge regarding fluvial hydraulics and river morphology. It is an opportunity to meet, to discuss and to learn about the interaction between water, sediments and structures in natural or built environments. The conference offers scientific presentations, site visits and master classes given by experts from different countries. It further aims to link science with river engineering practice. It would be a pleasure to meet you at EPFL in September 2014!

**Organizer:** IAHR Committee on Fluvial Hydraulics

**Theme and Topics:**

- A. River hydrodynamics
- B. River morphology and sediment transport
- C. River engineering and restoration
- D. Reservoir sedimentation
- E. Swiss competences in river engineering and restoration (KOHS).

**URL:** <http://riverflow2014.epfl.ch/>

**Contacts:**

Ecole Polytechnique Fédérale de Lausanne (EPFL)  
 Station 18, CH-1015 Lausanne, Switzerland  
 Web: <http://lch.epfl.ch> (website LCH)  
 Email: [riverflow2014@epfl.ch](mailto:riverflow2014@epfl.ch)  
 Phone: +41(21)693.63.24  
 Fax: +41(21)693.22.64

**ICCE Symposium on Erosion and Sediment (USA, Dec 11-14, 2014)**

**Date:** Dec 11-14, 2014

**Venue:** New Orleans, USA

**Summary:** An international symposium on erosion and sediment, ICCE 2014, will be held in the city of New Orleans, USA, December 11-14, 2014. The symposium is a series of symposia organized under the auspices of the International Commission on Continental Erosion (ICCE), which is one of the ten commissions of the International Association of Hydrological Sciences (IAHS). The first ICCE symposium was held in Florence, Italy in 1981, and recent symposia have been held in Moscow, Russia in 2004, Dundee, United Kingdom in 2006, Christchurch, New Zealand in 2008, Warsaw, Poland in 2010, and Chengdu, China in 2012. The 2014 ICCE Symposium in New Orleans will have the following themes:

- Monitoring and modeling erosion on hills, floodplains, and coastal shorelines
- Monitoring and modeling sediment transport in streams, rivers, and estuaries
- Erosion and sediment-associated chemical transport across landscape and waterscape
- Land use and climate change effects on erosion and sediment transport
- Interactions between sediment hydrodynamics, channel morphodynamics, river delta, and coastal processes

**URL:** <http://www.mr.lsu.edu/icce2014/>

**Contact:** Symposium Organizing Committee  
[ICCE2014NO@gmail.com](mailto:ICCE2014NO@gmail.com)

**More Coming Events in ISI Website**

- ICCE Symposium on Erosion and Sediment (USA, Dec 11-14, 2014)

- 6th International Conference on Flood Management (Brazil, Sep. 16-18, 2014)
- River Flow 2014 (Switzerland, Sep. 3-5, 2014)
- International Conference on the Status and Future of World's Large Rivers (Brazil, 21-25 July 2014)
- Water Convention 2014 (Singapore, 1-5 Jun, 2014)
- International Conference on Climate Change, Water and Disaster in Mountainous Areas (Nepal, Nov.27-29, 2013)
- 8th International SedNet conference (Portugal, 6-9 November 2013)
- ECSA 53: Estuaries and coastal areas in times of intense change (China, Oct. 13–17, 2013)

More .....

[\(http://www.irtces.org/isi/\)](http://www.irtces.org/isi/)



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**INTERNATIONAL SEDIMENT INITIATIVE (ISI)**  
 International Hydrological Programme (IHP)  
 UNESCO

**ORGANISATION: UNESCO**

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**ISI URL:** <http://www.irtces.org/isi/>

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