5. Rivers under pressure

Theme	Subtheme	Session
5. Rivers under pressure	5.1 Ecosystems and water quality	5.1.1 Ecosystems and water quality - Habitat (5.1) 5.1.2 Ecosystems and water quality - Rivers under stress (5.2)
	5.2 Engineered rivers	5.2.1 Engineered rivers - Bed stability (5.3) 5.2.2 Engineered rivers - River training (5.4) 5.2.3 Engineered rivers - Sediment management (5.5)
	5.3 Navigation	5.3.4 Navigation - Navigation (5.6)
	5.4 Hydropower and dams	5.4.5 Hydropower and dams - Hydropower and dams (5.7)

5.1 5.1.1 Ecosystems and water quality - Habitat

1. Assessment of transferring fish habitat preferences on estimating habitat-flow functions in rivers, *Haitham Ghamry, Christos Katopodis.*
2. Impact of streamflow regulation on two fish species through 2D simulations, *L. Servanzi, A. Fenocchi, P. Espa, G. Petaccia, S. Sibilla.*
3. Impact of dam operations on the habitat suitability of Plecoglossus altivelis downstream of the Funagira dam, Japan, *Valesca Harezlak, Mijke Van Oorschot, Michelle Jeuken, Amgad Omer, Yuichi Kitamura, Sanjay Giri, Kees Sloff, Tom Buijse.*
4. Insights from river metabolism assisted by hydrodynamics and a high frequency monitoring system of water quality for Kanawha River, West Virginia, *Fernando Rojano, David H Huber, Ifeoma R Ugwuanyi, Andrielle Larissa Kemajou Tchamba, Vadesse Lhilhi Noundou, Jesus Emmanuel Chavarria-Palma.*
5. Urban stream assessment procedure: An integrative framework for assessing stream condition in the urban environment, *Brian Murphy, Peter Nelson.*
6. Survey and modeling of surface waterbodies for decision support of the wetlands of the transboundary Palic-Ludas watersystem, *Eniko Anna Tamas, Istvan Gottlinger, Gyorgy Varga.*

5.2 5.1.2 Ecosystems and water quality - Rivers under stress

1. Hydro-morphological management to improve navigation and ecological functions on the "Canal del Dique" Colombia, *Marcela Maria Busnelli, Filip Schuurman.*
2. Predicting flow and vegetation status in floodplain wetlands during drought, *Steven G. Sandi, José F. Rodríguez, Patricia M. Saco, Li Wen, Neil Saintilan, George Kuczera.*
3. Can Stream and River Restoration Solve the Excess Nitrogen Problem?, *Erich Hester, Durelle Scott, David Azinheira, Kristen Brooks, Michael Calfe, Christopher Guth, Benjamin Hammond, Nathan Jones, Angela Lin, Christina Tsai.*
4. Capture method of floating garbage by using riverside concavity zone, *Akihiro Tominaga, Zijian Tang, Ting Zhou.*
5. Plastic delivery from river to sea: experiments on transport processes, *Simona Francalanci, Enio Paris, Federica Ruggero, Luca Solari, Andrea Menci.*

5.3 5.2.1 Engineered rivers - Bed stability

1. Exploring stability Analysis of the Groundsill, *Fu-Hsuan Yang, Hung-Pin Huang.*
2. New investigation of the riverbed incision of the middle Danube reach in light of sediment transport issues and the future of floodplain wetlands, *Eniko Anna Tamas, Bela Kalocsa.*
3. Dam-induced riverbed incision and saltwater intrusion in the Mekong Delta, *Doan Van Binh, Sameh Kantoush, Tetsuya Sumi, Nguyen Phuong Mai, La Vinh Trung.*
4. Back to pristine levels? Decreasing suspended sediment transport in German waterways, *Thomas Hoffmann, Yannik Baulig, Jan Blöthe.*
5. Assessing bridges liable to debris accumulations from satellite imagery, *Diego Panici.*

5.4 5.2.2 Engineered rivers - River training

1. Water balance in the Dutch river Rhine and rating curve uncertainty, *Jetze Jan Twijnstra, Geerten Horn, Freek Huthoff, Matthijs R.A. Gensen, Jord J. Warmink, Suzanne J.M.H. Hulscher.*

2. Meandering Meuse: in search of an optimal combination of river widening and dyke strengthening - leading to multiple gains, *Josan Tielen, Petra van den Brand, Jeroen Weck.*

3. Response of flood discharge capacity to the channel boundary and upstream conditions in a braided reach, *Yifei Cheng, Junqiang Xia, Shanshan Deng, Meirong Zhou.*

4. Optimization of water resources in highly regulated rivers: a case study from the Garda-Mincio basin, Italy, *Luigi Hinegk, Luca Adami, Guido Zolezzi, Marco Tubino.*

5. Flow patterns at the side channel entrance of a longitudinal training dam, *Timo de Ruijsscher, Bart Vermeulen, Ton Hoitink.*

6. Flow resistance in smooth-bed open-channel flows with streamwise bed ridges, *WADA PATELLA, Stuart Cameron, Vladimir Nikora.*

7. Evaluating the performance of geobag revetments in rivers, *Leila Khajenoori, Grant Wright, Martin Crapper.*

5.5 5.2.3 Engineered rivers - Sediment management

1. How to maintain sediment continuity at the intake of a flood diversion tunnel, *Andris Wyss, Florian Hinkelammert-Zens, Isabel Röber, Volker Weitbrecht.*

2. Watershed scale impacts of upstream sediment supply on the mainstem of a river network, *Muneer Ahammad, Jonathan A. Czuba, Allison Pfeiffer, Brendan P. Murphy, Patrick Belmont.*

3. Integrating field measurements and modelling for optimal operation of cascade dams in Tenryuu River, *Amgad Omer, Yuichi Kitamura, Sanjay Giri, Mijke Van Oorschot, Iris Niesten, Kees Sloff, Mohamed Yossef.*

4. Movement and discharge of sediments during the coordinated sediment flushing operation of the Dashidaira dam and the Unazuki dam, *Shoji FUKUOKA, Kohei Suzuki.*

5. Towards sustainable sediment management strategies upstream of Mediterranean reservoirs: insights from the Guadalfeo semiarid river basin, *María Bermúdez, Agustín Millares, Andrea Lira Loarca, Asunción Baquerizo.*

6. Impact of Dredging on the Nile River Downstream Isna Barrage, *Ahmed Gaweesh, Mohamed Nabil, Muhammad Abdel Muttalib.*

7. The effects of dredging activities on the multi-channel network of the Western Scheldt, *Wout van Dijk, Jelmer Cleveringa, Jasper Leuven, Marcel Taal, Maarten Kleinhans.*

5.6 5.3.4 Navigation - Navigation

1. Measurement of Boat Generated Waves in Navigable Rivers, *Yavuz Ozeren.*
2. Operational 2D water depth prediction using echo sounder data of inland ships, *Caroline van der Mark, Matthijs Lemans.*
3. Numerical study of ship induced bed shear stress, *Venu Chandra, K Murali, Malasani Gopichand, Tapas Kumar Pradhan.*
4. Functionality of artificial gravel islands in a large gravel-bed river, *Michael Tritthart, Martin Glas, Kurt Glock, Helmut Habersack, Christoph Hauer.*
5. Numerical analysis of filling/emptying operation proposals for ship-locks chambers used for inland navigation, *Oscar Herrera-Granados.*

5.7 5.4.5 Hydropower and dams - Hydropower and dams

1. Investigating damping properties in a bypass river, *Anton Burman.*
2. Warning waves to protect human beings in bypassed river reaches of hydropower schemes, *Benjamin DEWALS, Sébastien Erpicum, Frédéric Stilmant, Pierre Archambeau, Michel Pirotton.*
3. Hydrodynamic and ethohydraulic analysis of a water vortex power plant for assessment of fish passability, *Juergen Stamm, Nadine Müller, Christian Jähnel, Falko Wagner.*
4. Hydropower Generation Considering the Environmental Flow in Myitnge River Basin, Myanmar, *SuSu Hlaing.*
5. Experimental analysis of hydraulic jump on Levane Dam physical model, *Lorenzo Lotti, Stefano Morozzi, Enio Paris, Fabio Castelli.*
6. Combining construction and renovation works to increase techno-economic feasibility of very low head run of river hydro power, *Stefan van Erp, Patrick Buijs, Hessel Voortman, Jeremy Bricker, Miroslav Marence.*
7. Enhancing flow induced vibrations of a thin piezoelectric cantilever: experimental analysis, *Valentina Lombardi, Pietro Prestininzi, Michele Curatolo.*