## 5. Rivers under pressure

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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.


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 Uguwanyi, Andrielle Larissa Kemajou Tchamba, Vadesse Lhilbi 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.


5.3 5.2.1 Engineered rivers - Bed stability


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.


4. Back to pristine levels? Decreasing suspended sediment transport in German waterways, Thomas Hoffmann, Yannik Baulig, Jan Blüthe.

5. Assessing bridges liable to debris accumulations from satellite imagery, Diego Panici.
5.4 5.2.2 Engineered rivers - River training


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 Tenryu 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.


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
2. Operational 2D water depth prediction using echo sounder data of inland ships, Caroline van der Mark, Matthijs Lemans.
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.
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.