Assessment of the Attraction Flow of a Fish Passage

K.P. Visser

Benjamin Dewals

B. Ruys

Sébastien Erpicum

P. Viaene

Pierre Archambeau

S. Creëlle

Michel Pirotton

T. De Mulder

Abstract

An attraction flow can be used to increase the effectivity of a fish passage. In 2004 a fish passage with a perpendicular attraction flow was built at Oudenaarde (Belgium) on the Upper Scheldt river. The design of the passage was based on scale model tests. In order to evaluate the hydraulic effectivity of the attraction flow, field measurements and new scale model tests are done. Velocities in the attraction flow and the fish passage entrance are assessed quantitatively and data of the scale model tests (1/15) are compared with the field measurements. The measured reach of the attraction flow seems to differ from results of the original scale model tests due to design modifications of the fish passage entrance. Results of the new scale model tests compare well with the data from the field measurements. Based on the results, a re-examination of the basic design rules for the attraction flow and fish pass entrances seems imperative.

Pour citer cet article

K.P. Visser, B. Ruys, P. Viaene, S. Creëlle & T. De Mulder, «Assessment of the Attraction Flow of a Fish Passage», *5th IAHR International Junior Researcher and Engineer Workshop on Hydraulic Structures* [En ligne], URL : http://popups.ulg.ac.be/IJREWHS2014/index.php?id=82.