Session A3: Ljubljanica Connects - Enabling Fish Migration

Katarina Zabret
University of Ljubljana

Matej Secnik
University of Ljubljana

Andrej Vidmar
PURGATOR

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LJUBLJANICA CONNECTS

enabling fish migration

Restoration of the Ljubljanica River corridor and improvement of the river's flow regime

Katarina ZABRET, Matej SEČNIK, Andrej VIDMAR

FISH PASSAGE 2015

Groningen, 22 June 2015
THE LJUBLJANICA RIVER

• Ljubljanica River is 42 km long, total basin area is 1884 km² of which 1100 km² is karstic.
• It is known also as River with seven names – due to mainly karstic basin river has a large number of streams with different names.
• It is the deepest Slovenian River with a section which is 8 m deep.
THE OBSTACLES

TARGETED SPECIES

Danube Salmon
*(Hucho hucho)*

Danube Roach
*(Rutilus pigus)*

Striped Chub
*(Leuciscus souffia)*
FISH PASS AMBROŽEV TRG

Entrance to the fish pass

Exit from the fish pass
The damaged interior of the fish pass

Floating debris on the barrier at the exit from the fish pass

Water falling over the barrier makes it difficult to find the entrance to the fish pass

Barriers on the openings above the fish pass were restored

Element for preventing accumulation of floating debris

The new pipe which attracts fish to the entrance
Fish pass has collapsed during the high flow in November 2013
Cleaning of the fish pass

The collapsed part of fish pass was reconstructed using steel pylons filled with wood wall.
Measurements of temperature and oxygen concentration (1) and of water level (2)
MONITORING OF FISH MIGRATION

Electrofishing

Tagging of fish with VIE (Visible Implant Elastomer Tags)
MONITORING OF FISH MIGRATION

Camera for monitoring migration of fish through the fish pass

Installation of camera in the fish pass
MONITORING OF FISH MIGRATION

Camera in the fish pass: http://ksh.fgg.uni-lj.si/ljubljanicaconnects/ANG/12_camera/default.htm