

## Bidirectional use of a natural fishpass

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**ABSTRACT:** Fishways are built worldwide to restore longitudinal connectivity in rivers. According to current doctrine they are only suitable for upstream migration and they are thus not considered viable for downstream migration. Some recent studies contradict this general assumption and demonstrate the potential of fishways for bidirectional movement.

Our study extends the understanding of the potential of fishways for bidirectional movement by investigating their efficiency at a run-of-river hydro power facility at the Danube River.

We tagged fish in the tailwater and in the impoundment of the HPP Ottensheim-Wilhering using PIT tags (Passive Integrated Transponder). PIT Antennas mounted in the fishway of the HPP permanently detect the previously tagged fish and make it possible to estimate the use of the fishway for up- and downstream movement.

The investigations contradict the general assumption that fishways are only suitable for upstream migration and show that fishways are used bidirectionally by potamodromous species. The paradigm that fishways are not appropriate for downstream fish passage or have no role in quantitative terms, needs to be reconsidered.