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ONE-DIMENSIONAL MODELING OF THE PHYSICAL HABITAT IN THE BAHLUI RIVER

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Abstract

The purpose of this paper is to determine the availability of physical habitat for Perch (Perca Fluviatilis) in relation to flow from a combination of hydraulic and habitat modeling in the Bahlui River, between the confluence with Nicolina River and the confluence of the Voinesti River, Romania. The modeling of the physical habitat availability was expressed as weighted usable area (WUA), which provides an indication of the relative quantity and quality of available habitat at a given flow. Data collected from field measurements are entered into Rhyhabsim hydraulic simulation computer models and linked to habitat use criteria for perch spawning, fry, juveniles and adult to create flow indices of physical habitat availability (WUA).

Key words: hydraulic habitat modeling, habitat suitability curve, weighted usable area, Bahlui River, RHYHABSIM

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