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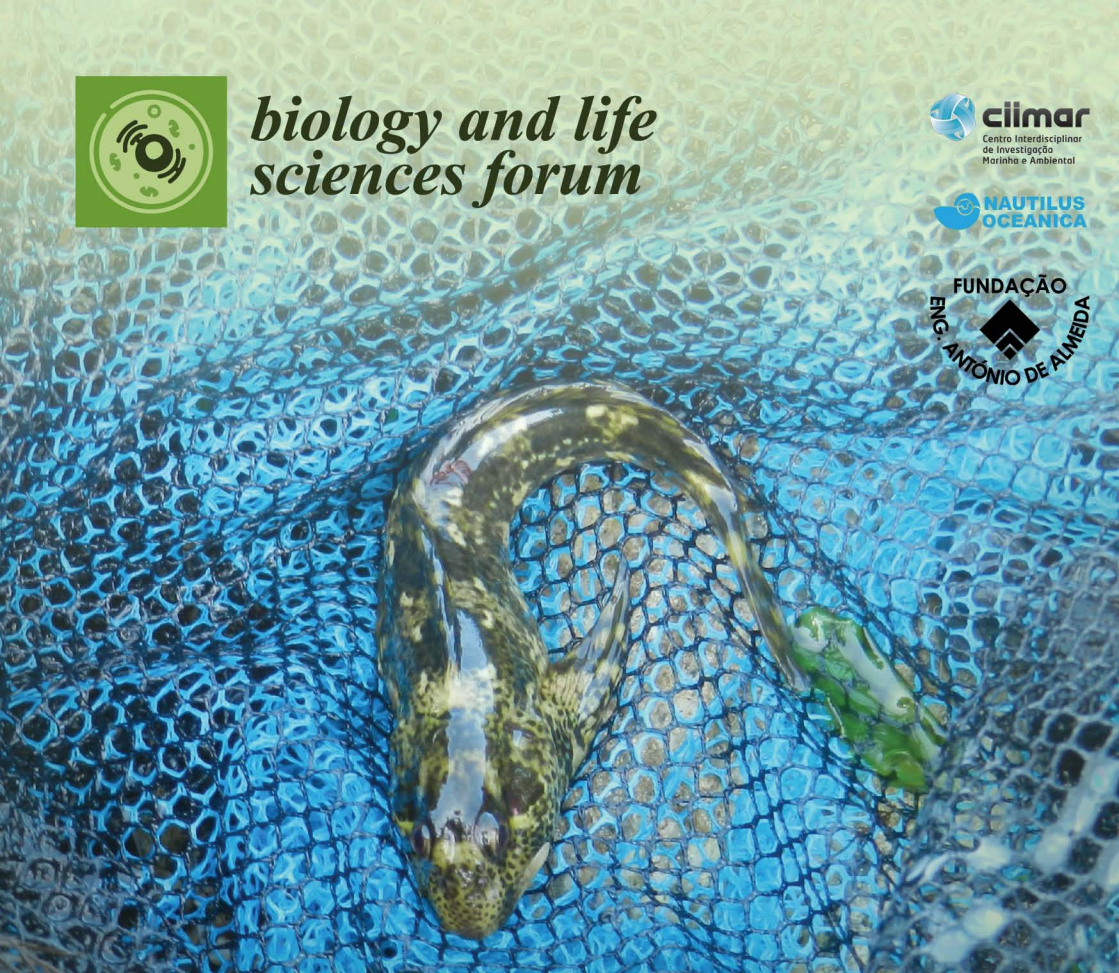

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Abstract

LIFE Agueda—Gaining Habitat for Migratory Fish in the Vouga River Basin †

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Abstract: Habitat loss and overfishing are the most significant threats to diadromous fish, most of them of high socioeconomic and conservationist importance, such as *Alosa alosa*, *Alosa fallax*, *Petromyzon marinus* and *Anguilla anguilla*. The main objective of the LIFE Águeda project (LIFE16 ENV/PT/000411) is the removal of hydro-morphological pressures towards the reestablishment of conditions for a good ecological status, as required by the Water Framework Directive (WFD) and associated River Basin Management Plans. Actions to achieve the project's objectives include the restoration of river morphology through the construction of nature-like fish passes, removal of river obstacles and re-naturalization of the riverbed. Aside from these interventions, the project also contemplates riparian habitat restoration, design and operation of a pilot translocation program directed to European eel juveniles, management of recreational and commercial fisheries, and stakeholders' engagement, safeguarding compatibility of ecosystem uses. To reestablish longitudinal connectivity in rivers Agueda and Alfusqueiro, a total of five fish passes (two modular and temporary vertical-slot and three nature-like fish passes) will be installed in obstacles where current uses need to be secured and removal is not an option. Obsolete or illegally built obstacles are to be completely or partially removed, in a total of eight interventions in both rivers. By placing PIT antennas in the most upstream fishways planned to be built in both rivers, and by monitoring the movements of tagged fish from target species, the efficiency of these habitat restoration actions, and the reestablishment of longitudinal connectivity, will be assessed.

Keywords: connectivity; fish passes; obstacle removal; fish migration

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