
RivFISH: Addressing the spatial distribution and vulnerability of native fishes in European rivers

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Abstract

European rivers are currently facing several challenges, including fragmentation by barriers, droughts and the introduction and dispersal of exotic species. These pressures represent a significant challenge to the conservation of freshwater biodiversity. Native freshwater and migratory fish communities are expected to be amongst the most targeted groups, as most species have long been raising some level of conservation concern. To address the conservation and management of these communities at the basin scale, it is fundamental to know their distribution and assess their vulnerability to the existing threats in their native range of occurrence. One potential constraint of using distribution data is related to the different names associated to the same species, as these may change over time. The RivFISH database aims to tackle this problematic by: (1) gathering the available data on native freshwater and migratory fish distribution; (2) validate distribution data associated with other scientific names (synonyms) rather than the currently accepted ones; and (3) relate this data with the current degree of vulnerability and existing threats for native freshwater and migratory fish species. By crossing the spatial and taxonomic information provided by the database with other layers of information, including current pressures on fish communities, RivFISH can help prioritize management and local restoration measures in river ecosystems.

Keywords: river basins, restoration, freshwater fish, emerging threats, climate change

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