BOOK ABSTRACT



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FISH IN LAKE ECOLOGICAL ASSESSMENT IN EUROPE: QUO VADIS?

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It is well established that fish are sensitive indicators of environmental degradation and offer the major advantage of integrating the direct and indirect effects of stress over large scales of space and time. Nevertheless, the use of fish communities as indicators of environmental quality is highly challenging, therefore fish community has been one of the most neglected aspect of lake ecological monitoring. This paper gives an overview on fish-based assessment methods in Europe. By now, 15 Member States have finalised fish-based lake assessment systems, five of these assessment systems have been recently intercalibrated in the Alpine and Northern region, while Intercalibration is still ongoing in the Central-Baltic region. In contrary, several countries of the Mediterranean region have currently renounced the use of fish in lake assessment (mainly due to a low species richness, dominance of invasive taxa, and high costs of sampling), this opinion being strongly debated within region. This paper seeks to answer questions:

- How lake fish ecological assessment systems are built and used across Europe?
- Which pressures are assessed and are the pressure-response relationships tested?
- What are the main lessons and challenges of the lake fish methods` development and harmonization process?

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