

Degradation and recovery of Europe's waters from multiple stress

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Europe's waters are degraded by multiple stressor, including pollution, hydrological and morphological degradation. Based on an analysis of the contribution of these stressor categories to the degradation of biota, we have analysed the effects of multiple stressors from a multitude of experiments and field studies. While lentic ecosystems suffer still largely from nutrient enrichment, rivers are affected by a complex mix of stressor types.

Initial analyse on the effects of restoration on riverine biota highlighted that the effects of (particularly hydromorphological) restoration are often minor. Investigations in the causes of these findings underline that restored stretches are often too short to pose effects and that recovery times of at least ten years are required. Recent analyses differentiate between the roles of tolerances, biotic interactions and dispersal for recovery processes.

Large-scale restoration measures have strong biotic effects and some measure types are feasible also in Central European landscapes, e.g. the establishment of woody riparian buffers. The presentation will end with some promising examples of large-scale restoration projects and consideration on how to organise and finance them.

Dept Life Science Systems

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