

Book of abstracts

XXXIII Congresso S.It.E.

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S.It.E. - Società Italiana di Ecologia

Misurare e prevedere il cambiamento per una gestione sostenibile degli ecosistemi

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Prioritising riparian ecotones to sustain and connect multiple biodiversity and functional components in river networks

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The Biodiversa+ RIPARIANET project aims to optimize the spatial biodiversity conservation of natural stream-riparian networks in order to provide practitioners with evidence-based guidance and approaches to conservation by mainly exploiting the increasing resolution of remote sensing information. The main purpose of the project is to assess riparian integrity and connectivity along the watercourse. To reach this goal, we investigate riparian networks within six river basins in Europe, along a geographical and climatic gradient to assess multiple biodiversity and stressors at the local scale, and scale-up this information to the network scale using geostatistical tools and advanced modelling. The conservation status and threats on riparian habitats will be evaluated along the Sävar River basin (Sweden), Queich River basin (Germany), Noce Stream and Tiber River basins (Northern and Southern Italy), Saja River basin (Spain), and Cávado River basin (Portugal). Particularly, data on river functionality (i.e., hydrology, decomposition, biofilm biomass accrual, and metabolism), diversity (i.e., microbes and fungi, macroinvertebrates, bats, and riparian vegetation) and stressors (i.e., pesticides, microplastics, and macroplastics) will be evaluated in different abiotic and biotic matrices. We expect to (i) identify protection gaps and ecological hotspots along riparian networks, based on multiple biodiversity, functional and connectivity criteria, and (ii) provide decision-support tools for decision-makers at local and EU levels.

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