
Ecological role and perception of wastelands in cities

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Abstract

Submitted to an irregular management, wastelands are potential useful spaces for biodiversity conservation. These habitats may also promote citizens' contact with nature. In this presentation we show results obtained from an interdisciplinary research project aiming at assessing the ecological function of wastelands in cities. We firstly present results obtained from an international literature review which showed that wastelands harbour a high biodiversity with often more plant or animal species than other urban green spaces. This high biodiversity is the result of mechanisms operating at several scales. To examine these factors, we collected plant data in 179 wastelands localized in two urban areas, Tours and Blois. Wastelands harboured 26% (544 species) of the regional species pool. At the wasteland scale, we showed an edge effect on plant diversity and several functional characteristics. At the city scale, we found differences in plant communities of wastelands located in different urban matrices. Finally, we examined the perception of wasteland by citizens. Based on 72 interviews, we demonstrated a complexity of wasteland perceptions, which can be either negative (wastelands perceived as abandoned land) or positive (wastelands considered as recreative spaces). Perceptions and uses were modulated by the successional stage (herbs, tall herbs and shrubs) and the location of wasteland in the city. The results of this project highlights that wastelands are of primary importance for biodiversity conservation in cities. We suggest considering simultaneously the social and ecological characteristics of wastelands in order to enhance their integration in urban planning processes.

Keywords: urban wastelands, plant communities, perceptions

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