

Public Abstract

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Title:Urban Vacant Lots: Ecological Quality and Social Opportunities in Baltimore, Maryland

Urban vacant lots are a ubiquitous feature in cities worldwide and quickly are becoming a topic of discussion regarding their ecological and social impacts. Vacant lots are typically viewed as discarded spaces within the city and locations for crime, trash, and overgrown vegetation. I suggest, however, that vacant lots are important informal greenspaces for bird habitat and potential locations for social cohesion. I visited 150 vacant lots over three years in Baltimore, Maryland to understand the following objectives: 1) assess the current context and uses of vacant lots, 2) determine the quality of these informal greenspaces as bird habitat, and 3) determine the social implications of vacant lots via the community's perception, and evaluation of possible environmental justice links to vacant lot distribution and composition. In order to determine habitat quality of vacant lots, I conducted community multivariate analyses, N-mixture abundance modeling, nest success modeling, and a body condition analysis for common songbirds. To describe the social implications of vacant lots, I distributed a perception survey to local residents, in addition to a spatial analysis to determine in which neighborhoods vacant lots are clustered and the natural features of such lots. I found that vacant lots have a high variation in their setting and natural features, which provided multiple opportunities for their current and future uses for local residents. Vacant lots also provided important bird habitat features. Specifically, vacant lots within areas of high tree cover and those with closed canopies best supported bird communities and populations, while lots with high shrub densities best supported nesting success. Socially, residents preferred vacant lots with more green features and clear management efforts; and vacant lots were found more often in Hispanic neighborhoods, while lots in poor, African American neighborhoods had fewer green features. Overall, I found that vacant lots offer enormous potential for supporting native bird communities and they are also important spaces for residents within their neighborhoods. Management efforts should thus continue to promote diverse bird communities along with ways to satisfy the public's needs. Across my studies, I would recommend management efforts within vacant lots to focus on providing large areas of open space for perceived safety and neatness, planting trees throughout the site, and incorporating areas with dense shrub vegetation. These actions could have the greatest impacts for vacant lots within neighborhoods with high Hispanic, African American, and young family populations, as those groups disproportionately experienced more vacant lots with fewer green features.