

รูปแบบ Abstract (บทคัดย่อ)

Project Code : 6080124

Project Title : Urban pollinators in Bangkok's city parks

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Pollinators are well known for the ecosystem services they provide, and while urban areas are generally perceived as low-quality habitat for most wildlife, these cities often support a surprising degree of pollinator diversity. The current rapid growth of urban areas and concern over global pollinator declines have spurred numerous studies examining pollinator communities in temperate cities, but knowledge about tropical urban pollinators remains scarce. Thus, the objective of this project was to (1) assess the spatial (habitat and landscape) factors that affect pollinator composition, (2) examine the temporal factors that affect pollinator composition, and (3) to determine whether urban pollinators exhibit a preference for city parks compared to the surrounding landscape. The first two objectives were addressed by conducting pollinator observations across 52 green areas (for objective 1) and across 12 months (for objective 2) and using generalized linear mixed modelling to determine which spatial and temporal factors significantly influence pollinator diversity and abundance. The third objective was examined by placing experimental plants within and outside of parks, and observing pollinator visitation rates to the experimental plants. The results of this project reveal that (1) patch size and floral abundance have the greatest impact on both pollinator abundance and diversity, (2) temporal factors have minimal effect on pollinator composition, and (3) pollinators can also be found within the urban matrix outside of city parks. These results demonstrate the importance of maintaining large green areas in cities, since small green areas supported few pollinators, even when floral resources were abundant. Moreover, city parks are capable of maintaining high pollinator abundances year-round, given their abundant floral resources. These findings are generally consistent with those of temperate urban studies, but additional studies in the tropics are needed before global patterns can be assessed, particularly long-term studies that follow pollinators across seasons.

Keywords : bees, biodiversity, pollination, urbanization