A Study of the Abundance and Diversity of Pollinators in Eureka Springs Urban Gardens and Black Bass Lake Park for Use in the Native Pollinator Conservation Effort

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A study of abundance and diversity of pollinators in four urban gardens in downtown Eureka Springs and two trails by Black Bass lake to be used in the local pollinator conservation effort and in similar projects. 529 individual pollinators were identified along with their floral associations between July 7, 2020, and August 10, 2020, over 31 genera and 14 families. The goal of this study was to determine whether the sites at Black Bass lake had a healthier population of native pollinators using indices of diversity, species richness, and evenness. It was found that the Black Bass lake sites did indeed have the highest species diversity according to the Shannon-Wiener diversity index and Simpson's index, as well as the highest species richness according to Margalef's index. In addition, native pollinator activity was positively correlated with the richness of native plants, and the family dominance and evenness were calculated with Pielou's evenness index. This report includes recommendations for native planting based on pollinator counts and floral associations, as well as reference charts for those hoping to support local pollinators.

Awards Won: