

1. Abstract:

Blake, B.N.¹ *Desert Birds in the Concrete Jungle: How Urbanization Impacts Native Biodiversity*.

The ongoing urbanization of the Phoenix metropolitan area presents challenges to native wildlife. Habitat specialists, such as many birds native to the Sonoran Desert, are particularly vulnerable to human-altered environments. This study used CAP LTER bird census data from 2019, 2021, and 2022 to assess how urbanization affects Sonoran Desert birds in Phoenix. The 20 most abundant bird species across eight neighborhoods were categorized as non-native, national, or regional. The percentage of regional birds was analyzed in relation to neighborhood urbanization metrics, including percent impervious surface and distance to the nearest desert tract. As impervious surface and distance to desert increased across study neighborhoods, Sonoran Desert bird abundance declined. Additionally, neighborhoods with higher abundances of non-native birds tended to have lower bird diversity, as the more adaptable non-native species often outcompete native specialists for resources. This project includes a media component that offers suggestions for preserving desert habitat and mitigating the impacts of urbanization to protect native biodiversity in Phoenix.

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2. Citation:

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3. IRT: Adapting to City Life