

Southern Colorado Plateau

INVENTORY & MONITORING NETWORK

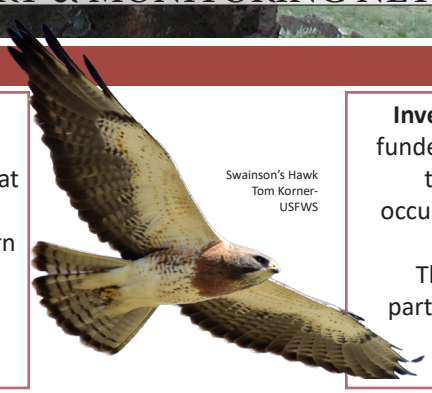
Petroglyph National Monument/NPS

Publication Brief - Birds **2024**

Title: Breeding Bird Inventory of Petroglyph National Monument, with Special Emphasis on Species Associated with Rocky Escarpment Habitat

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Swainson's Hawk
Tom Korner-USFWS

Inventory Program Overview: This project was funded by the Inventory Program. They facilitate the collection of new data regarding species occurence, abundance, or distribution to inform park management decisons and planning. The Southern Colorado Plateau Network and partners have conducted numerous inventories at many of the 19 national parks and monuments we proudly serve.

KEY FINDINGS



Western Meadowlark
Tom Korner-USFWS

- We identified 57 bird species split into distinct communities above (arid grassland), along (rocky outcropping), and below (sandscrub) the monument's rocky escarpment.
- The monument represents important spring stopover habitat for at least 26 passage migrants, especially species of shrubland and pinyon-juniper habitats.
- Suburban encroachment around the monument may reduce habitat quality for edge-avoidant grassland birds while increasing populations of invasive and abundant generalist species near the suburban neighborhoods.
- The rocky escarpment is unlikely to contain raptor breeding habitat, because of high human disturbance.

Summary: Petroglyph National Monument, located in Albuquerque, NM, is home to numerous and diverse bird communities. As urban expansion continues around the monument boundaries, the creation and use of social trails is problematic. A social trail is an unofficial path that forms over time, as visitors take detours off designated trails. With enough foot traffic, these paths get worn down and can look like an official trail.

Social trails can have negative impacts to habitats of plants and animals, and this is especially true for birds that breed on the ground. As part of implementing the Visitor Use Management Plan (2019), which includes formalizing a trail system, monument management identified the need to better understand the breeding bird community to reduce potential negative impacts associated with social trails, and/or trail formalization, especially along a unique rocky escarpment which may represent important raptor breeding habitat.

We used point count surveys and area searches to inventory breeding birds across the full extent of the monument to assess potential impacts of proposed trail locations on nesting habitat. We conducted 196 point-count surveys and 15 area searches, detecting 57 species in over 1,200 detections; using these data, we estimated breeding densities for nine species. We described distinct bird communities in grassland, shrubland, and rocky escarpment habitat, and detected at least 26 species of migrants.

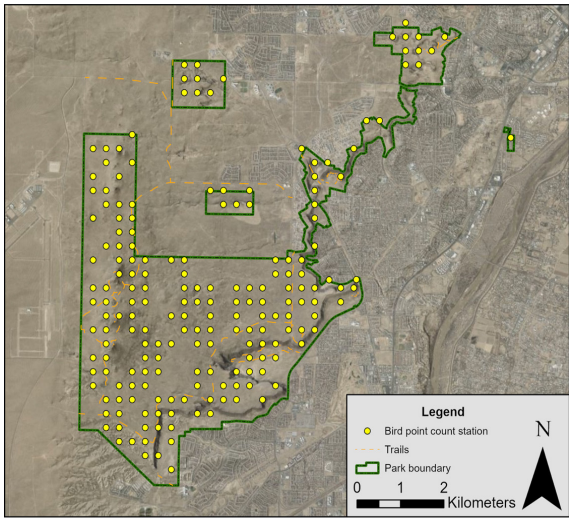


Figure 1. Locations of point count stations within Petroglyph National Monument. Count stations were placed as a 300 m × 300 m regular grid, thinned by removing every fourth point.

Suburban expansion showed pronounced effects on bird spatial distributions: non-native and generalist species were most common near the suburban-monument boundary, while grassland-specialist species showed an aversion to non-grassland edges.

Overall, our surveys indicated the proposed trail network will likely reduce the negative impacts of social trails on breeding birds and is unlikely to significantly impact raptor and songbird nesting habitat on the rocky escarpment.



Horned Lark/
NPS

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