

Session 9: Life History

Date: Thursday 2 November, 2017
Time: 11:25 – 11:45
Room: Seminar Room

Structural nest cavity modification using stones

Presenting author: **Nathanial Warning**

Authors: **Nathanial Warning¹**

Affiliations: ¹Maryland Department of Natural Resources, Annapolis, Maryland, United States

There is a growing recognition that birds facultatively alter the nest environment in versatile ways. Nest modification using stones is a rare nest construction technique used by birds from five Passerine families occurring in arid, rocky environments. I compared nest structures among three cavity-nesters: black wheatear (*Oenanthe leucura*), blackstart (*Oenanthe melanura*), and rock wren (*Salpinctes obsoletus*) and reviewed possible functions of stone arrangements, including nest stabilization, nest dryness, and predator deterrence. I measured 78 rock wren nests and found that the area of the cavity blocked by stones was significantly correlated ($r = 0.67$, $P < 0.01$) with the size of the cavity opening, suggesting that occlusion of the cavity entrance is one driver of stone use in this species. The few studies examining the use of stone structures in cavity nests show that their use could serve multiple functions and allow birds to nest in a wider variety of sites.