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Biological Control of Hematophagous Nest Ectoparasites in House Wrens (*Troglodytes Aedon*)

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**BIOLOGICAL CONTROL OF HEMATOPHAGOUS
· NEST ECTOPARASITES IN HOUSE WRENS
(*TROGLODYTES AEDON*)**

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Andrew Neill* (ISU) and Given Harper*

Nestling House Wrens are commonly parasitized by blood sucking fowl mites (genus *Dermanyssus*). We observed male House Wrens bringing unhatched spider egg sacs (family Araneidae) to Wren nestboxes, and we also observed newly hatched spiders preying on mites. The purpose of this experiment was to determine the effects of the mites upon the nestling Wrens, and to determine the effectiveness of the spiders as a biological control of the mites.

In experimental nests, spider egg sacs were removed and replaced with nonviable ones. In sham control nests, spider egg sacs were removed and immediately replaced. Control Nests were left unmanipulated. Brood mass of nestling House Wrens was significantly less in broods infested with high, as opposed to low mite populations. However, there was a nonsignificant negative correlation of brood mass to increasing mite populations. Treatment had no effect on mite populations in nestboxes, although a small sample size for experimental treatments precludes any definite conclusions.