

JADE HIGGINS, Dept of Biology, Fairmont State University, Fairmont, WV, 26554, and Dr. KELLEY FLAHERTY, Dept of Biology, Fairmont State University, Fairmont, WV, 26554. Analysis of nest re-use by secondary cavity nesters.

Secondary cavity nesters are birds who are not able to excavate their own cavity for nesting but nest in premade cavities including human made nest boxes. Sometimes these birds will reuse nests left over from other birds in the same year, but this comes with some risks. Old nests can contain ectoparasites that negatively impact reproductive success, and these nests may be more susceptible to predators. To understand the effects of nest re-use on reproductive success, we used citizen science data from Project NestWatch. We analyzed 697 pairs of repeated nest attempts recorded from West Virginia, Pennsylvania, Maryland, and Virginia in 2021. We used contingency tables to determine if there was an association between the success (at least one of the target offspring fledged) or failure (none of the target offspring fledged) of successive nest attempts. Two different contingency tables of this type were made: one for nest re-use by the same species of bird, and one for nest re-used by birds of a different species. The results suggest that nest re-use by birds of the same species were more likely to be successful, while nest re-use by birds of different species had no clear association between success and failure. This difference between inter- and intraspecies nest re-use may be due to the smaller sample size concerning different species.