Examination of the Effects of Noise Pollution on Bird Foraging Behavior

Land, Robbie (School: Mentor High School)

Noise pollution is a very present and common health hazard in modern times with its effects on humans often overlooked. This folly causes other animals relying on sound as a necessary communication method for survival to become casualties to noisy and more urban environments. With the ever growing rise of urbanization, more and more studies have come out finding that birds tend to avoid areas with high contents of anthropogenic noise because of two mechanisms: masking and distraction. These recent discoveries on the effects of noise pollution on general population trends and bird activity prompted further investigation into the effect of noise pollution with the addition of a positive stimulus to the environment such as food during the nonbreeding season. This study also includes the lesser researched interaction between birds and natural noise pollution: insect and river noises. The research questions that guided this study were the following: How does frequency of a sound sample affect the foraging behavior of birds, and does the sound content of a sound sample affect a birds activity and foraging habits? The results of this study found that frequency of a sound source does not have a significant impact on foraging behavior, but sound content does have a significant difference in their effects on foraging behavior. Conservationists can apply these results to better their conservation efforts and predict how birds will react to an environment based on sounds present in an area.

Awards Won: