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A comparison of wildlife activity patterns in control and harvested wetlands of Connecticut

Major: Natural Resources - Fisheries and Wildlife Conservation,
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Natural wind throw events, beaver activity, and timber harvesting act to remove aspects of the forest canopy, which restarts understory growth within forested wetlands. How does this change in plant structure influence the wildlife in these wetlands? In this project, I am comparing daily activity patterns of mammals within control forested wetlands to wetlands where we experimentally felled trees. New England went through several decades with low abundance of beavers and low levels of timber harvest, thus forested wetlands now contain large trees. This research will enhance our understanding of how heterogeneity in the structure of forest canopies may enhance wildlife habitat.

UConn Forest Crew felled trees in three wetlands during winter frozen conditions in February 2019. We set-up 3 cameras within three control and three harvested wetland sites and monitored wildlife from November 2018-August 2020.

We obtained and processed 138,000 photos in CPW Photo Warehouse. I analyzed this data using the R package 'overlap' by creating density plots of mammal activity. I was able to compare the percent overlap of species activity in harvested versus unharvested wetlands.

I found that chipmunks only used control wetlands whereas deer showed a preference for harvested wetlands. Furthermore, my preliminary results indicate that browsers, such as deer and cottontails, may use wetlands with felled trees over longer periods of time in the day compared to unharvested wetlands.

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