**CONNECTICUT CONFERENCE OF NATURAL RESOURCES 2016**

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**TITLE:** Mammalian Activity in Mature Hardwood and Young Forest

**TYPE OF SUBMISSION:** Presentation

**THEME:** Concurrent session

**ABSTRACT:**

Activity level of mammalian mesocarnivores can serve as an indicator of foraging effort and exposure risk for common prey species, but activity level was historically difficult to quantify and relied on intensive radio-telemetry observations. Using remote camera-trap sensors and recently published analytical methods for quantifying activity patterns (Rowcliffe et al, 2014), we estimated proportion of the day spent active for mammalian species detected across sites in southeastern Connecticut. We tested for differences in the activity levels of mammalian species using two habitat types of importance for the region: 1) mature hardwood forest, and 2) young forest recently harvested for New England Cottontail (NEC) management. We set a total of 40 camera traps at four sites that each contained a mix of early successional and mature forest habitat, distributing cameras evenly between the two habitat types. We detected 16 species in 4,661 camera observations. Gray squirrel had the lowest overall activity estimate with 33% (± 0.02) of the day spent active and bobcat had the highest activity estimate with 67% (± 0.10) of the day spent active. Active level over the course of a day differed greatly among species. When a species was detected in both habitat types, activity level did not differ between habitat types. Cottontails were only species with notable shifts in activity among seasons. Our results highlight the importance of young forest in Connecticut for species found only in young forest and for species that are habitat generalists.