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Differences in habitat use of gray treefrogs (*Hyla versicolor*) in experimental forest plots

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The fragmentation of species' natural habitats has become a topic of particular concern in the past several years. Habitat fragmentation is an especially important consideration for seasonally migrating species such as pond-breeding amphibians. In our study, we are examining breeding migration patterns and identifying differences in movement patterns and habitat types used by gray treefrogs within modified habitats during different periods of their breeding season. Our study of treefrog movements throughout a modified habitat will provide further insight into the species' normal movement, home ranges, breeding behaviors, and habitat requirements as well as its response to modified habitats. To accomplish this we surgically implanted 29 gray treefrogs with radiotransmitters. We then tracked their movements using radiotelemetry and recorded their locations and the micro- and macro-habitat used. Tracking occurred during both day and night to follow nightly movement and identify daytime refuge sites. Based on previous study of this species we believed that gray treefrogs, particularly adult females avoided using recent clearcut habitat and instead only migrated into these areas briefly at night to breed. Five of the six adult females found breeding in clearcut habitats in the earlier (May) of the two tracking periods remained in clearcut habitat throughout the duration of the study period. Adult females tracked during the later study period (July) on the other hand showed a stronger tendency to leave the recently clearcut habitats within the experimental treatment array, often leaving the array for the surrounding forests. These preliminary observations indicate that gray treefrogs may be able to utilize recently clearcut forests more effectively than we had previously thought. It now appears that the previous sampling may not have found the absence of gray treefrogs in recently clearcut forest but rather discovered differences in habitat use between these modified areas and mature forest habitats.