Dawn Romaine Houston
Texas State University at San Marcos
Thesis Summary: **Foraging Behavior of the Black-capped Vireo**

Recommended management procedures for Black-capped Vireo (*Vireo atricapilla)* habitat include various measures to disrupt succession and reinforce growth of shrubby deciduous vegetation interspersed with open areas (USFWS 1991). A regime of prescribed burning appears to provide optimal regrowth of a diverse plant community adhering to a heterogeneous landscape ideal for Black-capped Vireos. However, for management areas in close proximity to residential communities prescribed burning is not practical. Selective brush removal method is often employed.

When land managers are challenged with mechanically sculpting the landscape for Black-capped Vireo habitat, the selection process should incorporate various factors of habitat utilization. Although various vegetative analyses of breeding territories have refined habitat management objectives, data of foraging behavior within territories are lacking. As stated by Bolin and Robinson, "the amount and detail of food-habits information should be tied to the objectives of management".

The objective of my thesis research is to investigate foraging patterns of the Black-capped Vireo in Central Texas and to determine its implications for habitat management. Study sites include Vireo Ridge located within the Jollyville Unit of Travis County Balcones Canyonlands Preserve (BCP), Cortana Tract of the City of Austin portion of the BCP, the Eckhardt Tract of Balcones Canyonlands National Wildlife Refuge and Kerr Wildlife Management Area. Foraging behaviors include 1) foraging height from ground, 2) height of tree, 3) foraging substrate and 4) overlap of microhabitat use. Statistical analysis will determine if significant difference of foraging behavior exists between males and females. Descriptive foraging data of fledglings will be documented as well.

Vegetative height structure within Black-capped Vireo territories will be measured for each study site to reflect available vertical strata.

Behavioral observations were collected on Vireo Ridge within the Travis County Jollyville Unit of the BCP during the 2005 Black-capped Vireo breeding season. Vegetation surveys were conducted in the summer of 2006.

Although my thesis is currently being drafted for final submission to Texas State University Graduate College, preliminary findings indicate significant difference in foraging behavior between males and females. Males forage higher in vegetation while females remain at a lower height. Although breeding habitat requires low growing shrubby vegetation beginning at ground level, taller vegetation may be an important parameter for forging behavior reinforcing the importance for not only spatial but also vertical heterogeneity.

Current Status

All observational and survey data have been collected as of January 24, 2007. Final statistical analysis of foraging behavior and vertical vegetative structure is currently underway. Thesis completion date is proposed for May 2007 and will be included in the BCCP 2007 Annual Report.