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Azmy Ackleh* (ackleh@louisiana.edu), P.O. Box 41010, Department of Mathematics,
Lafayette, LA 70504-1010. *Understanding Hyla cinerea green treefrog population dynamics via
modeling and field studies*. Preliminary report.

The green treefrog, *Hyla cinerea* (Schneider) is a common wetlands species in the southeastern U.S. To understand its population dynamics, we followed a relatively isolated population of *H. cinerea* from June 2004 through October 2004 at a federal office complex in Lafayette, Louisiana. Weekly, *H. cinerea* were caught, measured, marked with VIE tags and released. The data were used to estimate the population. The time frame was split into two periods: before and after August 17, 2004. Before August 17, 2004, the population's mean size was 143; after the August 24, 2005, the mean size was 446, an increase possibly due to tadpoles metamorphosing into adults. An age structured population model which describes the dynamics of the green treefrog population was developed and compared to the population estimates obtained from our data. Initial simulation results indicate that the model agree well with population estimates. (Received September 22, 2005)