

**IDENTIFICATION OF APPROPRIATE SYMBIONTS FOR PARATRANSGENIC-BASED CONTROL OF
THE GLASSY-WINGED SHARPSHOOTER**

Principal Investigator:

Blake Bextine
Department of Biology
University of Texas
Tyler, TX 75799
bbextine@uttyler.edu

Co-Principal Investigator:

Daymon Hail
Department of Biology
University of Texas
Tyler, TX 75799
daymon.hail@gmail.com

Reporting Period: The results reported here are from work conducted April 2010 through October 2011.

ABSTRACT

Glassy-winged sharpshooter (GWSS; *Homalodisca vitripennis* (Germar, 1821)) is a highly polyphagous Hemipteran pest of wine and table grapevines and transmits the xylem limited bacterium *Xylella fastidiosa*, the causal agent of Pierce's disease in grapevines (*Vitis*, L.). In a previous study which surveyed the GWSS microbiome, sequences homologous to *Delftia* sp. were identified exclusively in the insect's hemolymph. Based on the results of the survey, this bacterium was selected as the most likely candidate for future paratransgenesis-based control studies. In this study, *Delftia* was isolated from the hemolymph of GWSS and identified by PCR.