

2004 Trap Reports

Isabelle Lauziere
Entomologist, Texas A&M University

An intensive survey was conducted in the Hill Country grape growing region of Central Texas in 2004-2005. The study aimed at detecting populations of xylem feeding insects (Homoptera) to determine species composition and diversity, respective abundance and seasonality of species that may be involved in transmitting *Xyllela fastidiosa*, the bacterium responsible for Pierce's disease of grapevine, to susceptible host plants. Data indicated that total density averaged 0.01 ± 0.01 ($n = 28$; range: 0.002-0.050) insect per trap per day. Data also indicated the presence of xylem feeding leafhoppers/treehoppers (Membracoidea), spittlebugs (Cercopoidea) and cicadas (Cicadoidea). A total of 155 Homoptera species were recognized. Nineteen insect species belonging to 12 genera were identified as xylem feeding insects present both in vineyards and adjacent riparian habitat. Taxonomical information and photographic collection is provided below. Three species, two leafhoppers and a spittlebug, were found to be dominant in the study area: *Homalodisca coagulata* (Say) commonly known as the glassy-winged sharpshooter, *Graphocephala versuta* (Say) and *Clastoptera xanthocephala* Germar. These species together composed 89% of all xylem feeding insects identified ($n = 10,237$ specimens), with 34%, 32% and 23% abundance attributed to each species, respectively (see Figure below).

[Taxonomy of Xylem Feeding Insects](#)

[Photos of Xylem Feeding Insects](#) (PowerPoint presentation)

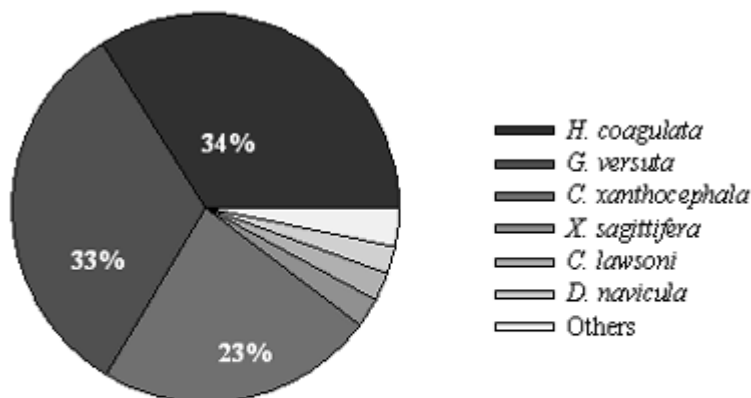


Figure. Proportion of xylem feeding Homoptera collected in central Texas in 2004-2005.

2004 Individual Vineyard Results

<u>Vineyard Site 01</u>	<u>Vineyard Site 08</u>	<u>Vineyard Site 15</u>	<u>Vineyard Site 22</u>
<u>Vineyard Site 02</u>	<u>Vineyard Site 09</u>	<u>Vineyard Site 16</u>	<u>Vineyard Site 23</u>
<u>Vineyard Site 03</u>	<u>Vineyard Site 10</u>	<u>Vineyard Site 17</u>	<u>Vineyard Site 24</u>
<u>Vineyard Site 04</u>	<u>Vineyard Site 11</u>	<u>Vineyard Site 18</u>	<u>Vineyard Site 25</u>
<u>Vineyard Site 05</u>	<u>Vineyard Site 12</u>	<u>Vineyard Site 19</u>	<u>Vineyard Site 26</u>
<u>Vineyard Site 06</u>	<u>Vineyard Site 13</u>	<u>Vineyard Site 20</u>	<u>Vineyard Site 27</u>
<u>Vineyard Site 07</u>	<u>Vineyard Site 14</u>	<u>Vineyard Site 21</u>	<u>Vineyard Site 28</u>