

The goal is to find different alleles among populations to determine genetic variability according to geographic region.

Mizell, R., T. Northfield & C. Riddle. **Analyses of landscape level brown stink bug population dynamics using pheromone traps with geospatial and SADIE statistics.**

Pheromone-baited Florida stink bug traps were placed on a 399 square meter grid within a 1.6 square kilometer area in north Florida for 3 years. Weekly capture data of *Euschistus servus* and *E. tristigma* were obtained. ArcView 9.2 and SADIE statistics were used to analyze the stink bug temporal and spatial distribution and abundance. Results will be discussed in light of known stink bug behavior and ecology and compared to similar data on glassy-winged sharpshooter.

Northfield, T., R. Mizell & C. Riddle. **Using multiple methods to analyze spatiotemporal dynamics of glassy-winged sharpshooters *Homalodisca vitripennis* at the landscape scale.**

Glassy-winged sharpshooter populations were monitored over a 1.6 square kilometer landscape over three years using yellow sticky traps arranged in a 399 square meter grid. ArcView 9.2, SADIE, and repeated measures statistics were used to analyze spatiotemporal dynamics in the landscape over three years. Seasonal changes in habitat use and the effects of environmental conditions on insect distributions will be evaluated and discussed in relation to the known biology and ecology of *H. vitripennis*.

Nuessly, G. S. & N. Larsen. **Effects of reduced phorate rates on wireworm damage to sugarcane.**

Five rates of phorate insecticide (0, 12.2, 14.6, 17.1 and 19.5 lb/ac) were tested for control of wireworms in mineral and organic soils in a greenhouse trial. Field conditions were simulated within 5-gal buckets, including planting depth, fertilizer and insecticide. Wireworm survival was reduced 50% over the check with the low phorate rate. Shoot damage decreased from 14 to <1% when phorate was increased from the low to the high rate.

Nuessly, G. S., N. Larsen & G. Goyal. **Picture winged flies (Ulidiidae) feeding on sweet corn in the Everglades Agricultural Area.**

Ulidiid flies in the genus *Euxesta* are maize pests throughout the tropics and into subtropical areas of the Americas. Representatives of three additional Ulidiidae genera are also known from southern Florida maize production areas. Pupae collected from ulidiid-infested ears sampled from fields within Everglades Agricultural Area were held for adult emergence. Collected species and their status as primary or secondary pests of maize will be discussed in relation to associations with other primary ear pests.

Qureshi, J. A. & P. A. Stansly. **Evaluation of rate, placement, and timing on effectiveness of Aldicarb applications for control of Asian citrus psyllid (Homoptera: Psyllidae) in citrus.**

The Asian citrus psyllid, *Diaphorina citri* Kuwayama is an economically important pest of citrus particularly in the regions where citrus greening or

Huanglongbing disease occurs. Psyllid vectors the bacterium *Liberobacter asiaticum*, causal organism of the disease. Sustainable management of the pest and disease warrants evaluation of potential biological and chemical means to contain psyllid populations. Aldicarb (Temik 15G) was applied at different rates to the bed side or bed and swale sides of the mature trees of citrus and evaluated for the effects on psyllid populations. Recommended rate was evaluated for application at different times before the initiation of spring flush to reduce the early season populations and the following generations of psyllid.

Ryser, B. & J. Ballard. **The efficacy of Transport® termiticide clearing subterranean termite infested structures in Louisiana.**

This presentation summarizes results of a three-year field development program treating subterranean termite infested buildings in Louisiana. Structures were conventionally treated using Transport®, a novel non-repellent termiticide. All treatments were tracked using advanced detection equipment to determine the number of days to achieve control following application. Various treatment strategies were compared. Frequent inspection of treated structures verified the success of each treatment strategy.

Scheffrahn, R. H. and M. J. Weinberg. **The Asian subterranean termite in Key West – a legendary infestation in the making.**

The Asian subterranean termite, *Coptotermes gestroi* (Wasmann), is the most damaging exotic termite to become established in Florida in recent years. Discovered in Key West in 1999, the species is progressively advancing from the more recently developed east side of the island toward its historic western districts. Similar invasions by *C. gestroi* on Barbados and elsewhere portend that Key West will become saturated with this pest within 20 years.

Seal, D. R., A. Palmateer, W. Klassen & C. Sabines. **Control of chilli thrips, *Scirtothrips dorsalis* Hood (Thysanoptera: Thripidae) by *Orius insidiosus* Say and entomopathogenic fungi, *Beauveria bassiana* and *Metarhizium anisopliae*.**

*Orius insidiosus* Say is a potentially useful predator of the chilli thrips, *Scirtothrips dorsalis* Hood. All developmental stages of *O. insidiosus* fed consistently on *S. dorsalis* larvae at the rate of 15-25 per day. In a free-choice situation, similar numbers of larvae of *Thrips palmi* Karny as of *S. dorsalis* were consumed by *O. insidiosus*. However, in a no-choice situation, *O. insidiosus* consumed more *T. palmi* larvae than *S. dorsalis* larvae. *Beauveria bassiana* and *Metarhizium anisopliae* provided significant reduction of chilli thrips; but the effectiveness of these entomopathogens was inconsistent in this study.

Shapiro, J. P., S. R. Reitz, P. D. Shirk & S. M. Ferkovich. **Nutrition for optimal predatory performance of adult female *Orius insidiosus*.**

Reproduction in a female predator, *Orius insidiosus*, is a nutritionally stringent process. Adult females acquire the nutrition needed for egg development from their prey, and rates of egg development are dependent on nutrients acquired in that life stage. When released as a biological control agent, the initial rates of prey seeking and