



To: Insects, Diseases and Invasive Plants (IDIP) – SRS-4552

From: Doug Streett, Project Leader

NOTES # 67

May 1, 2011

Unit News

Brian Sullivan... just came back from Chiapas, Mexico travelling with FHP entomologists Steve Clarke and Sheryl Costello. They worked-out the details of cooperative research with El Colegio de la Frontera Sur (College of the Southern Border) and Lagunas de Montebello National Park to investigate the species complex and growth patterns of *Dendroctonus* bark beetle infestations that threaten the park's pine forests. We hope that a description of "newly-discovered" *Dendroctonus woodi* sp. nov. will be published this year....

New IDIP Technical Transfer Activities

Kier Klepzig and Brian Strom... have a paper just out in Journal of Entomological Science: **Klepzig, K.D.** and **B.L. Strom.** 2011. Effects of a Commercial Chitosan Formulation on Bark Beetle (Coleoptera: Curculionidae) Resistance Parameters in Loblolly Pine. *J. Entomol. Sci.* 46: 124-134.

... Kier and colleagues had a paper come out in Behavioral Ecology and Sociobiology: Biedermann, P.H.W., **K.D. Klepzig**, and M. Taborsky. 2011. Costs of delayed dispersal and alloparental care in the fungus-cultivating ambrosia beetle *Xyleborus affinis* Eichhoff (Scolytinae: Curculionidae). *Behav. Ecol. Sociobiol.* 15 April 2011 000-000.

Dan Miller ... and colleagues had two papers submitted: Miller, D.R., C. Asaro, C.M. Crowe & D.A. Duerr. 2011. Bark beetle pheromones and pine volatiles: Attractant kairomones for longhorn beetles (Cerambycidae) in southeastern USA. *Journal of Economic Entomology.*

Miller... Roe, A.D., **D.R. Miller** and S.J. Weller. 2011. Complexity in the *Dioryctria zimmermani* species group: Incongruence between species limits and molecular diversity. *Annals of the Entomological Society of America*

Dan ... will also be presenting the following posters at the North American Forest Insect Work Conference, May 9-12:

... **Miller, D.R.,** C.M. Crowe, F.F. Barnes, K.J.K. Gandhi & D.A. Duerr. Attaching Lures to Funnel Traps for Saproxylic Beetles: Inside or Outside Funnels?

... **Miller, D.R.** & C.M. Crowe. Comparing Traps for Wood Boring Beetles in southeast USA - Lindgren multiple-funnel vs Intercept panel vs Collosus pipe trap.

Will Shepherd, Brian Sullivan... and colleagues will be presenting the following poster at the North American Forest Insect Work Conference: Jim Meeker, Wood Johnson, Billy Bruce, Chris Steiner, **Will Shepherd, Brian Sullivan,** Brittany Barnes, Kamal Gandhi. Ineffectiveness of the *Sirex* UHR lure to attract native *Sirex* in Louisiana.

Brian Sullivan... had a paper just published: **Brian T. Sullivan,** Mark J. Dalusky, Kenji Mori, and Cavell Brownie. 2011. Variable responses by southern pine beetle, *Dendroctonus frontalis* Zimmermann, to the pheromone component *endo*-brevicommin: Influence of enantiomeric composition, release rate, and proximity to infestations. *J Chem Ecol* 37:403–411.

Terry Wagner, Chris Peterson and Guy Shelton... have published the 2010 termite report. 2011. Pest Management Professional.

Guy Shelton... has a paper out **Shelton, T.G., T.L. Wagner,** and P.D. Gerard. 2011. Effects of monitor examination intervals on resource affinity by *Reticulitermes* spp. (Isoptera: Rhinotermitidae). *Journal of Entomological Science* 46:102-111.

Jim Miller and Erwin Chambliss... gave Kudzu control treatment demonstrations to the Alabama Invasive Plant Council's Annual Conference, April 20, 2011, Auburn, AL.

Mike Ulyshen... had several papers published:

Ulyshen, M. D., Duan, J. J., Bauer, L. S., Gould, J., Taylor, P., Bean, D., Holko, C., van Driesch, R. *in press*. Field-cage methodology for evaluating climatic suitability for introduced wood-borer parasitoids: Preliminary results from the emerald ash borer system. *Journal of Insect Science*.

Ulyshen, M. D. 2011. Vertical stratification of arthropods in temperate deciduous forests: Implications for conservation-oriented management. *Forest Ecology and Management* 261: 1479-1489

Doug Streett ... and friends have submitted a paper to *Journal of Insect Science*: Portilla, M., **D.A. Streett**, and G. Snodgrass. 2011. Effect of modification of the NI artificial diet on the biological fitness parameters of mass reared western tarnished plant bug, *Lygus hesperus*. *J. Insect Sci.*
Posters at the North American Forest Insect Work Conference, May 9-12:

Bud Mayfield... and colleagues submitted a paper to *Journal of Entomological Science*: Phenology of the Hemlock Woolly Adelgid (Hemiptera: Adelgidae) in Northern Georgia. Shimat V. Joseph¹, Albert E. Mayfield III², Mark J. Dalusky³, Christopher Asaro⁴ and C. Wayne Berisford³.

Bud ... will also be presenting the following posters at the North American Forest Insect Work Conference May 9-12:

... Biological comparisons between the progeny of wild and domestic strains of *Sasajiscymnus tsugae*, a widely released predator of hemlock woolly adelgid. Decker, J.¹, A. Lamb¹, **A. E. Mayfield²**, and J. F. Grant

... Operation Adelgification: evaluating a rain down technique to artificially infest seedlings with hemlock woolly adelgid. Jetton, Robert, **Albert Mayfield** and Fred Hain.

... Redbay ambrosia beetle attraction to and emergence from bolts of various lauraceous and non-lauraceous trees. **Mayfield, Albert E., III** and **James L. Hanula** .

... Emergence cages: an effective tool to assess emergence of *Laricobius* spp. in the Southern Appalachians? Wiggins, Greg¹, Jerome Grant¹, **Albert Mayfield²**, Ashley Lamb¹, Abdul Hakeem¹, and Paris Lambdin

... Assessing the survival of the redbay ambrosia beetle and laurel wilt pathogen in wood chips. Don Spence(1), Jason A. Smith(2), **Albert Mayfield III(3)**, Jiri Hulcr(4), Randy Ploetz(5) and Lukasz Stelinski(6)

Bud ... also had a poster at the University of North Carolina Asheville Undergraduate Research Symposium (Apr 21) and UNCA Sigma Xi Annual Chapter Meeting (Apr 18):entitled "Establishment of a biological control predator of the hemlock woolly adelgid on trees previously treated with systemic insecticide" H. Weaver and **A. Mayfield III**

Jim Hanula ... had two papers published: **Hanula, J.L. M. D. Ulyshen** and **S. Horn**. 2011. Effect of trap type, trap position, time of year, and beetle density on captures of the redbay ambrosia beetle (Coleoptera: Curculionidae: Scolytinae). *J. Econ. Entomol.* 104: 501-508.

... Joseph, S. V., S. K. Braman, and **J. L. Hanula**. 2011. Effects of fertilization of four hemlock species on *Adelges tsugae* (Hemiptera: Adelgidae) growth and feeding preference of its predators. *J. Econ. Entomol.* 104: 288-298.

Jim ... also has a book chapter submitted and accepted for publication: **Hanula, J.L.** and **A.E. Mayfield**. In press. Redbay Ambrosia Beetle. In Van Driesche et al. (eds.), Saving forests: use of classical biological control to preserve native U.S. and Canadian forests. USDA Forest Service, FHTET, Morgantown, WV

Steve Fraedrich... had a paper published: Stanosz, G. R., D. R. Smith, J. P. Sullivan, A. M. Mech, K. J. K. Ghandi, M. J. Dalusky, **A. E. Mayfield**, and **S. W. Fraedrich**. 2011. Shoot blight caused by *Sirococcus tsugae* on eastern hemlock (*Tsuga canadensis*). Plant Disease 95:612.

Stephen... has the following paper in press: **Fraedrich, S. W.**, T. C. Harrington, C. A. Bates, J. Johnson, L. S. Reid, G. S. Best, T. D. Leininger and T. S. Hawkins. 2011. Susceptibility to laurel wilt and disease incidence in two rare plant species, pondberry and pondspice. Plant Disease (Accepted)

Stephen ... also presented a lecture on “Laurel wilt” to Dr. Kamal Gandhi's Forest IPM class on April 15 at University of Georgia.