The Bugwood Network (www.bugwood.org) has partnered with The Southern Plant Diagnostic Network (SPDN) to develop a comprehensive list of organisms-of-interest to SPDN. This list is being used to solicit images to populate the IPMImages image archive system (www.ipmimages.org) to support SPDN training and educational programs. This project builds upon the successful Bugwood Network image system that provides high resolution, identified and credited images that are available at no-cost for educational uses. The Bugwood image system currently contains more than 54,000 images on 9,000 subjects that have been taken by over 1,100 contributors in 45 countries. Bugwood web sites received 118 million hits during 2006. The Bugwood Network – SPDN partnership has been made possible through a CSREES Southern Region IPM project with objectives to: 1) identify the species of concern to the SPDN, 2) obtain a comprehensive set of images of the listed species including all life stages and depictions of damage and 3) provide an interface to easily access these images as well as others to be used in the SPDN training and education modules. The list includes native and non-native pests as well as biological controls found in the Southern region. It also includes exotic species that they are not currently present, but may pose a significant threat if introduced. The end result will be a useful tool to aid diagnosticians and a reliable source of quality, high-resolution images for anyone creating publications, presentations and other educational materials. The organisms-of-interest list contains 252 insects and 96 pathogens and is available at www.ipmimages.org/spdn. It is categorized by pest status (exotic, native, introduced), commodity and the number of images available for each life stage. Project personnel are soliciting image contributions for each species to include whole-organism images of each life stage, damage symptoms, as well as diagnostic features and characteristics. All images obtained through this project will be incorporated into and made available for SPDN and other educational and training needs through IPMImages.

Laurel Wilt: A New Disease Threatening Redbay and Other Plants in the Lauraceae

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Laurel wilt is a new vascualar disease of redbay (*Persea borbonia*) and other plant species in the family *Lauraceae*. The disease is caused by a fungus (*Raffaelea* sp.) that is introduced into host trees by a non-native vector, the redbay ambrosia beetle *(Xyleborus glabratus*). The redbay ambrosia beetle was first detected in the U.S. near Savannah, Georgia in 2002. Laurel wilt has caused high levels of redbay mortality in coastal regions South Carolina, Georgia, and Florida and by January 2007 had spread to at least 31 counties. Affected redbays exhibit wilted foliage and dark streaks of discoloration in the sapwood. The disease has also been detected in related species, including sassafras (*Sassafras albidum*), pondspice (*Litsea aestivalis*), avocado (*Persea americana*) and the endangered pondberry (*Lindera melissifolia*) in the field. Current management options for laurel wilt are extremely limited and the distribution of this disease is expected to continue to expand.

Weevils (Curculionoidea): Invasive Species New and Old

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The weevils represent one of the most important groups of invasive species, and new pest species arrive frequently in these days of modern transportation. In the past they came by ship and arrived with early seafarers and with the settlers. Many benefit as invaders by their parthenogenetic biology's and tough adult cuticle and long lives. Included in this presentation are some species of great importance and others with the potential to become serious pests, e.g. Myllocerus undatus Marshall; *Listroderes difficilis* Germain; *Sitona lineatus* (L.); *Pseudocneorhinus bifasciatus* Roelofs; *Trachyphloeosoma advena* Zimmerman; *Diaprepes abbreviatus* (L.); *Naupactus cervinus* (Boheman); *Naupactus leucoloma* (Boheman); *Naupactus peregrinus* (Buchanan); *Cyrtepistomus castaneus* (Roelofs); *Calomycterus setarius* Roelofs; *Cylas formicarius* (Fabricius); *Oedophrys hilleri* (Faust); *Polytus mellerborgii* (Boheman).

Characters and Techniques for Identifying Lepidoptera of Quarantine Significance to the Southern United States from USDA/APHIS/PPQ CAPS Programs

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Identification characters and techniques for Lepidoptera are discussed. Eggs are slide mounted to examine the micropyle and chorion. Preserved larvae of leaf miners should be associated with the pressed mine of the host. Larvae are studied by slide mounting the body and mouthparts. Pupal identification is more accurate if the larval skin and cocoon are not discarded. Submit cast pupal skins dry. If the pupal eye is dark, there is a good chance the genitalia of the pharate adult can be dissected and examined. Immatures are best reared to adult; this is especially true of eggs. Sticky traps should never be sealed in plastic bags, folded one on top of the other, or sealed with heavy duty staples. Instead, fold them in a triangle when viewed in cross section, then close with weak scotch tape. Screen samples and only forward those closely related the target. Traps should be labeled with locality data, a unique code number, and the target pest for the survey. A "mini pest risk assessment", using criteria I developed as modified by members of the Northeast Exotic Pest Survey Committee in 1992, was applied to Lepidoptera of regulatory concern to the southern United States. The criteria were: tolerance to the southern US climate, host availability, survey methodology, ease of identification, availability of a high hazard site, potential economic impact, and an evaluation of the entry and establishment potential of the pest. Lepidoptera on corn, sorghum, cotton, citrus, sugarcane, soybean and ornamentals were favored. Two categories of pests were noted (threats and CAPS targets). A threat is defined as a species with a negative impact to the environment, trade, or the agroecosystem. A CAPS target should also be practical to identify, be frequently intercepted or have a good pathway to enter the USA, and have a high probability of establishment after arrival. Selected pests meeting these criteria that either are not in the United States, or are of limited distribution, include: *Opogona sacchari* (Tineidae); *Phyllocnistis citrella* (Gracillariidae); *Blastobasis graminea* (Coleophoridae); *Pectinophora scutigera, Platyedra subcinerea* (Gelechiidae); *Acrolepiopsis assectella* (Acrolepiidae); *Prays citri* (Yponomeutidae); *Synanthedon myopaeformis* (Sesiidae); *Pryeria sinica* (Zygaenidae); *Darna pallivitta* (Limacodidae); *Thaumatotibia leucotreta, Epiphyas postvittana, Epinotia aporema* (Tortricidae); *Papilio demoleus* (Papilionidae); *Maruca vitrata, Duponchelia fovealis, Diaphania indica, Chilo spp., Eoreuma loftini* (Crambidae); *Cryptoblabes gnidiella, Cactoblastis cactorum* (Pyralidae); *Lymantria spp.* (Lymantriidae); *Dendrolimus spp.* (Lasiocampidae); *Spodoptera spp., Autographa gamma, Helicoverpa armigera, Copitarsia sp., Chrysodeixis chalcites, Cornutiplusia circumflexa, Mamestra brassicae, Metaponpneumata rogenhoferi, Sesamia spp. Busseola spp.,* and *Noctua pronuba* (Noctuidae). Simplified screening keys to superfamilies and characters or references useful for species identification are provided for the most frequently seen life stage of the above taxa. The proboscis, tympanum, chaetosema, genitalia, pilifers, pupal labial palpi and abdominal spines, prespiracular group, larval mandibles and spinneret, abdominal L setae, proleg number and crochet arrangement are the most important characters.

Emerald ash borer, Agrilus planipennis, attraction in field trapping experiments employing combinations of visual, olfactory, tactile and canopy position cues

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Since its discovery in Southeast Michigan in 2002, the emerald ash borer (EAB), *Agrilus planipennis* Fairmaire (Coleoptera: Buprestidae), appears to be living up to expectations and predictions about its potential spread and destruction of ash trees, *Fraxinus* spp., in North America. Currently, the generally infested "core" area includes 21 counties in Southeast Michigan and extends into Ohio and Ontario, Canada. In addition, numerous outlier infestations have been found throughout Michigan's Lower Peninsula, Ohio, Indiana, and Ontario. An outlier in Maryland that originated from infested Michigan nursery stock was first detected in 2003 and is still under eradication. Two isolated infestations were detected in the Chicago area of Illinois in the summer of 2006. As of 1 December 2006, APHIS revised the federal quarantine to include the entire states of Ohio, Indiana, and Illinois, in addition to the Lower Peninsula of Michigan. State quarantines further restrict within state movement of ash. The area infested with EAB now exceeds 40,000 square miles in Michigan, Ohio, Indiana and Ontario and it is estimated that the beetle has killed more than 20 million ash trees in the core infested area of the US. Early detection of emerald ash borer (EAB), *Agrilus planipennis* Fairmaire (Coleoptera: Buprestidae), remains a major challenge for regulatory officials due to the delay in onset of visual symptoms of attack. Currently, regulatory and resource management agencies rely on girdled trap trees for statewide survey and detection programs. However, locating suitable detection trees can be difficult and felling and debarking trees to locate galleries is labor intensive and costly. Development of effective traps and attractants is a high priority for the EAB management program. Previous studies suggest that *A. planipennis* is attracted to the color purple, to blends of host volatiles from ash bark and foliage, and to girdled ash trees. It has also been found that *A. planipennis* prefers to attack trees with rough bark. We evaluated attraction of *A. planipennis* to