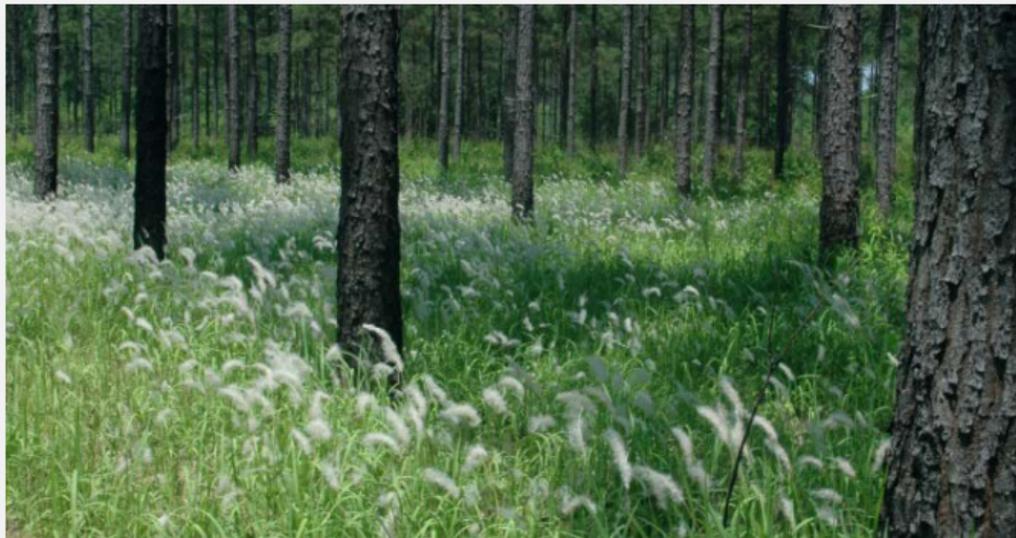


# Invasive Insects, Plants, and Pathogens of Concern in Arkansas



The goal of this booklet is to provide an educational outreach resource to the public as an efficient guide to the potential invasive species that may enter Arkansas.

If you have a suspected sighting of any of the pests listed, please contact any of the agencies listed below.

State Plant Board – (501) 225-1598

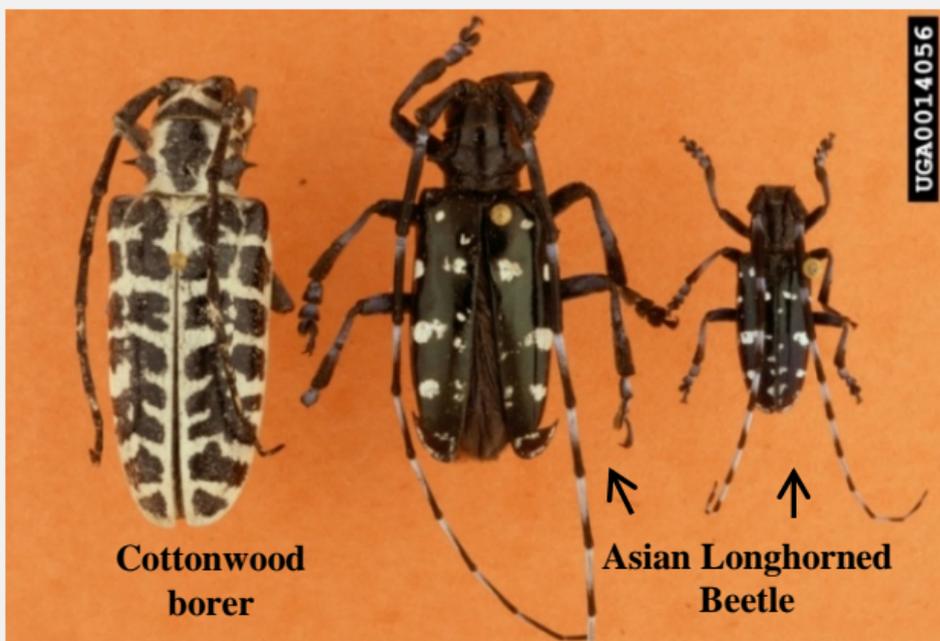


Arkansas Forestry Commission – (501) 296-1861

USDA-APHIS-PPQ – (501) 324-5258



Asian Longhorned Beetle

Cottonwood  
borerAsian Longhorned  
Beetle*Anoplophora glabripennis*

## Signs &amp; Symptoms

Bark cracks, branch dieback, tree mortality. Oval to round pits in the bark, used as egg niche that may ooze sap during the summer months. Round exit holes 3/8" in diameter. Saw dust around base of tree.

## Identification

Adult – 1 to 1.5" long, shiny black body with white spots, six legs, may have blue color on feet. Long antennae with white and black bands. Active June to October.

## Hosts

Maples species (*Acer* spp.) are preferred. Other hosts include alders, birches, elms, horsechestnut, poplars and willows

Photos (Clockwise from top): Cottonwood borer vs. ALB -G. J. Lenhard, LSU, Bugwood.org.; ALB larvae – J. Boggs, Bugwood.org.;ALB exit hole – J. Boggs, Bugwood.org, Front: ( Clockwise from top): ALB adult – J. Boggs, Bugwood.org; ALB adult – M. Bohne, Bugwood.org; ALB oviposition site – D. Herms, OSU, Bugwood.org



Emerald Ash Borer



## *Agrilus planipennis*

### Signs & Symptoms

Top 1/3 of tree begins to die off. Sprouts grow from roots and trunk, leaves often larger than normal. Bark splitting with galleries under bark. Serpentine galleries with D-shaped exit hole. Increased woodpecker activity.

### Identification

Adult – bright metallic green, 1/2 inch long, purple abdominal segments under wings.

Larvae – creamy white, legless, bell-shaped body segments

### Hosts

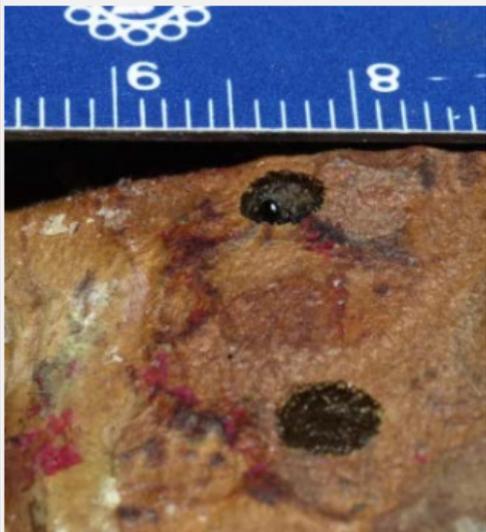
Mostly ash species (*Fraxinus* spp.) are preferred.

Information gathered from M. Wilson and E. Rebek. 2005. MSU Ext Bul E-2938.

Photos (Clockwise from top left): EAB Damage – D. Herms, OSU, Bugwood.org; EAB emergence hole – K. R. Law, USDA-APHIS/PPQ, Bugwood.org; EAB adult – H. Russell, MSU, Bugwood.org; Front: D. Cappaert, MSU, Bugwood.org



*Sirex noctilio*



## *Sirex noctilio*

### Signs & Symptoms

Wilting of foliage after initial attack, foliage changes color from green > yellow > red. Resin beads or resin flow at egg laying site. Round exit holes 1/8 to 3/8 inch wide.

### Identification

Adult – Body dark metallic blue or black; abdomen of males black with middle segments orange. Legs reddish-yellow; feet (tarsi) black; males with black hind legs.

Larvae – Creamy white in color, legless, have a dark spine at end of abdomen

### Hosts

Almost exclusively attack Pine species (*Pinus spp.*)

Information gathered from D. A. Haugen and E. R. Hoebeke. 2005. NA-PR-07-05. Photos (Clockwise from top left): Female – S. Valley, ODA, Bugwood.org; Male – S. Valley, ODA, Bugwood.org; Emergence Hole – D. R. Lance, USDA-APHIS-PPQ, Bugwood.org; Larva – W. M. Ciesla, FHMI, Bugwood.org; Front: V. Klasmer, INTA, Bugwood.org



Gypsy Moth



## *Lymantria dispar*

### Signs & Symptoms

Larval feeding defoliates trees within the forest.

Excrement from larvae covers ground below canopy.

During high infestation, larvae seen crawling everywhere.

### Identification

Adult – Males are grayish brown with dark markings and feathery antennae. Females are larger, white with black markings and thin black antennae.

Larvae – Bodies are hairy, five pairs of blue dots followed by six pairs of red bots on the back

### Hosts

A wide variety of preferred hosts, including: Alder, aspen, birch, oak, beech, cedar, hemlock, pine, chestnut, and spruce

Information gathered from G. A. Hoover. 2000.PSU Ext. TS-20.

Photos (Clockwise from top left): Male (left) Female (right) – USDA-APHIS-PPQ,

Bugwood.org; Female laying eggs – SD. Herms, OSU, Bugwood.org; Defoliation – LM.

Nageleisen, DSF, Bugwood.org; Front: Larva – E. Akulov, RRIPQ, Bugwood.org



5458958

Brown Marmorated Stink Bug



## *Halyomorpha halys*

### Signs & Symptoms

Feeding damage causes small necrotic regions on the fruit and foliage of many plants. Damage to the fruit can include water-soaked lesions, cat-facing, or prematurely aborted fruit.

### Identification

Adults – shield shaped, alternating dark and light bands of the antennae and the edges of the abdomen.

Nymph – alternating dark and light bands on antennae and legs

### Hosts

This pest can damage wide variety of hosts including tree fruit, small fruit, legumes and deciduous trees. Potential to feed on ornamentals and weeds.

Information gathered from D. T. Johnson and A. Lynn-Miller. 2013. UA Ext. FSA7080.  
Photos (Clockwise from top left): Damage – T. Leskey et al., OPM 23: 197-244; Nymphs – G. Bernon, USDA-APHIS-PPQ, Bugwood.org; Nymphs – D.R. Lance, USDA-APHIS-PPQ, Bugwood.org; Front: Nymph – S. Ellis, Bugwood.org; Adult – S. Valley, ODA, Bugwood.org



Sakhalin Pine Sawyer



## *Monochamus saltuarius*

### Signs & Symptoms

Round emergence holes, oviposition scars and feeding on the bark by adults. Larval galleries in xylem packed with frass and shredded wood. U-shaped pupal chambers.

### Identification

Adults predominantly black with numerous yellowish and white spots. Legs and first antennal segment partly with grey spots.

### Hosts

Variety of hosts, various larch species, Japanese cedar, various fir species, various pine species

Information gathered from Exotic Wood Borer/Bark Beetle reference guide. CAPS.

Photos (Clockwise from top left): Adult – G. Csoka, Hungary Forest Research Institute, Bugwood.org; Damage – G. Csoka, Hungary Forest Research Institute, Bugwood.org; Adult – M. Jurc, University of Ljunljana, Bugwood.org; Front: Adult – G. Csoka, Hungary Forest Research Institute, Bugwood.org;



Oak Splendor Beetle



5454857



## *Agrilus biguttatus*

### Signs & Symptoms

D-shaped exit holes on bark. Zigzag frass-filled galleries in inner bark. 1<sup>st</sup> instar have staircase pattern. Dark cracks and discoloration of bark and cambial tissue over galleries.

Twig and branch dieback, thinned crowns, and tree mortality

### Identification

Adults are slender metallic green with several white spots. Two white spots on the interior margin of the wing cover (elytra) is a key characteristic.

### Hosts

Primary host are oak species. Can also be found to attack beech and chestnut species.

Information gathered from

[http://www.ipm.msu.edu/uploads/files/Forecasting\\_invasion\\_risks/oakSplendorBeetle.pdf](http://www.ipm.msu.edu/uploads/files/Forecasting_invasion_risks/oakSplendorBeetle.pdf)

Photos (Clockwise from top left): Adult – S. Valley, OR Dept Ag, Bugwood.org; Larvae – V. Meshkova, URIFFM, Bugwood.org; 1<sup>st</sup> instar galleries – LM. Nageleisen, DSF, Bugwood.org; Front: Adult – N. Wright, FLDACS, Bugwood.org;



Tremex Wood Wasp



## *Tremex fuscicornis*

### Signs & Symptoms

Wilting of foliage after initial attack. Resin beads or resin flow at egg laying site. Round exit holes 1/8 to 3/8 inch wide. Branch/crown dieback and reduced growth

### Identification

Adult – Males are all black with brown wings. Females are orange-yellow with black stripes on the abdomen

Larvae – Creamy white in color, legless, have a dark spine at end of abdomen

### Hosts

Can attack wide variety including the following species: poplar, elm, beech, willow, maple, oak, and other deciduous trees

Information gathered from USDA-APHIS.2011.New Pest Response Guidelines:

Tremex Wood Wasp (*Tremex fuscicornis* (F.)).

Photos (Clockwise from top left): Adult female – Morand; Adult male – D. Roustide; Larvae – D. Roustide; Front: Adult female and male – D. Roustide; All pictures are from [http://www.galerie-insecte.org/galerie/tremex\\_fuscicornis.html](http://www.galerie-insecte.org/galerie/tremex_fuscicornis.html)



Thousand Cankers Disease



## *Geosmithia morbida* & *Pityophthorous juglandis*

### Signs & Symptoms

Early signs of disease is yellowing leaves progressing to brown wilting leaves and then branch mortality. Development of cankers along the phloem under the bark. Presence of cracking bark, dark colored stain on the bark, and numerous tiny exit holes by the walnut twig beetle.

### Spread

This disease is locally spread by the walnut twig beetle, *Pityophthorous juglandis*.

### Hosts

The disease is primarily found on black walnut (*Juglans nigra*), but canker formation can be observed in other walnut species

Information gathered from <http://www.fs.fed.us/foresthealth/fhm/sp/tcd/tcd.shtml>

Photos (Clockwise from top left): Canker development – C. Utley, CSUE, Bugwood.org; Walnut twig beetle – W. Cranshaw, CSU, Bugwood.org; Walnut twig beetle – S. Valley, ODA, Bugwood.org; Cankers – N. Tisserat, CSU, Bugwood.org; Front: Damaged trees– N. Tisserat, CSU, Bugwood.org



Sudden Oak Death



## *Phytophthora ramorum*

### Signs & Symptoms

**Bark** – Development of cankers on the trunk of main stem with reddish to black discoloration and oozing of sap. Leads to crown dieback and ultimately tree death.

**Foliage** – Development of grey to brown lesions on the leaf. Margins of lesions are indistinct. Leads to twig dieback.

### Transmission

Although not found on the east coast, can be transmitted to the east through infected ornamental trees and plants.

### Hosts

Wide variety of host including many oak species, grand fir, horsechestnut, *Camellia* spp., *Viburnum* spp., *Rhododendron* spp., huckleberry, big leaf maple, Douglas fir.

Information gathered from <http://www.fs.fed.us/foresthealth/fhm/sp/sod/sod.shtml>

Photos (Clockwise from top left): Canker development – J. O'Brien, USDA FS, Bugwood.org; Canker staining – J. O'Brien, USDA FS, Bugwood.org; Leaf symptoms – J.W. Lotz, FDACS, Bugwood.org; Front: Damaged trees– J. O'Brien, USDA FS, Bugwood.org



Beech Bark Disease



*Cryptococcus fagisuga* & *Nectria coccinea* var. *faginata*  
(also *N. galligena*)

### Signs & Symptoms

White woolly appearance on bark (scale insect). Oozing, blackened spots are early symptoms of *Nectria* infection. Crater-like scars, or cankers, found on trees that perennially defend against *Nectria*. Crown appearance thins as disease progresses.

### Spread

Scale insect – waxy secretions around the body. Yellow, elliptical, and 1 mm at maturity.

Fungus – sexual fruiting bodies, or perithecia, are small clusters of red spheres; mature in fall. Asexual fruiting bodies are white cushions of spores found in mid-summer.

### Hosts

American beech (*Fagus grandifolia*).

Information gathered from D. Houston and J. O'Brien. 1983. USDA FS FIDL 75.

Photos (Clockwise from top left): Scale insect – J. O'Brien, USDA FS, Bugwood.org; Scale insect (waxy covering) – J. O'Brien, USDA FS, Bugwood.org; Canker – J. O'Brien, USDA FS, Bugwood.org; Canker development – J. O'Brien, USDA FS, Bugwood.org Front: Fungus fruit bodies – A. Kunica, NFC, Bugwood.org; Scars – USDA-FS-NCRS, USDA-FS, Bugwood; Tree mortality – J. O'Brien, USDA FS, Bugwood.org





Oak Wilt



## *Ceratocystis fagacearum*

### Signs & Symptoms

Common in northern Arkansas. Leaves throughout the crown dull or bronze, progressing from outer sections to midvein of leaf. Bark splits revealing small patches of decay, or fungal mats, on the trunk and branches.

### Transmission

Sap beetles feed in fungal mats and vector disease. Root grafts transmit disease to neighboring trees. Within tree, pathogen moves through xylem vessels.

### Hosts

All species of oak (*Quercus* spp.), red oaks more susceptible.



Information gathered from C. Rexrode and D. Brown. 1983. USDA FS FIDL 29. Photos (Clockwise from top left): Leaf symptoms – R. F. Billings, TFS, Bugwood.org; Fungal mat under bark – MDNR, MDNR, Bugwood.org; Bark splitting – NCFS, Bugwood.org; Leaf symptoms – D. W. French, UMN, Front: Damaged trees– J. O'Brien, USDA FS, Bugwood.org



Laurel Wilt Disease



## *Raffaelea lauricola* & *Xyleborus glabratus*

### Signs & Symptoms

Foliage discolored, wilted, and stunted. Wilted leaves stay on tree after dying. Beetles push frass (sawdust and excrement) out entry hole. Frass in “toothpick” shape may protrude from the hole. Sapwood is streaked with black stain originating from the beetle gallery.

### Transmission

Redbay ambrosia beetle (brown, 1/16” and cylindrical) transports fungal spores between trees. Flight is June – October, with multiple generations per year.

### Hosts

Sassafras (*Sassafras albidum*). Preferred host, redbay (*Persea borbonia*), not common in Arkansas. Spicebush and pondberry also affected.

Information gathered from <http://www.fs.fed.us/foresthealth/fhm/sp/sod/sod.shtml>

Photos (Clockwise from top left): Redbay ambrosia beetle – M. C. Thomas, FDACS, Bugwood.org; Wilted leaves – A. Mayfield, USDA FS, Bugwood.org; Frass tubes – J. Johnson, GFC, Bugwood.org; Sapwood streaking – A. Mayfield, USDA FS, Bugwood.org; Front: Damaged trees – C. Bates, GFC, Bugwood.org



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Pine Witches' Broom Phytoplasma



## *Candidatus Phytoplasma pini*

### Signs & Symptoms

Pine – yellowing, dwarfing/stunting, twisted needles (forms dense ball-like structure), and prolific branching (forms witches' broom)

Spruce – shoot/needle malformation and stunted growth

Fir and Hemlock – Witches' broom and needle discoloration

### Transmission

Can be transmitted by insect vectors or by grafting. Can also be spread from infected propagative plant material

### Hosts

Wide variety of host including many pine species, spruce, fir, hemlock, cypress

Information gathered from [http://caps.ceris.purdue.edu/webfm\\_send/2169](http://caps.ceris.purdue.edu/webfm_send/2169)

Photos (Clockwise from top left): All pictures taken by Juan Bibiloni Pou and used with permission from <http://mundani-garden.blogspot.com/2011/07/candidatus-phytoplasma-pini-it-makes.html>



© T. Cech, BFW



© T. Cech, BFW

White/Scots Pine Blister Rust



## *Cronartium flaccidum*

### Signs & Symptoms

This disease causes yellowish, necrotic spots on the needles. Chlorosis and necrosis at the infection site, yellowing and premature defoliation, branch death, bark discoloration, cankers and deformed lesions (acecia). Excessive resin exudation seen in the lesions.

### Transmission

Can be transmitted by insect vectors or by wind. Movement of spores by wind is a major transmission route

### Hosts

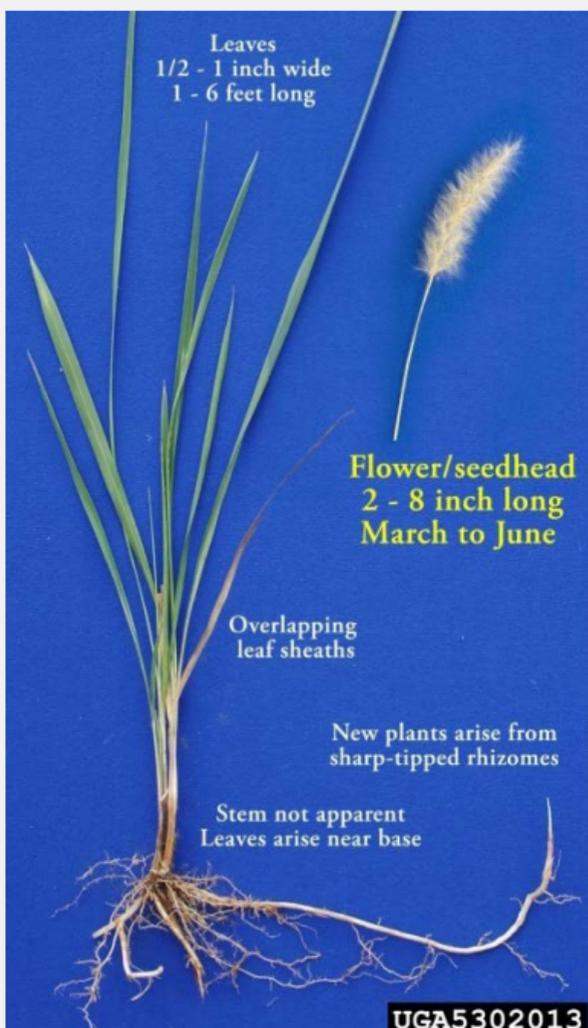
Wide variety of host including many pine species. Alternative hosts include: *Asclepias* spp., *Melampyrum* spp., *Paeonia* spp., *Pedicularis* spp., and *Vincetoxicum* spp.

Information gathered from [http://caps.ceris.purdue.edu/webfm\\_send/650](http://caps.ceris.purdue.edu/webfm_send/650)

Photos (Clockwise from top left): Disease on alternative host – M. Deml, [www.biolin.cz/en](http://www.biolin.cz/en); Close up of telial columns – M. Deml, [www.biolin.cz/en](http://www.biolin.cz/en); Acecia – O. Zincha, [www.biolin.cz/en](http://www.biolin.cz/en); Front: Acecia – T. Cech, BFW



Cogongrass



## *Imperata cylindrica*

### Identification

Rarely found as single plant, reaches 1-5ft in height. Leaves are 1/2- 1 inch wide and 12-30 inch long. Leaves are yellowish green in color with the white midrib off center. Production of fluffy, white, plume-like seed heads.

### Dispersal

Long distance dispersal is achieved from seeds that are dispersed by the wind. Local dispersal is achieved by the growth of new plants from the rhizomes of existing plants.

### Damage

Although not a major agricultural pest, but increase in reduced tillage production can allow for it to be a pest. Major damage arises from the addition of fuel for forest fires.

Information gathered from <http://www.cogongrass.org/cogongrasspub.pdf>

Photos (Clockwise from top left): Cogongrass – C. Evans, IWAP, Bugwood.org; Cogongrass seedhead – M. Atwater, WCU Inc., Bugwood.org; Cogongrass roots – C. Bargerion, UGA, Bugwood.org; Front: Cogongrass– C. Evans, IWAP, Bugwood.org



Water Hyacinth



## *Eichhornia crassipes*

### Identification

This floating water weed has waxy dark green rounded leaves with swollen, spongy, bulbous leaf stalks. The roots are fibrous and dark purple to black in color. Flowers have 6 lavender-blue petals with one bright yellow, blue-bordered central oval spot.

### Dispersal

This plant is fast growing and reproduces vegetatively by new rosettes grow from the stolons of the mother plant. Sexual reproduction is by the production of seeds.

### Damage

The main damage from this plant is through the destruction of native wetlands by rapid growth thus destroying the habitat of native flora and fauna of the area.

Information gathered from <http://plants.ifas.ufl.edu/node/141>

Photos (Clockwise from top left): Water Hyacinth – John D. Byrd, MSU, Bugwood.org; Water Hyacinth – L.J. Mehrhoff, UCONN, Bugwood.org; Flower – L.J. Mehrhoff, UCONN, Bugwood.org; Front: Water Hyacinth – Graves Lovell, ADCNR, Bugwood.org



Purple loosestrife



## *Lythrum salicaria*

### Identification

This is an erect weed that can be found along waterways or other wetland habitats. Stems are square shaped, leaves are narrow with a rounded base and are arranged oppositely along the stem. Flowers are purple in color with 5-6 petals and a yellow center

### Dispersal

This weed is primarily dispersed by seeds , but can also vegetatively spread when roots are transported to another location

### Damage

The main damage from this plant is through the destruction of native wetlands by rapid growth thus destroying the habitat of native flora and fauna of the area.

Information gathered from Wilson et al. 2004. FHTET-2004-12. 78p.

Photos (Clockwise from top left): Purple loosestrife– L.J. Mehrhoff, UCONN, Bugwood.org;

Flower – L.J. Mehrhoff, UCONN, Bugwood.org; Stem – R. Routledge, Sault College, Bugwood.org;

Front: Purple loosestrife – R. Westbrooks, USGS, Bugwood.org



Giant Salvinia / Karibaweed



## *Salvinia molesta*

### Identification

An aquatic floating fern with green to brown oblong shaped leaves. As plants mature they grow into each other forming large mats. Surface of the leaf has cylindrical “hairs” that look like egg beaters.

### Dispersal

The plant can spread in many ways, one way is through human traffic (boats, other water crafts, commercial purchase, etc.). Traveling waterways to another location.

### Damage

The main damage from this plant is through the destruction of native wetlands by rapid growth thus destroying the habitat of native flora and fauna of the area. Can also clog irrigation and drinking water lines as well as damage hydroelectric plants.

Information gathered from USDA-APHIS Pest Alert. APHIS 81-35-006.

Photos (Clockwise from top left): Cylindrical hairs– R. Videki, DK, Bugwood.org;

Plant – L.J. Mehrhoff, UCONN, Bugwood.org; Plant mat – T. Evans, GSMNP,

Bugwood.org; Front: Infestation – T.D. Center, USDA-ARS, Bugwood.org



UGA4054009

Tropical Soda Apple



## *Solanum viarum*

### Identification

Upright, thorny shrub with leaves shaped like oak leaves with tiny white recurved petals. Stem and leaves have thorns along main portion. Fruit have sweet aroma and are round, mottled green then ripens to yellow in color.

### Dispersal

The plant can spread in many ways, one way is through animal movement by ingesting the fruit and manure created. Can spread by seed contaminated hay, sod, potting media, etc.

### Damage

Severe infestations can prevent movement through the area and restrict wildlife grazing. Displaces native plants, disrupts ecosystem, and can serve as host for viruses infecting crops.

Information gathered from J. Miller. 2003. Gen. Tech. Rep. SRS-62.

Photos (Clockwise from top left): Thorns on plant – J. W. Everest, AU, Bugwood.org; Leaf – K. A. Rawlins, UG, Bugwood.org; Fruit and Flowers – C. T. Bryson, USDA-ARS Bugwood.org; Front: Infestation – J. J. Mullahey, UF, Bugwood.org



Chinaberry

UGA3694004



## *Melia azedarach*

### Identification

Deciduous tree up to 50 ft tall. Bark has a reddish, purplish bark. Leaves are alternate, long-petioled, 2-3 times compound, up to 1.5 ft long, pungent odor when crushed, dark green above and lighter below, margins serrate. Flowers are small, fragrant with 5 lilac petals, stalks of stamens united into dark purple tube. Fruit are yellow or yellowish green, thin fleshy globes.

### Dispersal

Reproduces on-site from root sprouts, reproduces long distance by seed dispersal.

### Damage

Prolific reproduction allows for the plant to shade out other species, leaf litter from tree causes increase in soil alkalinity, overall reduces plant diversity in the area.

Information gathered from A. Richard and V. Ramey. UF-IFAS Pub# SP 431. 2007.  
 Photos (Clockwise from top left): Flowers – C. Evans, IWAP, Bugwood.org; Leaf – J. H. Miller, USFS, Bugwood.org; Fruit – R. F. Billings, TFS, Bugwood.org; Front: Mature tree – C. McCormick, UF, Bugwood.org



Paulownia/Princesstree



## *Paulownia tometosa*

### Identification

Medium sized tree (50-60 ft) and can be commonly mistaken for a catalpa tree. Leaves are large broad oval to heart-shaped, arranged opposite on stem, hairy on both sides. Twigs stout, brown, and speckled with white dots. Flowers are large, fragrant, and light violet-pink, forms in clusters, tubular corollas ending in 5 unequal lobes. Fruit are egg-shaped capsules, green in the summer to dark brown by winter.

### Dispersal

Reproduces on-site from root sprouts, reproduces long distance by seed dispersal.

### Damage

Prolific reproduction allows for the plant to shade out other species, overall reduces plant diversity in the area.

Information gathered from NPS-USFWS. 2010, Plant invaders of Mid-Atlantic Natural Areas. Photos (Clockwise from top left): Foliage – PDCNR, Bugwood.org; Flower & Foliage – J. R. Allison, GDNR, Bugwood.org; Flower – L. J. Mehrhoff, UC, Bugwood.org; Fruit – R. Videki, DK, Bugwood.org; Front: Mature tree – T. Davis Sydnor, OSU, Bugwood.org



Tree of Heaven



## *Ailanthus altissima*

### Identification

Medium sized tree (50-60 ft) and can be commonly mistaken for a catalpa tree. Leaves are large broad oval to heart-shaped, arranged opposite on stem, hairy on both sides. Twigs stout, brown, and speckled with white dots. Flowers are large, fragrant, and light violet-pink, forms in clusters, tubular corollas ending in 5 unequal lobes. Fruit are egg-shaped capsules, green in the summer to dark brown by winter.

### Dispersal

Reproduces on-site from root sprouts, reproduces long distance by seed dispersal.

### Damage

Prolific reproduction allows for the plant to shade out other species, overall reduces plant diversity in the area.

Information gathered from NPS-USFWS. 2010, Plant invaders of Mid-Atlantic Natural Areas. Photos (Clockwise from top left): Flower – J. Samanek, SPA, Bugwood.org; Seed – C. Bargerion, UGA, Bugwood.org; Foliage – J. H. Miller, USFS, Bugwood.org; Front: Mature tree – L. J. Mehrhoff, UC, OSU, Bugwood.org



Kudzu



## *Pueraria montana*

### Identification

Climbing or trailing vine, herbaceous to semiwoody, and fast growing (can extend 30-100ft), up to 30 vines can grow from one plant. Leaves – alternate and compound leaves with three leaflets (maybe lobed). Flowers – around ½ inch long, purple, upright in clusters. Seeds – around 10 seeds in a brown, hairy, flattened seed pod.

### Dispersal

Reproduces on-site from runners and rhizomes. Vines can root at nodes forming new plants.

### Damage

Prolific reproduction allows for the plant to shade out other species, overall reduces plant diversity in the area. Can girdle trees and cause trees to break from weight of plant.

Information gathered from NPS-USFWS. 2010, Plant invaders of Mid-Atlantic Natural Areas. Photos (Clockwise from top left): Leaves– L. J. Mehrhoff, UC, Bugwood.org; Flower – L. J. Mehrhoff, UC, Bugwood.org; Seed – L. J. Mehrhoff, UC, Bugwood.org; Front: Mature tree – L. J. Mehrhoff, UC, Bugwood.org



Lespedeza



5438336

## *Lespedeza cuneata*

### Identification

Perennial plant 2 – 5.5ft in height, stems are woody and fibrous. Leaves – divided into three smaller leaflets, oblong and pointed, covered with densely flattened hairs. Flowers – creamy white to pale yellow with purple spot, can be in clusters at the upper end of leaves. Seeds – tiny, yellow – light brown, bean shaped.

### Dispersal

Spread by wildlife that consume the seeds and then spread through waste of wildlife.

### Damage

Out-competes and displaces native plants, overall reduces plant diversity in the area. Creates extensive seed bank.

Information gathered from NPS-USFWS. 2010, Plant invaders of Mid-Atlantic Natural Areas. Photos (Clockwise from top left): Flower – L. J. Mehrhoff, UC, Bugwood.org; Foliage– B. Ackley, OSU, Bugwood.org; Seed– B. Ackley, OSU, Bugwood.org; Front: Mature tree – J. M. Randall, TNC, Bugwood.org



Visit <http://www.arinvasives.org> for more information on invasive species of concern to Arkansas.

