

Japanese Climbing Fern *Lygodium japonicum*

Native to Asia and Australia. A true fern, with very long, lacy, trailing leaves (fronds), climbing to 20 feet or more. Deciduous or semi-evergreen. Finely divided fertile leaflets produce spores that are carried by the wind to produce new plants. Like many invasive exotics, Japanese Climbing Fern is a generalist; it has spread successfully into a variety of habitats, including roadsides, open forests, and stream banks. Forms dense, tangled infestations that are highly flammable in winter.

Japanese Climbing Fern has become a troublesome invasive exotic in recent years; it will quickly overwhelm fencing and shade out shrubs and small trees.

Control: Thoroughly wet all leaves with one of the following herbicides in water with a surfactant, July to October: Arsenal AC™ as a 1-percent solution (4 ounces per 3-gallon mix), *Garlon 3A™*, *Garlon 4™*, a glyphosate herbicide as a 2-percent solution (8 ounces per 3-gallon mix), or *Escort™* at 1 to 2 ounces per acre in water (0.3 to 0.6 dry ounces per 3-gallon mix). Nontarget plants may be damaged by root uptake of *Arsenal™* or *Escort™*.



Tom Ellis (January)



James Miller (July)

Japanese Honeysuckle *Lonicera japonica*

Native to East Asia. Introduced as an ornamental in the early nineteenth century. An evergreen woody vine with opposite, pointed ovate leaves, 1 to 2 inches long. Spring leaves are sometimes divided or lobed. Flowers are white, occasionally pink, turn yellow as they age. Blooms heavily in spring and early summer, sporadically through most of the year. Fruit is a round black berry.

Japanese Honeysuckle is destructive to native habitats, where it shades out and displaces less competitive native plants, such as the related Coral Honeysuckle, *Lonicera sempervirens*.

Control: Clear small infestations by hand if roots can be removed. Spray leaves with a 2% solution of a glyphosate (e.g. *Roundup™*) concentrate herbicide in water with a surfactant in July to October. Or spray leaves with metsulphuron (e.g. *Escort™*) (0.6 – 1.2 dry oz. in 3-gal. of water with a surfactant) in July to September (May to June if pine tolerance is needed). Metsulphuron is soil active; can cause collateral damage to nontarget plants.



Ted Bodner (May)

Air Potato; Air Yam *Dioscorea bulbifera*

A deciduous, high-climbing vine, native to Africa and Asia. Heart-shaped leaves, up to eight inches long, have prominent veins. Seldom seen in bloom, Air Potato is spread by germination of the round, potato-like bulbils that form in great numbers in the leaf axils. Successfully invades a wide range of habitats, from shaded wetlands to dry open pine forest. Introduced to the United States as an ornamental.

Air Potato is a recent introduction to South Alabama. It has the potential to form massive infestations, causing damage to natural habitats by shading out native plants, including eventually large trees. This destructive invasive exotic should not be planted, and should be eradicated wherever it is found.

Control: Air potato is difficult to eradicate due to underground tubers and large crops of aerial tubers (bulbils). Collection of fallen bulbils reduces spread. To kill vines (and possibly bulbils still on vines), spray foliage with *Garlon 3A™* or *Garlon 4™* as a 2% solution in water with surfactant in July to October. Or cut vines just above the soil surface and immediately apply undiluted *Garlon 3A™* to stubs (safe to surrounding plants). Stems should be cut before new bulbils develop in late spring, to weaken the underground tubers and contain the vines on the ground where they can be more easily sprayed. Care must be taken to avoid spreading this species when plants are disposed of. Plants or bulbils should not be dumped on trash piles or left for composting.



Tom Ellis (September)



Tom Ellis (July)

Kudzu *Pueraria montana*

Native to East Asia. A high-climbing, deciduous vine in the Pea Family that forms dense, tangled infestations. Compound leaves have three irregularly lobed leaflets. Purple flowers bloom in mid-late summer, smell like grapes. Fruits are flat, hairy, reddish-brown beans (legumes), about 3 inches long. Established plants are sustained by large tuberous roots which make eradication difficult.

Introduced in the nineteenth century as an ornamental. During the depression the U.S. Government actually paid farmers to plant their fields in Kudzu. One of the most aggressive and destructive exotics in the Southeastern United States. Kudzu has no significant predators, and will completely engulf large areas, destroying nearly all native vegetation, including even large trees.

Control: Spray 3% solution of *Tordon 101™*, or 2% *Tordon K™* in water with a surfactant, wetting foliage to runoff, in July to October. **Tordon herbicides are restricted use chemicals and may be used only by applicators granted permits from the State of Alabama or landowners with Extension System training.** They are soil-active, requiring rain within 6 days to be effective. Alternatively, apply *Escort™* at 3-4 oz. per acre (0.8-1.2 dry oz. per 3-gallon sprayer for hand application) in July to September. Other plants rooted in the treated area may be damaged or killed. Less effective treatments (but safer for nearby plants) are: spraying *Garlon 4™* or a glyphosate concentrate herbicide as a 2% solution in water with a surfactant during the growing season; or spraying 0.2% *Transline™* in water with a surfactant in July to September. Repeated treatments will be required in most cases.



James Miller (July)

Fred Nation (August)

Popcorn Tree; Chinese Tallowtree
Sapium sebiferum



Fred Nation (November)



Tom Ellis (August)

Native to China. A deciduous tree with milky sap. Fast growing, to about 50 feet. Leaves are alternate, about as broad as long, taper to a sharp point. The three-lobed fruits resemble "popcorn" when they split open in the fall to reveal the white seeds. Found in a variety of habitats, including swampy or marshy areas and well-drained or dry uplands. Sprouts vigorously from burned or cut stems. Widely planted as ornamentals for their fall foliage, Popcorn Trees have escaped, becoming prolific and highly destructive to native habitats.

Control: Hand-clear small seedlings if practical. Foliar spray seedlings and small saplings with 1% solutions of *Arsenal AC™*, 30% *Krenite S™*, or 2% *Garlon 4™*, in water with a surfactant, in July to October. For large trees, apply *Arsenal AC™*, *Pathfinder II™*, or *Garlon 3A™* by stem injections (except in March and April), girdle, or cut-stump treatments, according to herbicide label directions. For saplings, apply a 20% solution of *Garlon 4™* in basal oil, diesel fuel, or kerosene, with a penetrant, to the lowest 16 inches of the trunk. Or apply *Velpar L™* by spotgun to the soil surface within 3 feet of stem (1 squirt per inch of stem diameter).

Cogongrass
Imperata cylindrica



Ted Bodner (September)



Tom Ellis (April)

Native to Southeast Asia and India. A perennial, colonial grass that grows from a rhizome (underground stem). Spring flowers are fluffy and white. The yellowish-green leaves are nearly an inch wide, to about four feet long, with a prominent off-center midrib. Grows in a variety of habitats, particularly roadsides, abandoned fields and forests. Cogongrass plants turn light brown but remain conspicuous over winter.

Cogongrass was introduced, as packing material, through the Port of Mobile, Alabama around 1912. Quickly invades and overtakes existing vegetation, forming a dense mat of thatch and leaves that makes it nearly impossible for other plants to coexist. Large infestations of Cogongrass alter fire-based ecosystems by causing more frequent and intense fires that injure or destroy native plants.

Control: Spray 1% solution of *Arsenal AC™* or 2% solution of a glyphosate concentrate herbicide, or a combination of the two chemicals, in water with a surfactant, in September to October, thoroughly wetting foliage. Also apply in spring before flowering to reduce seed production, when growth is over 1 foot tall. Repeated applications likely necessary. Avoid spreading the plants on tires, mowers, tractors, and other equipment.

Chinese Privet
Ligustrum sinense



Fred Nation (September)



Tom Ellis (August)

A deciduous or semi-evergreen, thicket-forming shrub in the Olive Family. Ovoid leaves are opposite, on long, straight branches. Abundant spring flowers are small, white, and fragrant. Fruit is a black berry, resembling a small olive. Grows to about 30 feet in height, to 10 inches in diameter.

Several Privet species are present in South Alabama; all are naturalized from Asia. Chinese Privet is by far the most frequent and most destructive to native habitats. In Coastal Alabama, Privet is particularly damaging to pine lands, where it shades and chokes out young pine trees and other native species.

Control: Hand-clear small seedlings if practical. Thoroughly wet all leaves with one of the following herbicides in water with a surfactant, August to December: a glyphosate herbicide as a 3-percent solution (12 ounces per 3-gallon mix) or *Arsenal AC™* as a 1-percent solution (4 ounces per 3-gallon mix). For stems too tall for foliar sprays, apply *Garlon 4™* as a 20-percent solution in commercially available basal oil, diesel fuel, or kerosene (2.5 quarts per 3-gallon mix) with a penetrant (check with herbicide distributor) to young bark as a basal spray. Or, cut large stems and immediately treat the stumps with *Arsenal AC™* or *Velpar L™* as a 10-percent solution in water (1 quart per 3-gallon mix) with a surfactant. When safety to surrounding vegetation is desired, immediately treat stumps and cut stems with *Garlon 3A™* or a glyphosate herbicide as a 20-percent solution in water (2.5 quarts per 3-gallon mix) with a surfactant.

Acknowledgements

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