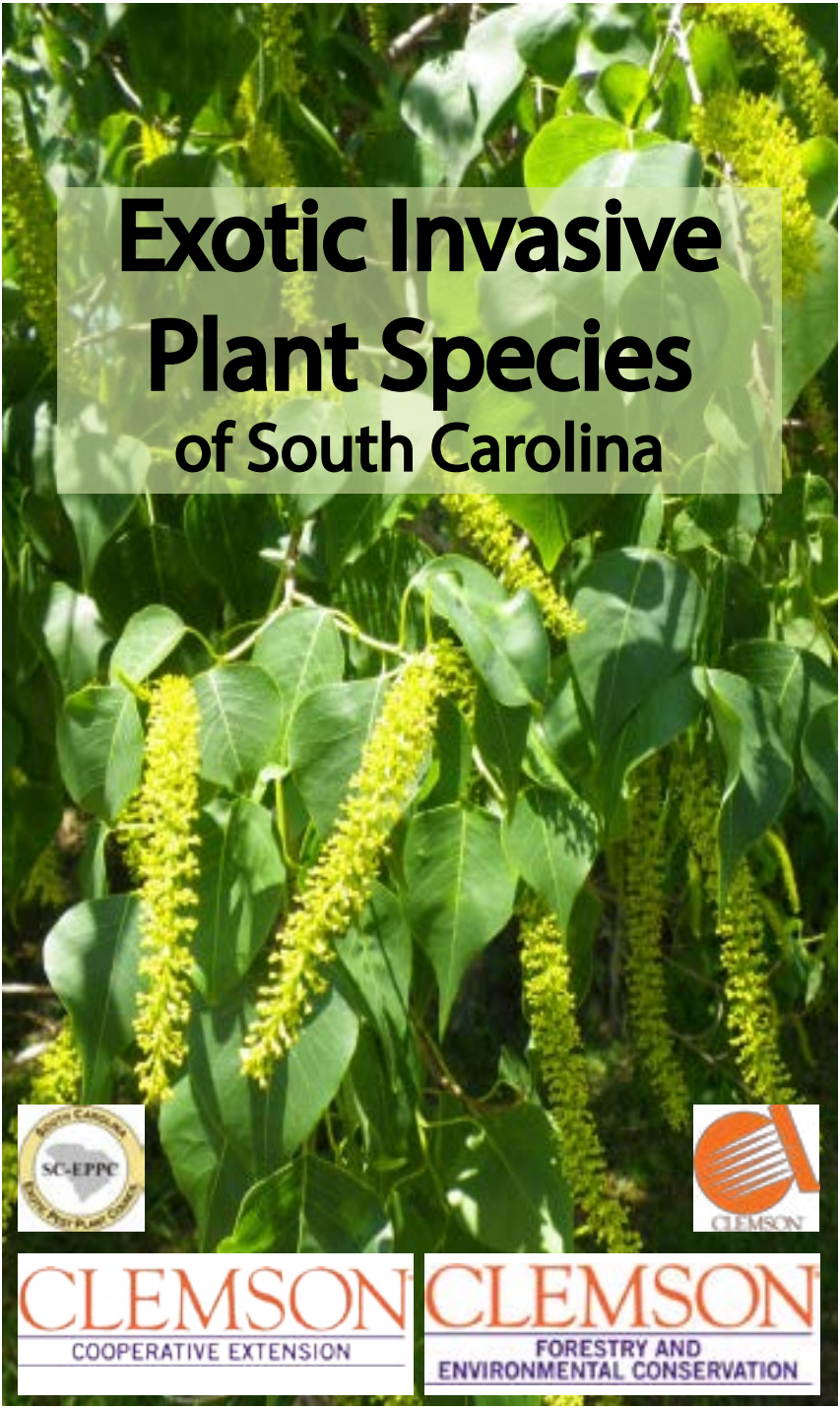


Exotic Invasive Plant Species
of South Carolina

SC-EPPC

CLEMSON

CLEMSON
COOPERATIVE EXTENSION

CLEMSON
FORESTRY AND ENVIRONMENTAL CONSERVATION

This list of Invasive Plant Pest Species of South Carolina was revised by the South Carolina Exotic Pest Plant Council in October 2014. The original list was initiated by Dr. Larry Nelson of Clemson Univeristy in 2004.

The ranking criteria used was started in 2011 and is based on critera from Tennessee. Each plant was ranked based off of specific ranking criteria. These are objective measures based on the plant's effect on South Carolina's native plant communities and their status in the landscape. This status is documented in the Early Detection and Distribution Mapping System (EDDMapS, http://www.eddmaps.org/) and in the S.C. Plant Atlas (http://cricket.biol.sc.edu/acmoore/scplantatlas.html) maintained by the University of South Carolina's A.C. Moore Herbarium and the SC Department of Natural Resources' Heritage Trust Program.

The SC-EPPC List Committee Chair is Sudie Daves Thomas, Wildlife Biologist, Natural Resources Conservation Service; to see a full list of contributers for the 2014 edition please vist http://www.se-eppc.org/southcarolina/.

The plant distribution map data came from EDDMapS which is based on citizen science reporting, and the SC Plants Atlas (http://herbarium.biol.sc.edu/scplantatlas.html) where distribution is based on verified herbarium specimens records by county. These maps are not static and are based on distribution data to serve only as a tool for species management and EDRR in South Carolina. To report new sightings please visit http://www.eddmaps.org/.

Citation: Lund, Margaret, Diego Soriano, Lauren S. Pile, Sudie Daves Thomas, and G. Geoff Wang. 2015. Invasive Plant Species of South Carolina. Clemson, SC. Pgs. 76.

INVASIVE SPECIES CHARACTERISTICS

Invasive Species - any plant species that occurs outside its area of origin and that has become established, can reproduce, and can spread without cultivation and causes harm.

Severe Threat - invasive exotic species which pose a severe threat to the composition, structure, or function of natural areas in South Carolina.

Significant Threat - invasive exotic species which are established in natural areas, independently spreading, and causing significant damage to natural communities.

Emerging Threat - Invasive exotic species occuring in limited infestations with major management difficulties, or widespread with minor management difficulties.

WHAT YOU CAN DO TO HELP

Early Detection and Rapid Response (EDRR) - locate and identify invasives while they are young to increase the liklihood that local invasive infestations can be contained and controlled before they spread and become established within an area.

Basic management strategies:

- Reduce disturbance of invasives in your area and do not buy or plant any invasive species
- Remove any prior plantings when seeds are not present to prevent further spread
- Dispose of invasives in a dumpster or burn to prevent further spread
- Thoroughly clean all equipment and shoes when leaving

CHINABERRY

Melia azedarach (L.)


Cheryl McCormick, University of Florida, Bugwood.org


Karan A. Rawlins, University of Georgia, Bugwood.org

Description

Leaves: Bipinnate, deciduous, leaflet serrate or lobed. Twigs: stout, lacking terminal bud, buds appear naked, homogenous and white pith. Flowers: lilac in color, showy and fragrant, large terminal panicles, appear in spring, poisonous if eaten. Fruit: yellow drupe, wrinkled, remains on plant through winter.


David J. Moorhead, University of Georgia, Bugwood.org

Ecology

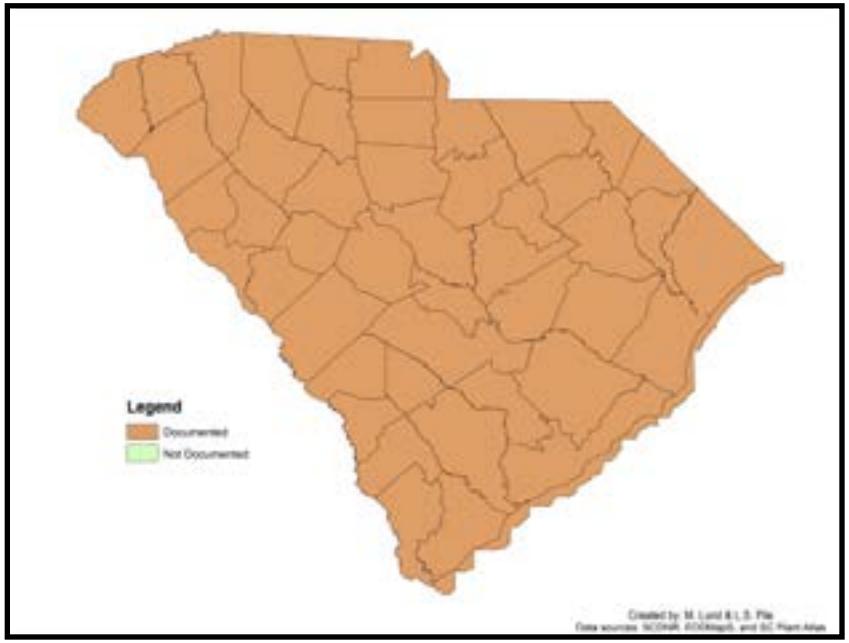
Chinaberry appears in dry soils and disturbed areas and is shade tolerant. Usually grows below 1000 ft of elevation. Stump sprouts, root sprouts, and seedlings will emerge after main stems are killed.

THREAT STATUS - SEVERE THREAT


Chris Evans, Illinois Wildlife Action Plan, Bugwood.org

Management

Remove plantings and dispose of fruit in a dumpster or burn. Treat and remove any seedlings or sprouts that arise after killing the main tree and make sure to remove whole root system. Cut and bulldoze when fruit are not present. Fire has minimal effects on topkill.



CHINESE TALLOWTREE

Triadica sebifera (L.)


Nancy Loewenstein, Auburn University, Bugwood.org


James H. Miller, USDA Forest Service, Bugwood.org

Description

Leaves: long-petioled, ovate in shape, pinnately veined, margin is entire. Flowers: large and showy, 5-8 petals, white with red veins on the inside near the base of the flower. Fruit: large, green to reddish-brown in color, popcorn-like.


Carl Dennis, Auburn University, Bugwood.org


James R. Allison, Georgia Department of Natural Resources, Bugwood.org

Ecology

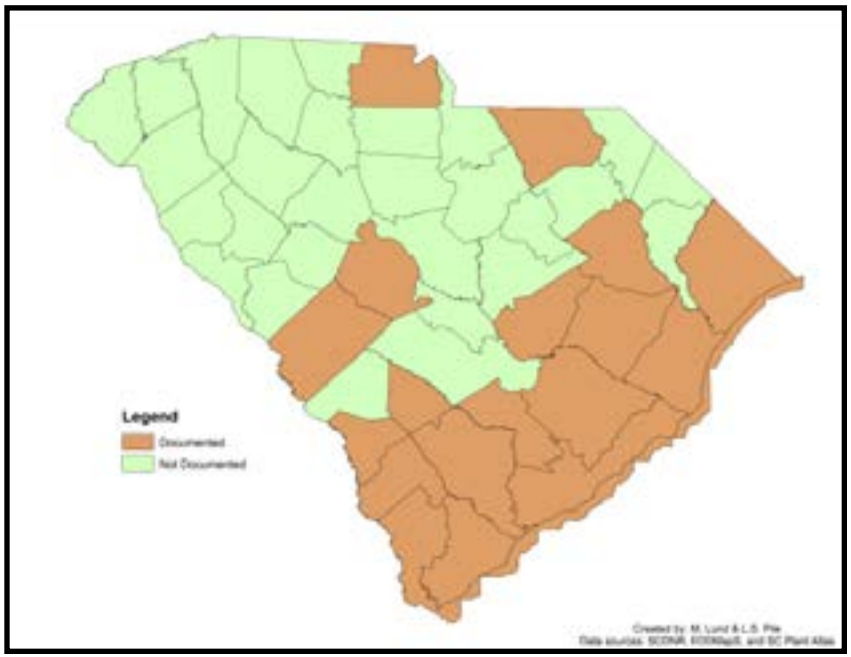
Grows rapidly and is a pest in coastal tall grass prairies, abandoned agriculture fields, and bottomland hard wood forests. Tallowtree litter inhibits seedling growth.

THREAT STATUS - SEVERE THREAT


Chris Evans, Illinois Wildlife Action Plan, Bugwood.org

Management

Do not plant and remove any prior plantings. Treat when plants are young and minimize disturbance. Cut, bulldoze, and mulch when no fruit are present and manually pull any new seedlings.



PRINCESSTREE

Paulownia tomentosa (Thunb.) Siebold& Zucc. ex Steud.

James H. Miller, USDA Forest Service, Bugwood.org

James H. Miller, USDA Forest Service, Bugwood.org

Description

Leaves: Deciduous, large, heart-shaped, small hairs. Flowers: pale violet, bloom in early spring. Fruit: pecan-like and in clusters, winged seeds which spread by wind, water, and gravity.

James R. Allison, Georgia Department of Natural Resources, Bugwood.org

James H. Miller, USDA Forest Service, Bugwood.org

Ecology

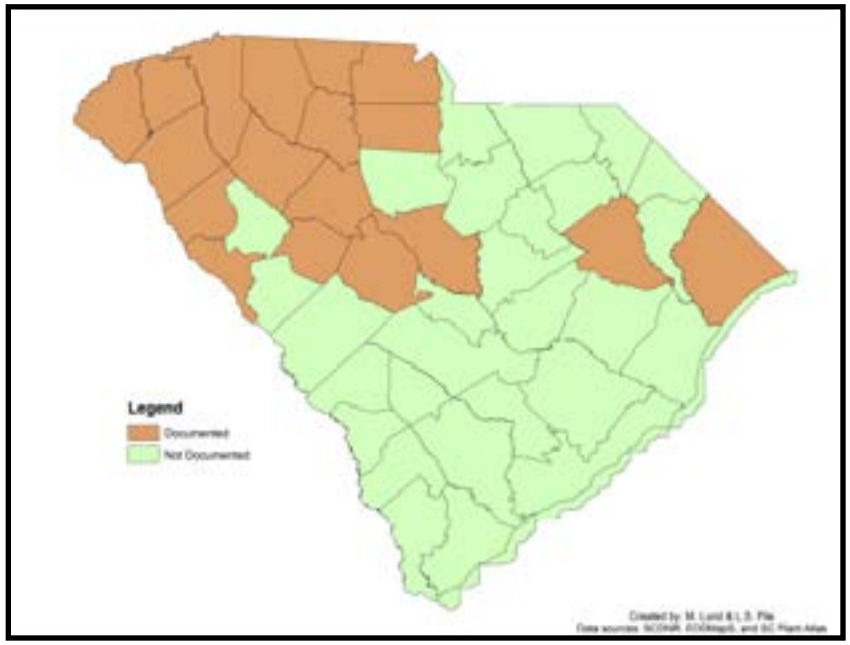
Invades quickly after fire, harvesting, or disturbances. Forms colonies of prolific root sprouts.

THREAT STATUS - SEVERE THREAT

James H. Miller, USDA Forest Service, Bugwood.org

Management

Do not plant and remove any plantings when fruit is not present, and minimize disturbance. Dispose of plants and capsules in a dumpster or burn. Treat when plants are young. Burning has minimal topkill effects.



TREE OF HEAVEN

Ailanthus altissima (P. Mill)

Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Annemarie Smith, ODNR Division of Forestry, Bugwood.org

Description

Leaves: Compound, alternate, deciduous, 19 – 41 leaflets, coarsely toothed, leaflet glandular. Twigs: fetid odor when bruised, yellowish unchambered pith. Flowers: Large terminal greenish flowers appearing in early summer. Fruit: Dioecious. Large cluster of twisted samaras.

Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Ecology

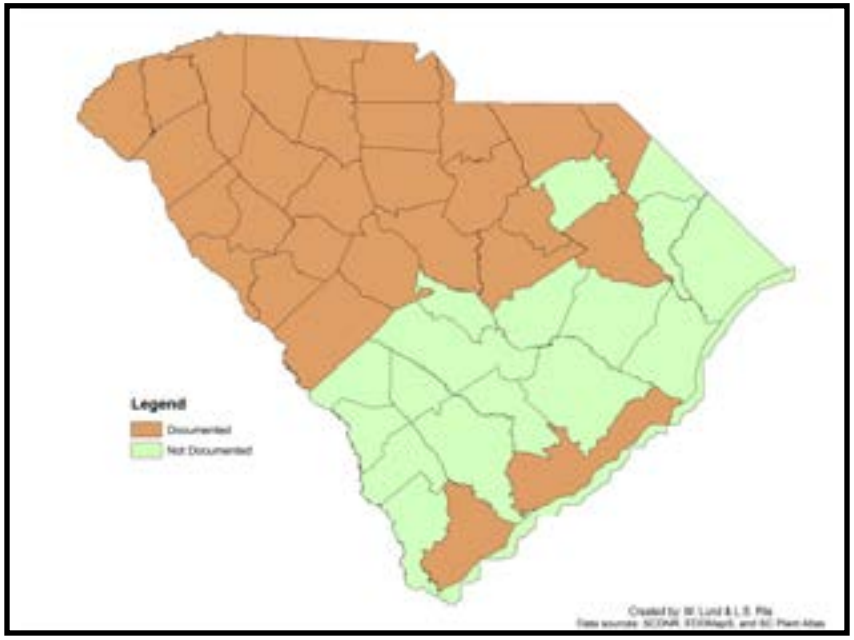
Fast Growth. High seed production and germination. Tree-of-Heaven rapidly invades disturbed areas and produces toxic compounds that inhibit the growth of other species.

THREAT STATUS - SEVERE THREAT

Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Management

Minimize disturbance where Tree-of Heaven occurs. Treat when young to reduce probability of seed production. Target female plants. Mechanical treatments should not be done without the use of herbicide due to its ability to produce numerous root and stump sprouts. Fire may be used to topkill.



AUTUMN-OLIVE

Elaeagnus umbellata Thunb.

Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Description

Leaves: Deciduous, alternate, elliptic, 2-8 cm in length, margins are entire, green above with a silver scaly mid-vein, bottom side of leaf silver and scaly. Twigs: slender and silver scaly, spur twigs are common, some lateral branches are thorn-like, smooth light grey bark. Flowers: flowers in spring, clusters of 5-10 flowers, fragrant, white to yellow in color. Fruit: fruits in late summer into fall, ellipsoid, 10-15 mm in length, red and slightly silver to silver-brown, a drupe containing one nutlet.

Ecology

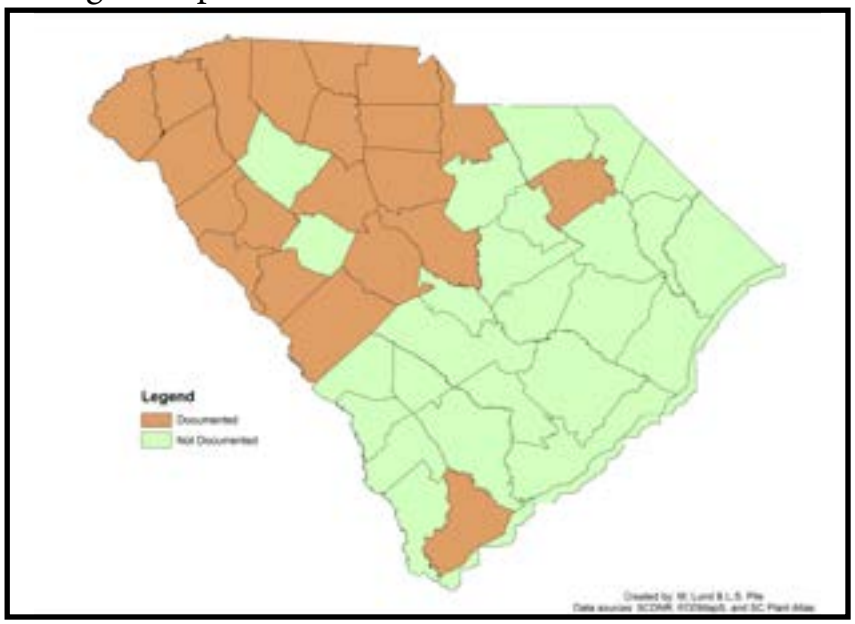
Tolerates a wide variety of soil types. Good food source and shelter for wildlife. Dispersed by birds and other wildlife.

THREAT STATUS - SEVERE THREAT

Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Management

Do not plant and remove any prior plantings and dispose of in a dumpster or burn. Treat when new plants are young to prevent seed formation. Remove when fruits are not present and minimize disturbance. Manually pull any new seedlings. Burning treatments have minimal topkill effect. Grazing by goats is an effective way to manage the species.



CHINESE PRIVET

Ligustrum sinense Lour.

Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

James H. Miller, USDA Forest Service, Bugwood.org

Description

Leaves: opposite in 2 rows, semi-evergreen, ovate to elliptic, 2-4 cm in length, tip rounded, top bright green and underside pale green, hairy midvein beneath, rusty hairy. Twigs: opposite or whorled branched, long and slender, project out at right angles, brownish-gray, short and hairy, lenticels, slightly rough bark. Flowers: April to June, terminal and upper axillary clusters on short branches forming panicles, fragrant, white in color. Fruit: October to February, ovoid drupe, 6-7 mm in length, pale green when ripening, dark purple when ripe, hanging in dense clusters.

Ecology

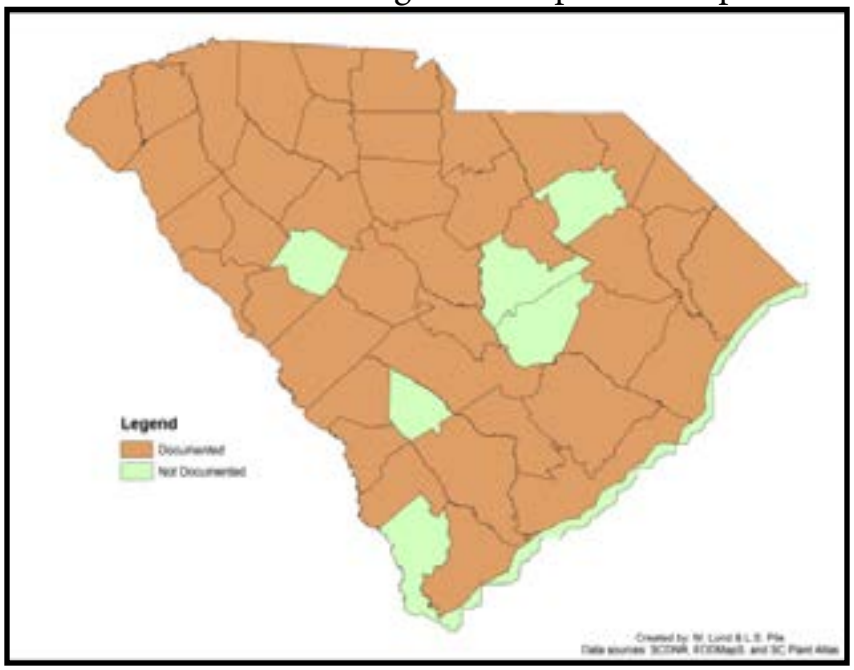
An aggressive and troublesome shrub. Forms dense thickets. Found in bottomland forests excluding hardwood regeneration. Colonized through rootsprouts and abundant seed production and seeds dispersed by birds and other animals. Shade tolerant.

THREAT STATUS - SEVERE THREAT

Karan A. Rawlins, University of Georgia, Bugwood.org

Management

Do not plant and remove any prior plantings while controlling sprouts and seedlings. Minimize disturbance within a few miles of present plants. Treat when plants are young. Cut and bulldoze plants when fruit not present and pull new seedlings. Readily eaten by goats, sheep, and deer. Burns hot when green to topkill small plants.



JAPANESE KNOTWEED

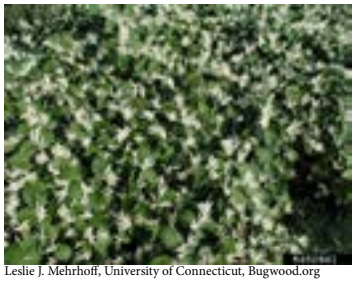
Polygonum cuspidatum Siebold & Zucc.

Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Nisa Karimi, Wisconsin Department of Natural Resources, Bugwood.org

Description

Leaves: alternate, appear in spring on new sprouts, ovate with pointed tips and flat bases. Twigs: red, bamboo-like, hollow-jointed, survive only one season. Flowers: summer, small, white in color, emerge along stalks at the leaf axils. Fruit: tiny winged seeds, highly variable.



Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Ecology

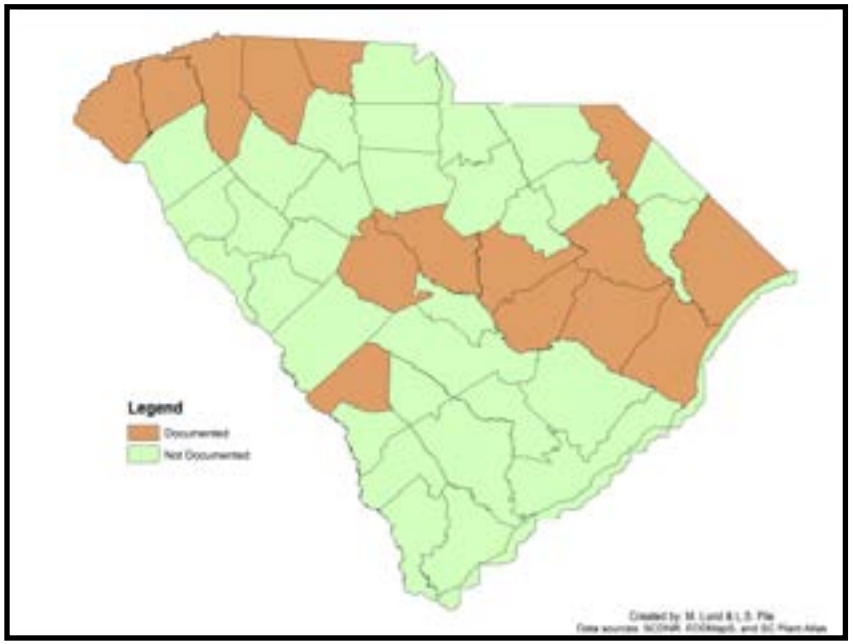
Perennial. Freely branching. Forms dense clonal infestations. Spreads along streams by stem and rhizome fragments. Dead tops remain standing during winter.

THREAT STATUS - SEVERE THREAT

Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Management

Do not plant and remove any prior plantings while controlling sprouts and seedlings. Bag and dispose of any fruit in a dumpster or burn. Minimize disturbance within miles of any present plants. Repeated pulling and cutting will not control the plant unless young. Burns hot in dormant season to clear tops while rhizomes remain.



SCOTCH BROOM

Cytisus scoparius (L.) Link


Eric Coombs, Oregon Department of Agriculture, Bugwood.org


Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Description

Leaves: small, alternate, compoud with 3 leaflets, conspicuous. Stem: five-angled, dark green year round. Flowers: May-Jun, yellow, appear singly or in pairs. Fruit: seed pods, 1-2 in. long, fuzzy on edges, explode when mature, seeds small and multicolored.


Leslie J. Mehrhoff, University of Connecticut, Bugwood.org


Tom Heutte, USDA Forest Service, Bugwood.org

Ecology

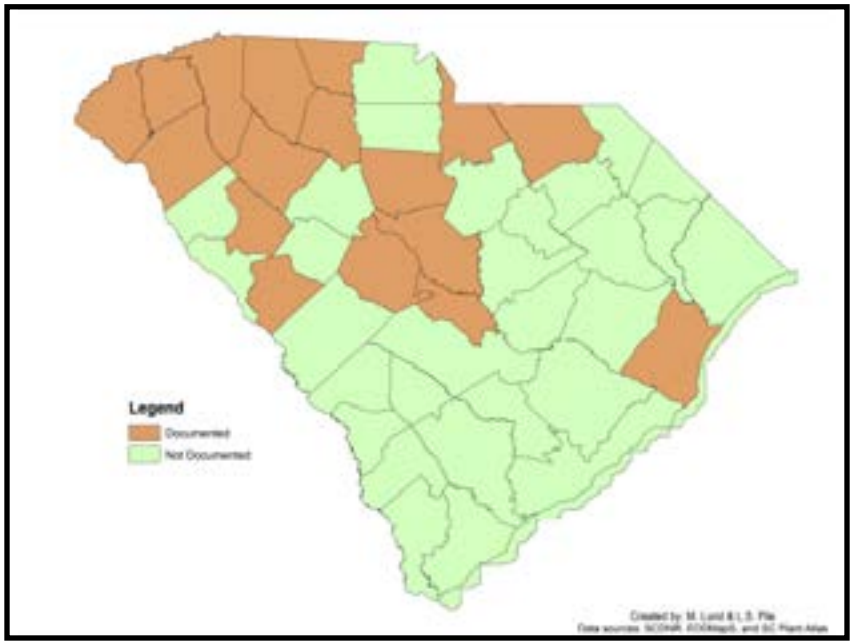
Perennial. Occurs on roadsides, disturbed sites, and pastures. Nitrogen fixer. Can survive in poor, dry, sandy soils. Grows well in sunny areas.

THREAT STATUS - SEVERE THREAT


Eric Coombs, Oregon Department of Agriculture, Bugwood.org

Management

Management practices have not been well documented for this species.



SHRUB LESPEDEZA

Lespedeza bicolor Turcz.

Chris Evans, Illinois Wildlife Action Plan, Bugwood.org

James H. Miller, USDA Forest Service, Bugwood.org

Description

Leaves: alternate, 3 leaflets, leaflets are ovate to elliptic, 2-6 cm in length, bottom side of leaf a lighter green. Twigs: upright, 0.5-2 cm in diameter, appressed hairy to hairless, gray-green in color. Flowers: raceme of 5-15 flowers, rosy to white in color, 8-11 mm long. Fruit: present in August-September, flat legume, 6-8 mm in length, densely appressed hairy.

Karan A. Rawlins, University of Georgia, Bugwood.org

Ecology

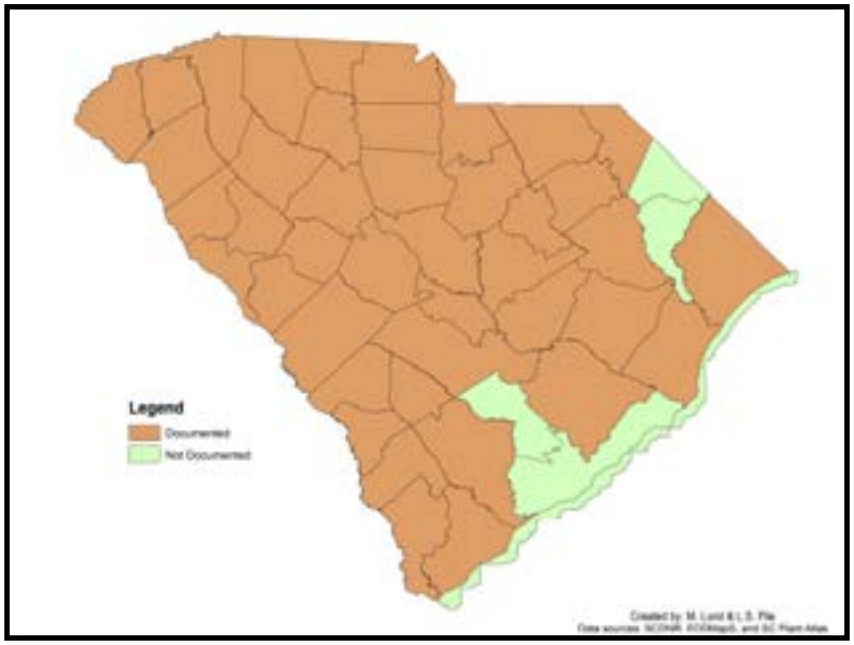
Invades forest edges and open forests. Nitrogen fixer. Forms dense colonies, even in shade. Prevents forest regeneration. Stands dormant through winter. Shrub is promoted by burning.

THREAT STATUS - SEVERE THREAT

James H. Miller, USDA Forest Service, Bugwood.org

Management

Treat, cut, or mulch when plants are young, and make sure to remove all roots. Minimize disturbance within miles of where the plant occurs. Burning can worsen infestations.



THORNY-OLIVE

Elaeagnus pungens Thunb.

Rebekah D. Wallace, University of Georgia, Bugwood.org

James H. Miller & Ted Bodner, Southern Weed Science Society, Bugwood.org

Description

Leaves: evergreen, 4-10 cm in length, simple and alternate, irregular margins, silver scales. Twigs: sharp, some thorns, stubby. Flowers: appear in fall, tiny flowers, clusters or 1-3 flowers, white in color. Fruit: oblong, red in color, covered in brown scales in spring, spreads by animals.

Karan A. Rawlins, University of Georgia, Bugwood.org

Ecology

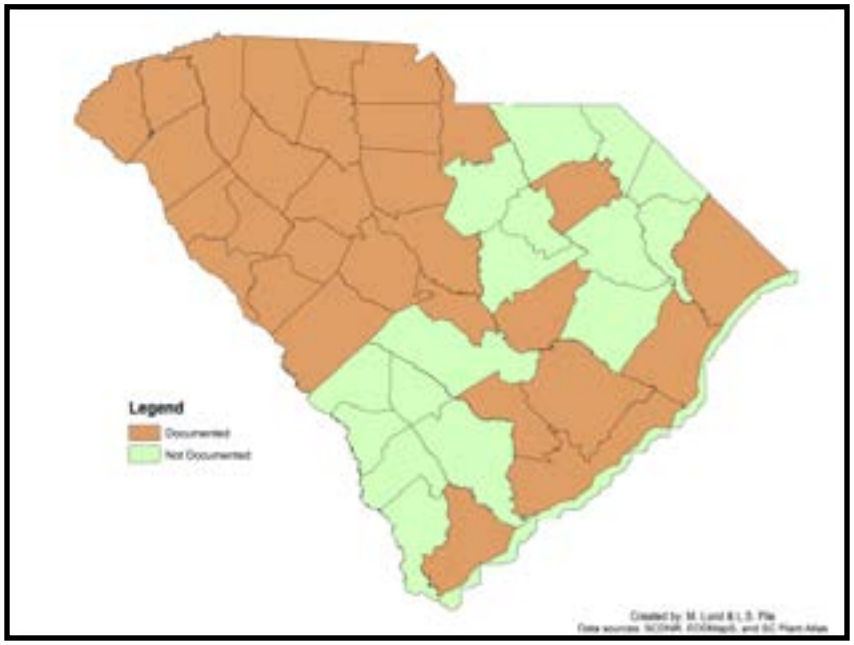
Fast-growing weedy shrub. Drought tolerant.

THREAT STATUS - SEVERE THREAT

John Ruter, University of Georgia, Bugwood.org

Management

Do not plant and remove any prior plantings and dispose of them in a dumpster. Treat when new plants are young. Manually pull new seedlings.



TRIFOLIATE ORANGE

Poncirus trifoliata (L.) Raf.

John D. Byrd, Mississippi State University, Bugwood.org

James H. Miller, USDA Forest Service, Bugwood.org

Description

Leaves: alternate, trifoliate, up to 2 in. long, winged petioles. Stem: green with green stripes, 1-2 in. thorns. Flowers: Spring, white, 5 petals, showy, 1-2 in. in diameter. Fruit: dull yellow, sticky, 1.5-2 in. in diameter.

James H. Miller, USDA Forest Service, Bugwood.org

James H. Miller, USDA Forest Service, Bugwood.org

Ecology

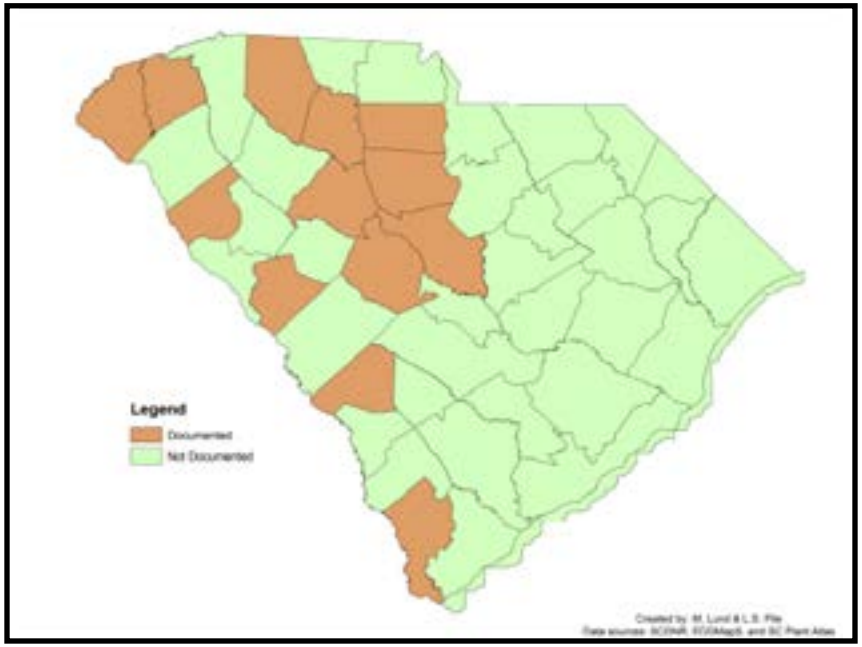
Deciduous. Invades woodlands, forest edges, and fence rows as well as urban green areas.

THREAT STATUS - SEVERE THREAT

James H. Miller, USDA Forest Service, Bugwood.org

Management

Do not plant and remove any prior plantings while controlling for sprouts and seedlings. Dispose of fruit. Treat when plants are young and fruit are not present. Thorns on stems makes removal difficult, so make sure to wear protective gear. Remove when soil is moist. Burning has minimal effect.



BIGLEAF PERIWINKLE

Vinca major L.

Forest and Kim Starr, Starr Environmental, Bugwood.org

Description

Leaves: evergreen, opposite, lanceolate to heart-shaped.
Twigs: some-what woody, trailing or scrambling vines.
Flowers: five-petaled, pinwheel-shaped, violet in color.
Fruit: viable seeds produced rarely.

Barry Rice, sarracenia.com, Bugwood.org

James H. Miller, USDA Forest Service, Bugwood.org

Ecology

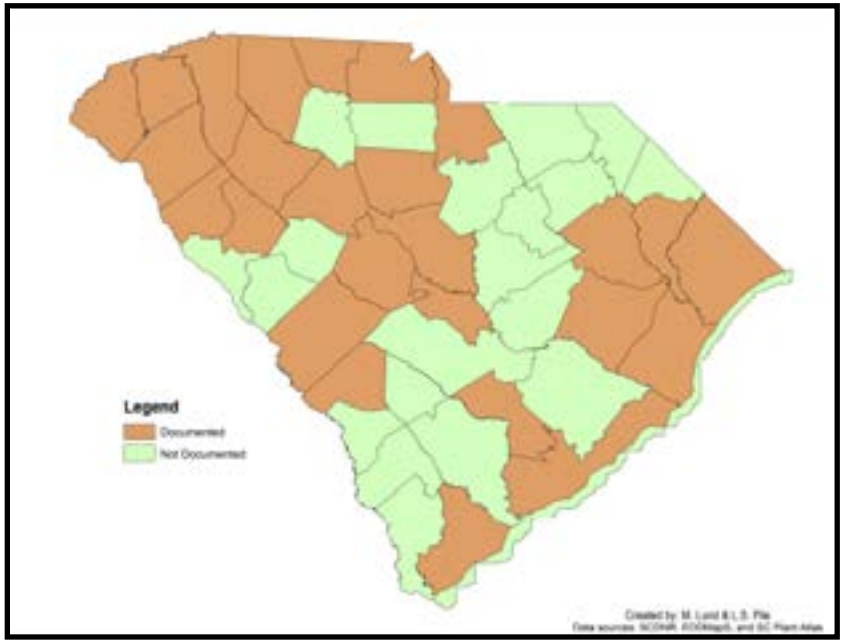
Forms dense ground cover, forms mats and extensive infestations, shade-tolerant.

THREAT STATUS - SEVERE THREAT

Chris Evans, Illinois Wildlife Action Plan, Bugwood.org

Management

Do not plant and remove any prior plantings while controlling any sprouts and seedlings. Dispose of plants in a dumpster or burn. Treat when new plants are young. If using herbicides, mowing or injury of the leaves by a string trimmer immediately prior to spraying improves control. Burning has minimal effect.



CHEROKEE ROSE

Rosa laevigata Michx.


Karan A. Rawlins, University of Georgia, Bugwood.org

Description

Leaves: evergreen, pinnately compound, three to nine leaflets. Twigs: high climbing, curved thorns. Flowers: white to pink, clustered or single.


Karan A. Rawlins, University of Georgia, Bugwood.org


Karan A. Rawlins, University of Georgia, Bugwood.org

Ecology

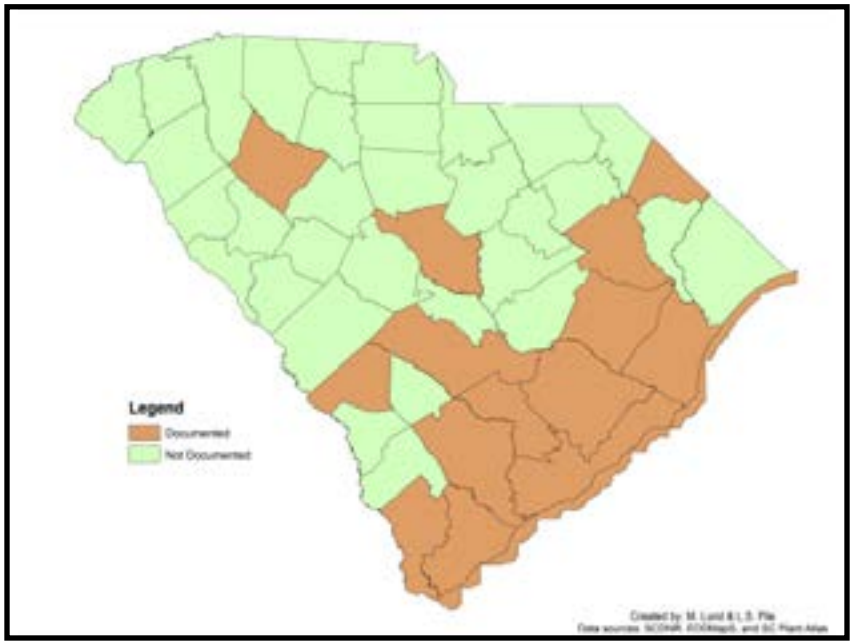
Colonize by prolific sprouting and root sprouts. Seeds dispersed by birds and mammals.

THREAT STATUS - SEVERE THREAT


Karan A. Rawlins, University of Georgia, Bugwood.org

Management

Do not plant and remove any prior plantings while controlling for sprouts and seedlings. Burn or dispose of in dumpster. Treat when young. Cut when fruit are not present. Minimize disturbance. Manually pull when soil is moist to ensure removal of all roots. Readily eaten by goats.



CHINESE WISTERIA

Wisteria sinensis (Sims) DC.

Nancy Dagley, USDI National Park Service, Bugwood.org

Franklin Bonner, USFS (ret.), Bugwood.org

Description

Leaves: Deciduous, alternate, odd pinnately compound, 10-40 cm in length, leaflets 7-13, leaflet ovate to elliptic in shape with tapering pointed tips, hairless to short hairy, densly silky hairy when young. Stem: climbing by twining, 4-10 cm in diameter, infrequent branching, densely short hairy, lenticels present on older bark. Flowers: Mar-Jul, fragrant, showy, 15-30 cm long, lavander to violet to pink to white. Fruit: Jul-Nov, flattened legume, irregularly oblong to oblanceolate, 6-15 cm in length, greenish-brown to golden in color, splits on two sides, 1-8 dark brown seeds.

Ecology

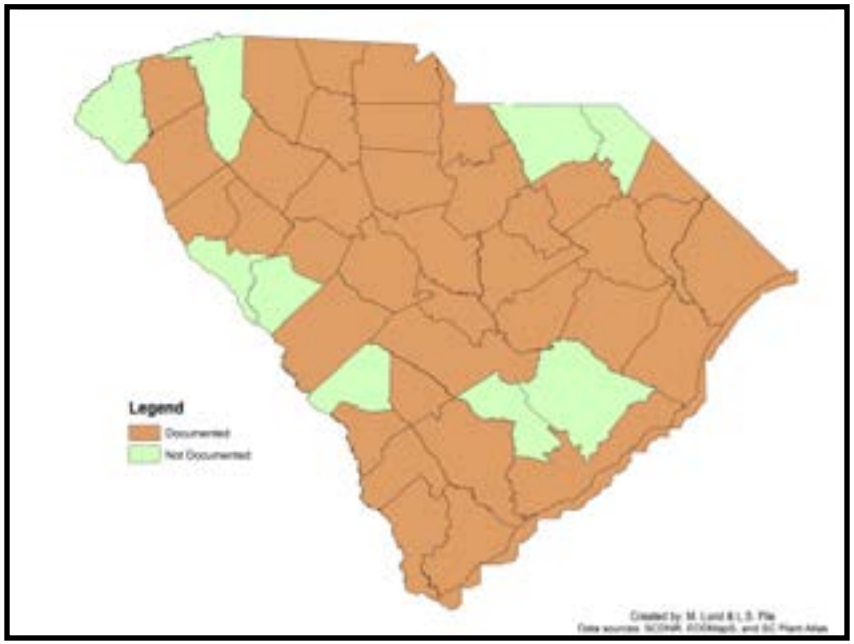
Nitrogen fixer. Forms dense infestations often with other invasive plants. Occurs in wet to dry sites. Colonizes by vines and runner sprouts. Not widely spread by seed.

THREAT STATUS - SEVERE THREAT

James H. Miller & Ted Bodner, Southern Weed Science Society, Bugwood.org

Management

Do not plant and remove any prior plantings while controlling for sprouts and seedlings. Dispose of in dumpster or burn. Treat when plants are young and while pods are not present. Manually pull when soil is moist to ensure removal of all roots. Prescribed burning can clear debris, but cannot be controlled by burning.



ENGLISH IVY

Hedera helix L.

David Stephens, bugwood.org

Description

Leaves: evergreen, thick, dark green in color, heart-shaped, three to five pointed lobes when juvenile, lanceolate lacking lobes when mature. Stems: climbing. Flowers: summer, terminal clusters. Fruit: dark purple berries in winter and spring.

Jan Samanek, State Phytosanitary Administration, Bugwood.org

James H. Miller, USDA Forest Service, Bugwood.org

Ecology

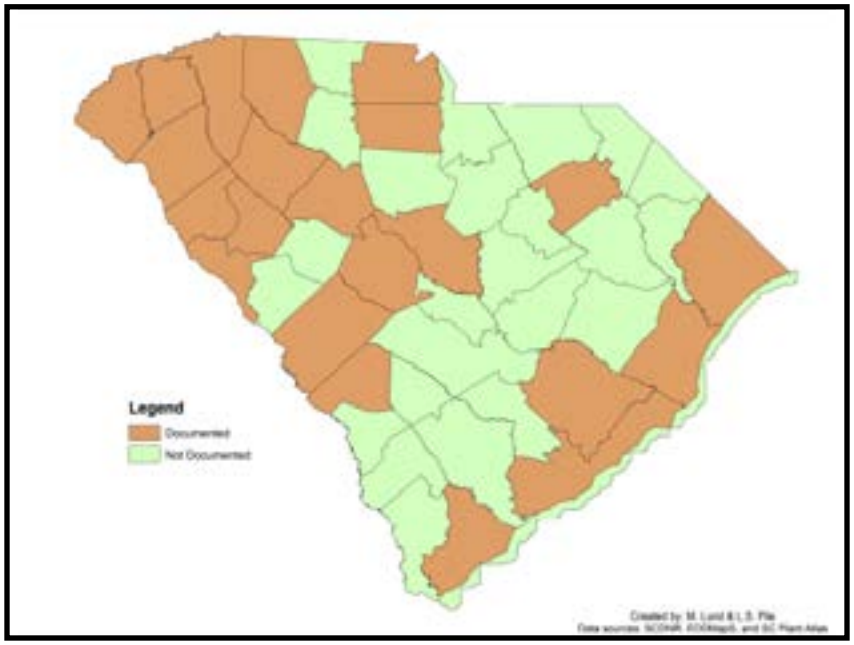
Climbing vine that encases trees and forms dense ground cover. Seeds dispersed by birds, and colonize by trailing and climbing vines.

THREAT STATUS - SEVERE THREAT

Forest and Kim Starr, Starr Environmental, Bugwood.org

Management

Do not plant and remove any prior plantings while controlling for sprouts and seedlings. Dispose of in dumpster or burn. Treat when plants are young and fruit are not present. Repeated cutting or mowing recommended for control of young infestation. Readily eaten by goats.



JAPANESE CLIMBING FERN

Lygodium japonicum (Thunb.) Sw.

David J. Moorhead, University of Georgia, Bugwood.org

Chris Evans, Illinois Wildlife Action Plan, Bugwood.org

Description

Leaves: opposite on vine, light green, compound once or twice divided, highly dissected, lacy in appearance, 8-15 cm long. Stem: trailing, twining, or climbing, slender but strong, green to straw colored or red. Flowers: fertile fronds on upper part of blades, smaller segmets with fingerlike projections around the margins bearing sporangia, in double rows or on the under margins. Seeds: minute spores, wind dispersed.

Ecology

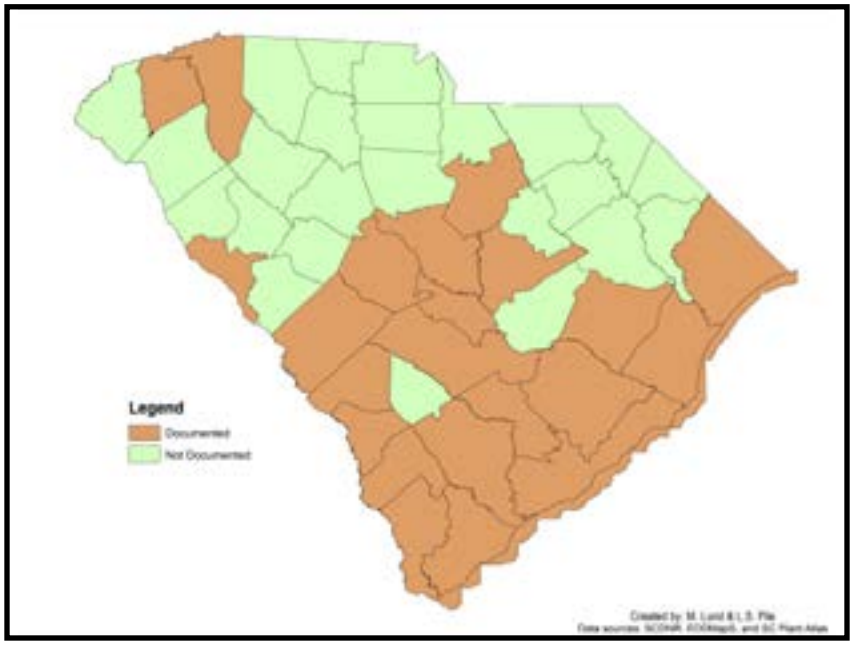
Spreads along highways, usually under and around bridges, and invades into open forests and forest edges. Can be scattered or form into dense mats. Spreads rapidly by wind dispersal.

THREAT STATUS - SEVERE THREAT

James H. Miller & Ted Bodner, Southern Weed Science Society, Bugwood.org

Management

Do not plant and control any sprouts and seedlings. Monitor areas where pine straw mulch has been used. Treat when new plants are young. Clean all equipment when leaving infested areas. Minimize disturbance. Burning can worsen infestations.



JAPANESE HONEYSUCKLE

Lonicera japonica L.

Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Description

Leaves: semi-evergreen, opposite, ovate to elliptic to oblong, 3-6.5 cm long, margins entire but often lobed in the spring, smoth to rough hairy on both sides, green on top with white undersides. Stem: high climbing, slender and becomes stout, brown and hairy becoming tan barked, sloughing with age, opposite branched, rooting at nodes. Flowers: Apr-Jun, axillary pairs on stalk, fragrant, white or pink and pale yellow, 2-3 cm long, thin and tubular. Fruit: Aug-Mar, berry, black in color, spherical.

Ecology

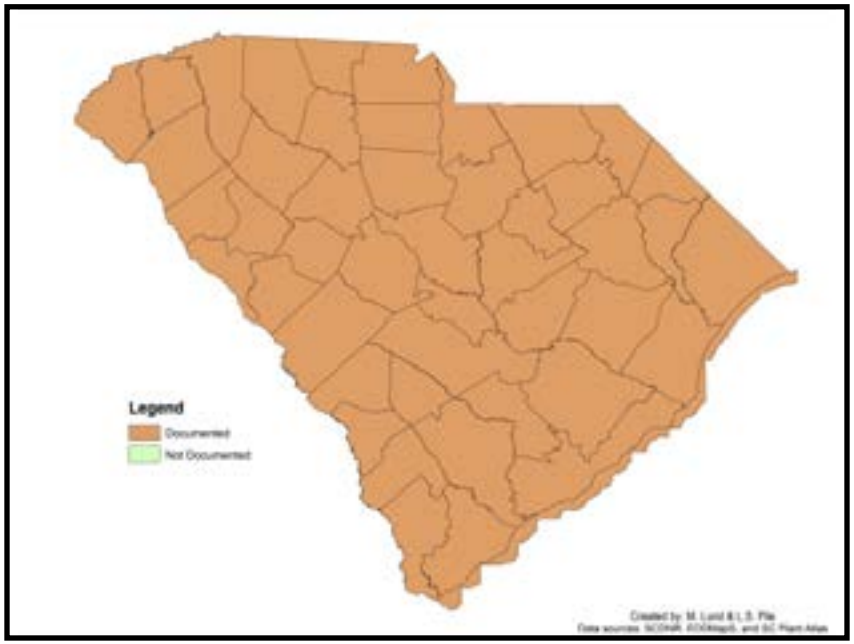
Common and occurs as dense infestations often with other invasive species. Occurs along forest edges and spreads by rooting at nodes and animal-dispersal. Shade tolerant.

THREAT STATUS - SEVERE THREAT

William M. Ciesla, Forest Health Management International, Bugwood.org

Management

Do not plant and remove any prior plantings while controlling for sprouts and seedlings. Dispose of in dumpster or burn. Treat when new plants are young and when fruit are not present. Manually pull when soil is moist. Repeated burning has no effect. Readily eaten by goats.



KUDZU

Pueraria montana (Lour.) Merr.

Rebekah D. Wallace, University of Georgia, Bugwood.org

James H. Miller, USDA Forest Service, Bugwood.org

Description

Leaves: alternate, 3 leaflets, leaflets 8-18 cm long, slightly lobed or unlobed in shade, middle-leaflet 2-lobed, side leaflets 1-lobed, pointed tips, margins with gold fine hairs, upper surface dark green with golden hairs and underside with dense silver hairs. Stem: high climbing, yellow-green and hairy, eventually rough-barked and brown climbs by twining. Flowers: Jun-Sept, flower clusters are 5-30 cm long, flowers in pairs or in 3s from raised nodes on stalk, axillary spike-like racemes, open from base to top, petals lavender-rose to wine-colored, yellow dot on upper petal. Fruit: Sept-Jan, dry legume, 3-5 cm long, tan with stiff golden hairs, splitting on 1-2

Ecology

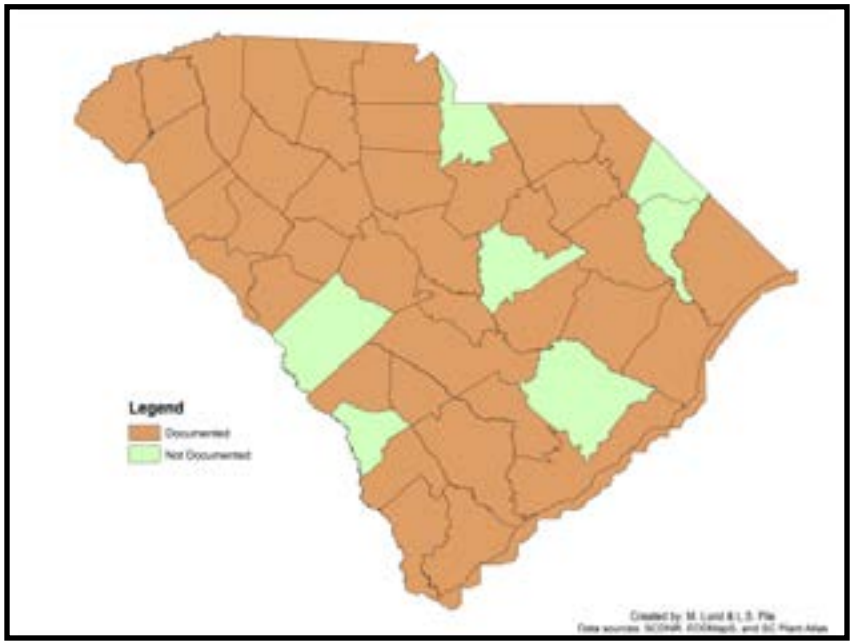
Nitrogen fixer. Forms dense mats over the ground, debris, shrubs, and trees. Planted for erosion control and livestock feed from 1920-1950. Occurs in old infestations on forest edges.

THREAT STATUS - SEVERE THREAT

James H. Miller, USDA Forest Service, Bugwood.org

Management

Do not plant and remove any prior plantings while controlling for sprouts and seedlings. Dispose of in dumpster or burn. Treat when plants are young. Root crowns can be removed with mattocks, hoes, and saws. Mow and cover with plastic sheeting for 2 years. Multiyear cutting can achieve control. Readily eaten by goats.



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CHINESE SILVERGRASS

Miscanthus sinensis Andersson

Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Britt Slattery, US Fish and Wildlife Service, Bugwood.org

Description

Leaves: long, slender, upright-to-arching, whitish/silvery upper midveins, sharp tips and rough margins. Flowers: late summer, fan-shaped terminal panicle, silver-pink in color. Fruit: spirally twisted at base, 8-10 mm long.

Chris Evans, Illinois Wildlife Action Plan, Bugwood.org

James H. Miller, USDA Forest Service, Bugwood.org

Ecology

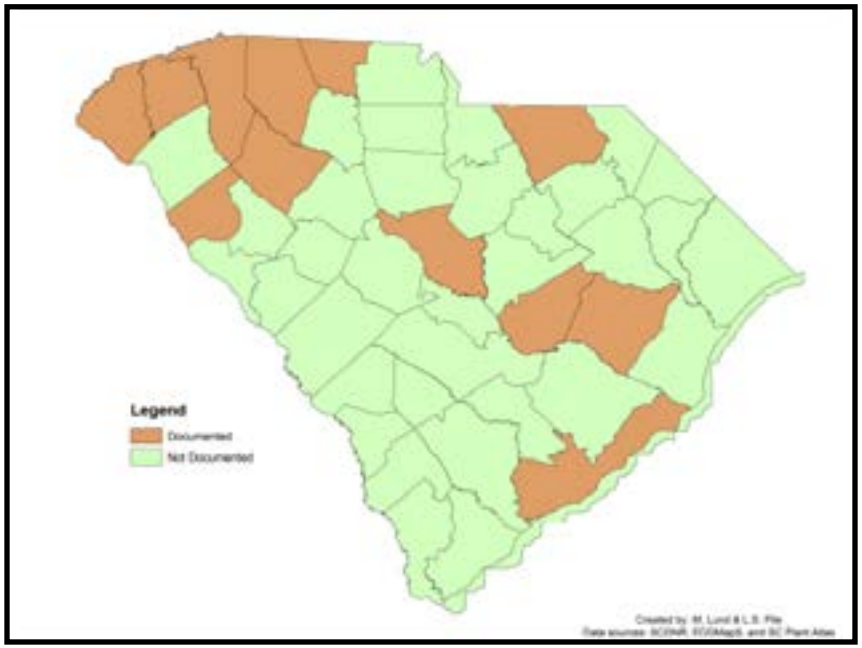
Dried grass remains standing during winter. Forms vast infestations along roadsides, forest margins, rights-of-way, and other disturbed sites.

THREAT STATUS - SEVERE THREAT

Chris Evans, Illinois Wildlife Action Plan, Bugwood.org

Management

Do not plant and remove prior plantings while controlling sprouts and seedlings. Dispose of in dumpster or burn. Treat when plants are young and minimize disturbance. Do not mow when seed heads are present. Burning has minimal effect.



COGONGRASS

Imperata cylindrica (L.) P. Beauv.

Nancy Loewenstein, Auburn University, Bugwood.org

Chris Evans, Illinois Wildlife Action Plan, Bugwood.org

Description

Leaves: long-lanceolate, 40-150 cm long, narrowing at base, yellowish-green, white midvein present on upper surface, midveins off center, flat or cupped blades, outer sheaths have long hairs with tufts near the throat. Stem: upright to ascending. Flowers: Mar-May, sometimes present year round, terminal, spike-like silky panicle, 3-20 cm long, cylindrical, silky to silvery white hairs. Seeds: May-Jun, brown, oblong, around 1 cm long, wind dispersed.

Ecology

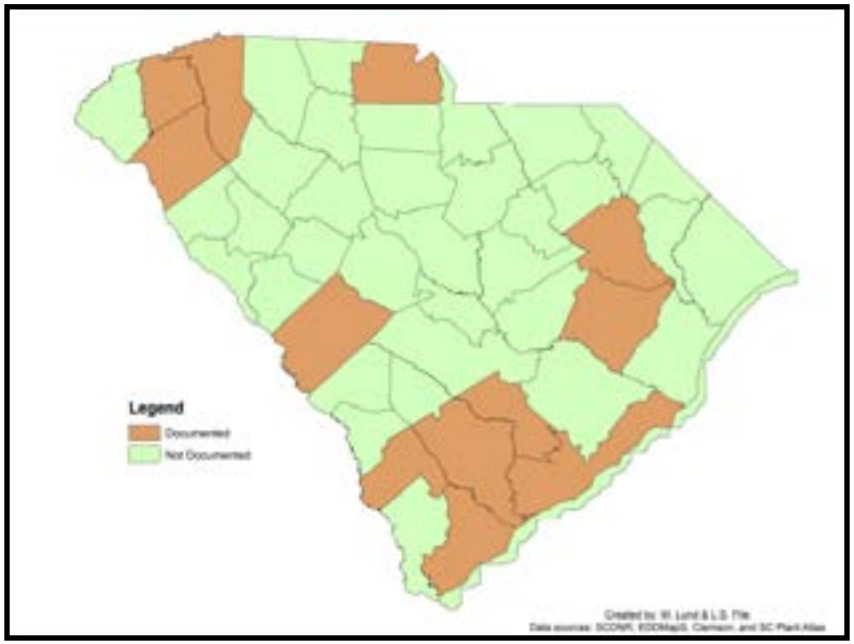
Grows in full sun to partial shade. Aggressive invasive of right of ways, open forests, and old fields and pastures. Expands through rhizomes and wind-dispersed seeds.

THREAT STATUS - SEVERE THREAT

Charles T. Bryson, USDA Agricultural Research Service, Bugwood.org

Management

Do not plant and remove prior plantings while controlling for sprouts and seedlings. Treat when plants are young and minimize disturbance. Repeated planing of aggressive native grasses can restore pastures. Do not transport dirt from infested fields. Clean seeds and rhizomes from equipment before leaving infested site.



ITCHGRASS

Rottboellia cochinchinensis (Lour.) W.D. Clayton


Julia Scher, USDA APHIS PPQ, Bugwood.org

Description

Leaves: covered in irritating hairs, wide and flat. Stems: can grow 1-10 ft. high. Flowers: inflorescence, jointed, cylindrical raceme, 1-6 in. long. Fruit: production continues through growing season.


USDA APHIS PPQ Archive, USDA APHIS PPQ, Bugwood.org

Ecology

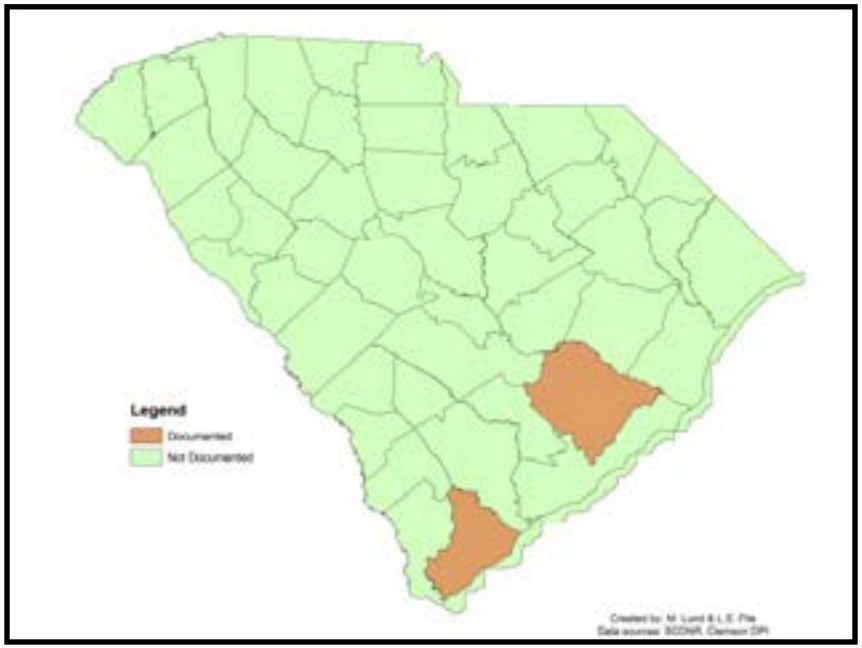
Annual. Invades agricultural fields and disturbed areas. Hairs on leaves and stem can cause irritation. Not eaten by livestock.

THREAT STATUS - SEVERE THREAT


USDA APHIS PPQ Archive, USDA APHIS PPQ, Bugwood.org

Management

Management practices have not been well documented for this species.



JAPANESE STILT GRASS

Microstegium vimineum (Trin.) A. Camus


Leslie J. Mehrhoff, University of Connecticut, Bugwood.org


Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Description

Leaves: alternate, lanceolate, flat blades, white midveins, both surfaces sparsely hairy. Stem: ascending to reclining, slender, green to purple to brown. Flowers: Aug-Oct, terminal, thin, spike-like racemes, spikelets paired, 2-7 cm long. Seeds: Sept-Nov, grain is yellow to red, ellipsoid, around 3 mm long, matures over a 2 week period.


Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Ecology

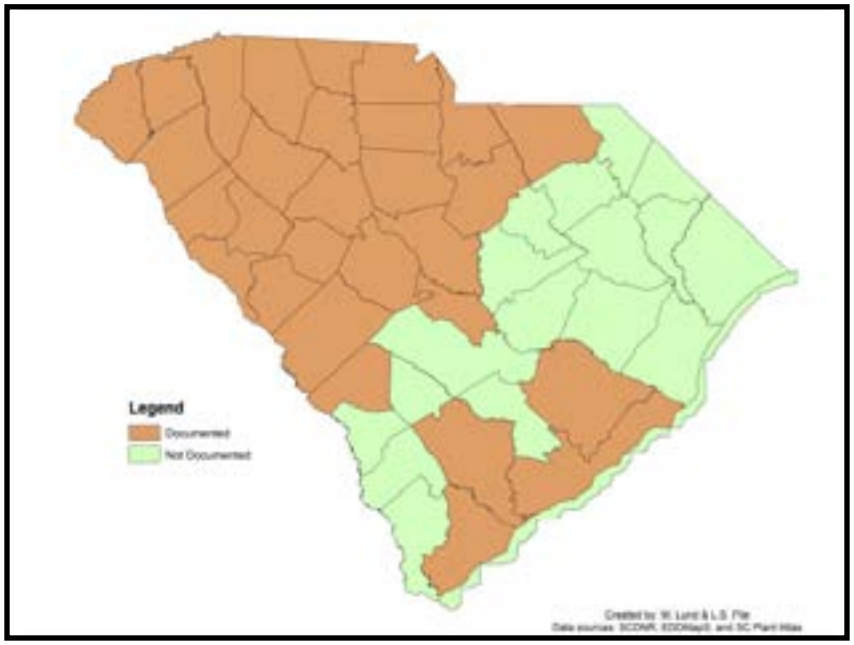
Extremely shade tolerant and a prolific seeder. Seeds dispersed by animals, flooding, and dirt deposition. Found along streamsides and flood plains as well as forest edges, roadsides, and damp areas. Occurs in elevations up to 1,200 m.

THREAT STATUS - SEVERE THREAT


Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Management

Treat when new plants are young (Note: early summer self-pollinated seeds are hidden in leaf sheaves). Apply herbicide and mowing treatments to stop seed production. Clean equipment before leaving infested sites. Minimize disturbance. Infested sites burn easily, which can spread the infestation.



JOHNSONGRASS

Sorghum halepense (L.) Pers.


Steve Dewey, Utah State University, Bugwood.org


Ohio State Weed Lab Archive, The Ohio State University, Bugwood.org

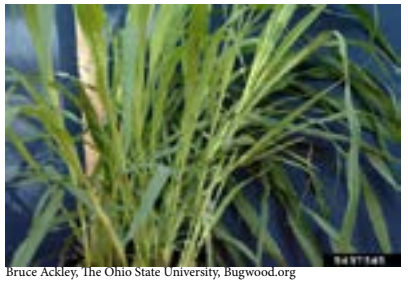
Description

Leaves: alternate, long-lanceolate, white midvein and rough margins, 20-60 mm long, hairless except on throat. Stem: stout, hairless, upward branching. Flowers: Apr-Nov, open spreading panicle, numerous whorled projecting branches, spikelets in pairs, one stemless and ovoid and the other stemmed and narrow, green or yellow or purple or black, 15-50 cm long. Seeds: May-Mar, dark red-brown grains, released within the husks.

Ecology

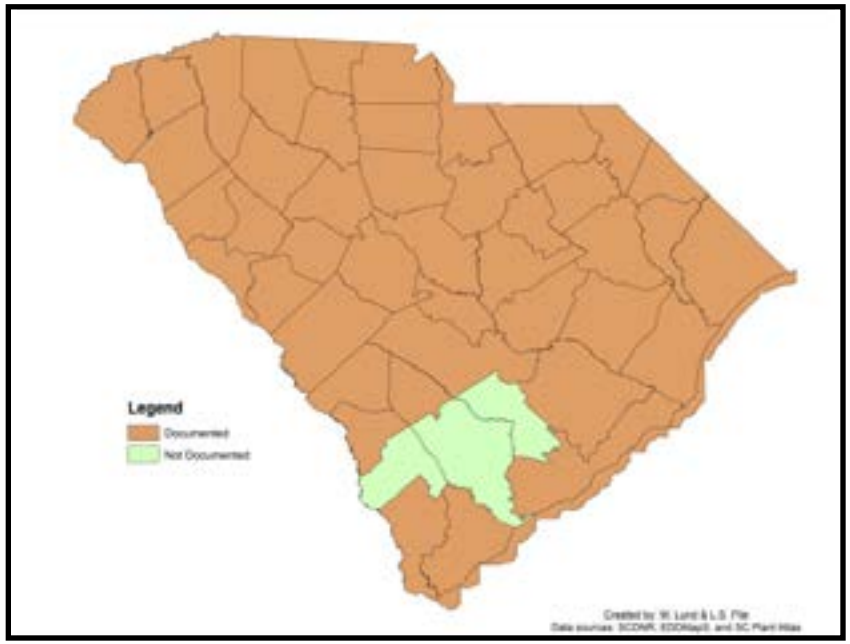
Forms dense colonies in old fields and field margins. Invades new forest plantations and open forests. Highly competitive with tree seedlings. Colonizes by rhizomes and spreads by seeds.

THREAT STATUS - SEVERE THREAT


Bruce Ackley, The Ohio State University, Bugwood.org

Management

Do not plant and treat when plants are young. Pull all rhizomes before seeds are present. Minimize disturbance. Burning treatments may be effective. Occasionally eaten by cattle, sheep, and goats, but may be toxic at times especially to horses.



PHRAGMITES

Phragmites australis (Cavanilles) Trinius ex Steudel


Rebekah D. Wallace, University of Georgia, Bugwood.org


Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Description

Leaves: 6-20 in. long, flat, glabrous. Stem: upright, thick.
Flowers: Jul-Oct, dense heads, fluffy, grey or purple.
Fruit: light weight seeds, brown, persist through winter.


Leslie J. Mehrhoff, University of Connecticut, Bugwood.org


Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Ecology

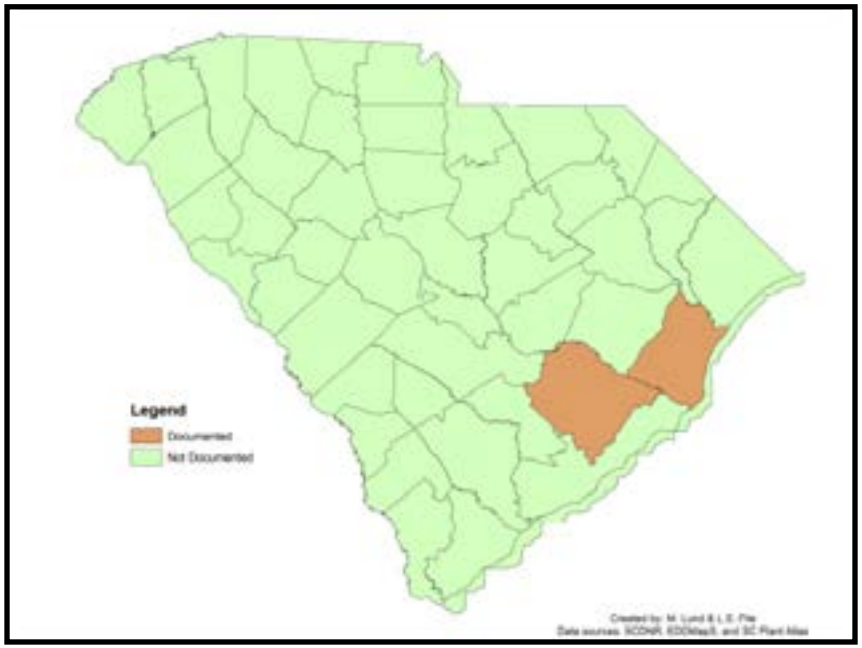
Perennial. Grow in dense thickets. Found in and around shallow water. Alter the hydrology of the aquatic community.

THREAT STATUS - SEVERE THREAT


Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Management

Management practices have not been well documented for this species.



SERICEA

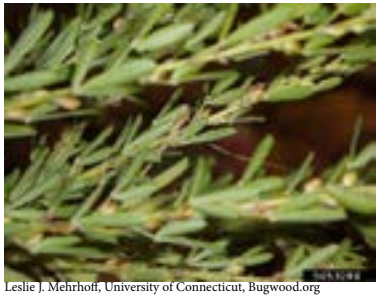
Lespedeza cuneata (Dum.-Cours.) G. Don


Leslie J. Mehrhoff, University of Connecticut, Bugwood.org


Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Description

Leaves: alternate, thin, three-parted, hairy, leaflets have wedge-shaped bases. Stem: grey-green, lines of hairs. Flowers: Jul-Sept, creamy-white with purple throats, in clusters of 2-4. Fruit: flat, ovate to round, single seeded pod, clustered in terminal axils.


Leslie J. Mehrhoff, University of Connecticut, Bugwood.org


Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Ecology

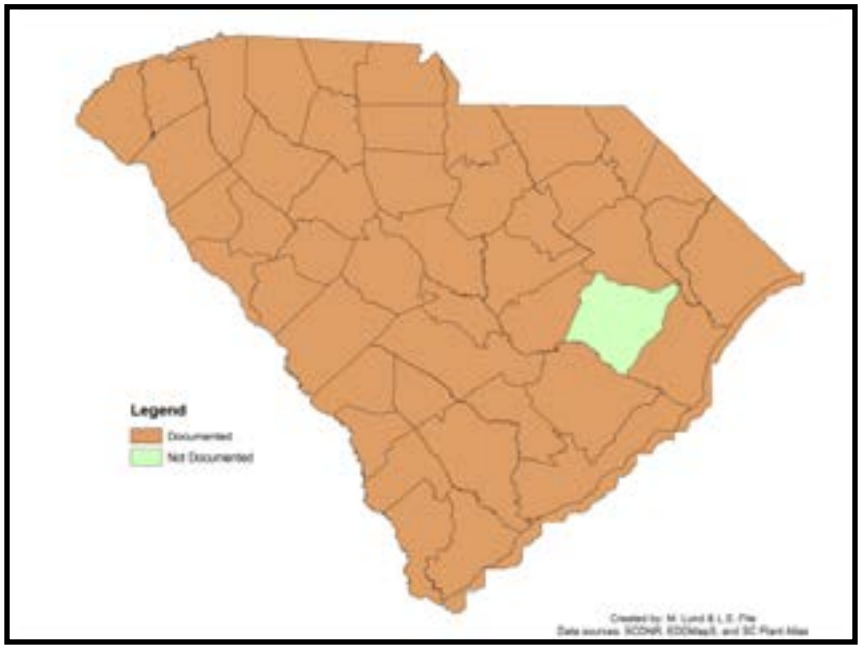
Extremely aggressive invasive. Invades open areas. Difficult to remove due to large seed bank.

THREAT STATUS - SEVERE THREAT


Chris Evans, Illinois Wildlife Action Plan, Bugwood.org

Management

Management practices have not been well documented for this species.



TROPICAL SODA APPLE

Solanum viarum Dunal


Karan A. Rawlins, University of Georgia, Bugwood.org


Karan A. Rawlins, University of Georgia, Bugwood.org

Description

Leaves: oak-shaped, usually green year-round, thorns found along the mid-vein. Stem: thorny. Flowers: clusters, small and white. Fruit: golf-ball sized, mottled green white and turn yellow in late summer to fall, sweet smell.


Larry Trekell, Bugwood.org


Karan A. Rawlins, University of Georgia, Bugwood.org

Ecology

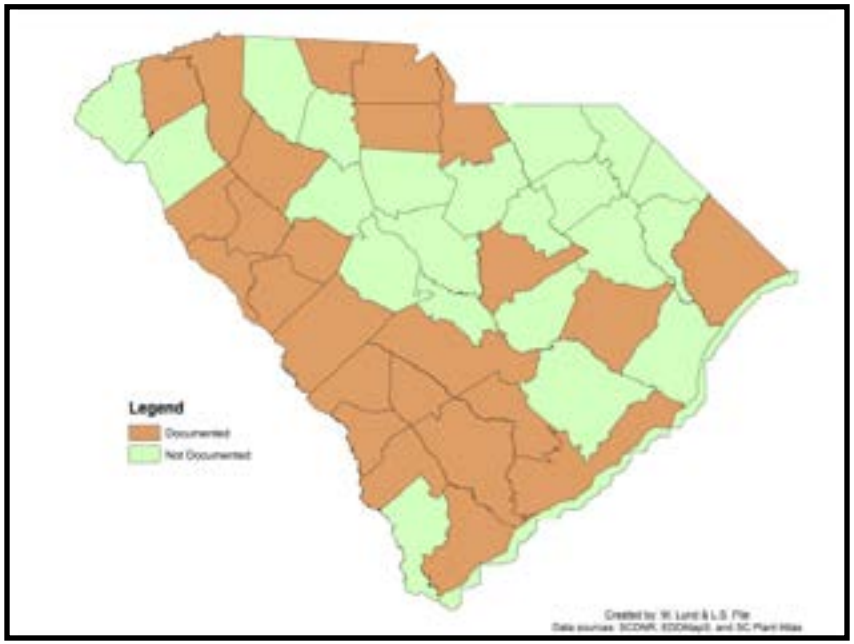
Rapid spread by livestock and seed-infested machinery.

THREAT STATUS - SEVERE THREAT


Clyde Dowler, USDA Agricultural Research Service, Bugwood.org

Management

Do not allow cattle to consume fruit. Treat when new plants are young, and cut/mow when fruit are not present. Collect and destroy all fruit. Manual pulling is difficult due to throny stems. Report infestations to county agents.



WART REMOVING HERB

Murdannia keisak (Hassk.) Hand.-Maz.

Description

Leaves: alternate, lance-shaped, up to 3 in. long. Stem: succulent, forms roots at nodes, grow along the ground. Flowers: Sept-Nov, small, pink, 3-petaled, occur singly or in small clusters. Fruit: capsule.

Linda Lee, University of South Carolina, Bugwood.org

Linda Lee, University of South Carolina, Bugwood.org

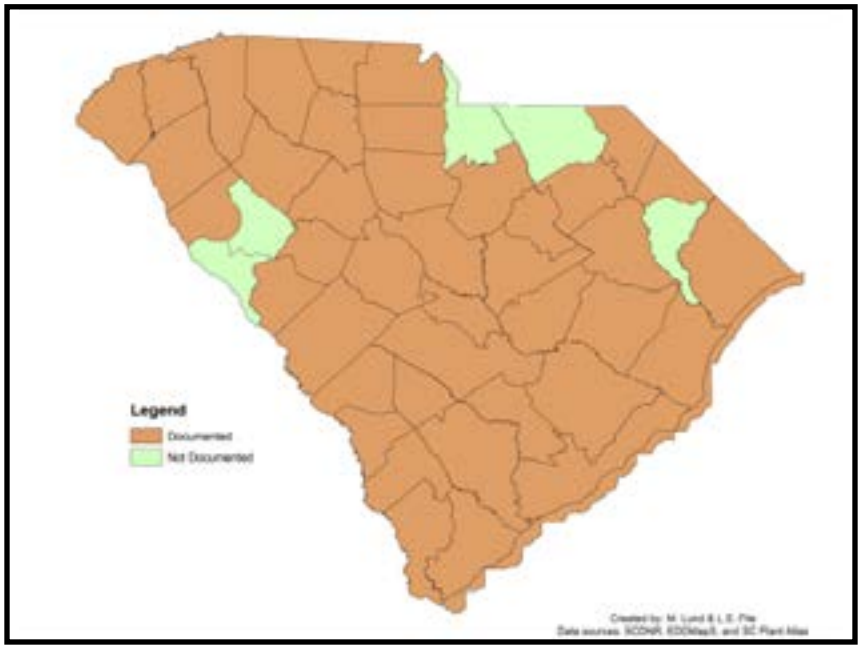
Ecology

Annual. Invades waters edges and marshes. Often grows immersed in water. Forms dense mats.

THREAT STATUS - SEVERE THREAT

Management

Management practices have not been well documented for this species.



Callery Pear

Significant Threat

TREES

Pyrus calleryana Decne.

Description

Deciduous tree with alternate, simple leaves and small round fruit. Flowers in early spring before leaf emergence. Can grow up to 60 ft. tall.


Leslie J. Mehrhoff, University of Connecticut, Bugwood.org


David Stephens, Bugwood.org

Chinese Parasol Tree

Significant Threat

TREES

Firmiana simplex (L.) W. Wight

Description

Deciduous tree with alternate, 3 to 5-lobed leaves. Flowers lacking petals occur in late spring to early summer. Pods split into petal-like forms to reveal seeds. Occur along roadsides and disturbed areas.


Karan A. Rawlins, University of Georgia, Bugwood.org


T. Davis Sydnor, The Ohio State University, Bugwood.org

Mimosa

Significant Threat

TREES

Albizia julibrissin Durazz.

Description

Small tree with bi-pinnately compound leaves. Fragrant, pink flowers occur in early summer. Long, flat seed pods occur in late summer. Invades any disturbed habitat.


T. Davis Sydnor, The Ohio State University, Bugwood.org


James H. Miller, USDA Forest Service, Bugwood.org

Paper Mulberry

Significant Threat

TREES

Broussonetia papyrifera (L.) L'Hér. ex Vent.

Description

Fast-growing, deciduous tree, with fuzzy variable leaves ranging from heart-shaped to entire to multi-lobed to highly disected. Flowers in spring and has red-orange fruits. Quickly invades disturbed areas.


Karan A. Rawlins, University of Georgia, Bugwood.org


Amy Richard, University of Florida, Bugwood.org

White Mulberry

Significant Threat

TREES

Morus alba L.

Description

Small, deciduous tree with shiny polymorphic leaves. Leaves have blunt teeth and heart-shaped bases. Flowers in spring, and fruits occur as multiple-seeded berries. Invades a range of disturbed areas.

John Cardina, The Ohio State University, Bugwood.org

Rebekah D. Wallace, University of Georgia, Bugwood.org

White Poplar

Significant Threat

TREES

Populus alba L.

Description

Maple-like leaves with green top and a hairy white underside. Has inconspicuous flowers and small, hairy seed pods. Trees produce prolific root sprouts.

Wendy VanDyk Evans, Bugwood.org

Paul Wray, Iowa State University, Bugwood.org

Japanese Privet

Significant Threat

SHRUBS

Ligustrum japonicum Thunb.

Description

Evergreen shrub with small leaves that often have rolled margins. Clustered white flowers occur in the spring to summer with dark purple berries persisting into the winter. Forms dense thickets in fields or forest understories.

Karan A. Rawlins, University of Georgia, Bugwood.org

Karan A. Rawlins, University of Georgia, Bugwood.org

Multiflora Rose

Significant Threat

SHRUBS

Rosa multiflora Thunb.

Description

Thorny perennial with pinnately compound leaves. Leaflets are small with serrated edges. Small white-pink flowers with 5 petals occur in spring. Small red fruit remain through winter. Forms dense thickets in fields and edges.

Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Nandina

Significant Threat

SHRUBS

Nandina domestica Thunb.

Description

Leaves are alternate and bi- or tri-pinnately compound. Has a bamboo appearance. White flowers develop in panicles and appear in spring. Green berries mature into red fruit. Nandina is shade tolerant and invades forest edges and interiors.

James H. Miller, USDA Forest Service, Bugwood.org

Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Chinese Yam

Significant Threat

VINES

Dioscorea polystachya Turcz.

Description

Twining vine that invades open to shady areas. Leaves alternate at the base becoming opposite up the vine. Leaves heart to fiddle-shaped with parallel veins. May produce small white flowers annually. Produce winged seeds and tubers.

Chris Evans, Illinois Wildlife Action Plan, Bugwood.org

Chris Evans, Illinois Wildlife Action Plan, Bugwood.org

Common Periwinkle

Significant Threat

VINES

Vinca minor L.

Description

Mostly evergreen erect vine or trailing ground cover. Leaves are opposite, oval to lance-shaped, and dark green and glossy. Flowers bloom in the spring and are blue, lavendar, or white. Spreads through rhizomes.

Greene Storm, St. John's University, Bugwood.org

Chris Evans, Illinois Wildlife Action Plan, Bugwood.org

Oriental Bittersweet

Significant Threat

VINES

Celastrus orbiculatus Thunb.

Description

Deciduous, woody, climbing vine. Leaves are alternate, elliptical to circular, and light green. Flowers bloom in late spring and are small and greenish-white. Fruit globose and yellow when ripe. Open to scarlet berries which persist into winter. Found in fields, old home sites, and road edges.

Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Sweet Autumn Virginsbower

Significant Threat

VINES

Clematis terniflora DC

Description

Semi-evergreen, climbing vine. Leaves alternate and compound with 3-5 leaflets. Flowers bloom in late summer and are white with four petals. Prolific seeds with long attached feathery silver hairs. Plant prefers partial sun, and is found at forest edges and green spaces near creeks.

L.L. Berry, Bugwood.org

Bahiagrass

Significant Threat

GRASSES

Paspalum notatum Flueggé

Description

Prominent V-shaped inflouresence. Low-growing with scaley rhizomes. Found along roadsides and disturbed areas. Sometimes planted as a pasture grass or turfgrass. June-Oct.

Dallisgrass

Significant Threat

GRASSES

Paspalum dilatatum Poir.

Description

Grows in clumps. Leaves are mostly hairless. Inflouresence divided into a few branches lined with green and purple spikes. Found along roadsides, fields, and disturbed areas. May-Oct.

Rebekah D. Wallace, University of Georgia, Bugwood.org

Barry Rice, sarracenia.com, Bugwood.org

Giant Reed

Significant Threat

GRASSES

Arundo donax L.

Description

Perennial grass. Leaves long and flat, and can be green with green and white stripes the length of the blade. Flowers bloom in late summer as dense plumes at the top of the culms. Spreads through rhizomes. Invades wetlands.

Rebekah D. Wallace, University of Georgia, Bugwood.org

Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Golden Bamboo

Significant Threat

GRASSES

Phyllostachys aurea Carr. ex A.& C. Rivière

Description

Perennial with hollow stems with solid joints. Leaves are alternate and flowering is very rare. Plant spreads by rhizomes. Commonly found in old homesites, and spread quickly.

Nancy Loewenstein, Auburn University, Bugwood.org

James H. Miller, USDA Forest Service, Bugwood.org

Tall Fescue

Significant Threat

GRASSES

Festuca arundinacea Schreb.

Description

Stem unbranched with 1-3 light green, swollen nodes near base. Leaves are flat and mostly basal, with whitish to yellow-green flared collars. Flowers occur in loose panicals. Invades open areas and forest edges. Spreads by rhizomes.

Howard F. Schwartz, Colorado State University, Bugwood.org

Ohio State Weed Lab Archive, The Ohio State University, Bugwood.org

Torpedograss

Significant Threat

GRASSES

Panicum repens L.

Description

Perennial grass with long, creeping, sharp rhizomes. Leaves are flat or folded, and linear. They are wide with a white waxy covering. Flowers occur year round in branched, open inflorescences. Commonly found in wet soils in riparian zones, but tolerate many habitats.

Graves Lovell, Alabama Department of Conservation and Natural Resources, Bugwood.org

Ann Murray, University of Florida, Bugwood.org

Vaseygrass

Significant Threat

GRASSES

Paspalum urvillei Steud.

Description

Leaves have a large, noticeable ligule. Inflourescene consisting of up to 20 branches with rounded spikelets. Found along roadsides, fields, and disturbed areas, often moist. May-July.

Rebekah D. Wallace, University of Georgia, Bugwood.org

Chris Evans, Illinois Wildlife Action Plan, Bugwood.org

Weeping Lovegrass

Significant Threat

GRASSES

Eragrostis curvula (Schrad.) Nees

Description

Warm-season perennial. Leaves are arched, long, and flat. Sheaths have long hairs along the collar of the upper margin. Spikelets are wide and grey-green. Flowers occur through the summer, 4-13 flowers per spikelet. Seeds occur in panicles. Invades distrubed areas.

John M. Randall, The Nature Conservancy, Bugwood.org

James H. Miller, USDA Forest Service, Bugwood.org

Bull Thistle

Significant Threat

HERBS

Cirsium vulgare (Savi) Ten.

Description

Annual or biennial. Leaves are lance-shaped and hairy. Flowers bloom in summer at the apex. They are purple with narrow, spine-tipped bracts. Fruits with bristles. Invades disturbed areas and forms dense thickets.

Bruce Ackley, The Ohio State University, Bugwood.org

John M. Randall, The Nature Conservancy, Bugwood.org

Nodding Thistle

Significant Threat

HERBS

Carduus nutans spp. leiophyllus (Petrovic) Stojanov & Stef

Description

Biennial. Stems and leaves are sharply spiny. Leaves in a rosette. Flowers are showy and red-purple in color, and occur at the tips of stems. Found in fields, roadsides, and disturbed areas. Late May-Nov.

Queen Anne's Lace

Significant Threat

HERBS

Daucus carota L.

Description

Biennial. Leaves pinnately divided and deeply dissected. White flowers occur as an umble with an occasional dark purple flower in the center. Stem is coarsely hairy. Invades areas of sun to partial-shade such as roadsides and fields.

Chris Evans, Illinois Wildlife Action Plan, Bugwood.org

Rob Routledge, Sault College, Bugwood.org

Rattle Box

Significant Threat

HERBS

Sesbania punicea (Cav.) Benth.

Description

Deciduous. 1-3 meters in height. Flowers reddish-orange. Fruits are large brown pods. Leaves are even-pinnate, 1-2 decimeters long. Leaflets 12-40 with smooth margins. Found in ditches, wet fields, marshes,ponded wetlands, and wet pinelands. Jun-Oct.

Wendy VanDyk Evans, Bugwood.org

Barry Rice, sarracenia.com, Bugwood.org

Showy Rattlebox

Significant Threat

HERBS

Crotalaria spectabilis Roth

Description

Annual, a half to one meter tall. Grows from a woody tap-root. Nitrogen fixer. Leaves simple, obovate, 5-20 cm long x 4-8 mm wide. Showy yellow flowers in racemes towards top of the plant. Poisonous to cattle. Found in fields, roadsides, and disturbed areas. July-Sept.

John D. Byrd, Mississippi State University, Bugwood.org

Wendy VanDyk Evans, Bugwood.org

Crested Floating Heart

Significant Threat

AQUATIC

Nymphoides cristata (Roxb.) O. Ktze.

Description

Found in ponds and lakes. Floating leaves. Flowers white and dainty with fringed petal margins. Fruit is a capsual containing many seeds.

Larry McCord, Santee Cooper, Bugwood.org

Larry McCord, Santee Cooper, Bugwood.org

EMERGING THREATS

TREES:
Camphortree - *Cinnamomum camphora* - Coastal Plains (CP)

SHRUBS:
Tall Glossy Privet - *Ligustrum lucidum* - CP
European Privet - *Ligustrum vulgare* - All regions
Sweet Breath of Spring - *Lonicera fragrantissima* - All regions
Macartney Rose - *Rosa bracteata* - All regions
Jurusalem Cherry - *Solanum pseudocapsicum* - Piedmont (P), CP
Meadowsweet - *Spiraea japonica* - Mountains (M), P
Saltcedar - *Tamarix ramosissima* - CP
Beach Vitex - *Vitex rotundifolia* - CP

VINES:
Purple Crownvetch - *Securigera varia* - All regions
Asian/Japanese Wisteria - *Wisteria floribunda* - All regions

HERBS:
Fig Buttercup - *Ficaria verna* - M, P

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Maps created from data using current distribution from invasive.org and EDDMapS- 2015

Photos courtesy of Invasive.org

Index

SEVERE THREAT

TREES

SHRUBS

VINES

GRASSES

HERBS

SIGNIFICANT THREAT

TREES

SHRUBS

VINES