

Alternatives to Invasive Plants Commonly Found in South Florida Landscapes¹

Gary W. Knox, Sandra B. Wilson, Zhanao Deng, and Rosanna Freyre²

Invasive plants are non-native plants that form expanding populations in natural areas and other plant communities with which they were not previously associated (Langeland 1998, rev. 2012). Invasive plants can cause ecological impacts such as displacing native plants and associated wildlife or altering natural water flow and fire patterns.

Some ornamentals listed as invasive by the University of Florida IFAS Assessment of Non-Native Plants in Florida's Natural Areas or by the Florida Exotic Pest Plant Council are still in commercial production and widely found in Florida landscapes. Homeowners might replace invasive plants if non-invasive alternatives are researched, publicized and made readily available. By shifting production and use from invasive ornamentals to native or non-invasive cultivars, the nursery and landscape industry could benefit from potential revenue while fostering greater collaboration with state agencies and environmental groups.

University of Florida research and Extension efforts over the last 10 years have focused on identifying non-invasive alternatives by assessing the invasive traits of popular non-native ornamentals, related genera, and their cultivars. In more recent years, University of Florida breeding efforts have focused on producing and trialing new non-invasive cultivars. Table 1 lists alternatives (both native and non-invasive, non-native ornamentals) to invasive plants commonly used in Florida landscapes. Only plants

considered to be generally available in the nursery trade are listed. Alternative plants are similar to respective invasive plants as much as possible in terms of size, habit, texture, and flower color. Non-native, non-invasive plants in Table 1 were determined to be non-invasive by the IFAS Assessment of Non-Native Plants in Florida's Natural Areas (IFAS Invasive Plant Working Group 2008) or have not yet been evaluated.

1. This document is ENH1222, one of a series of the Environmental Horticulture Department, UF/IFAS Extension. Original publication date September 2013. Visit the EDIS website at <http://edis.ifas.ufl.edu>.
2. Gary W. Knox, Extension specialist and professor, Environmental Horticulture Department, North Florida Research and Education Center, Quincy, FL; Sandra B. Wilson, professor, Environmental Horticulture Department, Indian River Research and Education Center, Fort Pierce, FL; Zhanao Deng, associate professor, Environmental Horticulture Department, Gulf Coast Research and Education Center, Wimauma, FL; and Rosanna Freyre, research scientist, Environmental Horticulture Department, University of Florida Institute of Food and Agricultural Sciences, Gainesville, FL, 32611.

Table 1. Invasive ornamentals commonly found in south Florida landscapes and commonly available native and non-native, non-invasive substitutes.

Invasive ornamental ^a			
Scientific Name	Common Name	Native substitute	Non-native, non-invasive substitute ^c
<i>Ardisia crenata</i>	Coral ardisia	<i>Ardisia escallonioides</i> , Marlberry <i>Callicarpa americana</i> , American beautyberry <i>Chrysobalanus icaco</i> , Coco plum <i>Citharexylum spinosum</i> , Fiddlewood <i>Hamelia patens</i> , Firebush <i>Ilex vomitoria</i> , Yaupon holly <i>Myrsine cubana</i> , Myrsine <i>Psychotria ligustrifolia</i> , Bahama wild coffee <i>Psychotria nervosa</i> , Wild coffee <i>Viburnum obovatum</i> , Walter's viburnum	<i>Acalypha wilkesiana</i> , Copperleaf
<i>Bauhinia variegata</i>	Orchid tree	<i>Acacia choriophylla</i> , Cinnecord <i>Acacia farnesiana</i> , Sweet acacia <i>Bourreria succulenta</i> , Bahama strongbark <i>Canella winterana</i> , Cinnamon bark <i>Capparis cynophallophora</i> (syn. <i>Cynophalla flexuosa</i> , syn. <i>Capparis flexuosa</i>), Jamaican caper <i>Erythrina herbacea</i> , Coralbean <i>Guaiaicum sanctum</i> , Lignumvitae <i>Myrcianthes fragrans</i> , Simpson's stopper <i>Piscidia piscipula</i> , Jamaican dogwood	<i>Bauhinia xblakeana</i> , Hong Kong orchid tree <i>Cassia afrodistula</i> , Dwarf golden shower <i>Cassia fistula</i> , Golden shower <i>Clerodendrum quadriloculare</i> , Starburst clerodendrum <i>Cordia boissieri</i> , White cordia, Mexican olive <i>Dombeya xseminole</i> , Seminole dombeya, Tropical rose hydrangea <i>Gardenia thunbergia</i> , Wild gardenia <i>Hamelia cuprea</i> , West-Indian firebush, Bahama firebush <i>Tabernaemontana divaricata</i> , Crepe jasmine <i>Tibouchina granulosa</i> , Purple glory tree
<i>Bischofia javanica</i>	Bishopwood	<i>Bursera simaruba</i> , Gumbo limbo <i>Ficus aurea</i> , Strangler fig <i>Quercus laurifolia</i> , Laurel oak <i>Quercus virginiana</i> , Live oak <i>Sideroxylon foetidissimum</i> , False mastic <i>Swietenia mahagoni</i> , West Indian mahogany	<i>Azadirachta indica</i> , Neem <i>Bulnesia arborea</i> , Bulnesia <i>Litchi chinensis</i> , Lychee <i>Mangifera indicay</i> , Mango <i>Terminalia bucerasy</i> (syn. <i>Bucida buceras</i>), Black olive
<i>Casuarina equisetifolia</i>	Australian pine	<i>Juniperus silicicola</i> , Southern red cedar <i>Pinus elliottii</i> var. <i>densa</i> , Slash pine <i>Taxodium distichum</i> , Bald cypress	<i>Juniperus chinensis</i> 'Torulosa', Torulosa juniper <i>Platycladus orientalis</i> , Oriental arborvitae <i>Podocarpus macrophyllus</i> , Podocarpus, Japanese yew
<i>Colocasia esculenta</i>	Elephant ear	<i>Acrostichum danaeifolium</i> , Giant leather fern <i>Crinum americanum</i> , Seven-sisters, String-lily <i>Hymenocallis latifolia</i> , Mangrove spiderlily	<i>Cordyline fruticosa</i> , Ti plant <i>Crinum asiaticum</i> , Grand crinum lily <i>Monstera deliciosa</i> , Monstera <i>Philodendron bipinnatifidum</i> , Selloum philodendron
<i>Cupaniopsis anacardioides</i>	Carrotwood	<i>Conocarpus erectus</i> , Buttonwood <i>Piscidia piscipula</i> , Jamaican dogwood <i>Sapindus saponaria</i> , Soapberry <i>Simarouba glauca</i> , Paradise tree	<i>Ficus rubiginosa</i> , Rusty fig <i>Peltophorum dubium</i> , Yellow poinciana <i>Terminalia bucerasy</i> (syn. <i>Bucida buceras</i>), Black olive
<i>Dioscorea bulbifera</i>	Air-potato	<i>Campsis radicans</i> , Trumpet creeper <i>Jacquemontia pentanthos</i> , Key West morning glory, Skyblue clustervine <i>Lonicera sempervirens</i> , Coral honeysuckle	<i>Aristolochia littoralis</i> , Calico flower See <i>Flowering Vines for Florida</i> (http://edis.ifas.ufl.edu/mg097) for additional vines
<i>Eugenia uniflora</i>	Surinam Cherry	<i>Ardisia escallonioides</i> , Marlberry <i>Bourreria succulenta</i> , Bahama strongbark <i>Calyptanthus pallens</i> , Spicewood <i>Citharexylum spinosum</i> , Fiddlewood <i>Forestiera segregata</i> , Florida swampprivet <i>Guaiaicum sanctum</i> , Lignumvitae <i>Myrcianthes fragrans</i> , Simpson's stopper <i>Myrsine cubana</i> , Myrsine <i>Psychotria nervosa</i> , Wild coffee	<i>Myrciaria cauliflora</i> , Jaboticaba <i>Pittosporum tobira</i> , Pittosporum

Scientific Name	Common Name	Native substitute	Non-native, non-invasive substitute ²
<i>Hibiscus tiliaceus</i> (syn. <i>Talipariti tiliaceum</i>)	Sea hibiscus, Mahoe	<i>Bursera simaruba</i> , Gumbo limbo <i>Clusia rosea</i> , Pitchapple <i>Piscidia piscipula</i> , Jamaican dogwood	<i>Cassia fistula</i> , Golden shower <i>Cassia javanica</i> , Apple blossom <i>Ficus elastica</i> , Rubber tree <i>Ficus lyrata</i> , Fiddleleaf fig
<i>Jasminum dichotomum</i>	Gold coast jasmine	<i>Ernodea littoralis</i> , Beach creeper <i>Hymenocallis latifolia</i> , Mangrove spiderlily, Perfumed spiderlily <i>Mimosa strigillosa</i> , Powderpuff <i>Stachytarpheta jamaicensis</i> , Blue porterweed	<i>Jasminum laurifolium</i> var. <i>laurifolium</i> (syn. <i>J. nitidum</i>), Shining jasmine, Star jasmine <i>Jasminum multiflorum</i> , Downy jasmine <i>Solandra grandiflora</i> , Showy chalicevine, Solandra
<i>Lantana camara</i>	Lantana	<i>Byrsonima lucida</i> , Locustberry <i>Cordia globosa</i> , Butterfly sage, Curacao bush <i>Hamelia patens</i> , Firebush <i>Lantana involucrata</i> , Wild sage <i>Lycium carolinianum</i> , Christmasberry <i>Salvia coccinea</i> , Tropical sage <i>Senna ligustrina</i> (syn. <i>Cassia bahamensis</i>), Bahama cassia <i>Sophora tomentosa</i> var. <i>truncata</i> , Yellow necklacepod <i>Stachytarpheta jamaicensis</i> , Blue porterweed <i>Viburnum obovatum</i> , Walter's viburnum	<i>Lagerstroemia</i> spp., Crape myrtle (dwarf forms) <i>Lantana camara</i> T2 ^x , T2 lantana (sterile) <i>Lantana camara</i> T3 ^x , T3 lantana (sterile) <i>Lantana camara</i> T4 ^x , T4 lantana (sterile) <i>Lantana camara</i> T9 ^x , T9 lantana (sterile) <i>Lantana montevidensis</i> , Trailing lantana <i>Rosa</i> spp., Rose
<i>Lonicera japonica</i>	Japanese honeysuckle	<i>Campsis radicans</i> , Trumpet creeper <i>Lonicera sempervirens</i> , Coral honeysuckle <i>Symphotrichum carolinianum</i> (syn. <i>Aster carolinianus</i>), Climbing aster	<i>Trachelosperum jasminoides</i> , Confederate jasmine See <i>Flowering Vines for Florida</i> (http://edis.ifas.ufl.edu/mg097) for additional vines
<i>Melaleuca quinquenervia</i>	Melaleuca	<i>Annona glabra</i> , Pond apple <i>Conocarpus erectus</i> var. <i>sericeus</i> , Silver buttonwood <i>Conocarpus erectus</i> , Buttonwood <i>Magnolia virginiana</i> , Sweet bay <i>Simarouba glauca</i> , Paradisetree	<i>Callistemon rigidus</i> , Erect bottlebrush <i>Callistemon viminalis</i> , Weeping bottlebrush <i>Podocarpus macrophyllus</i> , Podocarpus, Japanese yew
<i>Psidium cattleianum</i>	Strawberry guava, Cattley guava	<i>Acacia choriophylla</i> , Cinnecord <i>Annona glabra</i> , Pond apple <i>Bourreria succulenta</i> , Bahama strongbark <i>Calyptanthus pallens</i> , Spicewood <i>Canella winterana</i> , Cinnamon bark <i>Capparis cynophallophora</i> (syn. <i>Cynophalla flexuosa</i> , syn. <i>Capparis flexuosa</i>), Jamaican Caper <i>Citharexylum spinosum</i> , Florida fiddlewood <i>Coccoloba diversifolia</i> , Pigeon plum <i>Erythrina herbacea</i> , Coralbean <i>Guaiaacum sanctum</i> , Lignumvitae <i>Guapira discolor</i> , Blolly <i>Ilex cassine</i> , Dahoon holly <i>Myrcianthes fragrans</i> , Simpson's stopper <i>Sambucus nigra</i> subsp. <i>canadensis</i> , Elderberry <i>Simarouba glauca</i> , Paradisetree	<i>Lagerstroemia</i> spp., Crape myrtle <i>Macadamia integrifolia</i> , Macadamia nut <i>Noronhia emarginata</i> , Madagascar olive <i>Pimenta dioica</i> , Allspice tree <i>Pimenta racemosa</i> , Bay rum tree
<i>Ruellia simplex</i> (syn. <i>R. brittoniana</i>)	Mexican petunia	<i>Crinum americanum</i> , Seven-sisters, String-lily <i>Stachytarpheta jamaicensis</i> , Blue porterweed	<i>Bougainvillea</i> 'Helen Johnson', 'Helen Johnson' dwarf bougainvillea <i>Ixora coccinea</i> , Flame of the woods <i>Ruellia simplex</i> 'Mayan Purple' ^x , 'Mayan Purple' Mexican petunia <i>Ruellia simplex</i> 'Mayan White' ^x , 'Mayan White' Mexican petunia <i>Russelia equisetiformis</i> , Firecracker plant

Scientific Name	Common Name	Native substitute	Non-native, non-invasive substitute ²
<i>Sapium sebiferum</i>	Chinese tallow tree, Popcorn tree	<i>Acer rubrum</i> , Red maple <i>Bourreria succulenta</i> , Bahama strongbark <i>Conocarpus erectus</i> var. <i>sericeus</i> , Silver buttonwood <i>Conocarpus erectus</i> , Buttonwood <i>Guapira discolor</i> , Blolly <i>Liquidambar styraciflua</i> , Sweetgum <i>Platanus occidentalis</i> , Sycamore <i>Sapindus saponaria</i> , Soapberry <i>Simarouba glauca</i> , Paradisetree	<i>Jacaranda mimosifolia</i> , Jacaranda <i>Lagerstroemia</i> spp., Crape myrtle <i>Peltophorum dubium</i> , Yellow Poinciana
<i>Scaevola taccada</i> var. <i>sericea</i>	Beach naupaka	<i>Argusia gnaphalodes</i> , Sea lavender <i>Chrysobalanus icaco</i> 'Horizontal', 'Horizontal' Coco plum <i>Genipa clusiifolia</i> , Sevenyear apple <i>Scaevola plumieri</i> , Inkberry <i>Sophora tomentosa</i> var. <i>truncata</i> , Yellow necklacepod <i>Suriana maritima</i> , Bay cedar <i>Yucca aloifolia</i> , Spanish bayonet	<i>Carissa macrocarpa</i> , Dwarf natal plum, Carissa <i>Pittosporum tobira</i> , Pittosporum
<i>Schefflera actinophylla</i>	Schefflera, Umbrella tree	<i>Canella winterana</i> , Cinnamon Bark <i>Guapira discolor</i> , Blolly <i>Simarouba glauca</i> , Paradisetree	<i>Beaucarnea recurvata</i> , Ponytail palm <i>Pandanus utilis</i> , Screw pine <i>Ravenala madagascariensis</i> , Travelers palm <i>Strelitzia nicolai</i> , White bird of paradise
<i>Schinus terebinthifolius</i>	Brazilian pepper	<i>Ardisia escallonioides</i> , Marlberry <i>Calyptanthus pallens</i> , Spicewood <i>Citharexylum spinosum</i> , Fiddlewood <i>Erythrina herbacea</i> , Coralbean <i>Forestiera segregata</i> , Florida swampprivet <i>Hamelia patens</i> , Firebush <i>Ilex cassine</i> , Dahoon holly <i>Ilex vomitoria</i> , Yaupon holly <i>Myrcianthes fragrans</i> , Simpson's stopper <i>Myrica cerifera</i> , Wax myrtle <i>Myrsine cubana</i> , Myrsine <i>Psychotria nervosa</i> , Wild coffee <i>Sambucus nigra</i> subsp. <i>canadensis</i> , Elderberry <i>Tetrazygia bicolor</i> , Florida tetrazygia <i>Viburnum obovatum</i> , Walter's viburnum	<i>Viburnum odoratissimum</i> , Sweet viburnum <i>Viburnum odoratissimum</i> var. <i>awabuki</i> , Awabuki viburnum <i>Viburnum suspensum</i> , Sandankwa viburnum
<i>Senna pendula</i> var. <i>glabrata</i>	Christmas senna, Climbing cassia	<i>Guaiacum sanctum</i> , Lignumvitae <i>Sambucus nigra</i> subsp. <i>canadensis</i> , Elderberry <i>Senna ligustrina</i> (syn. <i>Cassia bahamensis</i>), Bahama cassia <i>Senna mexicana</i> var. <i>chapmanii</i> , Chapman's senna <i>Sophora tomentosa</i> var. <i>truncata</i> , Yellow necklacepod	<i>Senna polyphylla</i> , Desert cassia <i>Senna surattensis</i> , Glaucous cassia <i>Tabernaemontana divaricate</i> , Crepe jasmine
<i>Sphagneticola trilobata</i> (<i>Wedelia trilobata</i>)	Wedelia	<i>Ernodea littoralis</i> , Beach creeper <i>Helianthus debilis</i> , Dune sunflower <i>Hymenocallis latifolia</i> , Mangrove spiderlily, Perfumed spiderlily <i>Mimosa strigillosa</i> , Powderpuff <i>Stachytarpheta jamaicensis</i> , Blue porterweed <i>Zamia pumila</i> , Coontie	<i>Arachis glabrata</i> , Rhizoma perennial peanut <i>Bougainvillea</i> 'Helen Johnson', 'Helen Johnson' dwarf bougainvillea <i>Juniperus chinensis</i> 'Parsonii', Parson's juniper <i>Trachelospermum asiaticum</i> , Asiatic jasmine, Yellow star jasmine <i>Zamia furfuracea</i> ³ , Cardboard palm

Scientific Name	Common Name	Native substitute	Non-native, non-invasive substitute ²
<i>Syzygium cumini</i>	Java plum	<i>Bursera simaruba</i> , Gumbo limbo <i>Ficus aurea</i> , Strangler fig <i>Morus rubra</i> , Red mulberry <i>Quercus laurifolia</i> , Laurel oak <i>Quercus virginiana</i> , Live oak <i>Sideroxylon foetidissimum</i> , False mastic <i>Swietenia mahagoni</i> , West Indian mahogany	<i>Azadirachta indica</i> , Neem <i>Ficus elastica</i> , Rubber tree <i>Ficus lyrata</i> , Fiddleleaf fig <i>Ficus rubiginosa</i> , Rusty fig <i>Peltophorum dubium</i> , Yellow Poinciana <i>Terminalia buceras</i> ³ (syn. <i>Bucida buceras</i>), Black olive

²As listed by the University of Florida/IFAS Status Assessment. The initial component of the IFAS Assessment of Non-Native Plants in Florida's Natural Areas (IFAS Invasive Plant Working Group 2008) is the Status Assessment (Fox et al. 2009), in which evidence is reviewed concerning ecological impacts, potential for expansion, difficulty of management, and economic value of non-native species.

³Caution: may be recommended for landscape use, but manage to prevent escape.

⁴Non-invasive cultivar derived from the invasive species as determined by the University of Florida/IFAS Intraspecific Taxon Protocol (Fox et al. 2007). The Status Assessment is generally applied at the species level. It is only applied independently to infraspecific taxa (e.g., cultivars, varieties, or subspecies) if these taxa can be clearly distinguished in the field and are not likely to revert.

References

Fox, A. M., D. R. Gordon, J. A. Dusky, L. Tyson, and R. K. Stocker. 2009. *IFAS Assessment of Non-Native Plants in Florida's Natural Areas: Status Assessment*. Gainesville: University of Florida Institute of Food and Agricultural Sciences. http://plants.ifas.ufl.edu/assessment/pdfs/Final_PDF_SS-AGR-225_04.30.09.pdf

Fox, A. M., D. R. Gordon, C. Gantz, G. W. Knox, and S. B. Wilson. 2007. *IFAS Assessment: Intraspecific Taxon Protocol*. Gainesville: University of Florida Institute of Food and Agricultural Sciences. http://plants.ifas.ufl.edu/assessment/intraspecific_taxon_protocol.html

IFAS Invasive Plant Working Group. 2008. *IFAS Assessment of Non-Native Plants in Florida's Natural Areas*. Gainesville: University of Florida Institute of Food and Agricultural Sciences. <http://plants.ifas.ufl.edu/assessment/>

Langeland, K. A. 1998, rev. 2012. "Help protect Florida's natural areas from non-native invasive plants." Circular1204. Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. February 1998. Revised May 2012. <http://edis.ifas.ufl.edu/ag108>

Wilson, S. B., J. A. Gersony, K. L. Nolan, J. C. Broda, and E. A. Skvarch, Jr. 2013. "Recommended Native Landscape Plants for Florida's Treasure Coast." ENH1082. Gainesville: University of Florida Institute of Food and Agricultural Sciences. March 2013. <http://edis.ifas.ufl.edu/ep348>