

Ardisia japonica – Established and Spreading in the Wild in Florida

by Robert Simons

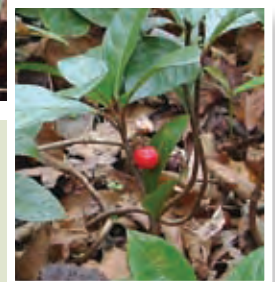
The genus *Ardisia* is well known to Florida natural area land managers. One native species (*A. escallonioides*) is common in southern and central peninsular Florida, and two introduced species have been designated as FLEPPC Category I invasive plant species (*A. elliptica* and *A. crenata*).

Another species, *Ardisia japonica* (often called Japanese ardisia in the horticultural trade) can be purchased from nurseries scattered about the United States, and has been cultivated locally (Alachua County, Florida) at San Felasco Nursery and at Kanapaha Botanical Garden. It has never previously been reported to escape from cultivation and establish populations in the wild.

On November 1, 2008, Cara Gwaltney (Florida Park Service District 2) and I discovered three patches of *Ardisia japonica* in San Felasco Hammock Preserve State Park and had samples identified by Kent Perkins at the University of Florida herbarium. The patches ranged from approximately 6 meters to 60 meters in diameter and were roughly circular in shape. They were not connected to or near each other or any other populations of the species, and thus appeared to have either originated from seed or to have been planted. San Felasco Hammock Preserve State Park is located less than one mile east of I-75. San Felasco Nursery was located for many years about one mile east of this infestation. Kanapaha Botanical Garden is more than 4 miles distant. This species is still grown and sold at the nursery, which has now moved to a location about one mile west of I-75, but the species no longer occurs at Kanapaha Botanical Garden, having been eliminated, according to director Don Goodman, because it appeared to be too invasive to be safely grown there.

Ardisia japonica has also been found in natural areas within the city limits of Gainesville. Two infestations were discovered by Geoff Parks in mature upland hardwood forest south of the Loblolly Nature Center on the west side of the Hogtown Creek floodplain in Gainesville, Florida, and have been measured and recorded using GPS coordinates.

The habitat that has been invaded in all cases is upland southern hardwood forest on fertile soil. The dominant trees are *Carya glabra*, *Liquidambar styraciflua*, *Quercus michauxii*, *Quercus laurifolia/hemispherica*, *Quercus nigra*, *Ulmus alata*, *Celtis laevigata*,



The appearance of *Ardisia japonica* is distinct from other species of *Ardisia* that are reported to occur in the wild in Florida. *Ardisia japonica* spreads as a cluster of low, slender stems less than one foot tall that have no branches above ground. It has dull, rough-textured leaves. The berries, which are red, occur singly next to the stem, and are usually not abundant. The other three species (*A. elliptica*, *A. crenata*, and *A. escallonioides*) grow much taller (over waist high in the case of *Ardisia crenata* and over head high for the other two species) with thicker stems that have branches. They have smooth, leathery, simple leaves, and have clusters of berries held out away from the main stem. The fruit of *A. escallonioides* and *A. elliptica* turns black when ripe.

Fraxinus americana, *Pinus glabra*, *Magnolia grandiflora*, and *Ostrya virginiana*. Common ground cover plants include *Carex* spp., *Thelypteris* spp., *Oplismenus setarius*, *Rivina humilis*, *Viola floridan*, and *Viola walteri*. These sites are some of the best examples of this forest type in Florida. The San Felasco Hammock site has never been

cleared, farmed, or otherwise highly disturbed. Past disturbances include winds of near hurricane strength in September of 2004 from two hurricanes that passed nearby, and selective logging prior to 1964.

Most of San Felasco Hammock is relatively free of invasive exotic plants. However, the 300 acre area south of Millhopper Road has a significant population of *Ardisia crenata* (coral ardisia). In addition, along the east boundary adjacent to a subdivision, *Tradescantia fluminensis* (small-leaf spiderwort) and *Trachelospermum jasminoides* (Confederate jasmine) are invading by spreading vegetatively from the home sites. It was along this east boundary, while in the process of spraying the other exotic plants, that the *Ardisia japonica* populations were found.

The patches of *Ardisia japonica* range from not very dense in dense shade to very dense in partial shade. The height of the plants is 1 to 3 decimeters. As of May 1, 2009, twelve separate patches have been located, measured, and recorded with GPS coordinates. Based on the random and wide scattering of these patches, it appears that most of them – and in my opinion, probably all – have originated by seed. Fruits are being sparingly produced in the San Felasco populations, and the patches are of various sizes, indicating a wide range of estimated time of origin of the individual patches. The patches appear to be healthy and are spreading vegetatively,

eliminating the native ground cover plants as they spread.

According to various internet sources, *Ardisia japonica* grows throughout southern states, from South Carolina to Texas. Land managers in this region – as well as those in northern Florida – should be aware of this plant. The two current FLEPPC Category I *Ardisia* species have become major problems in Florida, and are not easy to control. Let's hope that *Ardisia japonica* does not follow in their path.

All photos by Erika Simons. Photos show the form of the plant and its underground stem, the general appearance of a patch, and the plants with fruit.



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