

AN EXOTIC PLANT PEST

by Taylor R. Alexander

The ecosystems of Florida have been drastically changed since 1900. Drainage, fires, lumbering, land clearing, and water management have modified every habitat. These stressed habitats have proved vulnerable to invasion by numerous exotic plants and animals. Two independent workers, Dr. Austin (1) of Florida Atlantic University and Dr. Morton (2) of University of Miami have published lists of exotic plant species and both lists number in the order of 200 species. Some of these have proven to be overwhelming competitors for the native flora. They dominate the habitat by killing off the natives and suppressing their reproduction. Three well known examples from the southern part of the state are Australian Pine, Cajeput, and Brazilian Pepper. The last had its population explosion after the mid-1950s and now is a problem over much of the peninsula.

Downy rosemyrtle (*Rhodomyrtus tomentosa*) is becoming another one of these pests.



Downy Rosemyrtle
Drawing by Edith L. Alexander

Downy rosemyrtle was first introduced from China in 1925 as an ornamental shrub at Chapman Field, Miami. It did not thrive on the local limestone soil. However, it has prospered from later introduction on the

more acid sands and organic soils elsewhere in the peninsula. The **Miami Daily News** of August 19, 1951, carried an article by A.H. Andrews of Estero headed "Downy Myrtle Fruit Tree Isn't Hard to Grow Here." He stated that "While introduced into Florida some years ago, it is not generally grown in the State, and according to Reasoner [a pioneer nurseryman], it grows as far north as Putnam County.... It succeeds remarkably at Bradenton where it has almost become naturalized... In Bonita Springs it has gone native by the hundreds in an open field on the Codwise grove property." Like Brazilian Pepper, downy rosemyrtle seems to be following a common pattern: escape from cultivation, local build-up of population, and then a rapid spread into the wild. It is worthy of note that downy rosemyrtle had become a noxious pest in Hawaii by 1954.

Downy rosemyrtle is an attractive ornamental at all stages, vegetatively and in flower and fruit. It is evergreen with opposite leaves that are up to four inches long and with grayish hairs on the underside. In flower, it is covered with pink flowers much like apple blossoms. The fruit, up to one inch long, is guava-like (same family as guava), purple, and full of small disc-like seeds.

Pest exotics seem to have five things in common: desired by man for ornamental or food purposes; numerous seeds that are wind or animal spread; wide tolerance for soil conditions; fire and frost resistant; few pests and diseases; and a tremendous ability to out-grow natives. Downy rosemyrtle fits the pattern, although it seems to be restricted by limestone and brackish soils. Nevertheless, much of peninsula Florida is available for successful invasion. Near Naples there are areas of pinelands, both sand pine and flatwood types, that are totally over-run — even to smothering out saw palmetto. Cypress stands nearby are having their native shrub and herb understory shaded out by ten foot high thickets of myrtle.

Downy rosemyrtle is now widespread across the state. One can see it around the African Safari property in Naples, east of Naples along the south side of U.S. 41, along U.S. 17 south of

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the junction with S.R. 74 toward Punta Gorda, around Estero, on the north shore of Lake Placid, in Delray Beach at Military Trail and Oak Hill road, and near the beach in Palm Beach County. It is also reported in some State Parks: Highlands Hammock near Sebring and Jonathan Dickinson near Hobe Sound. Other reports place it near Orlando, Bradenton, Oneco, Bonita Springs and, as quoted earlier, it is growing as far north as Putnam County.

It is my opinion that this plant is probably at a stage of population explosion comparable to what one would have seen for Brazilian Pepper in the mid-1950s. Unfortunately, there was no concern about Brazilian Pepper then, and I know of no accurate history detailing exactly how Brazilian Pepper spread so quickly and vastly. I do suspect winter foraging robins are the prime vector. Animal spread of downy rosemyrtle is also suspected as well as local seeding and root sprouting. It is further my opinion that there is a chance that downy rosemyrtle could be eliminated locally and its spread suppressed, if more action is taken in the near future and existing control programs are supported.

Those of us interested in the survival of native plants currently endangered, rare, or otherwise, and the plant communities at large, can help by reporting the locations of new colonies when seen in the wild and especially by supporting wildlife management personnel at the county, state, and federal levels. They need encouragement to establish exotic plant control programs where none exist, and support for the ones that do exist. Support can take the form of taxpayer pressure at the administrative and budget level. And by all means, the programs must have continuity to be successful. Exotic plant control must become a part of our environmental management thinking, if our native plant stands are going to survive in anything like present condition. Keep in mind that downy rosemyrtle may have the capacity to invade a greater part of the state than the well known big three: Australian Pine, Cajeput, and Brazilian Pepper. All of Florida seems to be vulnerable for exotic plant invasion and their control programs need state-wide support and constant vigil.

1. Austin, Daniel F.

Exotic plants and their effects in