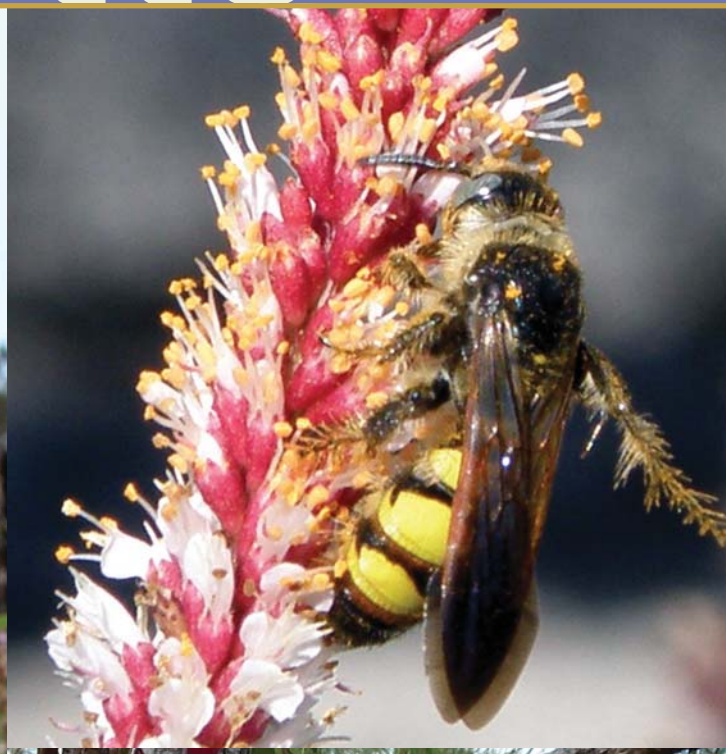
Volume 26: Number 1 > Winter 2009

The Quarterly Journal of the Florida Native Plant Society

# Palmetto



Pine Rockland Corridors • New Hope for Florida Ziziphus • Cinnecord – Native or Not?

# Tamarindillo or Cinnecord *Acacia choriophylla* (LEGUMINOSAE)

**by Daniel B. Ward**

The Tamarindillo or Cinnecord (*Acacia choriophylla* Benth.) has been known to occur in Florida ever since its discovery on Key Largo by Taylor R. Alexander in 1967 (reported in 1968). By some it has been assumed to be native, by others it has been dismissed as an introduction. The determination as to its correct status rests in part on the known facts of its distribution, and in part on one's interpretation of these facts.

*Acacia choriophylla* is a small tree, without spines. The leaves are twice-compound, with each leaf having 3-5 pairs of pinnae. The leaflets are entire, elliptic, and rather leathery. Flowers are yellow and are produced in small dense spherical heads. Fruits are flattened woody pods, each bearing 2-3 seeds. (Illustration - Ward, 1979.) In the Bahamas, its natural home, it is common ("almost ubiquitous" – Correll & Correll, 1982), often found aggressively invading newly exposed soils and construction sites.

A plant defined as "native" must be one that is believed to have been present in Florida prior to the dramatic biogeographic (and cultural!) shock of European incursion (Ward, 2003). Though this point of demarcation need not be defined precisely in terms of an exact year, no other event in the state's history is as feasible in dividing the state's flora into the useful categories of native vs. introduced.

At first glance, a plant unknown in Florida prior to Alexander's 1967 discovery may be assumed to be new to the state, and thus an introduction. But on reflection, the considerable number of new species encountered in recent years must be formed both of species newly arrived, and of species long present but previously overlooked. The task here is to determine to which of these categories *Acacia choriophylla* belongs.

The legal status of *Acacia choriophylla* is unambiguous. On the basis of Alexander's report, in 1978 it was assigned the rank of "endangered" by the Florida Committee on Rare and Endangered Plants and Animals (Ward, 1979). This ranking was accepted in 1980 by the then-newly-formed

*Acacia choriophylla* – Photo by T. Ann Williams

Endangered Plant Advisory Council (EPAC) of the Florida Department of Agriculture and, through the Department's rule-making power, now has the protection of law.

Florida Statute 581.185 (the "Rare Plant Law") specifies that only native plants may be considered for listing. The Council follows the policy of periodically reviewing its rankings, and has twice (in 1992 and again in 1999) re-examined the nativity of *Acacia choriophylla*. Though strong arguments have been made to the Council to reverse

its previous findings, the Department has not acted in this regard. *Acacia choriophylla* thus is legally considered a native species.

The biological basis for treating the plant as native is far less clear. Alexander (1968) found only a single plant on north Key Largo, a tree already windthrown but with vigorous erect shoots and a main trunk 12 to 16 cm. in diameter. The site was remote, originally selected for study because of its "apparent freedom from interference by man in recent times." This individual was destroyed by fire in 1975. In 1977 Alexander found a second tree in the same area, but this too apparently disappeared soon after. About 1975 Ann Williams found a 10 to 12 ft. tree on a Sugarloaf Key canal spoilbank, and a second one in an adjacent yard. In 1981 George Avery was shown what may have been the tree known to Williams; it was then 3 m. tall, with a trunk 31 cm. in diameter (could Avery have meant "circumference"?). Soon after Avery's observation the tree was removed by a developer. At least one new observation was of a direct import; a large tree in a north Key Largo dooryard originated with seed brought from the Bahamas about 1960, as reported by its owner to Roger Hammer. Other trees, outside of cultivation, some described as "large," have since been encountered at Cape Florida State Park on Key Biscayne, at the Deering Estate on Cutler Ridge, and on West Butternut Key in Florida Bay, in Little Hamaka Park, Key West. Small plants have been seen at various locations on Big Pine Key. Most of these different individuals were destroyed by development or by natural forces (Hurricane Andrew in 1992 blew down the Deering Estate and Cape Florida specimens) or simply disappeared. New plants, however, have continued to be found. Yet at no location was there a report of a natural, self-sustaining population.

None of the early observers encountered *Acacia choriophylla* in cultivation. But after the plant was officially designated as "endangered," the Key West Botanical Garden began distribution of seedlings, now grown into small trees throughout South Florida.

It is thus clear that, within the last half century at least, *Acacia choriophylla* repeatedly appears "out in the middle of nowhere" (Ann Williams, pers. comm., Mar 1999), then vanishes without establishing viable populations. This pattern is consistent with a species whose fruits/seeds are capable of surviving water-borne transport (Alexander suggested bird-transport), yet are self-sterile. There is no reason to assume chance introductions from the Bahamas are limited to historic times. The question then arises: Is a plant native if it is repeatedly introduced by natural forces, perhaps over the millennia, even though the recent introductions long post-date European influence? That is, is it necessary if a species is to be considered native, that individuals present today must be the lineal descendants of plants present in the state in pre-Columbian times? Or is it possible for a species to be considered native if the facts of its appearance indicate a natural mode of introduction and probable long-standing presence in the state, though no present individual is of ancient genetic lineage?

Obviously there is no "right" answer. The lack of populations that are self-sustaining through sexual reproduction strongly suggest that individual propagules – viable seeds, presumably – are repeatedly introduced into the state. The absence of the species in cultivation, until recent years at least, excludes domestic plants as a source. The abundance of the plant in the Bahamas and the ease of water-borne transport removes concern for a possible seed reservoir. Yet the clear discontinuity of genetic lines within the state requires a distortion of the standard definition of "native" if this species is so treated.

There is, however, a political aspect to this issue. Though one cannot advocate a dogged adherence to a position that is clearly factually in error, that is not the case here. Indeed a case can be made that the plant is truly native, that surely individuals of the species have been here from time immemorial, and that the probable break in their genetic lines cannot discredit their native status. The plant has been assumed to be native since 1979, has had that imprimatur placed upon it by the State of Florida, and is now distributed and grown under that assumption. The plant in Florida wildlands is indeed rare, the plant in cultivation is distinctive and attractive, and there is naught to be gained by challenging its present status.

I wish to acknowledge Taylor Alexander for his early reports both published and verbal, Ann Williams and especially Roger Hammer for their detailed documentation of distribution within southern Florida, Carol Lippincott for her observations of the plant in the Bahamas, and Richard Abbott for his penetrating comments on the manuscript.

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**The purpose of the Florida Native Plant Society** is to conserve, preserve, and restore the native plants and native plant communities of Florida.

**Official definition of native plant:**
For most purposes, the phrase Florida native plant refers to those species occurring within the state boundaries prior to European contact, according to the best available scientific and historical documentation. More specifically, it includes those species understood as indigenous, occurring in natural associations in habitats that existed prior to significant human impacts and alterations of the landscape.

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