ACACIA AURICULIFORMIS A. CUNN. EX BENTH.

Fabaceae (Leguminosae)/Pea Family

Common Name: Earleaf acacia
Synonymy: None
Origin: Australia, Papua New Guinea, and Indonesia

Botanical Description: Evergreen, unarmed tree to 15 m (50 ft) tall, with compact spread, often multi-stemmed; young growth glaucous. Leaves alternate, simple, reduced to phyllodes (flattened leaf stalks), these blade-like, slightly curved, 11-20 cm (5-8 in) long, with 3-7 main parallel veins and a marginal gland near the base; surfaces dark green. Flowers in loose, yellow-orange spikes at leaf axils or in clusters of spikes at stem tips; flowers mimosa-like, with numerous free stamens. Fruit a flat, oblong pod, twisted at maturity, splitting to reveal flat black seeds attached by orange, string like arils.

Ecological Significance: Introduced to Florida for ornament before 1932 (Gordon and Thomas 1997). Used extensively in street landscaping in southern Florida for many years. Noted as escaping cultivation by Morton (1976, 1985), Austin (1978), and Isely (1990). Now common in disturbed areas, but also has invaded pinelands, scrub, and hammocks in south Florida, with significant populations in many of the globally imperiled pine rocklands of Dade County (M. McMahon, Biological and Environmental Consulting, personal observations). Displacing native vegetation and threatening to shade out rare plants, such as the listed scrub pinweed, *Lechea cernua* Sm., in remnant scrub areas (K. C. Burks, Florida Department of Environmental Protection, personal observations). Adapted to nutrient-poor soils in humid tropics, including areas subject to periodic fires (Shukor 1993, Moran *et al.* 1989, Bowman *et al.* 1990), a description that fits many of Florida's natural habitats.

Distribution: Planted widely in the Old World for pulp and fuelwood, particularly in India and Southeast Asia; undergoing forestry trials in Africa and Central and South America (Pinyopusarerk 1990, Boland *et al.* 1991). In Florida, now reported from over 24 natural areas in Dade, Broward, Palm Beach, Martin, Collier, and Lee counties (EPPC 1996). Naturalized populations documented by herbarium specimens from Monroe, Dade, Palm Beach, Martin, and Collier counties (Wunderlin *et al.* 1995).

RH

Mature pods, leaves

Life History: Grows in zones with average minimum temperatures of -1.2 to -6.6˚C (30 to 20˚F) and above (Broschat and Meerow 1991). Particularly drought resistant, but also tolerates seasonally waterlogged soils; grows in a wide range of soil types and soil pH; and able to withstand competition from cogon grass (see *Imperata cylindrica*) (Boland *et al.* 1991). Aided in drought resistance and low-nutrient tolerance by mycorrhizal and nitrogen-fixing bacterial associations of the roots (Osonubi *et al.* 1991, MacDicken and Brewbaker 1989). Found in its native range from dune ridges to river banks (Boland *et al.* 1991). Flowers in Florida from spring through fall, fruiting prolifically. Seeds dispersed by several bird species, including the introduced European starling (D. F. Austin, Florida Atlantic University, 1997 personal communication). Seed germination hastened by placing seeds in hot ashes (Bailey and Bailey 1947).

AF

Flowers

MB

Sapling in scrub preserve, Palm Beach County