

# DIOSCOREA BULBIFERA L.

Dioscoreaceae/Yam Family

- Common Names:** Air potato, potato yam, air yam  
**Synonymy:** *D. anthropophagum* Chev., *D. hoffa* Cordemoy, *D. sativa* Thunb., *D. sylvestris* de Wild., *Helmia bulbifera* Kunth.  
**Origin:** Tropical Asia

**Botanical Description:** Vigorously twining herbaceous vine, with small or absent underground tubers. Stems to 20 m (66 ft) or more in length, freely branching above; internodes round or slightly angled in cross section, not winged (as in *D. alata*). Aerial tubers (bulbils) freely formed in leaf axils, usually roundish, to 12 cm (5 in) x 10 cm (4 in), with mostly smooth surfaces. Leaves long petioled, alternate; blades to 20 cm (8 in) or more long, broadly heart shaped, with basal lobes usually rounded. Flowers rare (in Florida), small, fragrant, male and female arising from leaf axils on separate plants (i.e., a dioecious species), in panicles or spikes to 11 cm (4 in) long. Fruit a capsule; seeds partially winged.

**NOTE:** May be confused with *D. alata* L. or native wild yams (see note under *D. alata*).

**Ecological Significance:** Listed by Holm *et al.* (1979) as a serious weed in west Polynesia. Introduced to the Americas from Africa during the slave trade (Coursey 1967). Apparently introduced to Florida in 1905 as a USDA sample sent to an Orange County horticulturist, Henry Nehrling, who found that it “soon formed impenetrable masses,” adding that except for kudzu vine, he had “never seen a more aggressive and dangerous vine in Florida” (Morton 1976). Described in 1971 (Long and Lakela) as being grown ornamentally but “an unwanted plant in central and south Florida.” Noted as “becoming extensively naturalized” in 1977 (Ward) and well established in Dade and Broward counties (Austin 1978). By 1982 (Bell and Taylor, Wunderlin), invading a variety of habitats including pinelands and hammocks. Considered “rampant on undeveloped land” in Hillsborough County (Martinez 1993). Can quickly engulf native vegetation, climbing high into mature tree canopies. Produces large numbers of aerial tubers, which accelerate its spread. Reported from natural areas in 23 Florida counties, from Duval County south throughout the peninsula to Collier and Dade counties (EPPC 1996).

KAL



Flowers

**Distribution:** Widely distributed in Asia and Africa in the wild state (Coursey 1967) and widely naturalized elsewhere in the tropics and subtropics, including Central and South America (Schultz 1993). In Florida, herbarium records now reported for naturalized populations in 17 counties, from Jackson and Franklin counties in the Panhandle, and Alachua and Marion counties in the north-central peninsula, south to Dade County (Wunderlin *et al.* 1996).

**Life History:** Has a dormant period (like *D. alata*), even in south Florida, with aerial stems dying back during winter months (Schultz 1993). Aerial tubers considered the main storage organ (Coursey 1967), but underground tubers found in Florida populations, to 25 cm in diameter (Schultz 1993). Tubers known to float, aiding in dispersal (Coursey 1967), but plants slowed in growth under flooded conditions (K. Burks, Florida Department of Environmental Protection, unpublished data). Once thought not to flower in Florida (e.g., Long and Lakela 1971), but flowers observed in north Florida, and flowers and fruits in south Florida (Schultz 1993). Cultivated in Oceania and West Indies, but wild-form tubers usually bitter and often poisonous (Martin 1974).

KAL



**Bulbil**

RH



**Matheson Hammock,  
Miami-Dade County**

KAL



**Rounded stem**