

DIOSCOREA ALATA L.

Dioscoreaceae/Yam Family

- Common Names:** Greater, water, white, or winged yam
Synonymy: *D. atropurpurea* Roxb., *D. purpurea* Roxb., *D. sativa* Del.
Origin: Southeast Asia

Botanical Description: Vigorously twining herbaceous vine, from massive underground tuber. Stems to 10 m (30 ft) or more in length, freely branching above; internodes square in cross section, with corners compressed into “wings,” these often red-purple tinged. Aerial tubers (bulbils) formed in leaf axils (not as freely as in *D. bulbifera*), elongate, to 10 cm (4 in) x 3 cm (1.2 in), with rough, bumpy surfaces. Leaves long petioled, opposite (often with only 1 leaf persistent); blades to 20 cm (8 in) or more long, narrowly heart shaped, with basal lobes often angular. Flowers small, occasional, male and female arising from leaf axils on separate plants (i.e., a dioecious species), male flowers in panicles to 30 cm (1 ft) long, female flowers in smaller spikes. Fruit a 3-parted capsule; seeds winged.

NOTE: May be confused with *D. bulbifera* L., which has small or absent underground tubers, more numerous aerial tubers, and alternate leaves (see next pages). Native wild yams, *D. floridana* Bartl. and *D. quarternata* (Walt.) Gmel., infrequent in hammocks and floodplains of north and west Florida, never forming aerial tubers, leaf blades rarely to 15 cm (6 in) long.

Ecological Significance: Introduced to the Americas by Portuguese and Spanish traders in the 1500s (Coursey 1967). Apparently a recent introduction to Florida, not reported in earlier floristic works (Small 1933, Ward 1968). Noted by Ward (1977) as cultivated and sparingly escaped in Escambia, Leon, Alachua, Lee, and Dade counties, and elsewhere. Noted by Wunderlin (1982) as rare in scattered localities of central Florida and by Clewell (1985) as “introduced for ornament” and escaping from cultivation. Naturalized populations increasing in number and size in north Florida, with some stands forming blankets of shingled leaves over native vegetation and able to cover even mature trees (*D.* Ward, University of Florida, 1997 personal communication). So far reported as disrupting natural-area plant communities, particularly coastal hammocks, in south Florida: Broward, Dade, and Lee counties (EPPC 1996).

Distribution: Cultivated throughout the tropics for its edible underground tuber, and

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Winged stem

WINGED YAM

unknown in the wild state (Coursey 1967, Purseglove 1975). In Florida, herbarium records now reported for naturalized populations in 7 counties: Escambia, Gadsden, Leon, Levy, Charlotte, Lee, and Dade (Wunderlin *et al.* 1996).

Life History: Normally grows for 8-10 months, then goes dormant for 3-4 months, with aerial stems dying back during dormancy (Martin and Rhodes 1977). Grown commercially as far north as southern Japan, a latitude similar to south Georgia's (Okagami 1986). Said to survive winters in France if planted deep enough (Coursey 1967). Fertile seeds rarely produced; spread by aerial tubers and fragments of underground tuber (Coursey 1967).

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Capsules

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**In disturbed area,
University of Florida**

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Bulbils