

PISTIA STRATIOTES L.

Araceae/Arum Family

Common Name: Waterlettuce
Synonymy: None
Origin: Africa or South America

Botanical Description: Floating herb in rosettes of gray-green leaves, rosettes occurring singly or connected to others by short stolons. Roots numerous, feathery. Leaves often spongy near base, densely soft pubescent with obvious parallel veins, slightly broader than long, widest at apex, to 15 cm (6 in) long. Flowers inconspicuous, clustered on small fleshy stalk nearly hidden in leaf axils, with single female flower below and whorl of male flowers above. Fruit arising from female flower as a many-seeded green berry.

Ecological Significance: May have been introduced to North America by natural means or by humans (Stoddard 1989). Seen as early as 1774 by William Bartram, in “vast quantities ... several miles in length, and in some places a quarter of a mile in breadth” in the St. Johns River (Van Doren 1928). Has been suggested that trade via St. Augustine, founded in 1565, may have provided an early avenue for introduction into the St. Johns watershed (Stuckey and Les 1984). Capable of forming vast mats that disrupt submersed plant and animal communities and interfere with water movement and navigation (Bruner 1982, Attionu 1976, Sharma 1984, Holm *et al.* 1977); also serves as host for at least 2 genera of mosquitoes (Holm *et al.* 1977). Considered a serious weed in Ceylon, Ghana, Indonesia, and Thailand and at least present as a weed in 40 other countries (Holm *et al.* 1979). A target of management research and control in Florida for at least 2 decades.



Flowering spathe

Distribution: Now one of the most widely distributed hydrophytes in the tropics (Holm *et al.* 1977). In North America, occurs in peninsular Florida and locally westward to Texas (Godfrey and Wooten 1979). Also found persisting in coastal South Carolina (Nelson 1993). Occurred in 68 public water bodies in Florida by 1982 and in 128 water bodies by 1989, but total abundance reduced by half over same time period as a result of a statewide management program (Schardt and Schmitz 1990).

Life History: Reproduces rapidly by vegetative offshoots formed on short, brittle stolons. Varies seasonally in density of rosettes, from less than 100 to over 1,000 per m² in south Florida (Dewald and Lounibos 1990). Seed production, once thought not to occur in North America, now considered important to reproduction and dispersal (Dray and Center 1989). Not cold tolerant (Holm *et al.* 1977). Can survive for extended periods of time on moist muck, sandbars, and banks (Holm *et al.* 1977).

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Leaf rosette