

# Aristolochia littoralis Parodi



**Common Name:** Elegant Dutchman's pipe; calico flower; patito

**Synonymy:** *A. elegans* Mast.

**Origin:** South America

**Botanical Description:** Glabrous, perennial, herbaceous vine (bases often woody) with distinct ear- or kidney-shaped, leafy appendages (pseudo-stipules) clasping around the nodes; yellowish sap; bark or stems often exude a harsh, acetone-like scent when scratched. Leaves alternate, thin, membranous, to 10 cm (4 in) long and 12 cm (5 in) wide, heart shaped, kidney shaped, or broadly ovate, glabrous above, glaucous below, 5 evident veins arising from point of petiole attachment, smell fetid when crushed; margins entire; petioles 2-8 cm (1-3 in) long. Flowers large, dramatic, solitary in leaf axils; calyx fused into long, curved, pipe-shaped tube; tube swollen into a pouch at junction with flower stalk, narrowing to thin neck and then abruptly flaring to 6-11 cm (2-4.5 in) across. Tube and neck yellowish green with dark purple spots; flared portion of corolla purplish black with yellowish green streaks. Fruit a ribbed, cylindrical, dark brown capsule, splitting at maturity (opening like a parachute), to 6 cm (2.3 in) long and 3 cm (1.1 in) wide.

**Ecological Significance:** Widely cultivated throughout the world tropics for its spectacular flowers and introduced to Florida as an ornamental before 1893 (Austin 1999a). Collected in Florida as early as 1936 (FLAS) from various habitats including rockland hammocks, along marsh edges, as an adventive in landscaping, and climbing trees in abandoned citrus groves. Occurs in Silver Palm Hammock, a rockland hammock in Miami-Dade County, and is also found in disturbed upland areas in south Florida (Gann et al. 2001). Found in moist and dry lowland urban and disturbed areas and open forests in Hawaii (USGS 2002, Imada et al. 2000). Prohibited in Western Australia (Randall 2002), and in Queensland it invades rainforest edges and gaps, especially along creeks or in moist gullies, where it "smothers remnant rainforest species with masses of foliage, thereby degrading forest structure and reducing

species diversity" (McClymont 1998). In Australia, it "attracts egg laying by the endangered Richmond birdwing butterflies, *Ornithoptera richmondia*, but the larvae are poisoned when they feed on its leaves. The introduction of this vine has been a major disaster, speeding the extinction process particularly in National Parks and forested areas" (Sands et al. 1997). May also be toxic to other feeding insects (Caasi and Morallo 1999). In the Galapagos Islands, it forms mats on the ground, is shade tolerant, and climbs to 10 m (33 ft) into native trees (C. Buddenhagen, Estacion Cientifica Charles Darwin, Puerto Ayora, Santa Cruz, Galapagos, Ecuador, 2002 pers. comm.). A special effect weed in South Africa due to its poisonous and competitive nature, it invades plantations and riverine forests (Henderson 2001). Contains aristolochic acid and other alkaloids (Zomlefer 1994) that can be highly toxic in large doses.

**Distribution:** Herbarium specimens documented from Alachua, Broward, Hardee, Highlands, Hillsborough, Lake, Marion, Orange, Pasco, Polk, Seminole, and Volusia counties (Wunderlin and Hansen 2002). Naturalized in Hawaii, Puerto Rico, and the Virgin Islands (USDA NRCS 2002, Liogier and Martorell 2000), throughout the Caribbean islands, Central America (Pfeifer 1966, Howard 1988), Tonga (Yuncker 1959), Guam (Stone 1970), New Caledonia (Meyer 2000), and in warmer areas throughout Australia (Csurhes and Edwards 1998). Targeted for removal from commercial production by FNGA/TBWG growers associations (FNGA 2001).

**Life History:** Tolerates temperatures to -3°C (25°F), partial shade to full sun, and is readily propagated from cuttings and seed. The tops will be killed to the ground in freezing weather but will return in the spring. Seeds are wind dispersed and germinate readily in cultivation (USGS 2002). "Volunteer" seedling plants are often found near mature vines. Produces very dense foliage (Floridata 2002). Florida native Polydamas Swallowtail butterfly, *Battus polydamas lucayus*, larvae commonly use them for hosts, often defoliating vines and eating the flowers (Hall and Butler 1998).