Thunbergia alata

Black-eye Susan vine
Acanthaceae

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OVERVIEW

T. alata (black-eye Susan vine), native to tropical eastern Africa, is a sprawling vine that is often cultivated for its attractive flowers. It is widely cultivated and naturalized in other tropical regions of the world. In Hawai'i, *T. alata* was first reported from O'ahu in 1864-1865 and is now known from at least Kaua'i, Moloka'i, East Maui, and in Hilo and Volcano Village, Hawai'i (Wagner et al. 1999). On Maui, this plant is also popular in the landscape and is cultivated and naturalized from Ha'iku to Keokea, at approximately 300-4,000 ft (91-1,219 m) elevation, in relatively moist and dry sites. It is probably too widespread for island wide control. It could be controlled if found in natural areas.

TAXONOMY

Family: Acanthaceae (Acanthus family) (Wagner et al. 1999).
Latin name: *Thunbergia alata* Bojer (Wagner et al. 1999).
Synonyms: None known.
Common names: Black-eye Susan vine (Wagner et al. 1999).
Taxonomic notes: The genus *Thunbergia* is made up of about 200 species from warm areas of central and southern Africa, Madagascar, and Asia (Wagner et al. 1999).
Nomenclature: The genus is named after the Swedish botanist and explorer, Carl Peter Thunberg (1743-1822) (Turner and Wasson 1997).
Related species in Hawai'i: Several cultivars of *T. alata* exist including "Alba" with white flowers and dark purple-brown centers, "Bakeri" with snow-white flowers and white centers, and "Suzie hybrids" with orange-yellow or white flowers with dark centers (Brickell and Zuk 1997). Numerous other *Thunbergia* species are cultivated in Hawai'i and some are naturalized. Other naturalized species include *T. fragrans* (sweet clock vine), *T. grandiflora* (blue trumpet vine), and *T. laurifolia* (purple allamanda). A few *Thunbergia* species that are cultivated but not yet naturalized are *T. erecta* (king's mantle) and *T. mysorensis* (mysore clock vine).

DESCRIPTION

"Vines. Leaves deltate to deltate-hastate, 4.5-7.5 cm long, 1.8-3.5 cm wide, margins undulate, petioles winged, 2-6.5 cm long. Flowers solitary on long peduncles, each one subtended by 2 ovate or deltate bracts 15-20 mm long; calyx lobes ca. 12; corolla orange or yellow with a dark purple throat, 1.5-2 cm long." (Wagner et al. 1999).

BIOLOGY & ECOLOGY

Cultivation: *T. alata* is cultivated for its attractive flowers and is sometimes grown on trellises and fences, in hanging baskets, and as a groundcover (Whistler 2000).

Invasiveness: *T. alata* is widely naturalized in tropical regions where it is cultivated (Wagner et al. 1999). In Hawai'i, *T. alata* has an aggressive habit, climbs on other vegetation, and forms a dense blanket over areas. *T.alata* is also considered invasive in Australia (Batianoff and Butler 2002). According to PIER (2003), *T. alata* is not considered invasive in Micronesia.

Pollination: Unknown.

Propagation: *T. alata* is propagated from seeds and cuttings (Whistler 2000).

Dispersal: *T. alata* is spread long distances by people who use the plant as an ornamental. *T. alata* has aggressive vegetative growth and can also spread from seeds. *T. alata* may also spread from dumping of garden cuttings (PIER 2003).

Pests and diseases: According to Brickell and Zuk (1997), *Thunbergia* species are susceptible to spider mites, whiteflies, and scale insects.

DISTRIBUTION

Native range: *T. alata* is native to tropical Africa (Wagner et al. 1999).

Global distribution: *T. alata* is widely naturalized in tropical regions (Wagner et al. 1999). In Australia, *T. alata* is listed as invasive in Queensland (Batianoff and Butler 2002). PIER (2003) lists *T. alata* as present in most areas at low elevations in the following areas: Fiji, French Polynesia (Society Islands), Guam, Hawai'i, Nauru, New Caledonia, Papua New Guinea, Pitcairn Island, Samoa (Upolu), Tonga (Tongatapu (cult.)), and Vanuatu. In the United States, it is known from at least Florida, Hawai'i, Texas, Puerto Rico, and the Virgin Islands (PLANTS 2003).

State of Hawai'i distribution: In Hawai'i, *T. alata* was first collected in 1864-1865 on O'ahu (Wagner et al. 1999). *T. alata* is now known to be naturalized on at least Kaua'i, Moloka'i, East Maui, and in Hilo and Volcano Village, Hawai'i (Wagner et al. 1999).

Island of Maui distribution: On Maui, *T. alata* is commonly cultivated and naturalized on East Maui from about 300-4,000 ft (91-1,219 m) elevation, mostly in and adjacent to urban and residential areas. Large patches of *T. alata* are commonly observed in Pi'iholo and Kula where *T. alata* climbs up and over steep walls and fences and sprawls into forested gulches and open pastures and fields. Pi'iholo is located at about 2,000-3,000 ft (610-914 m) elevation and is fairly moist, receiving approximately 60-100 in (152-254 cm) average annual rainfall (Juvik and Juvik 1998). Kula, elevation 2,800-4,000 ft (853-1,219 m), is relatively dry, receiving about 30-40 in (76-102 cm) average annual rainfall (Juvik and Juvik 1998).

CONTROL METHODS

Physical control: It may be possible to pull small seedlings.

Chemical control: It may be possible to achieve effective control of *T. alata* by applying an herbicide using a foliar spray method.

Biological control: None known.

Cultural control: The public could be discouraged from planting *T. alata* near natural areas.

Noxious weed acts: None known.

MANAGEMENT RECOMMENDATIONS

T. alata is widely cultivated and naturalized in tropical regions. In Hawai'i, *T. alata* is naturalized on at least Kaua'i, Moloka'i, East Maui, and in Hilo and Volcano Village, Hawai'i (Wagner et al. 1999). On Maui, *T. alata* is commonly cultivated and naturalized from Ha'iku to Kula in both moist and dry areas. This quick growing vine is aggressive and is a nuissance in gulches, roadsides, power lines and open fields where it spreads and forms a blanket of vegetation over large areas. It is fairly widespread and control on an island wide level is not likely feasible at this time. It could be controlled in natural areas at early stages to prevent large infestations.

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