GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: ***Cestrum nocturnum***

Cestrum nocturnum 简体中文 正體中文 **System:** Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Solanales	Solanaceae

Common name onaona Iapana (Hawaiian), ike he po (Niuean), thauthau (Fijian), ali'I o le po (Samoan), teine 'o le po (Samoan), galan de noche (Spanish), ye xiang shu (Mandarin), laukau po'uli (Tongan), fafine o te po (Tuvaluan), ala aumoe (Hawaiian), kupaoa (Hawaiian), thauthau ni mbongi (Fijian), tiare ariki va'ine (Cook Islands), jonoul ruo awa (Marshallese), ai pua e pogi (Rotuman), ariki-va'ine (Cook Islands), night jessamine (English), kara (Fijian), dama de noche (Chamorro), night queen (English), lady of the night (English), night cestrum (English), night-blooming jasmine (English), night-flowering cestrum (English), dama di noche (Chamorro), night-flowering jasmine (English), queen of the night (English)

Synonym *Cestrum parqui*

Similar species *Cestrum parqui*

Summary *Cestrum nocturnum* commonly known as queen of the night, is a popular ornamental species widely distributed for its strongly fragrant flowers that bloom at night. Having bird-dispersed seeds and the ability to reproduce vegetatively has resulted in escapes from cultivation, where in some areas it aggressively colonises disturbed sites such as road edges and forest gaps forming dense impenetrable thickets and resulting in competition with and displacement of native plant species. *C. nocturnum* is also known to be poisonous if ingested, forming a risk to grazing livestock and has been known to produce hay-fever like symptoms in some people.

view this species on IUCN Red List

Species Description

Cestrum nocturnum is a glabrous shrub that grows from 1 to 5 m tall (depending on location) with ovate-oblong, petiolate, and obtuse leaves mostly 7 - 20 cm long (Webb *et al.*, 1988; Tharman *et al.*, 1994; Zhang *et al.*, 1994). It has cymose racemes which are longer than the petiole and flowers that are greenish-white or pale greenish-yellow that emit a strong sweet fragrance at night (Webb *et al.*, 1988; Tharman *et al.*, 1994). The flowers of *C. nocturnum* have a green, 5-toothed, calyx about 1/3 as long as the 2.0 - 2.5 cm corolla which has obtuse, erect or spreading lobes which are 5-6 mm long (Tharman *et al.*, 1994). The flower also includes 5 stamens which are puberulent at their bases (Tharman *et al.*, 1994). *C. nocturnum* produces small white berries about 8-10 mm long, with 1 - 3 seeds capable of being dispersed by birds (Tharman *et al.*, 1994).

Uses

Cestrum nocturnum is commonly cultivated in many countries as an ornamental plant due to its fragrant flowers that bloom at night (Tharman *et al.*, 1994; Vander Velde, 2003; Starr *et al.*, 2005).

Habitat Description
Cestrum nocturnum is often cultivated as an ornamental plant in gardens (Tharman *et al.*, 1994; Vander Velde, 2003; Starr *et al.*, 2005). Escapes are possible and can result in the establishment of dense, impenetrable thickets in scrub (Meyer *et al.*, 1988), moist or wet forests including riparian zones (Oppenheimer, 2007), secondary forests and dense lowland forests (Meyer, 2000) as well as open areas, both natural and disturbed (Webb *et al.*, 1988). *C. nocturnum* is also known as an aggressive invader of disturbed sites such as trailsides, forest gaps and landslides (Meyer, 2004).

Reproduction
Cestrum nocturnum produces small white berries about 8-10 mm long, with 1 - 3 seeds capable of being dispersed by birds (Tharman *et al.*, 1994). Seeds are produced after 18 months of establishment and can remain dormant in the soil for many years (Williams, 2008). Vegetative reproduction is also possible from cut roots or buds from creeping roots (Williams, 2008).

General Impacts
Cestrum nocturnum is known to aggressively colonise disturbed areas (Meyer, 2004) and is capable of forming dense impenetrable thickets in the undergrowth of some forest systems (Meyer, 2004; Oppeheimer, 2007; Williams, 2008) possibly displacing other plant species and altering natural successional processes. It has been shown to be more suited to capturing and using light than native Hawaiian species in greenhouse conditions (Pattison *et al.*, 1998) with its competitiveness thought to be partly responsible for the possible extinction of the endemic *Acalypha wilderi* on Rarotonga (McCormack, pers. comm., 2000; in Meyer, 2004). Like all *Cestrum* species, all parts of *C. nocturnum* are known to be highly toxic either fresh or when dried (Connor, 1977). As such, *C. nocturnum* forms a risk to livestock with 120 g (approximately 60 leaves) of *Cestrum* spp. material enough to result in the death of a 400 kg cattle beast (Environment Bay of Plenty, 2003). In humans, *C. nocturnum* can cause hay-fever like symptoms (Williams, 2008) and while a non-fatal poisoning of a human child was reported by Connor (1977), no poisonings have been reported since 2002 (Williams, 2008) and there have been no records of any fatal poisonings (Connor, 1977; Williams, 2008).

Management Info
Preventative Measures: A Risk assessment of *Cestrum nocturnum* for Australia was prepared by Pacific Island Ecosystems at Risk (PIER) using the Australian risk assessment system (Pheloung, 1995). The result is a score of 16 and a recommendation of: reject the plant for import (Australia) or species likely to be of high risk (Pacific).

In New Zealand *C. nocturnum* has been included in the Auckland Regional Pest Management Strategy as a \"Research Organism\" and as such there are no rules or regulations restricting their propagation and growth (ARC, 2007). It has not been included in the National Plant Pets Accord, primarily due to a lack of information on current distribution and potential effects (Biosecurity New Zealand, 2010). While not included in any other Regional Pest Management Strategies, *C. nocturnum* is apparently prohibited from sale in the Northland Region (Williams, 2008) and *Cestrum* spp. in the Bay of Plenty Region have been prohibited from propagation, sale and distribution (Environment Bay of Plenty, 2010).

Physical Control: Small plants can be hand pulled all year round and left on site to rot down (Weedbusters, 2010). As stems can resprout and reinfestation can occur through the seed bank, bared sites should be replanted to prevent regrowth (Weedbusters, 2010).

Chemical Control: Good control results for *C. nocturnum* have been reported using triclopyr ester at 20% in crop oil applied basal bark (Katie Cassel, pers. comm.; in Motooka, *et al.*, 2003) with *C. nocturnum* probably sensitive to foliar application of triclopyr (Motooka *et al.*, 2003). Cutting and painting the cut surface with a herbicide solution can be done all year round (Weedbusters, 2010) with Environment Bay of Plenty (2010) recommending the use of one part Tordon Brushkiller to 20 parts of water (50 ml / L), and Weedbusters (2010) recommending 100 ml / L of Tordon Brushkiller, 100 ml / L of triclopyr 600 EC or 500 ml / L of Yates Hydrocotyle Killer. Larger infestations should be sprayed (Environment Bay of Plenty, 2010), ideally in spring or summer (Weedbusters, 2010) with Environment Bay of Plenty (2010) suggesting the use of 50 ml of Tordon Brushkiller in 10 L of water and Weedbusters (2010) recommending the use of triclopyr 600 EC (30 ml/ 10 L) or Yates Hydrocotyle Killer (15 ml / L).

Pathway
Possibly introduced in Philippines by Spaniards century ago as medicinal and ornamental plant

Principal source:

Compiler: Comité français de l'UICN (IUCN French Committee) & IUCN SSC Invasive Species Specialist Group (ISSG)

Review:

Pubblication date: 2010-09-13

ALIEN RANGE

[2] AMERICAN SAMOA
[1] BERMUDA
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[2] MICRONESIA, FEDERATED STATES OF
[2] NEW CALEDONIA
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[5] FRENCH POLYNESIA
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[1] NIUE
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[1] SAMOA
[6] UNITED STATES
[2] WALLIS AND FUTUNA
[1] PHILIPPINES
[1] REUNION
[3] TONGA
[1] UNITED STATES MINOR OUTLYING ISLANDS

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