GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: ***Sphagneticola trilobata***

Sphagneticola trilobata 简体中文 正體中文 **System:** Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Asterales	Asteraceae

Common name

ut mkadkad (English, Marshall Islands), wedelia (English), creeping ox-eye (English), trailing daisy (English), Hasenfuss (German), Singapore daisy (English), ut telia (English, Marshall Islands), ngesil ra ngebard (Palauan), dihpw ongohng (English, Pohnpei), tuhke ongohng (English, Pohnpei), rosrangrang (English, Kosrae), atiat (Puluwat), ate (Tongan)

Synonym

Acmella brasiliensis , Spreng.
Acmella spilanthoides , Cass.
Buphthalmum repens , Lam.
Buphthalmum strigosum , Spreng.
Wedelia brasiliensis , S.F.Blake
Wedelia carnea , Rich.
Verbesina carnosa , M.Gómez
Wedelia carnosa , Rich. ex Spreng.
Wedelia carnosa , Rich. var. *glabella* Rich.
Wedelia carnosa , Rich. var. *triloba* Rich.
Verbesina carnosa , M.Gómez var. *triloba*(Rich.) M.Gómez
Complaya trilobata , (L.) Strother
Polymnia carnosa , Poir.
Polymnia carnosa , Poir.var. *glabella* (Rich.) Poir.
Polymnia carnosa , Poir.var. *aspera* (Rich.) Poir.
Polymnia carnosa , Poir.var. *triloba* (Rich.) Poir.
Seruneum paludosum , (DC.) Kuntze
Seruneum trilobatum , (L.) Kuntze
Silphium trilobatum , L.
Sphagneticola ulei , O.Hoffm.
Stemmodontia trilobata , (L.) Small
Thelechitonia trilobata ,(L.) H.Rob. & Cuatrec.
Wedelia carnosa , Rich. var. *aspera* Rich.
Wedelia crenata , Rich.
Wedelia paludicola , Poepp. & Endl.
Wedelia paludosa , DC.
Wedelia triloba , (Rich.) Bello
Wedelia trilobata , (L.) Hitchc.
Verbesina carnosa , M.Gómez var. *aspera*(Rich.) M.Gómez

Similar species

Summary

Although Sphagneticola trilobata is the accepted name for this species, it is widely known as Wedelia trilobata. Sphagneticola trilobata is native to the tropics of Central America and has naturalised in many wet tropical areas of the world. Cultivated as an ornamental, it readily escapes from gardens and forms a dense ground cover, crowding out or preventing regeneration of other species. In plantations, it will compete with crops for nutrients, light and water, and reduce crop yields.

view this species on IUCN Red List

Species Description
Creeping, mat-forming perennial herbs; stems rounded, rooting at the nodes, 1-3 (-4)\r\ndm long, the flowering portions ascending, coarsely strigose to spreading hirsute, sometimes\r\nsubglabrous. Leaves fleshy, usually 4-9cm long, (1.5-) 2-5cm wide, irregularly toothed or serrate,\r\nusually with a pair of lateral lobes. Peduncles 3-10cm long; involucre campanulate-hemispherical,\r\nca. 1cm high; chaffy bracts lanceolate, rigid; ray florets often 8-13 per head, rays 6-15mm long;\r\ndisk corollas 4-5mm long; pappus a crown of short fimbriate scales. Achenes tuberculate, 4-5mm\r\nlong, few achenes maturing in cultivated plants in Hawaii. (Wagner *et al*, 1990)

Notes
Although *Sphagneticola trilobata* is the accepted name for this species, it is widely known as *Wedelia trilobata*.

Uses
Used commonly as an ornamental plant and groundcover.

Habitat Description
Sphagneticola trilobata has a very wide ecological tolerance range, and seems to be\r\nequally suited to dry and moist sites. Although it seems to prefer and do best in\r\nsunny sites, it survives very well in shady sites. It grows well on almost all soil\r\ntypes, including bare limestone and nutrient poor sandy beaches and swampy or\r\nwaterlogged soils. It is tolerant to inundation and high levels of salinity (Thaman, R.R. 1999).
Wedelia is found in open areas with well-drained, moist soil up to 700m or more in elevation (up to 1300m in French Polynesia). It can tolerate dry periods. A noxious weed in agricultural areas, along roadsides and trails, in open lots, wasteplaces and garbage dumps and other disturbed sites. Also naturalized and invasive along streams, canals, along the borders of mangroves and in coastal strand vegetation (PIER, 2003).

Reproduction
Usually vegetatively. Stems form new plants where they touch the ground and pieces readily take root. Plants usually develop few fertile seeds. Commonly spread by dumping of garden waste, (PIER, 2003).

Nutrition
Although it seems to prefer and do best in sunny sites, it survives very well in shady sites also. It grows well on almost all soil types, including bare limestone and nutrient poor sandy beaches and swampy or waterlogged soils. It is tolerant to inundation and high levels of salinity (Liebregts, 2001).

General Impacts
If *Sphagneticola trilobata* becomes established in plantations, it will compete with crops for nutrients, light and water, and reduce crop yields. It rapidly escapes from gardens to roadsides and plantations, where it can overgrow plants and develop into a thick cover (Niue DAFF, 2001).
Forms a dense ground cover, crowding out or preventing regeneration of other species (PIER, 2003).

Management Info
Preventative measures: It is suggested that planting of this species be banned, except where it can be contained, and \r\nthat dumping of garden waste on vacant lots be prohibited.
A Risk Assessment of *Sphagneticola trilobata* (*Wedelia trilobata*) for Hawai'i and other Pacific islands was prepared by Dr. Curtis Daehler (UH Botany) with funding from the Kaulunani Urban Forestry Program and US Forest Service. The alien plant screening system is derived from Pheloung *et al*. (1999) with minor modifications for use in Pacific islands (Daehler *et al.* 2004). The result is a score of 13 and a recommendation of: \"Likely to cause significant ecological or economic harm in Hawai'i and on other Pacific Islands as determined by a high WRA score, which is based on published sources describing species biology and behaviour in Hawai'i and/or other parts of the world.\"
A Risk assessment of \r\r\n*Sphagneticola trilobata* (*Wedelia trilobata*) for Australia was prepared by Pacific Island Ecosystems at Risk \r\r\n(PIER) using the Australian risk assessment system (Pheloung, 1995). The result is a score \r\r\nof 6 and a recommendation of: reject the plant for import (Australia) or species likely to \r\r\nbe a pest (Pacific).
\r\nPhysical: The Land for Wildlife program south-east Queensland, recommends 'scarifying' for small patches of soil dominated by weeds like wedelia - the top few centimetres of soil are removed using a suitable tool such as a fire hoe. The aim is to remove soil-stored seed. Do not leave disturbed area open for reintroduction of weeds. Mowing or slashing of wedelia infested areas should be avoided as this may cut the plants into smaller pieces that can develop into new plants, and increases the risk of spreading to new areas, (Liebregts, 2001).
\r\nChemical: Langeland and Stocker (2000), suggest treating small patches with 2% Roundup; and large, dense populations by broadcast-spraying 5% Roundup (with follow-up treatments as needed). Or 1/4-1.0% Garlon 4 in water.

Pathway
Brought from Hawaii to Pohnpei by women down at the Catholic mission around 1970 who thought it would look nice in their gardens.

Principal source: Pacific Islands Ecosystems at Risk, (PIER)

Compiler: IUCN SSC Invasive Species Specialist Group
Updates with support from the Overseas Territories Environmental Programme (OTEP) project XOT603, a joint project with the Cayman Islands Government - Department of Environment

Review:

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ALIEN RANGE

[1] AMERICAN SAMOA
[1] BERMUDA
[2] COOK ISLANDS
[3] FRENCH POLYNESIA
[2] INDONESIA
[1] MAYOTTE
[1] NAURU
[1] NEW GUINEA
[1] NORTHERN MARIANA ISLANDS
[2] SAMOA
[3] UNITED STATES
[1] VANUATU
[1] AUSTRALIA
[1] CONGO, THE DEMOCRATIC REPUBLIC OF THE
[1] FIJI
[1] GUAM
[4] MARSHALL ISLANDS
[5] MICRONESIA, FEDERATED STATES OF
[1] NEW CALEDONIA
[1] NIUE
[7] PALAU
[2] TONGA
[1] UNITED STATES MINOR OUTLYING ISLANDS

BIBLIOGRAPHY

28 references found for **Sphagneticola trilobata**

Managment information

Daehler, C.C; Denslow, J.S; Ansari, S and Huang-Chi, K., 2004. A Risk-Assessment System for Screening Out Invasive Pest Plants from Hawaii and Other Pacific Islands. Conservation Biology Volume 18 Issue 2 Page 360.
Summary: A study on the use of a screening system to assess proposed plant introductions to Hawaii or other Pacific Islands and to identify high-risk species used in horticulture and forestry which would greatly reduce future pest-plant problems and allow entry of most nonpests.

Department of Primary Industries and Fisheries, Queensland Government, 2007. Singapore daisy *Sphagneticola trilobata* DECLARED CLASS 3. PP92 September 2007 Produced by: Land Protection (Invasive Plants and Animals)
Summary: Available from: http://www.dpi.qld.gov.au/documents/Biosecurity_EnvironmentalPests/IPA-Singapore-Daisy-PP92.pdf [Accessed 26 July 2010]

IUCN/SSC Invasive Species Specialist Group (ISSG)., 2010. A Compilation of Information Sources for Conservation Managers.
Summary: This compilation of information sources can be sorted on keywords for example: Baits & Lures, Non Target Species, Eradication, Monitoring, Risk Assessment, Weeds, Herbicides etc. This compilation is at present in Excel format, this will be web-enabled as a searchable database shortly. This version of the database has been developed by the IUCN SSC ISSG as part of an Overseas Territories Environmental Programme funded project XOT603 in partnership with the Cayman Islands Government - Department of Environment. The compilation is a work under progress, the ISSG will manage, maintain and enhance the database with current and newly published information, reports, journal articles etc.

Liebregts, W. 2001. Report on the Eradication of the Invasive Weed Pest. Pest Management in the Pacific. Component 7: Cook Islands, Niue and Tokelau.
Summary: Details of the eradication programme in Niue.

Niue DAFF, 2001. Wedelia Leaflet. Department of Agriculture, Forestry & Fisheries (DAFF), Niue. With assistance from SPC - Plant Protection Service.

PIER (Pacific Island Ecosystems at Risk), 2003. *Wedelia trilobata*
Summary: Ecology, synonyms, common names, distributions (Pacific as well as global), management and impact information.
Available at: http://www.hear.org/pier/species/wedelia_trilobata.htm [Accessed 13 May 2004].

Proposal for an Eradication Campaign of *Wedelia trilobata* in Niue. Pest Management in the Pacific. Component 7: Cook Islands, Niue and Tokelau.
Summary: Details on distribution, impacts and proposal for the eradication of wedelia in Niue.

Thaman, R.R. 1999. *Wedelia trilobata*: Daisy invader of the Pacific Islands. IAS Technical Report 99/2. Institute of Applied Science, University of the South Pacific, Suva, Fiji Islands.
Summary: This paper is a preliminary account of the status in the Pacific Islands of *Wedelia trilobata* (L.) Hitch., a recently introduced ornamental groundcover plant that has become an extremely invasive weed in many areas, and has the potential to become one of the most environmentally destructive weeds of the Pacific Islands. It is suggested that *Wedelia trilobata* should be immediately declared a serious noxious weed, should be restricted from introduction into new islands and habitats, and, where possible, should be exterminated from islands and habitats where it has not gained a foothold.
The paper describes *Wedelia trilobata* and discusses what is known about its introduction and spread in some island countries, the habitats in which it thrives and has become naturalized or invasive, and the present and potential threat that it poses to island ecosystems and indigenous species. Actions are suggested that could be taken to control the introduction and spread of *Wedelia trilobata* to islands and habitats where it does not yet exist, and to eradicate it from areas where it is not yet out of control.

Varnham, K. 2006. Non-native species in UK Overseas Territories: a review. JNCC Report 372. Peterborough: United Kingdom.
Summary: This database compiles information on alien species from British Overseas Territories.
Available from: http://www.jncc.gov.uk/page-3660 [Accessed 10 November 2009]

Wedelia Progress report_July 2001
Summary: A progress report on the eradication of wedelia programme in Niue.

Wedelia Progress report_March 2001
Summary: A progress report on the eradication of wedelia programme in Niue.

Wilson, Colin, Wildlife Management Officer, Department of Infrastructure, Planning and Environment, Parks & Wildlife Service, Northern Territory, Australia.
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General information

Barthelat, F. 2005. Note sur les esp&#65533;ces exotiques envahissantes &#65533; Mayotte. Direction de l&#65533;Agriculture et de la For&#65533;t. 30p
Summary: Tableau synth&#65533;tique des plantes exotiques de Mayotte class&#65533;es en fonction de leur niveau d envahissement.

Dana Lee Ling, personal communication, April, 2002. College of Micronesia.
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Summary: Accounts of the flora of Central America.

Guerin, M. 1982. The flora of the atolls of French Polynesia. In Regional technical meeting on atoll cultivation, Papeete, Tahiti, French Polynesia, 14-19 April 1980: Collected papers, ed. M. Lambert, pp. 77-89. Technical paper no. 180. Noumea: South Pacific Commission.
Summary: Accounts of the flora of French Polynesia, including notes on wedelia.

ITIS (Integrated Taxonomic Information System), 2005. Online Database *Sphagneticola trilobata*
Summary: An online database that provides taxonomic information, common names, synonyms and geographical jurisdiction of a species. In addition links are provided to retrieve biological records and collection information from the Global Biodiversity Information Facility (GBIF) Data Portal and bioscience articles from BioOne journals.
Available from: http://www.cbif.gc.ca/pls/itisca/taxastep?king=every&p_action=containing&taxa=Sphagneticola+trilobata&p_format=&p_ifx=plglt&p_lang= [Accessed March 2005]
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Summary: Accounts of the flora of the Marshall Islands, including notes on the presence, introduction and spread of wedelia.
Meyer, Jean-Yves & Loope, Lloyd & Sheppard, A. & Munzinger, Jérôme & Jaffré, Tanguy. (2006). Les plantes envahissantes et potentiellement envahissantes dans l'archipel néo-calédonien : première évaluation et recommandantions de gestion.
Meyer, J.-Y. 2000. Invasive plants in the Pacific Islands. In: The Invasive Species in the Pacific: A Technical Review and Draft Regional Strategy. Sherley, G. (tech. ed). Published in June 2000 by the South Pacific Regional Environment Programme (SPREP).
Summary: Resource that includes the distribution of invasive species throughout the Pacific Islands.
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Summary: Some notes on wedelia in Hawaii.
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