GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: ***Buddleja davidii***

Buddleja davidii 简体中文 正體中文

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Scrophulariales	Buddlejaceae

Common name buddleia (French, France), summer lilac (English), arbre aux papillons (French, France), orange eye (English), butterfly bush (English)

Synonym *Buddleja variabilis* , Hemsley

Similar species *Buddleja alternifolia*

Summary Buddleja davidii is a shade-intolerant woody weed from China, which, with small wind-dispersed seeds, rapidly colonises bare or disturbed sites. It is cultivated for ornamental purposes for its pretty flowers and ability to attract butterflies. It often takes hold in disturbed areas, riparian areas or open woodlands and has proven to be one of the worst weeds to forestry managers in New Zealand, where it out-competes Pinus radiata seedlings. Approval for release of a biological control agent, a leaf-chewing beetle *Cleopus japonicus*, has recently been given in New Zealand.

view this species on IUCN Red List

Species Description
Buddleja davidii is a shrub between 1 and 5m in height with widely spreading branches. The foliage is semi-erect to falling. Quite flexible quadrangular branches. Leaves: opposite, lanceolate, from 10 to 30cm length with slightly toothed edges, upper face dark green and shiny, lower face white with downy hairs. Flowers: gathered in dense and pointed inflorescences approximately 35cm long. Small, (10mm X 3mm) scented hermaphrodite flowers. Corolla in the shape of tube which ends in 4 lobes, coloured white to crimson according to the varieties, with an orange stain in the centre. Flowering from July to October in Europe. Fruit is small, 8mm long capsules. Fruiting from September to December in Europe.

Notes
Its delicate perfume attracts butterflies.

Lifecycle Stages
Seeds can remain dormant in the ground for many years. *Buddleia* is able to colonise a new zone in one to two years from seeding. A shrub can flower and bear fruit in the first year. It can reach a height of 2 metres one year after being cut at the base. *Buddleia* is a coloniser of short lifespan (the oldest individual having been found is 37 years old). The largest densities of invasion would normally be observed in the first ten years.

Uses
This plant is appreciated as an ornamental, and is planted in hedges and other borders.

Habitat Description
Buddleia usually occurs in open and disturbed sites like railways, the edges of roads, walls, cliffs, building sites, waste lands and ruins. It typically colonises river banks at altitudes of 2000m or more. Sometimes it is found in forests.

Reproduction
Buddleia davidii is pollinated by insects, in particular butterflies.

General Impacts
Dense infestations of *Buddleia* compete with indigenous vegetation of rivers and impede the growth and reproduction of other species of trees and shrubs. Monospecific stands of *Buddleia* impede access to rivers. Seedlings, which have superficial rooting, are easily carried away in floods and may form blockages, causing erosion of banks.

Management Info
Preventative measures: A Risk Assessment of *Buddleja davidii* 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.\"
\r\nBiological: Researchers in New Zealand are currently studying the possibility of biological control with the coleopter *Cleopus japonicus*. \r\n
\r\nIntegrated management: Management methods such as digging it out are applicable only to minor infestations at the initial stage of invasion. Cutting inflorescences before they bear fruit is a preventative technique, which makes it possible to limit the production of the seeds. Disturbances caused by uprooting young *Buddleia* shrubs actually assist its development. After uprooting, planting alternative species is recommended. It is necessary to remove uprooted plants which can grow as cuttings. When it is cut, *Buddleia* grows back from the stump very vigorously. Cutting must be carried out at the base of the seedling and be accompanied by an immediate white-washing of the stump with a systemic weedkiller.

Pathway

Principal source: Sarah Brunel, Conservatoire Botanique National Méditerranéen de Porquerolles

Compiler: IUCN/SSC Invasive Species Specialist Group (ISSG) 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] AUSTRALIA
[7] FRANCE
[1] ISLE OF MAN
[1] NORWAY
[1] UNITED KINGDOM
[1] FIJI
[1] IRELAND
[1] NEW ZEALAND
[2] SAINT HELENA
[2] UNITED STATES

BIBLIOGRAPHY
12 references found for **Buddleja davidii**

Managment information

Alien Plants in Ireland, 2007. *Buddleja davidii*
Summary: The database of alien plants in Ireland contains detailed information on 715 alien plant taxa currently occurring in (semi-) natural habitats in Ireland (both the Republic and Northern-Ireland). This database was developed in 2006 at the School of Natural Sciences, Trinity College Dublin, as part of the BioChange project, funded by the Environmental Protection Agency (EPA), Ireland.
Available from: http://www.biochange.ie/alienplants/index.php [Accessed April 26 2007]
This page available from: http://www.biochange.ie/alienplants/result_species.php?species=695&volg=i&lang=latin&p=i [Accessed 26 April 2007]
AME, 2005 Agence M�diterran�enne de l Environnement. Plantes Envahissantes de la Region Mediterraneenne. *Buddleja davidii*
Brockerhoff, E.G., Withers, T.M., Kay, M., Faulds, W. 1999. Impact of the Defiolator *Cleopus japonicus* (Coleoptera: Circulionidae) on *Buddleja davidii* in the Laboratory, *Proc. 52nd Plant Protection Conf.*:113 - 118.
Summary: Available from: : http://www.hortnet.co.nz/publications/nzpps/proceedings/99/99_113.pdf [Accessed 20 January 2005]
European and Mediterranean Plant Protection Organization (EPPO), 2006. Guidelines for the management of invasive alien plants or potentially invasive alien plants which are intended for import or have been intentionally imported. EPPO Bulletin 36 (3), 417-418.
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.
Paterson, J.P.H. 2000. *Buddleja davidii Franchet (Loganiaceae)*
Summary: Available from: http://members.lycos.co.uk/WoodyPlantEcology/docs/web-bud.htm [Accessed 20 January 2005,]
PIER (Pacific Island Ecosystems at Risk). 2004. *Buddleja davidii* Franch., Buddlejaceae.
Summary: Ecology, synonyms, common names, distributions (Pacific as well as global), management and impact information.
Available from: http://www.hear.org/pier/species/buddleja_davidii.htm [Accessed 20 January 2005]
Starr, F., Starr, K. and Loope, L. 2003. *Buddleia davidii*: Butterfly Bush: Buddleiaceae. United States Geological Survey (Biological Resources Division): Hawaii. [Accessed 20 January 2005, from: http://www.hear.org/pier/pdf/pohreports/buddleia_davidii.pdf]
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]

General information

Richard, S. 1996. Invasive Plants: Weeds of the Global Garden. In Randall, J.M. and Marinelli, J. (eds). *Brooklyn Botanic Garden Handbook*: 149.
Smith, A.C. 1991. Flora Vitiensis Nova: A new Flora of Fiji. Lawai, Kauai, Hawaii, *National Tropical Botanical Garden 5*: 74.
Wagner, W.L., Herbst, D.R. and Sohmer, S.H. 1999. *Manual of the Flowering Plants of Hawai`i*: 415. University of Hawai`i Press: Honolulu.