GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: ***Euonymus alata***

Euonymus alata 简体中文 正體中文

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Celastrales	Celastraceae

Common name burning bush (English), winged euonymus (English), winged burning bush (English)

Synonym *Euonymus alatus* , (Thunb.) Siebold
Celastrus alatus , (Thunb.)

Similar species

Summary Euonymus alata is a deciduous shrub native to Asia that has been introduced to the United States from New England to the Gulf Coast. Euonymus alata becomes a nuisance because of the ease with which its seeds are spread; the readiness of germination; its adaptability to various soils and its tolerance of full shade. Euonymus alata is a threat to natural areas because it shades out native herbs and crowds out native shrubs. Birds relish the fruit of Euonymus alata and provide a means for dispersal.

view this species on IUCN Red List

Species Description
Euonymus alata is a deciduous shrub that is slow growing but can reach 4.6-6.1 metres in height (and width). The bark is gray-brown and the stems have prominent, corky wings running along both sides. The leaf-buds are brownish-green and strongly divergent. The leaves are opposite, elliptic, and measure 2.5-7.6cm long and 1.3-3.2cm wide with fine, sharp serrations on the margin. In autumn the dark green leaves turn a brilliant purplish red to scarlet colour before dropping to the ground (Martin, 2002).

Uses
The bright red fall foliage of *E. alata* makes this shrub a popular ornamental, and it is commonly planted along interstate highways as hedges, and in foundation plantings (Martin, 2002).

Habitat Description
Populations of *E. alata* have been found in mature, white oak upland forest and open, second growth lowland forest. Other populations have been found dominating pastures, the understory of shady hillsides, small ravines in valley floor forests, and glacial drift hill prairies. *E. alata* is adaptable to various environmental conditions; it grows well in different soil types and pH levels and is tolerant of full shade (Martin, 2002).

Reproduction
According to Martin (2002), seed production is prodigious; many germinate where they fall close to the mother plant creating dense beds of seedlings.

Nutrition
DCR (2003) suggests that supplemental water and fertilizer can make this slow-growing shrub increase its growth rate significantly.

General Impacts
According to DCR (2003), the threat to natural areas from *E. alata* is that it shades out native herbs and crowds out native shrubs. Unfortunately, birds relish the 6mm to 8mm (1/4 to 1/3-inch) long red fruit and consequently distribute the seeds across the countryside where plants readily sprout and establish themselves, enhancing the extent of the plant's distribution. The shrub becomes a nuisance because of the ease with which its seeds are spread, the readiness of germination, its adaptability to various soils, and its tolerance of full shade.

Management Info
Physical: The control of *Euonymus alata* is difficult because it produces a tremendous amount of seed. Seedlings up to 60cm (2 feet) tall can be easily hand-pulled, especially when the soil is moist. Larger plants and their root systems can be dug out with a spading fork or pulled with a weed wrench. The stump must be ground out or the re-growth clipped.
Chemical: Cut stumps can be painted with glyphosate immediately after cutting. Where populations are so large that cutting is impractical, herbicide (glyphosate) may be applied as a foliar spray. This is most effective during the early summer months.

Pathway
According to Martin (2002), *E. alata* was introduced into the USA from northeastern Asia around 1860 for use as an ornamental shrub. The bright red fall foliage of *E. alata* makes this shrub a popular ornamental.

Principal source: *Euonymus alatus* Martin, 2002

Compiler: National Biological Information Infrastructure (NBII) & IUCN/SSC Invasive Species Specialist Group (ISSG)

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ALIEN RANGE

[24] UNITED STATES

BIBLIOGRAPHY
5 references found for **Euonymus alata**

Managment information

General information
DCR (Department of Conservation and Recreation). 2003. *Invasive Species of Virginia: Winged Burning Bush*. Virginia Natural Heritage Program.
Summary: A detailed report that includes information on the impacts of *E. alata*.
Available from: http://www.vnps.org/invasive/invfseual.htm [Accessed 5 August 2003]
ITIS (Integrated Taxonomic Information System), 2005. Online Database *Euonymus alata*
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=Euonymus+alata&p_format=&p_ifx=plglt&p_lang= [Accessed March 2005]
Martin, T. 2002. *Euonymus alatus*. The Nature Conservacy.
Summary: A detailed report on all aspects of *E. alata*, including biology, ecology and distribution.
Available from: http://tncweeds.ucdavis.edu/alert/alrteuon.html [Accessed 5 August 2003]
USDA, ARS, 2003. *Euonymus alatus*. National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland
Summary: An information network that provides geographic distribution information on *E. alata*.
Available from: http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?16247 [6 August 2003]

USDA-NRCS (United States Department of Agriculture). 2002. *Euonymus alata*. The Plants Database. Natural Resource Conservation Service.
Summary: A database that provides links and information on *E. alata*.
Available from: http://plants.usda.gov/java/profile?symbol=EUAL13 [Accessed 5 August 2003]