Acacia melanoxylon 简体中文 正體中文

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Fabales	Fabaceae

Common name Tasmanian blackwood (English), Australiese swarthout (Afrikaans), blackwood (English), Australian blackwood (English), blackwood acacia (English), aroma salvaje (Spanish), algarrobo (Spanish), acacia de madera negra (Spanish), acàcia-preta (Portuguese, Brazil)

Synonym *Racosperma melanoxylon* , (R.Br.) C.Martius

Similar species *Acacia mangium, Acacia cyclops*

Summary Acacia melanoxylon is native in eastern Australia. This tree grows fast and tall, up to 45m height. It has a wide ecological tolerance, occurring over an extensive range of soils and climatic conditions, but develops better in colder climates. Control of its invasion of natural vegetation, commercial timber plantations and farmland incurs considerable costs, but its timber value and nursing of natural forest succession provides a positive contribution.

view this species on IUCN Red List

Species Description
Unarmed, evergreen tree 8-15 (sometimes up to 45) metres high; trunk straight, crown dense and pyramidal to cylindrical, sometimes with heavy spreading branches. Leaves: Bipinnate (feathery) leaves on seedlings and coppice shoots turn into phyllodes. Phyllodes are 7-10cm long, greyish turning dark dull-green, straight to slightly curved, with 3-7 prominent longitudinal veins and fine net-veins between; often bipinnate on young plants and coppice shoots. Flowers: Pale yellow, globular flower heads. Fruits: Reddish-brown pods, narrower than leaves, slightly constricted, twisted; flat roundish shiny black seeds 2-3mm long, seeds almost encircled by pinkish-red seed stalks (aril)\" (Henderson, 1995. In PIER, 2002). It has a shallow root system with dense, surface feeder roots.

Notes
This fast growing perennial tree is a successional species. It lives for 15 – 50 years, regularly producing large numbers of well-dispersed seeds. Seed viability is sufficiently long to bridge the time between successive seedling stages. It is intolerant of shade. (Hopkins *et al* 1977)

Uses
Timber for high quality furniture and wood turning products, shelterbelts in agricultural land, and ornamental tree in landscaping and home gardens. (Geldenhuys, pers.comm. 2003)

Habitat Description
Native to rainforests in Australia, from the Atherton Tableland (17&#176S) in Queensland above 500m above sea level to central Tasmania (43&#176S) between sea level and 1000m above sea level (Farell and Ashton, 1978; Jennings, 2002). In these areas, it occurs as an understorey tree in wet eucalypt forests, as a pioneer to co-dominant trees in riverine rainforest and as a dominant tree in blackwood/teatree swamps in northwest Tasmania. It is best adapted to cooler, moist sites.
In South Africa it invades forest edges or gaps, wooded kloofs, grassland and watercourses (Henderson, 1995, in PIER, 2002), but shows no invasive tendencies in New Zealand.
It tolerates drought, poor drainage, any soil, salt air, gusty, steady or cold winds if grown in open, fog, smog, temperature extremes, sun or shade (FUF).

Reproduction
Seed dispersal: The pink-red aril attracts birds for dispersal of the seed. Once birds in host-countries become adapted to feeding on the pink-red aril around the seed, the seed is dispersed widely, as in South Africa. It is possible that in host countries where the species has not become invasive, birds and/or other frugivores were not forced by food shortages (as result of drought or other natural phenomena) to switch to this food source. Soil-stored seed banks develop that can remain viable for many years. Seeds germinate easily when placed in hot (boiling water) over night, or when soil-stored seeds are heated by the sun (in disturbed or exposed sites), or after fire (Hill, 1982). *Acacia melanoxylon* reproduces prolifically after fire.

Vegetative regrowth: Coppice shoots develop from cut and damaged stems, and from damaged roots. (Geldenhuys, pers.comm. 2003)

General Impacts
Replaces native non-tree vegetation, such as grassland and shrubland, and transforms such habitats. It invades the understorey of relatively open pine and eucalypt plantations (Geldenhuys, 1986 & 1996). Tree stands facilitate the establishment of natural evergreen forest species and the development of regrowth forest (Geldenhuys, 1996). Windfalls obstruct water flow along invaded streams and rivers. Root suckering, it may require root barriers when planted for landscaping in built-up areas (FUF).

Management Info
Preventative measures: In general, blackwood is either recognised as an invader species in some areas, or it does not \r\r\ninvade in other areas (although its potential to invade is recognised), or its invasion status is not yet recognised. South \r\r\nAfrica provides information on the management of areas where blackwood invasion has become a problem (Geldenhuys, 1986 & \r\r\n1996; Seydack, 2002; Vermeulen & Seydack, 2000). In areas where blackwood is not yet an invasion problem or where the species \r\r\nis in an early stage of invasion, the following options could be followed:
\n· Be careful with the introduction of \r\r\n*Acacia melanoxylon* into natural areas or area where the species is not present because of the potential of the species \r\r\nto become invasive.
· Production of viable seed should be monitored.
\n· Seedling recruitment should be monitored in \r\r\nnatural ecosystems and along drainage lines.
Plants in natural ecosystems should be removed before they flower and \r\r\nproduce seed.
(Geldenhuys, pers.comm. 2003)
A Risk Assessment of *Acacia melanoxylon* for Hawai'i and other Pacific islands was prepared by Dr. Curtis Daehler (UH Botany) with funding from the Kaulunani Urban \r\r\nForestry 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 12 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 core, which is based on published sources describing species biology and behaviour in Hawai'i and/or other parts of the world.\"

Pathway
Nursery trade, Specific seed collections. (Geldenhuys, pers.comm. 2003)Nursery trade, Landscaping, Tree seed distributers. (Geldenhuys, pers.comm. 2003)

Principal source: Dr Coert J. Geldenhuys, Forestwood cc, P O Box 228, La Montagne, Pretoria 0184, South Africa.
Pacific Islands Ecosystems at Risk, (PIER, 2002)

Compiler: IUCN/SSC Invasive Species Specialist Group (ISSG)

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ALIEN RANGE

[1] ARGENTINA
[1] BHUTAN
[1] BRAZIL
[1] CHINA
[1] ETHIOPIA
[1] INDIA
[1] LESOTHO
[1] NEW CALEDONIA
[1] PAKISTAN
[2] PORTUGAL
[1] SAINT HELENA
[1] SPAIN
[1] SWAZILAND
[7] UNITED STATES
[1] VENEZUELA
[1] BELGIUM
[1] BOLIVIA
[1] CHILE
[1] COLOMBIA
[1] FRANCE
[1] KENYA
[1] MAURITIUS
[1] NEW ZEALAND
[1] PERU
[1] REUNION
[7] SOUTH AFRICA
[1] SRI LANKA
[1] TANZANIA, UNITED REPUBLIC OF
[1] URUGUAY

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Summary: English:
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Invasive species - Plants is available from: http://www.conabio.gob.mx/invasoras/index.php/Especies_invasoras_-_Plantas [Accessed 30 July 2008]
Spanish:
La lista de especies del Sistema de informaci&#65533;n sobre especies invasoras de m&#65533;xico cuenta actualmente con informaci&#65533;n aceca de nombre cient&#65533;fico, familia, grupo y nombre com&#65533;n, as&#65533; como h&#65533;bitat, estado de la invasi&#65533;n en M&#65533;xico, rutas de introducci&#65533;n y ligas a otros sitios especializados. Algunas de las especies de mayor riesgo ya tienen una liga directa a la p&#65533;gina de alertas. Es importante resaltar que estas listas se encuentran en constante proceso de actualizaci&#65533;n, por favor consulte la portada (http://www.conabio.gob.mx/invasoras/index.php/Portada), en la secci&#65533;n novedades, para conocer los cambios.
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