Taxon: Acacia stenophylla A. Cunn. ex Benth. **Family:** Fabaceae

Common Name(s): black wattle
Dalby myall
dalby wattle
river cooba
river myall
shoestring acacia

Synonym(s): Racosperma stenophyllum (A. Cunn.

Assessor: HPWRA OrgData **Status:** Assessor Approved **End Date:** 14 Aug 2017

WRA Score: 3.0 **Designation:** L **Rating:** Low Risk

Keywords: Tropical Tree, Dense Stands, Suckers, Coppices, Water-Dispersed

Qsn #	Question	Answer Option	Answer
101	Is the species highly domesticated?	y=-3, n=0	n
102	Has the species become naturalized where grown?		
103	Does the species have weedy races?		
201	Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"	(0-low; 1-intermediate; 2-high) (See Appendix 2)	High
202	Quality of climate match data	(0-low; 1-intermediate; 2-high) (See Appendix 2)	High
203	Broad climate suitability (environmental versatility)	y=1, n=0	y
204	Native or naturalized in regions with tropical or subtropical climates	y=1, n=0	y
205	Does the species have a history of repeated introductions outside its natural range?	y=-2, ?=-1, n=0	y
301	Naturalized beyond native range		
302	Garden/amenity/disturbance weed	n=0, y = 1*multiplier (see Appendix 2)	n
303	Agricultural/forestry/horticultural weed	n=0, y = 2*multiplier (see Appendix 2)	n
304	Environmental weed		
305	Congeneric weed	n=0, y = 1*multiplier (see Appendix 2)	y
401	Produces spines, thorns or burrs	y=1, n=0	n
402	Allelopathic	y=1, n=0	n
403	Parasitic	y=1, n=0	n
404	Unpalatable to grazing animals	y=1, n=-1	n
405	Toxic to animals	y=1, n=0	n
406	Host for recognized pests and pathogens		

Qsn #	Question	Answer Option	Answer
407	Causes allergies or is otherwise toxic to humans	y=1, n=0	n
408	Creates a fire hazard in natural ecosystems		
409	Is a shade tolerant plant at some stage of its life cycle	y=1, n=0	n
410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y=1, n=0	y
411	Climbing or smothering growth habit	y=1, n=0	n
412	Forms dense thickets	y=1, n=0	y
501	Aquatic	y=5, n=0	n
502	Grass	y=1, n=0	n
503	Nitrogen fixing woody plant	y=1, n=0	y
504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	y=1, n=0	n
601	Evidence of substantial reproductive failure in native habitat	y=1, n=0	n
602	Produces viable seed	y=1, n=-1	y
603	Hybridizes naturally		
604	Self-compatible or apomictic		
605	Requires specialist pollinators	y=-1, n=0	n
606	Reproduction by vegetative fragmentation	y=1, n=-1	y
607	Minimum generative time (years)		
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	y=1, n=-1	n
702	Propagules dispersed intentionally by people	y=1, n=-1	y
703	Propagules likely to disperse as a produce contaminant	y=1, n=-1	n
704	Propagules adapted to wind dispersal	y=1, n=-1	n
705	Propagules water dispersed	y=1, n=-1	y
706	Propagules bird dispersed	y=1, n=-1	n
707	Propagules dispersed by other animals (externally)	y=1, n=-1	n
708	Propagules survive passage through the gut	y=1, n=-1	n
801	Prolific seed production (>1000/m2)	y=1, n=-1	n
802	Evidence that a persistent propagule bank is formed (>1 yr)		
803	Well controlled by herbicides	y=-1, n=1	y
804	Tolerates, or benefits from, mutilation, cultivation, or fire	y=1, n=-1	y
805	Effective natural enemies present locally (e.g. introduced biocontrol agents)		

Supporting Data:

Qsn #	Question	Answer
101	**Is the species highly domesticated?**	**n**
	Source(s)	**Notes**
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	[No evidence of domestication] "A. stenophylla is a nitrogen-fixing, small tree adapted to saline, heavy clay and waterlogged soils in arid and semi-arid areas located in temperate and subtropical climates especially where supplementary ground water is available. It is suitable for fuelwood, small round timbers, shelterbelt planting, and amenity purposes. There is marked provenance variation in growth and form, making it amenable to tree improvement, especially for saline sites. It has potential for high value furniture timber."

102	**Has the species become naturalized where grown?**	
	Source(s)	**Notes**
	WRA Specialist. 2017. Personal Communication	NA

103	**Does the species have weedy races?**	
	Source(s)	**Notes**
	WRA Specialist. 2017. Personal Communication	NA

201	**Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"**	**High**
	Source(s)	**Notes**
	USDA, ARS, Germplasm Resources Information Network. 2017. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html. [Accessed 9 Aug 2017]	"Native: Australasia Australia: Australia - New South Wales, - Northern Territory, - Queensland, - South Australia, - Victoria, - Western Australia"
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"This species has an extensive distribution in central and eastern Australia. It is found from the River Murray in South Australia and Victoria to western New South Wales, Queensland and Northern Territory, with a small extension into Western Australia (Doran et al., 1997). The Western Australian Herbarium has records of a small disjunct population near Wittenoom in the Pilbara region of Western Australia; it is some considerable distance west of the small extension from the Northern Territory into Western Australia. The latitudinal range of A. stenophylla is from17 to 36°S, but the main occurrence is from 23 to 33°S. The altitudinal range is from near sea level to about 625 m, but it is mainly found at altitudes from 50 to 325 m."

Qsn #	Question	Answer
202	**Quality of climate match data**	**High**
	Source(s)	**Notes**
	USDA, ARS, Germplasm Resources Information Network. 2017. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html. [Accessed 9 Aug 2017]	

203	Broad climate suitability (environmental versatility)	y
	Source(s)	**Notes**
	Florabank. 2017. Acacia stenophylla. http://www.florabank.org.au/. [Accessed 9 Aug 2017]	"Key descriptors: Temperate provenances Climate parameters Rainfall distribution pattern: summer, uniform or winter Mean annual temperature: 15-24 °C Mean max. temperature of the hottest month: 28-32 °C Mean min. temperature of the coldest month: 1-5 °C Frosts (approx. no. per year): up to 20 Frost intensity: light to moderate (0 to -5°C) Tropical provenances Climate parameters Rainfall distribution pattern: summer Mean annual temperature: 21-30 °C Mean max. temperature of the hottest month: 35-38 °C Mean min. temperature of the coldest month: 4-10 °C Frosts (approx. no. per year): frost free or more or less frost free or up to 20 Frost intensity: light to moderate (0 to -5°C)"

Qsn #	Question	Answer
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"The majority of the Australian distribution is in the warm arid climatic zone, but some of the large trees and more extensive stands grow in the semi-arid zone of New South Wales and Queensland (Doran et al., 1997). The species extends into the sub-humid zone in southeastern Queensland. Except at its southern limits, the mean maximum temperature of the hottest month is 35-38°C and the mean minimum of the coolest month 4-7°C. On average there are 110-130 days a year over 32°C and 15-50 days over 38°C. The average number of heavy frosts per year is 1-20. The species survived a minimum temperature of -7°C in Arizona after initially dying back (Johnson, 1997). There is a wide range in rainfall together with high variability (Hall et al., 1981; Doran et al., 1997). The 50 percentile rainfall is 125-600 mm, the 10 percentile 60-350 mm and the lowest on record, in any single year experienced in its natural distribution, 40-200 mm. Over most of the region there is a well-developed to moderate summer maximum. In the most northern districts, rainfall is monsoonal with most falling in summer but at the southern extremity of the distribution there is a winter maximum. In many areas the mean monthly rainfall is highly variable from year to year and from season to season. The incident rainfall is often supplemented by groundwater or periodic flooding. The climatic indicators for predicting areas suitable for growing A. stenophylla are given in the tables for this data sheet and are taken from Marcar et al. (1995). Climatic amplitude (estimates) - Altitude range: 0 - 625 m - Mean annual rainfall: 250 - 650 mm - Rainfall regime: summer; winter; bimodal; uniform - Dry season duration: 0 - 12 months - Mean annual temperature: 16 - 27ºC - Mean maximum temperature of hottest month: 29 - 40ºC - Mean minimum temperature of coldest month: 2 - 11ºC - Absolute minimum temperature: > -7ºC"

204	**Native or naturalized in regions with tropical or subtropical climates**	**y**
	Source(s)	**Notes**
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"This species has an extensive distribution in central and eastern Australia. It is found from the River Murray in South Australia and Victoria to western New South Wales, Queensland and Northern Territory, with a small extension into Western Australia (Doran et al., 1997). The Western Australian Herbarium has records of a small disjunct population near Wittenoom in the Pilbara region of Western Australia; it is some considerable distance west of the small extension from the Northern Territory into Western Australia. The latitudinal range of A. stenophylla is from17 to 36°S, but the main occurrence is from 23 to 33°S. The altitudinal range is from near sea level to about 625 m, but it is mainly found at altitudes from 50 to 325 m. Latitude between 17°S and 36°S"

Qsn #	Question	Answer
205	**Does the species have a history of repeated introductions outside its natural range?**	**y**
	Source(s)	**Notes**
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"A. stenophylla has not been widely introduced into any country. Trials with this species have been reported in Australia (House et al., 1998; Ryan and Bell, 1991; Marcar et al., 2000), India (Bisht and Toky, 1991; Bhatnagar and Chopra, 1988; Hussain et al., 1990; Sood, 1995; Srinivasan et al., 1989), Pakistan (Ansari et al., 1998; Hussain and Gul, 1993), Philippines (Arnold et al., 1998), Indonesia (McKinnell and Harisetijono, 1991) and Kenya (Kimondo, 1991)."

301	Naturalized beyond native range	
	Source(s)	**Notes**
	Ebinger, J. E., & Seigler, D. S. (2014). A Genus Treatment for Acacia from Legumes of Arizona: An Illustrated Flora and Reference. Desert Plants. Desert Plants 30(1): 19-28	"Acacia stenophylla is frequently found along water courses as an understory plant beneath Eucalyptus camaldulensis and other species, and in seasonal swamps, typically in clay soils. It is recorded from all mainland states in Australia. This species has become weakly naturalized in disturbed sites in urban areas of Arizona and should be considered potentially invasive."
	Wagner, W.L., Herbst, D.R.& Lorence, D.H. 2017. Flora of the Hawaiian Islands. Smithsonian Institution, Washington, D.C. http://botany.si.edu/. [Accessed 9 Aug 2017]	No evidence in Hawaiian Islands to date

302	Garden/amenity/disturbance weed	n
	Source(s)	**Notes**
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence

303	Agricultural/forestry/horticultural weed	n
	Source(s)	**Notes**
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence

304	Environmental weed	
	Source(s)	**Notes**
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"A. stenophylla is considered a woody weed in parts of the Channel country in north-western Queensland. The best method of control has been by use of 2,4,5-T, however the most practical was burning (Pressland et al., 1989)." [No other evidence other than this. No evidence of it showing weedy tendencies in regions where it has been introduced]

305	Congeneric weed	y

Qsn #	Question	Answer
	Source(s)	**Notes**
	Le Maitre, D. C., Gaertner, M., Marchante, E., Ens, E. J., Holmes, P. M., Pauchard, A., O'Farrell, P. J., Rogers, A. M., Blanchard, R., Blignaut, J. & Richardson, D. M. (2011). Impacts of invasive Australian acacias: implications for management and restoration. Diversity and Distributions, 17(5): 1015-1029	"Case studies are used to identify similarities and differences between three regions severely affected by invasions of Australian acacias: Acacia dealbata in Chile, Acacia longifolia in Portugal and Acacia saligna in South Africa." ... "Australian acacias have a wide range of impacts on ecosystems that increase with time and disturbance, transform ecosystems and alter and reduce ecosystem service delivery. A shared trait is the accumulation of massive seed banks, which enables them to become dominant after disturbances. Ecosystem trajectories and recovery potential suggest that there are important thresholds in ecosystem state and resilience. When these are crossed, options for restoration are radically altered; in many cases, autogenic (self-driven and self-sustaining) recovery to a preinvasion condition is inhibited, necessitating active intervention to restore composition and function."
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	Several Acacia species are invasive

401	Produces spines, thorns or burrs	n
	Source(s)	**Notes**
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	[No evidence] "Habit A. stenophylla is typically a small tree with spreading, pendulous branches to form a bushy, rounded crown. Size It is typically 4-14 m tall, but may reach 20 m on very favourable sites (Hall et al., 1972). Stem form It may be erect and single-stemmed, or divided into several stems about 1 m above the ground. Provenances differ in these stem properties. Important characteristics The bark is dark grey-brown to blackish, rough, and fibrous. Foliage Phyllodes are long and narrow, 15-40 cm long by 2-8 mm wide, straight or sometimes curved, usually smooth, with many prominent fine longitudinal nerves, the central nerve slightly more prominent than the rest, apex acute and often hooked, leathery in texture."

402	Allelopathic	n
	Source(s)	**Notes**
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"A. stenophylla has the potential to be grown in agroforestry combinations with pastures. Wilson (1998) reported that growth of green panic grass was not reduced by planting A. stenophylla trees at 5 m spacings, in contrast to Eucalyptus argophloia, and this was related to lower shading and water use." ... "A. stenophylla was ranked highly as a suitable tree for rehabilitating mine 'tailings' dumps in the Kalgoorlie area of Western Australia (Lamont, 1978)."

403	Parasitic	n
	Source(s)	**Notes**
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"A. stenophylla is typically a small tree with spreading, pendulous branches to form a bushy, rounded crown." [Fabaceae. No evidence]

Qsn #	Question	Answer
404	**Unpalatable to grazing animals**	**n**
	Source(s)	**Notes**
	Marcar, N. 1995. Trees for Saltland: A Guide to Selecting Native Species for Australia. CSIRO Publishing, Melbourne	"Fodder: Potential drought reserve for sheep."
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"It is rarely browsed by cattle (Cunningham et al., 1981) but it is palatable to sheep (Everist, 1969) and could be a useful fodder reserve in droughts. Vercoe (1987) estimated an in vivo dry matter digestibility of 43% and crude protein level of 11% for phyllodes in one trial. However, a second study on a different material was less promising suggesting variation between provenances (Vercoe, 1989)."

405	Toxic to animals	n
	Source(s)	**Notes**
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"It is rarely browsed by cattle (Cunningham et al., 1981) but it is palatable to sheep (Everist, 1969) and could be a useful fodder reserve in droughts." [No evidence]
	Quattrocchi, U. 2012. CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	No evidence

406	Host for recognized pests and pathogens	
	Source(s)	**Notes**
	Martin, C.A. 2017. Virtual Library of Phoenix Landscape Plants - Acacia stenophylla. http://www.public.asu.edu/~camartin/. [Accessed 14 Aug 2017]	"Disease and pests: Can succumb to Texas root rot if soil is heavy and/or poorly drained soil."
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"No major insect pests have been reported for A. stenophylla in Australia and susceptibility of foliage and stems to insect damage is considered low (Marcar et al., 1995). Symptoms of bunchy top (loss of apical dominance and development of a large number of side shoots from the axils of the condensed stem) due to the strawberry thrip (Scirtothrips dorsalis) were found in glasshouse-grown A. stenophylla (Ashwath and Houston, 1990). Pests recorded Insects: Scirtothrips dorsalis (chilli thrips)"

407	Causes allergies or is otherwise toxic to humans	n
	Source(s)	**Notes**
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"Seeds and pods were roasted and used by Australian Aboriginals as a food source (Cribb and Cribb, 1976)." [No evidence]
	Quattrocchi, U. 2012. CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	No evidence

Qsn #	Question	Answer
408	**Creates a fire hazard in natural ecosystems**	
	Source(s)	**Notes**
	Florabank. 2017. Acacia stenophylla. http://www.florabank.org.au/. [Accessed 14 Aug 2017]	"Fire: killed by damaging fire does not regenerate foliage or regenerates foliage after damaging fire"
	CSIRO. 2004. Water for a Health Country. Taxon Attribute Profiles. Acacia stenophylla A.Cunn. ex Benth. http://www.anbg.gov.au/. [Accessed 14 Aug 2017]	"No specific data is readily available relating to cover, abundance or biomass. As noted above, A. stenophylla can be a dominant small tree on the edge of watercourses and is often found in monospecific stands." [Potentially. It has evergreen foliage but is also a tree of arid areas and can form dense stands.]

409	Is a shade tolerant plant at some stage of its life cycle	n
	Source(s)	**Notes**
	Arid Zone Trees. 2017. Acacia stenophylla. Shoestring Acacia. http://www.aridzonetrees.com/acacia-stenophylla.html. [Accessed 14 Aug 2017]	"Exposure: Full Sun"
	Martin, C.A. 2017. Virtual Library of Phoenix Landscape Plants - Acacia stenophylla. http://www.public.asu.edu/~camartin/. [Accessed 14 Aug 2017]	"Light: Full sun"

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y
	Source(s)	**Notes**
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"A. stenophylla occurs on plains and gentle slopes and is common on the margins of watercourses, river flood plains, and depressions. The soils are mainly fine-textured alluvials, grey cracking clays, and red sandy clay. They typically have neutral to alkaline (often high) pH, may be saline especially in the lower horizons and be subject to extended periods of waterlogging." "Soil descriptors - Soil texture: medium; heavy - Soil drainage: seasonally waterlogged - Soil reaction: neutral; alkaline - Special soil tolerances: shallow; sodic; saline - Soil types: alkaline soils; alluvial soils; vertisols; clay soils; saline soils; silty soils; solods"
	Learn 2 Grow. 2017. Acacia stenophylla. http://www.learn2grow.com/plants/acacia-stenophylla/. [Accessed 14 Aug 2017]	"It is native across most of Australia, which explains its adaptability to a wide range of soil types and harsh climates." Soil pH -Acidic, Neutral, Alkaline Soil Drainage - Well Drained Soil type - Clay, Loam, San

411	Climbing or smothering growth habit	n
	Source(s)	**Notes**
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"A. stenophylla is typically a small tree with spreading, pendulous branches to form a bushy, rounded crown." [No evidence]

Qsn #	Question	Answer
412	**Forms dense thickets**	**y**
	Source(s)	**Notes**
	Roberts, J., & Marston, F. (2011). Water regime for wetland and floodplain plants: a source book for the Murray-Darling Basin. Canberra: National Water Commission, Canberra	"River Cooba Acacia stenophylla is a small tree in the family Mimosaceae, 4 to 12 m tall (Figure 15), and is also known as Belalie and Eumong." ... "Riparian woodlands dominated by River Cooba, often with a lignum understorey or so dense that understorey is sparse, occur on floodplains and wetlands throughout the western part of the Murray–Darling Basin, and are most extensive beside northern rivers such as the Paroo and Warrego, and northern floodplains such as the Narran and Gwydir. Along the River Murray, River Cooba woodlands are most extensive between Wakool Junction and the Darling confluence (Margules and Partners 1990). It also occurs as an understorey species to riparian eucalypts."

501	Aquatic	n
	Source(s)	**Notes**
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"A. stenophylla occurs on plains and gentle slopes and is common on the margins of watercourses, river flood plains, and depressions."

502	Grass	n
	Source(s)	**Notes**
	USDA, ARS, Germplasm Resources Information Network. 2017. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html. [Accessed 9 Aug 2017]	Family: Fabaceae (alt.Leguminosae) Subfamily: Caesalpinioideae Tribe: Acacieae

503	Nitrogen fixing woody plant	y
	Source(s)	**Notes**
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"A. stenophylla is a nitrogen-fixing, small tree"

504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	**Notes**
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"A. stenophylla is typically a small tree with spreading, pendulous branches to form a bushy, rounded crown. Size It is typically4-14 m tall, but may reach 20 m on very favourable sites (Hall et al., 1972). Stem form It may be erect and single-stemmed, or divided into several stems about 1 m above the ground. Provenances differ in these stem properties."

601	Evidence of substantial reproductive failure in native habitat	n
	Source(s)	**Notes**

Qsn #	Question	Answer
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"Flowers irregularly throughout the year, or in April to July with pods mature from September to December in Queensland (Pedley, 1978; Searle, 1989). February to May are given as seed collecting months in South Australia (Bonney, 1994)."
	Roberts, J., & Marston, F. (2011). Water regime for wetland and floodplain plants: a source book for the Murray-Darling Basin. Canberra: National Water Commission, Canberra	"River Cooba is common on northern river systems of the Murray–Darling Basin. For example, it comprised 45 per cent of all riparian trees surveyed beside the tributaries to the Barwon–Darling River (Roberts 2008) and occurred in 70 per cent of survey sites on the Narran floodplain (Thoms 2007)."

602	Produces viable seed	y
	Source(s)	**Notes**
	Roberts, J., & Marston, F. (2011). Water regime for wetland and floodplain plants: a source book for the Murray-Darling Basin. Canberra: National Water Commission, Canberra	"Germination under field conditions is poorly understood. Commercial propagation of River Cooba involves pre-treatment or scarification of seeds, and expects germination in 10 to 28 days (Maslin and McDonald 2004)."
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"Propagation by seed" ... "Germination rate averages 73% and there are 10,600 viable seeds per kilogram. When heat-treated seeds are sown in soil-filled pots or bags, germination and emergence may be variable; for example, Bhatnagar and Chopra (1988) found 50% germination percentage (range 7-85% for 22 Acacia species compared)."

603	Hybridizes naturally	
	Source(s)	**Notes**
	WRA Specialist. 2017. Personal Communication	Unknown. No evidence found

604	Self-compatible or apomictic	
	Source(s)	**Notes**
	Khan, D. and Z.A. Sahito (2013). Variation in pod--and seed sizes and seed packaging cost in Acacia stenophylla A. Cunn. Ex. Bentham. – An Australian wattle growing in Karachi, Pakistan. FUUAST Journal of Biology 3(1): 15-30	[Possibly] "The presence of A. stenophylla singly in this area points to the possibility of self pollination in this plant in given condition."

605	Requires specialist pollinators	n
	Source(s)	**Notes**
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"The flowers are pale yellow, in globular heads, 6-9 mm in diameter, on short stalks in clusters or short racemes of 1-6 heads." [Unspecialized flowers. Pollination in Acacias is usually by insects.]

606	Reproduction by vegetative fragmentation	y
	Source(s)	**Notes**

Qsn #	Question	Answer
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"Ability to sucker" ... "Coppicing and root suckering have been noted in natural stands (Searle, 1989; Bonney, 1994) and planted trees coppice well (Marcar et al., 2000). Preliminary results suggest that shoots of this species can be successfully multiplied in tissue culture, although roots did not develop (Crawford and Hartney, 1987)."

607	Minimum generative time (years)	
	Source(s)	**Notes**
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"A. stenophylla is typically a rapidly growing acacia species and usually requires about 4 months in temperate conditions and 3 months in tropical conditions to reach a plantable size."
	CSIRO. 2004. Water for a Health Country. Taxon Attribute Profiles. Acacia stenophylla A.Cunn. ex Benth. http://www.anbg.gov.au/. [Accessed 14 Aug 2017]	"Acacia stenophylla displays moderate to fast growth. "

701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	n
	Source(s)	**Notes**
	Roberts, J., & Marston, F. (2011). Water regime for wetland and floodplain plants: a source book for the Murray-Darling Basin. Canberra: National Water Commission, Canberra	[No evidence. No means of external attachment for large seeds] "The long pods readily disarticulate (i.e. break up) between the seeds, which are then dispersed individually. The diaspore is the individual seed in its pod. Seeds of River Cooba are amongst the largest for Acacia in Australia (mean = 54.5 mg, n = 25, Roberts, unpublished data; O'Dowd and Gill 1986), and do not have an aril (Walsh and Entwistle 1996), which is the fatty structure associated with ant or bird dispersal (O'Dowd and Gill 1986)." ... "Being relatively large, diaspores accumulate under the parent tree if not secondarily dispersed."

703	Propagules likely to disperse as a produce contaminant	n
	Source(s)	**Notes**
	Roberts, J., & Marston, F. (2011). Water regime for wetland and floodplain plants: a source book for the Murray-Darling Basin. Canberra: National Water Commission, Canberra	[Unlikely. Seeds large & conspicuous] "Seeds of River Cooba are amongst the largest for Acacia in Australia (mean = 54.5 mg, n = 25, Roberts, unpublished data; O'Dowd and Gill 1986), and do not have an aril (Walsh and Entwistle 1996), which is the fatty structure associated with ant or bird dispersal (O'Dowd and Gill 1986)." ... "Being relatively large, diaspores accumulate under the parent tree if not secondarily dispersed."

704	Propagules adapted to wind dispersal	n
	Source(s)	**Notes**

Qsn #	Question	Answer
	Roberts, J., & Marston, F. (2011). Water regime for wetland and floodplain plants: a source book for the Murray-Darling Basin. Canberra: National Water Commission, Canberra	"The pods are initially green (Figure 17) and mature to brown in the following spring, from September to December. The long pods readily disarticulate (i.e. break up) between the seeds, which are then dispersed individually. The diaspore is the individual seed in its pod. Seeds of River Cooba are amongst the largest for Acacia in Australia (mean = 54.5 mg, n = 25, Roberts, unpublished data; O'Dowd and Gill 1986), and do not have an aril (Walsh and Entwistle 1996), which is the fatty structure associated with ant or bird dispersal (O'Dowd and Gill 1986)."

705	Propagules water dispersed	y
	Source(s)	**Notes**
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"A. stenophylla occurs on plains and gentle slopes and is common on the margins of watercourses, river flood plains, and depressions."
	Marcar, N. 1995. Trees for Saltland: A Guide to Selecting Native Species for Australia. CSIRO Publishing, Melbourne	"Occurs naturally on plains and gentle slopes and is common on the margins of water courses, river flood plains, and depressions."
	CSIRO. 2004. Water for a Health Country. Taxon Attribute Profiles. Acacia stenophylla A.Cunn. ex Benth. http://www.anbg.gov.au/. [Accessed 9 Aug 2017]	"Seeds germinate prolifically (Lithgow, 1997). After major floods seedlings may be abundant along the flood-line but only a very small proportion of these persist (Cunningham et al., 1981)."

706	Propagules bird dispersed	n
	Source(s)	**Notes**
	Roberts, J., & Marston, F. (2011). Water regime for wetland and floodplain plants: a source book for the Murray-Darling Basin. Canberra: National Water Commission, Canberra	"Seeds of River Cooba are amongst the largest for Acacia in Australia (mean = 54.5 mg, n = 25, Roberts, unpublished data; O'Dowd and Gill 1986), and do not have an aril (Walsh and Entwistle 1996), which is the fatty structure associated with ant or bird dispersal (O'Dowd and Gill 1986)."

707	Propagules dispersed by other animals (externally)	n
	Source(s)	**Notes**
	Roberts, J., & Marston, F. (2011). Water regime for wetland and floodplain plants: a source book for the Murray-Darling Basin. Canberra: National Water Commission, Canberra	[No arils and no means of external attachment] "The pods are initially green (Figure 17) and mature to brown in the following spring, from September to December. The long pods readily disarticulate (i.e. break up) between the seeds, which are then dispersed individually. The diaspore is the individual seed in its pod. Seeds of River Cooba are amongst the largest for Acacia in Australia (mean = 54.5 mg, n = 25, Roberts, unpublished data; O'Dowd and Gill 1986), and do not have an aril (Walsh and Entwistle 1996), which is the fatty structure associated with ant or bird dispersal (O'Dowd and Gill 1986)."

708	Propagules survive passage through the gut	n
	Source(s)	**Notes**
	WRA Specialist. 2017. Personal Communication	Seeds dispersed by water. No evidence that pods or seeds are consumed by animals.

Qsn #	Question	Answer
801	**Prolific seed production (>1000/m2)**	**n**
	Source(s)	**Notes**
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"Pods are grey, bluish-grey or brown, strongly constricted between the seeds, 10-20 cm long by 1 cm broad, straight or curved, slightly wrinkled over the seeds. Seeds longitudinal in the pod, brown, broadly elliptical to oblong-elliptic in shape, 7-9 mm long, 5-6 mm wide, with a small white aril. [Probably not - relatively large seeds].
	Roberts, J., & Marston, F. (2011). Water regime for wetland and floodplain plants: a source book for the Murray-Darling Basin. Canberra: National Water Commission, Canberra	"Seeds of River Cooba are amongst the largest for Acacia in Australia (mean = 54.5 mg, n = 25, Roberts, unpublished data; O'Dowd and Gill 1986)," ... "Pods are readily attacked by insects (Maslin and McDonald 2004), resulting in reduced seed viability."

802	**Evidence that a persistent propagule bank is formed (>1 yr)**	
	Source(s)	**Notes**
	Roberts, J., & Marston, F. (2011). Water regime for wetland and floodplain plants: a source book for the Murray-Darling Basin. Canberra: National Water Commission, Canberra	"Being relatively large, diaspores accumulate under the parent tree if not secondarily dispersed. There is no information on whether River Cooba forms persistent seed banks, however; this seems unlikely as it is not recorded in seed bank emergence trials from likely habitats (e.g. James et al. 2007)." ... "Seed longevity not known."

803	**Well controlled by herbicides**	**y**
	Source(s)	**Notes**
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"A. stenophylla is considered a woody weed in parts of the Channel country in north-western Queensland. The best method of control has been by use of 2,4,5-T, however the most practical was burning (Pressland et al., 1989)."

804	**Tolerates, or benefits from, mutilation, cultivation, or fire**	**y**
	Source(s)	**Notes**
	CAB International, 2005. Forestry Compendium. CAB International, Wallingford, UK	"Ability to sucker; fix nitrogen; regenerate rapidly; coppice" ... "Coppicing and root suckering have been noted in natural stands (Searle, 1989; Bonney, 1994) and planted trees coppice well (Marcar et al., 2000). Preliminary results suggest that shoots of this species can be successfully multiplied in tissue culture, although roots did not develop (Crawford and Hartney, 1987)."
	CSIRO. 2004. Water for a Health Country. Taxon Attribute Profiles. Acacia stenophylla A.Cunn. ex Benth. http://www.anbg.gov.au/. [Accessed 9 Aug 2017]	"Acacia stenophylla displays moderate to fast growth. It may sucker on extremely poor sites or if the roots are damaged. It will coppice when young or in favourable conditions (Boxshall and Jenkyn, 2001)."

Qsn #	Question	Answer
805	**Effective natural enemies present locally (e.g. introduced biocontrol agents)**	
	Source(s)	**Notes**
	WRA Specialist. 2017. Personal Communication	Unknown

Summary of Risk Traits:

High Risk / Undesirable Traits
• Broad climate suitability
• Grows in tropical climates
• Weakly naturalized in disturbed sites in urban areas of Arizona
• Considered a woody weed in parts of the Channel country in north□western Queensland (impacts unspecified)
• Other Acacia species are invasive
• Tolerates many soil types
• Forms dense, monospecific stands along rivers in native range
• N-fixing (may alter soil chemistry)
• Reproduces by seeds & vegetatively by suckering
• Seeds dispersed by water & intentionally by people
• Able to coppice & resprout after cutting

Low Risk Traits
• Unarmed (no spines, thorns, or burrs)
• Provides fodder for livestock
• Non-toxic
• Ornamental
• Requires full sun
• Herbicides may provide effective control

Second Screening Results for Tree/tree-like shrubs

(A) Shade tolerant or known to form dense stands?> Yes. Forms dense stands along rivers
(B) Bird or clearly Wind-dispersed?> No. Dispersed by water & gravity
Outcome = Accept (Low Risk)