Family: ***Fabaceae***

Taxon: ***Bauhinia vahlii***

Synonym: *Bauhinia racemosa Vahl*

Common Name Camel's foot climber
Malu creeper
Bauhinia climber
Chambul

Questionaire : current 20090513 **Assessor:** Chuck Chimera **Designation:** H(HPWRA)
Status: Assessor Approved **Data Entry Person:** Chuck Chimera **WRA Score** 7

101	**Is the species highly domesticated?**	**y=-3, n=0**	**n**
102	**Has the species become naturalized where grown?**	**y=1, n=-1**	
103	**Does the species have weedy races?**	**y=1, n=-1**	
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**	**n**
301	**Naturalized beyond native range**	**y = 1*multiplier (see Appendix 2), n= question 205**	**n**
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)**	**y**
304	**Environmental weed**	**n=0, y = 2*multiplier (see Appendix 2)**	**n**
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**	**y=1, n=0**	
407	**Causes allergies or is otherwise toxic to humans**	**y=1, n=0**	**n**
408	**Creates a fire hazard in natural ecosystems**	**y=1, n=0**	
409	**Is a shade tolerant plant at some stage of its life cycle**	**y=1, n=0**	**y**
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**	**y**
412	**Forms dense thickets**	**y=1, n=0**	**n**
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**	**y=1, n=-1**	
604	**Self-compatible or apomictic**	**y=1, n=-1**	
605	**Requires specialist pollinators**	**y=-1, n=0**	
606	**Reproduction by vegetative fragmentation**	**y=1, n=-1**	
607	**Minimum generative time (years)**	**1 year = 1, 2 or 3 years = 0, 4+ years = -1**	
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**	**n**
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**	
801	**Prolific seed production (>1000/m2)**	**y=1, n=-1**	**n**
802	**Evidence that a persistent propagule bank is formed (>1 yr)**	**y=1, n=-1**	
803	**Well controlled by herbicides**	**y=-1, n=1**	
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)**	**y=-1, n=1**	

Designation: H(HPWRA) **WRA Score** 7

Supporting Data:

101	1973. Ali, S.I.. Flora of Western Pakistan No.54 Caesalpiniaceae. Fakhri Printing Press, Karachi, Pakistan	No evidence
102	2011. WRA Specialist. Personal Communication.	NA
103	2011. WRA Specialist. Personal Communication.	NA
201	1973. Ali, S.I.. Flora of Western Pakistan No.54 Caesalpiniaceae. Fakhri Printing Press, Karachi, Pakistan	"Distribution: W. Pakistan (Punjab); India (Punjab, U.P., Bengal, Behar, Assam, Bombay, Central India, Madras); Nepal; Sikkim."
202	1973. Ali, S.I.. Flora of Western Pakistan No.54 Caesalpiniaceae. Fakhri Printing Press, Karachi, Pakistan	"Distribution: W. Pakistan (Punjab); India (Punjab, U.P., Bengal, Behar, Assam, Bombay, Central India, Madras); Nepal; Sikkim."
203	1994. Durst, P.B./Ulrich, W./Kashio, M.. Non-Wood Forest Products in Asia. RAPA Publication 1994/28. FAO of the United Nations, Bangkok, Thailand	"Bauhinia vahlii is a giant climber and one of the most abundant Indian Bauhinia species. The species is distributed in the Sub-Himalayan region up to 3,000 meters above sea level and in Assam, Central India, Bihar, Eastern and Western Ghats." [broad elevation range exceeds 1000 m, demonstrating environmental versatility]
203	2002. Manandhar, N.P.. Plants and people of Nepal. Timber Press, Portland, OR	"Distributed throughout Nepal at 200-1500 m…" [broad elevation range exceeds 1000 m, demonstrating environmental versatility]
203	2003. Llamas, K.A.. Tropical Flowering Plants. Timber Press, Portland, OR	"zones 7-11"
204	1973. Ali, S.I.. Flora of Western Pakistan No.54 Caesalpiniaceae. Fakhri Printing Press, Karachi, Pakistan	"Distribution: W. Pakistan (Punjab); India (Punjab, U.P., Bengal, Behar, Assam, Bombay, Central India, Madras); Nepal; Sikkim."
205	1997. Annable, C.R./Schafer, E.. Specimen Details for Bauhinia vahlii Wight & Arn. [BISH 655275]. Bishop Museum, http://nsdb.bishopmuseum.org/include/cpop.asp?catnum=21804571	"USA, Polynesia, Hawaiian Islands, Oahu, & Waimea Arboretum & Botanical Garden, 59-864 Kam Hwy. Hale`iwa, Hulu area "
205	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	No evidence
301	2007. Randall, R.P.. Global Compendium of Weeds - Index [Online Database]. http://www.hear.org/gcw/	No evidence
302	2007. Randall, R.P.. Global Compendium of Weeds - Index [Online Database]. http://www.hear.org/gcw/	No evidence. See 3.03
303	1994. Durst, P.B./Ulrich, W./Kashio, M.. Non-Wood Forest Products in Asia. RAPA Publication 1994/28. FAO of the United Nations, Bangkok, Thailand	"Regeneration: The species grows naturally in the forests. No efforts to regenerate it artificially are made. It is usually considered a weed because of the damage it does to healthy trees by climbing and spreading over them."
303	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	"It is a very aggressive species and is difficult to eradicate. When cut down, new shoots grow rapidly from the base."
303	2005. Santapau, H.. Common Trees. National Book Trust, India	"This is an immense climber going over the tops of even the highest trees in the forest, and doing much harm on account of the shading of the growing tops of useful forest trees...It is a very elegant plant, but it suffers much persecution from foresters, who try to protect their trees from this plant, and from hill tribes who collect the seeds as an article of food." [considered a pest of forestry]
303	2011. Flowers of India. Maloo Creeper. http://www.flowersofindia.net/catalog/slides/Maloo%20Creeper.html	"Maloo Creeper is found in the Himalayas, from Kashmir to Sikkim, up to altitudes of 1500 m. It is considered to be a formidable enemy of trees."
304	2007. Randall, R.P.. Global Compendium of Weeds - Index [Online Database]. http://www.hear.org/gcw/	No evidence. See 3.03
305	1976. Morton, J.F.. Pestiferous spread of many ornamental and fruit species in South Florida. Proceedings of the Florida State Horticultural Society. 89: 348-353.	"Bauhinia variegata L. ORCHID TREE (spring blooming). India. Common as an escape, abundantly invading neglected lots, hedges. Runs wild also in Puerto Rico."

305	2008. Langeland, K.A./Burks, K.C. (eds.). Identification and Biology of Non-Native Plants in Florida's Natural Areas. UF/IFAS Distribution, Gainesville, FL http://www.fleppc.org/ID_book.htm	"Bauhinia variegata...Ecological Significance: Introduced into Florida before 1900 (Ledin 1956). Noted as a common escape, abundantly invading disturbed areas in particular (Morton 1976). Noted as occasional across south Florida (Lakela and Wunderlin 1980, Tomlinson 1980, Wunderlin 1982). Naturalized in the Caribbean and elsewhere in the Neotropics as well (Morton 1976, Correll and Correll 1982, Little et al. 1974). Spreading from sites where previously planted in Big Cypress National Preserve (T. Pernas, National Park Service, 1996 personal communication). Found in 10 conservation areas in Dade County; displacing native vegetation in hammock margins and occasionally in globally imperiled pine rocklands (R. Hammer, Miami-Dade Parks Department, 1996 personal communication). Reported now from natural areas in four counties: Pinellas, Lee, Dade, and Palm Beach, including the Loxahatchee National Wildlife Refuge and Everglades National Park (EPPC 1996).
401	1973. Ali, S.I.. Flora of Western Pakistan No.54 Caesalpiniaceae. Fakhri Printing Press, Karachi, Pakistan	"A huge climber, branches densely hairy, tendrils circinate, usually opposite the leaves. Leaves alternate, petiolate, petiole c. 7.5-9 cm long, cordate at the base, lobed at the apex, orbicular in shape, 10-46 cm long and almost as broad, sparsely hairy on the upper and densely hairy on the lower surface." [no spines, thorns, or burrs]
402	1999. Dhar, U./Upreti, J.. In vitro regeneration of a mature leguminous liana (Bauhinia vahlii Wight & Arnott). Plant Cell Reports 18: 664–669. 18: 664–669.	"It is an indigenous, multipurpose species in Kumaun Himalaya, most suitable for plantation programmes in mined, industrial waste and marginal lands as it is useful in increasing soil fertility. It is an important woody forest species for planting in degraded forest lands." [no evidence of allelopathy]
403	1973. Ali, S.I.. Flora of Western Pakistan No.54 Caesalpiniaceae. Fakhri Printing Press, Karachi, Pakistan	"A huge climber, branches densely hairy, tendrils circinate, usually opposite the leaves." [not parasitic]
404	1973. Ali, S.I.. Flora of Western Pakistan No.54 Caesalpiniaceae. Fakhri Printing Press, Karachi, Pakistan	"The foliage is used as fodder and the seeds are eaten..."
404	1999. Dhar, U./Upreti, J.. In vitro regeneration of a mature leguminous liana (Bauhinia vahlii Wight & Arnott). Plant Cell Reports 18: 664–669. 18: 664–669.	"The leaves provide an excellent source of fodder in the Central sub-Himalaya region and are also used as a material for making a variety of wrappers (Upreti and Dhar 1996)."
405	2010. Uprety, Y./Poudel, R.C./Asselin, H./Boon, E.. Plant biodiversity and ethnobotany inside the projected impact area of the Upper Seti Hydropower Project, Western Nepal. Environment, Development and Sustainability. DOI 10.1007/s10668-010-9271-7: .	"Nine plant species belonging to six families were highly preferred for fodder. All fodder species were trees, except Bauhinia vahlii (liana). Ficus racemosa, Ficus sarmentosa, Bauhinia vahlii, and Garuga pinnata were highly preferred fodder species. According to the local people, these species are very nutritive and enhance milk production." [no evidence of toxicity to animals]
406	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	"Pests recorded Fungus diseases: Dendrophthoe falcata Phyllactinia guttata Pests recorded at the generic level (Bauhinia): Insects: Adoretus versutus (rose beetle) Aleurodicus dispersus (whitefly) Coccus hesperidum (brown soft scale) Cryptophlebia illepida (koa seedworm) Cryptophlebia ombrodelta (macadamia nut borer) Diaprepes abbreviatus (citrus weevil) Hypomeces squamosus (green weevil) Maconellicoccus hirsutus (pink hibiscus mealybug) Mussidia pectinicornella (parkia pod borer) Pinnaspis strachani (lesser snow scale) Planococcus lilacinus (cacao mealybug) Pseudaulacaspis pentagona (mulberry scale) Saissetia coffeae (hemispherical scale) Selenaspidus articulatus (West Indian red scale) Mites: Brevipalpus phoenicis (false spider mite) Fungus diseases: Armillaria tabescens (armillaria root rot)"
407	2005. Bhattacharyya, B.. Systematic botany. Alpha Science Int'l Ltd., Harrow, UK	"Bauhinia vahlii is a large woody climber with stem tendrils. The simple apically notched leaves are almost 30 cm in diameter and are used as a substitute for plates; ropes made from the bark of this plant are very tough and used for making suspension bridges over small rivers and rivulets in the Himalayan region." [no evidence of toxicity or allergenic properties]
408	2005. Santapau, H.. Common Trees. National Book Trust, India	"...an immense climber going over the tops of even the highest trees in the forest, and doing much harm on account of the shading of the growing tops of useful forest trees." [unknown if a fire hazard in natural systems, but could act as a fuel ladder for forest fires if grown in fire prone areas]
408	2008. Goldammer, J.G. (ed.). International Forest Fire News No. 34. UNECE Trade Development & Timber Division, Geneva, Switzerland	"Mahuwa (Madhuca indica) flowers, sal (Shorea robusta) flowers, harro (Terminalia chebula), barro (Terminalia bellirica), tata (seed of Bauhinia vahlii), etc. pickers burn the dry leaves under the trees to get a clean patch of floor to facilitate desired NTFPs collection. While the intention is only to clear the small underneath patch of single tree, fire can outbreak. Since the collection of NTFPs is done during March-May, the hot and dry season aggravates the situation further."

409	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	"- Tolerates shade; frost"
410	2003. Llamas, K.A.. Tropical Flowering Plants. Timber Press, Portland, OR	"Fertile, well-drained soil."
410	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	"Soil descriptors - Soil texture: light; medium - Soil drainage: free - Soil reaction: acid; neutral"
410	2009. Dash, M.P./Dash, S.P.. Fundamentals Of Ecology. Third Edition. Tata McGraw-Hill, New Delhi, India	"In general, plants do not grow well in highly acidic soils. Some plants can grow well in neutral, alkaline and acidic soils. These are Casuarina equisetifolia, Lantana camara, Bauhinia vahlii and some others."
411	1973. Ali, S.I.. Flora of Western Pakistan No.54 Caesalpiniaceae. Fakhri Printing Press, Karachi, Pakistan	"A huge climber, branches densely hairy, tendrils circinate, usually opposite the leaves. Leaves alternate, petiolate, petiole c. 7.5-9 cm long, cordate at the base, lobed at the apex, orbicular in shape, 10-46 cm long and almost as broad, sparsely hairy on the upper and densely hairy on the lower surface. Inflorescence terminal, subcorymbose, densely hairy raceme; bracteoles persistent."
411	2003. Llamas, K.A.. Tropical Flowering Plants. Timber Press, Portland, OR	"Aggressive, woody vine that climbs by tendrils."
412	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	"It is a very aggressive species and is difficult to eradicate. When cut down, new shoots grow rapidly from the base." [climer, but no evidence that it forms dense thickets]
501	1973. Ali, S.I.. Flora of Western Pakistan No.54 Caesalpiniaceae. Fakhri Printing Press, Karachi, Pakistan	"A huge climber, branches densely hairy, tendrils circinate, usually opposite the leaves." [terrestrial]
502	1973. Ali, S.I.. Flora of Western Pakistan No.54 Caesalpiniaceae. Fakhri Printing Press, Karachi, Pakistan	Fabaceae
503	1973. Ali, S.I.. Flora of Western Pakistan No.54 Caesalpiniaceae. Fakhri Printing Press, Karachi, Pakistan	Fabaceae
504	1973. Ali, S.I.. Flora of Western Pakistan No.54 Caesalpiniaceae. Fakhri Printing Press, Karachi, Pakistan	"A huge climber, branches densely hairy, tendrils circinate, usually opposite the leaves." [not a geophyte]
601	1973. Ali, S.I.. Flora of Western Pakistan No.54 Caesalpiniaceae. Fakhri Printing Press, Karachi, Pakistan	"Pod woody, 22.5-30 cm long,5-7.5cm broad, dehiscent, rusty velvety, 6-12 seeded. Seed flat, dark brown, polished, c. 2.5 cm in diameter." [no evidence of substantial reproductive failure in native habitat]
601	1994. Durst, P.B./Ulrich, W./Kashio, M.. Non-Wood Forest Products in Asia. RAPA Publication 1994/28. FAO of the United Nations, Bangkok, Thailand	"Distribution: Bauhinia vahlii is a giant climber and one of the most abundant Indian Bauhinia species."
602	1973. Ali, S.I.. Flora of Western Pakistan No.54 Caesalpiniaceae. Fakhri Printing Press, Karachi, Pakistan	"Pod woody, 22.5-30 cm long,5-7.5cm broad, dehiscent, rusty velvety, 6-12 seeded. Seed flat, dark brown, polished, c. 2.5 cm in diameter."
602	1999. Dhar, U./Upreti, J.. In vitro regeneration of a mature leguminous liana (Bauhinia vahlii Wight & Arnott). Plant Cell Reports 18: 664–669. 18: 664–669.	"B. vahlii is commonly propagated by seeds. Although various pre-sowing treatments (Upreti and Dhar 1997) have improved germination, desirable traits may not be transmitted when propagated through seeds because the species is cross-pollinated."
603	2011. WRA Specialist. Personal Communication.	Unknown
604	1999. Dhar, U./Upreti, J.. In vitro regeneration of a mature leguminous liana (Bauhinia vahlii Wight & Arnott). Plant Cell Reports 18: 664–669. 18: 664–669.	"B. vahlii is commonly propagated by seeds. Although various pre-sowing treatments (Upreti and Dhar 1997) have improved germination, desirable traits may not be transmitted when propagated through seeds because the species is cross-pollinated." [ability to be self-pollinated unknown]
605	1973. Ali, S.I.. Flora of Western Pakistan No.54 Caesalpiniaceae. Fakhri Printing Press, Karachi, Pakistan	"Flowers white turning buff with age. Hypanthium c. 5-8 mm long. Calyx 3-5 lobed, c. 10-12.5 mm long, splitting into 2-3 parts, densely villous. Petals 5, c. 1.7-4.3 cm long, shortly clawed, spathulate, hairy externally. Fertile stamens 3, 2-7 staminodes may be present. Ovary densely tomentose, style hairy."

605	1990. Hokche, O./Ramirez, N.. Pollination Ecology of Seven Species of Bauhinia L. (Leguminosae: Caesalpinioideae). Annals of the Missouri Botanical Garden. 77(3): 559-572.	"The morphology, color, and scent of flowers are associated with size and behavior of pollinators. Chiropterophilous flowers are often white, exposed above the foliage, nectar continuously, show nocturnal anthesis, and have a disagreeable smell (e.g., Heithaus et al., 1974; Sazima & Sazima, 1975, 1978; Voss et al., 1980; Howell & Schropfer Roth, 1981; Ramirez et al., 1984). Entomophilous species, including those of Bauhinia, have flowers of smaller size, of varied color, fragrance, diurnal anthesis, and low nectar production. In addition, bee flowers often have dense inflorescences (e.g., Bolten & Feinsinger, 1978; Frankie et al., 1983). Such floral characteristics as flower size and time of anthesis of the studied Bauhinia species can be related to their different pollination systems. The white-flowered Bauhinia pauletij and B. multinervia are chiropterophilous, an B. labra and B. guianensis are entomophilous, while the pink flowers with red bracts- of B. rutilans were visited frequently by hummingbirds, which carry pollen." [description of Venezuelan Bauhinia species suggests that B. vahlii may be either insect or bat pollinated.]
606	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	"- Vegetative propagation by cuttings...- Stand establishment using natural regeneration; direct sowing; wildings." [able top coppice (see 8.04) but unknown if vegetative fragments are able to spread]
701	1973. Ali, S.I.. Flora of Western Pakistan No.54 Caesalpiniaceae. Fakhri Printing Press, Karachi, Pakistan	"Pod woody, 22.5-30 cm long, 5-7.5 cm broad, dehiscent, rusty velvety, 6-12 seeded. Seed flat, dark brown, polished, c. 2.5 cm in diameter." [No evidence of unintentional dispersal, & large seeds & pods with no means of external attachment make inadvertent dispersal unlikely]
702	1973. Ali, S.I.. Flora of Western Pakistan No.54 Caesalpiniaceae. Fakhri Printing Press, Karachi, Pakistan	"It is grown as an ornamental plant. The foliage is used as fodder and the seeds are eaten; bark yields good fibres for ropes etc. It is medicinally important and also yields tanning material. The seeds are tonic and aphrodisiac; leaves are demulcent and mucilaginous (Nadkarni, Ind. Mat. Med. ed. 3. 1: 183. 1954)."
704	1999. Rajan, S.S,. Morphology and economic botany of angiosperms. Anmol Publications PVT. LTD., New Delhi, India	"Fruits of forest trees like Entada gigas burst open with a great amount of noise throwing the seeds to considerable distance. A similar mechanism is found in Bauhinia vahlii."
704	2009. Singh, V./Pande, P.C./Jain, D.K.. Structure Development and Reproduction in Angisosperms. Rastogi Publications, New Delhi, India	"The long pods of camel's foot climber (Bauhinia vahlii, Fig. 12 A) burst violently with a cracking sound scattering the seeds away." [but not adapted for wind dispersed]
705	1973. Ali, S.I.. Flora of Western Pakistan No.54 Caesalpiniaceae. Fakhri Printing Press, Karachi, Pakistan	"Pod woody, 22.5-30 cm long,5-7.5cm broad, dehiscent, rusty velvety, 6-12 seeded. Seed flat, dark brown, polished, c. 2.5 cm in diameter." [no obvious adaptations for water dispersal; seeds & pods are large, & could potentially float, but no evidence of water dispersal found]
706	2009. Singh, V./Pande, P.C./Jain, D.K.. Structure Development and Reproduction in Angisosperms. Rastogi Publications, New Delhi, India	"The long pods of camel's foot climber (Bauhinia vahlii, Fig. 12 A) burst violently with a cracking sound scattering the seeds away." [not adapted for bird dispersal]
707	1973. Ali, S.I.. Flora of Western Pakistan No.54 Caesalpiniaceae. Fakhri Printing Press, Karachi, Pakistan	"Pod woody, 22.5-30 cm long, 5-7.5 cm broad, dehiscent, rusty velvety, 6-12 seeded. Seed flat, dark brown, polished, c. 2.5 cm in diameter." [No evidence of external dispersal, & large seeds & pods with no means of external attachment]
707	2009. Singh, V./Pande, P.C./Jain, D.K.. Structure Development and Reproduction in Angisosperms. Rastogi Publications, New Delhi, India	"The long pods of camel's foot climber (Bauhinia vahlii, Fig. 12 A) burst violently with a cracking sound scattering the seeds away." [but not adapted for wind dispersed]
708	1993. Chaudhuri, A.B.. Forest plants of eastern India. Ashish Publishing House, New Delhi, India	'Fr. 102; pod flat, bursting open with a loud report; seeds edible." [unknown if seeds are able to pass through gut intact]
801	1973. Ali, S.I.. Flora of Western Pakistan No.54 Caesalpiniaceae. Fakhri Printing Press, Karachi, Pakistan	"Pod woody, 22.5-30 cm long,5-7.5cm broad, dehiscent, rusty velvety, 6-12 seeded. Seed flat, dark brown, polished, c. 2.5 cm in diameter." [relatively few large seeds per pod, unlikely to reach high seed densities]
802	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	"- Seed storage orthodox"
803	2011. WRA Specialist. Personal Communication.	Unknown. No information found on control with herbicides.
804	2003. Llamas, K.A.. Tropical Flowering Plants. Timber Press, Portland, OR	"Needs a strong support or maintain as a sprawling shrub with regular pruning."
804	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	"It is a very aggressive species and is difficult to eradicate. When cut down, new shoots grow rapidly from the base...- Ability to regenerate rapidly; coppice."
805	2011. WRA Specialist. Personal Communication.	Unknown