

Key Words: Evaluate, Tropical Treed, Edible Fruit, Bird-dispersed, Coppices

Family: *Boraginaceae*

Taxon: *Cordia monoica*

Synonym: *Gerascanthus monoicus* (Roxb.) Borhidi
Cordia ovalis

Common Name: sandpaper saucer-berry
snot berry

Questionnaire Status:	current 20090513 Assessor Approved	Assessor:	Chuck Chimera	Designation:	EVALUATE
Data Entry Person:	Chuck Chimera	WRA Score	4		
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)		n	
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			
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		n	
409	Is a shade tolerant plant at some stage of its life cycle	y=1, n=0			
410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y=1, n=0			
411	Climbing or smothering growth habit	y=1, n=0		n	

412	Forms dense thickets	y=1, n=0	
501	Aquatic	y=5, n=0	n
502	Grass	y=1, n=0	n
503	Nitrogen fixing woody plant	y=1, n=0	n
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	n
606	Reproduction by vegetative fragmentation	y=1, n=-1	n
607	Minimum generative time (years)	1 year = 1, 2 or 3 years = 0, 4+ years = -1	2
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	y=1, n=-1	
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	
706	Propagules bird dispersed	y=1, n=-1	y
707	Propagules dispersed by other animals (externally)	y=1, n=-1	
708	Propagules survive passage through the gut	y=1, n=-1	y
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: EVALUATE

WRA Score 4

Supporting Data:

101	1991. Dassanayake, M.D./Fosber, F.R. (eds.). A Revised Handbook to the Flora of Ceylon, Volume VII. Model Press Pvt. Ltd., New Delhi	[Is the species highly domesticated? No evidence]
101	1991. Verdcourt, B.. Flora of Tropical East Africa - Boraginaceae. A.A. Balkema, Rotterdam, Netherlands	[Is the species highly domesticated? No evidence]
101	1997. Van Wyk, B./Van Wyk, P.. Field guide to trees of Southern Africa. Struik Publishers, Cape Town, South Africa	[Is the species highly domesticated? No evidence]
102	2012. WRA Specialist. Personal Communication.	NA
103	2012. WRA Specialist. Personal Communication.	NA
201	1991. Verdcourt, B.. Flora of Tropical East Africa - Boraginaceae. A.A. Balkema, Rotterdam, Netherlands	[Species suited to tropical or subtropical climate(s) 2-High] "Zaire, Burundi, Somalia, Sudan, Ethiopia, Mozambique, Zimbabwe, Botswana, Angola, South Africa and Namibia and also in India and Ceylon and cultivated in Mauritius."
202	1991. Verdcourt, B.. Flora of Tropical East Africa - Boraginaceae. A.A. Balkema, Rotterdam, Netherlands	[Quality of climate match data 2-High]
203	1991. Verdcourt, B.. Flora of Tropical East Africa - Boraginaceae. A.A. Balkema, Rotterdam, Netherlands	[Broad climate suitability (environmental versatility)? Yes] "Very catholic, from quite wet evergreen forest to Acacia woodland, Acacia-Commiphora bushland and Acacia-Euphorbia thicket in grassland, coastal thicket, etc, often riverine; 0-1825 m."
203	2002. Ruffo, C.K./Birnie, A./Tegnäs, B.. Edible Wild Plants of Tanzania. RELMA Technical Handbook Series 27. Regional Land Management Unit (RELMA), Swedish International Development Cooperation Agency (Sida), Nairobi, Kenya	[Broad climate suitability (environmental versatility)? Yes] "This Cordia species grows from Ethiopia to central and southern Africa. It is found in many habitats from wet or riverine forest to woodland and bush with Acacia-Euphorbia or grassland, from the coast to 1,800 m and in all areas of Tanzania except the cool highlands."
204	2004. Kilian, N./Hein, P./Hubaishan, M.A.. Further Notes on the Flora of the Southern Coastal Mountains of Yemen. Willdenowia. 34: 159-182.	[Native or naturalized in regions with tropical or subtropical climates? Yes] "Widespread from tropical Africa to the Indian Subcontinent and Sri Lanka (Verdcourt 1991: 17), this small tree has been reported for the Arabian Peninsula from the southwestern mountains (NW Yemen, SW Saudi Arabia), from an isolated occurrence in the western part of the southern mountains on the upper escarpments of Jabal Urays, and, from much farther east, from Dhofar, Oman (Kilian & al. 2002). Our record from Jabal Gedu, 200 km east of Jabal Urays, is another indication for its former continuous distribution across southern Arabia."
205	2012. WRA Specialist. Personal Communication.	[Does the species have a history of repeated introductions outside its natural range? No evidence]
301	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Naturalized beyond native range? No evidence]
302	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Garden/amenity/disturbance weed? No evidence]
303	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Agricultural/forestry/horticultural weed? No evidence]
304	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Environmental weed? No evidence]
305	2002. Perrow, M.R./Davy, A.J.. Handbook of Ecological Restoration: Principles of restoration. Cambridge University Press, Cambridge, UK	[Congeneric weed? Yes] "Biological control of plants is more likely to succeed in constrained, isolated areas such as on oceanic islands. Cordia curassavica, one of the worst introduced weeds, has been effectively controlled on Mauritius."

401	1991. Dassanayake, M.D./Fosber, F.R. (eds.). A Revised Handbook to the Flora of Ceylon, Volume VII. Model Press Pvt. Ltd., New Delhi	[Produces spines, thorns or burrs? No] "Tree 5(-10) m tall, the twigs densely brown puberulent with two types of trichomes, some short, stiff, and spreading, the others brown, erect, and dendritic. Leaves persistent, on very short spurs; petioles 5-18(-24) mm long, densely brown puberulent; leaf blade ovate to nearly elliptic, (2.4-)3.6-6.8(-10.3) cm long, (1.5-)2.3-5.1(-5.8) cm wide, the apex acute to obtuse, the base obtuse to rounded or rarely approaching acute, the margin undulate to unevenly serrate to denticulate, the upper surface scabrous, the trichomes erect to spreading and from a multicellular cystoliths, the lower surface loosely to evenly brown pubescent."
401	1996. Lovett, J.C./Ruffo, C.K./Gereau, R.E.. Field guide to the moist forest trees of Tanzania. The Society for Environmental Exploration and the University of Dar es Salaam, UK & Tanzania	[Produces spines, thorns or burrs? No] "Thorns & Spines: Absent."
402	2012. WRA Specialist. Personal Communication.	[Allelopathic? Unknown]
403	1991. Dassanayake, M.D./Fosber, F.R. (eds.). A Revised Handbook to the Flora of Ceylon, Volume VII. Model Press Pvt. Ltd., New Delhi	[Parasitic? No evidence] "Tree 5(-10) m tall..." [Boraginaceae]
404	1997. Van Wyk, B./Van Wyk, P.. Field guide to trees of Southern Africa. Struik Publishers, Cape Town, South Africa	[Unpalatable to grazing animals? No] "The leaves are browsed by game. Fruit edible but not very tasty."
404	2008. Mehari, A.T.. Ethnobotanical Study of Dess'a Forest, North-Eastern Escarpment of Ethiopia, with Emphasis on Use and Management of Forest Resources by the Local People. MSc Thesis. Addis Ababa University, Addis Ababa, Ethiopia	[Unpalatable to grazing animals? No] "Appendix IX. Plant species used as animal fodder" [Cordia monoica - Part Used = Leaf]
405	1997. Van Wyk, B./Van Wyk, P.. Field guide to trees of Southern Africa. Struik Publishers, Cape Town, South Africa	[Toxic to animals? No evidence] "The leaves are browsed by game. Fruit edible but not very tasty."
405	2005. Pakia, M.. African Traditional Plant Knowledge Today: An Ethnobotanical Study of the Digo at the Kenya Coast. LIT Verlag Münster, Berlin	[Toxic to animals? No evidence] " 'Wiper of pig's buttock'. The pig is believed to clean its buttocks [zondoha] after toileting with this species."
406	2002. Ruffo, C.K./Birnie, A./Tengnäs, B.. Edible Wild Plants of Tanzania. RELMA Technical Handbook Series 27. Regional Land Management Unit (RELMA), Swedish International Development Cooperation Agency (Sida), Nairobi, Kenya	[Host for recognized pests and pathogens? Unknown] No mention of pests or pathogens
407	1991. Verdcourt, B.. Flora of Tropical East Africa - Boraginaceae. A.A. Balkema, Rotterdam, Netherlands	[Causes allergies or is otherwise toxic to humans? No evidence] "A very variable species with leaves generally so rough that they were used in the same way as sandpaper by native carpenters; the fruits are edible."
407	2002. Ruffo, C.K./Birnie, A./Tengnäs, B.. Edible Wild Plants of Tanzania. RELMA Technical Handbook Series 27. Regional Land Management Unit (RELMA), Swedish International Development Cooperation Agency (Sida), Nairobi, Kenya	[Causes allergies or is otherwise toxic to humans? No evidence] "Food: Fruit are edible. Ripe fruit are collected and eaten raw as a snack. They are sweet and liked by children and herdsman. Medicinal: Leaves are used as medicine to treat eye diseases. The leaves and stem bark are used to treat leprosy using a steam bath, and the body can also washed with a decoction made from pounded bark."
407	2008. Wagstaff, D.J.. International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL	[Causes allergies or is otherwise toxic to humans? No evidence]
408	1991. Verdcourt, B.. Flora of Tropical East Africa - Boraginaceae. A.A. Balkema, Rotterdam, Netherlands	[Creates a fire hazard in natural ecosystems? No evidence] "Very catholic, from quite wet evergreen forest to Acacia woodland, Acacia Commiphora bushland and Acacia-Euphorbia thicket in grassland, coastal thicket, etc, often riverine; 0-1825 m." [No evidence that this species is fire promoting or increases fire frequency in natural ecosystems]
408	1999. Maundu, P.M.. Traditional food plants of Kenya. National Museum of Kenya, Nairobi, Kenya	[Creates a fire hazard in natural ecosystems? No evidence] "Widely distributed all over Kenya in bushland, 0-2,200 m. Common in valley bottoms and along watercourses. Often on rocky areas and red clay soil." [No evidence that this species is fire promoting or increases fire frequency in natural ecosystems]

408	2002. Ruffo, C.K./Birmie, A./Tengnäs, B.. Edible Wild Plants of Tanzania. RELMA Technical Handbook Series 27. Regional Land Management Unit (RELMA), Swedish International Development Cooperation Agency (Sida), Nairobi, Kenya	[Creates a fire hazard in natural ecosystems? No evidence] "This <i>Cordia</i> species grows from Ethiopia to central and southern Africa. It is found in many habitats from wet or riverine forest to woodland and bush with <i>Acacia Euphorbia</i> or grassland, from the coast to 1,800 m and in all areas of Tanzania except the cool highlands."
409	1991. Verdcourt, B.. Flora of Tropical East Africa - Boraginaceae. A.A. Balkema, Rotterdam, Netherlands	[Is a shade tolerant plant at some stage of its life cycle? Unknown] "Very catholic, from quite wet evergreen forest to <i>Acacia</i> woodland, <i>Acacia-Commiphora</i> bushland and <i>Acacia Euphorbia</i> thicket in grassland, coastal thicket, etc, often riverine; 0-1825 m."
409	2005. Friis, I./Vollesen, K.. Flora of the Sudan-Uganda Border Area East of the Nile: Catalogue of vascular plants, 2nd pt. Vegetation and phytogeography. Kgl. Danske Videnskabernes Selskab, Copenhagen, Denmark	[Is a shade tolerant plant at some stage of its life cycle? Unknown] "Widespread in a range of fairly open habitats (often riverine)." [Occurrence in open habitats suggests limited shade tolerance]
410	2003. Gotze, A.R./Colliers, S.S./Bezuidenhout, H./Kellner, K.. Analysis of the riparian vegetation (la land type) of the proposed Vhembe-Dongola National Park, Limpopo Province, South Africa. Koedoe. 46(2): 45-64.	[Tolerates a wide range of soil conditions?] " <i>Cordia monoica</i> Sub-community The habitat of this sub-community is in many ways similar to that of the <i>Ximenia americana</i> - <i>Flueggea virosa</i> Sub community (2.1). The only difference being that this sub-community has established under drier conditions and mainly occurs on somewhat higher lying areas further away from the Limpopo River. The soils are also of the Oakleaf and Valsrivier forms with less occurrences of the Arcadia soil form."
411	1991. Dassanayake, M.D./Fosber, F.R. (eds.). A Revised Handbook to the Flora of Ceylon, Volume VII. Model Press Pvt. Ltd., New Delhi	[Climbing or smothering growth habit? No] "Tree 5(-10) m tall..."
412	1997. Van Wyk, B./Van Wyk, P.. Field guide to trees of Southern Africa. Struik Publishers, Cape Town, South Africa	[Forms dense thickets? Occurs in thickets, but unknown if able to form monospecific stands] "Scrambling shrub or small bushy tree; occurring in bushveld and thicket, often on floodplains and termitaria."
412	2007. Bandeira, S./Barbosa, F./Bila, N./Azevedo Jr., F./Nacamo, E./Manjate, A.M./Mafambissa, M./Rafael, J.. Terrestrial Vegetation Assessment of the Quirimbas National Park. www.quirimbas.gov.mz	[Forms dense thickets? A component of thicket vegetation] "Dry semi deciduous lowland sublittoral Coastal thicket (<i>Cordia monoica</i> , <i>Sideroxylon</i> and <i>Erythroxylum</i>) – Rolas and Matemo Islands. This vegetation type occurs in the Arquipélago das Quirimbas (Rolas Island), 7 m of altitude. The soil is sandy, coralline, and presents two different characteristics: the vegetation is composed by shrub and shrubby plants, which vary between 50 cm to 3 m tall. The vegetation is open and dominated by species such as <i>Cordia monoica</i> , <i>Maerua angolensis</i> , <i>Sideroxylon inerme</i> , <i>Erythroxylum lasianthu</i> , <i>Pappea</i> sp., <i>Clorodendrum glabrum</i> , <i>Rhynchosia minima</i> , <i>Cordia monoica</i> ."
501	1991. Verdcourt, B.. Flora of Tropical East Africa - Boraginaceae. A.A. Balkema, Rotterdam, Netherlands	[Aquatic? No] "Very catholic, from quite wet evergreen forest to <i>Acacia</i> woodland, <i>Acacia-Commiphora</i> bushland and <i>Acacia-Euphorbia</i> thicket in grassland, coastal thicket, etc, often riverine; 0-1825 m."
502	1991. Verdcourt, B.. Flora of Tropical East Africa - Boraginaceae. A.A. Balkema, Rotterdam, Netherlands	[Grass? No] Boraginaceae
503	1991. Verdcourt, B.. Flora of Tropical East Africa - Boraginaceae. A.A. Balkema, Rotterdam, Netherlands	[Nitrogen fixing woody plant? No] Boraginaceae
504	1991. Verdcourt, B.. Flora of Tropical East Africa - Boraginaceae. A.A. Balkema, Rotterdam, Netherlands	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] "Much-branched spreading shrub or small tree branched from the base, 1.5-8(-15) m. tall; crown usually spreading..."
601	1991. Verdcourt, B.. Flora of Tropical East Africa - Boraginaceae. A.A. Balkema, Rotterdam, Netherlands	[Evidence of substantial reproductive failure in native habitat? No evidence] "Very catholic, from quite wet evergreen forest to <i>Acacia</i> woodland, <i>Acacia-Commiphora</i> bushland and <i>Acacia-Euphorbia</i> thicket in grassland, coastal thicket, etc, often riverine; 0-1825 m."
601	2005. Loffler, L./Loffler, P.. Swaziland Tree Atlas—including selected shrubs and climbers. Southern African Botanical Diversity Network Report No. 38. SABONET, Pretoria, S.A.	[Evidence of substantial reproductive failure in native habitat? No evidence] "Conservation Status: Least Concern"
602	2002. Nichols, G.. Down to Earth: Gardening with Indigenous Shrubs. Struik Publishers, Cape Town, South Africa	[Produces viable seed? Yes] "Propagation: Seed"

602	2002. Ruffo, C.K./Birnie, A./Tengnäs, B.. Edible Wild Plants of Tanzania. RELMA Technical Handbook Series 27. Regional Land Management Unit (RELMA), Swedish International Development Cooperation Agency (Sida), Nairobi, Kenya	[Produces viable seed? Yes] "Only collected from the wild but can be propagated by seed."
603	2012. WRA Specialist. Personal Communication.	[Hybridizes naturally? Unknown]
604	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Self-compatible or apomictic? Unknown. Related species incompatible] "A strong incompatibility mechanism is evident in <i>C. alliodora</i> , there being two incompatibility groups, with roughly equal numbers of trees per group. Trees within each group are incompatible with one another, but are compatible with any tree from the other group. The incompatibility mechanism operates in the same way within and between families: selfing is prevented but related matings are not reduced in favour of unrelated matings (Boshier, 1995). Results from allozyme studies showed a high rate of outcrossing in natural stands (Boshier et al., 1995)."
605	2002. Ruffo, C.K./Birnie, A./Tengnäs, B.. Edible Wild Plants of Tanzania. RELMA Technical Handbook Series 27. Regional Land Management Unit (RELMA), Swedish International Development Cooperation Agency (Sida), Nairobi, Kenya	[Requires specialist pollinators? Presumably No] "FLOWERS: Pale yellow, sharply fragrant, in dense terminal clusters, each flower tubular, about 1 cm across, calyx hairy and persistent." ... "Also used as an ornamental tree and is a source of bee forage."
606	2002. Nichols, G.. Down to Earth: Gardening with Indigenous Shrubs. Struik Publishers, Cape Town, South Africa	[Reproduction by vegetative fragmentation? No evidence] "Propagation: Seed"
606	2009. Kokwaro, J.O.. Medicinal plants of East Africa. University of Nairobi Press, Nairobi, Kenya	[Reproduction by vegetative fragmentation? No evidence] "Propagation is by seed for all species."
607	2002. Nichols, G.. Down to Earth: Gardening with Indigenous Shrubs. Struik Publishers, Cape Town, South Africa	[Minimum generative time (years)? 2] "First fruiting occurs at tow years, prolifically and outside the natural range." ... "The shrub's growth is rapid, about 1 m per year in a warm climate. It is probably frost-sensitive."
701	2002. Nichols, G.. Down to Earth: Gardening with Indigenous Shrubs. Struik Publishers, Cape Town, South Africa	[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)? Unknown. Possible that sticky fruits may adhere externally to people or vehicles] "The bright orange fruits are fleshy and very stick, and extremely popular with birds."
702	2002. Ruffo, C.K./Birnie, A./Tengnäs, B.. Edible Wild Plants of Tanzania. RELMA Technical Handbook Series 27. Regional Land Management Unit (RELMA), Swedish International Development Cooperation Agency (Sida), Nairobi, Kenya	[Propagules dispersed intentionally by people? Yes] "The wood is tough and used for building poles, firewood, bows, withies, walking sticks, clubs and pestles. The leaves are very rough and used as sandpaper. Also used as an ornamental tree and is a source of bee forage."
703	1991. Dassanayake, M.D./Fosber, F.R. (eds.). A Revised Handbook to the Flora of Ceylon, Volume VII. Model Press Pvt. Ltd., New Delhi	[Propagules likely to disperse as a produce contaminant? No evidence] "Fruits drupaceous, orange at maturity, the stone ovoid, 9-12 mm long, 5-8 mm broad , the endocarp bony." [No evidence that relatively large, single-seeded fruit are grown with or have become a contaminant of produce]
704	1991. Dassanayake, M.D./Fosber, F.R. (eds.). A Revised Handbook to the Flora of Ceylon, Volume VII. Model Press Pvt. Ltd., New Delhi	[Propagules adapted to wind dispersal? No] "Fruits drupaceous, orange at maturity, the stone ovoid, 9-12 mm long, 5-8 mm broad, the endocarp bony."
705	1991. Verdcourt, B.. Flora of Tropical East Africa - Boraginaceae. A.A. Balkema, Rotterdam, Netherlands	[Propagules water dispersed? Possibly. Occurs along riverine forest] "Very catholic, from quite wet evergreen forest to Acacia woodland, Acacia-Commiphora bushland and Acacia-Euphorbia thicket in grassland, coastal thicket, etc, often riverine; 0-1825 m."
705	1997. Van Wyk, B./Van Wyk, P.. Field guide to trees of Southern Africa. Struik Publishers, Cape Town, South Africa	[Propagules water dispersed? Possibly] "Scrambling shrub or small bushy tree; occurring in bushveld and thicket, often on floodplains and termitaria."
705	2005. Friis, I.,/Vollesen, K.. Flora of the Sudan-Uganda Border Area East of the Nile: Catalogue of vascular plants, 2nd pt. Vegetation and phytogeography. Kgl. Danske Videnskabernes Selskab, Copenhagen, Denmark	[Propagules water dispersed? Possibly. Occurs along riverine forest] "Widespread in a range of fairly open habitats (often riverine)."
706	2002. Nichols, G.. Down to Earth: Gardening with Indigenous Shrubs. Struik Publishers, Cape Town, South Africa	[Propagules bird dispersed? Yes] "The bright orange fruits are fleshy and very stick, and extremely popular with birds."

706	2012. Hyde, M.A./Wursten, B.T./Ballings, P.. Flora of Zimbabwe: Species information: <i>Cordia monoica</i> [retrieved 3 October 2012]. http://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=148220	[Propagules bird dispersed? Presumably Yes] "Fruit fleshy, ovoid, orange-yellow when ripe, cupped in the persistent remains of the calyx. "
707	2002. Nichols, G.. Down to Earth: Gardening with Indigenous Shrubs. Struik Publishers, Cape Town, South Africa	[Propagules dispersed by other animals (externally)? Unknown. Possible that sticky fruits may adhere externally to animals] "The bright orange fruits are fleshy and very stick, and extremely popular with birds."
708	2012. Hyde, M.A./Wursten, B.T./Ballings, P.. Flora of Zimbabwe: Species information: <i>Cordia monoica</i> [retrieved 3 October 2012]. http://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=148220	[Propagules survive passage through the gut? Presumably Yes] "Fruit fleshy, ovoid, orange-yellow when ripe, cupped in the persistent remains of the calyx. "
801	2012. Hyde, M.A./Wursten, B.T./Ballings, P.. Flora of Zimbabwe: Species information: <i>Cordia monoica</i> [retrieved 3 October 2012]. http://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=148220	[Prolific seed production (>1000/m ²)? No. Unlikely] "Shrub or small, multi-stemmed tree." ... " Fruit fleshy, ovoid, orange-yellow when ripe, cupped in the persistent remains of the calyx." [monoica: one-seeded
802	2000. Salazar, R./Jøker, D.. <i>Cordia alliodora</i> (Ruiz & Pavón) Oken. Seed Leaflet No. 25. Danida Forest Seed Centre, Denmark	[Evidence that a persistent propagule bank is formed (>1 yr)? Unknown. Related species lose viability quickly in field conditions or if not stored properly] <i>Cordia alliodora</i> - "The seed is orthodox, but if not stored properly it loses viability fast. It is especially important to use bags that are completely airtight, either heavy plastic or aluminium. In Costa Rica experience is that after two weeks at room temperature the germination is down to 40%. Best storage is at 5°C and moisture content 7-10%. An experiment from Colombia showed that seed stored at 5°C and 8.5% moisture content retained 76% germination after 14 months."
802	2008. Royal Botanic Gardens Kew. Seed Information Database (SID). Version 7.1. http://data.kew.org/sid/	[Evidence that a persistent propagule bank is formed (>1 yr)? Orthodox seed storage. Unknown from field conditions] "Storage Behaviour: Orthodox Storage Conditions: 90% viability following drying to mc's in equilibrium with 15% RH and freezing for 1 month at -20°C at RBG Kew, WP"
803	2012. WRA Specialist. Personal Communication.	[Well controlled by herbicides? Unknown] No information on herbicide efficacy or chemical control of this species
804	2012. Total in Kenya. Summary of tree uses and management [Accessed 05 Oct 2012]. http://www.total.co.ke/os/content/NT0005F692.pdf	[Tolerates, or benefits from, mutilation, cultivation, or fire? Yes] Able to Coppice / Pollard
805	2012. WRA Specialist. Personal Communication.	[Effective natural enemies present locally (e.g. introduced biocontrol agents)? Unknown]

Summary of Risk Traits

High Risk / Undesirable Traits

- Broad elevation range (>1000 m) and environmentally versatile
- Thrives in tropical climates
- Related species has become invasive
- Reaches maturity in 2 years
- Seeds dispersed by birds

Low Risk / Desirable Traits

- No evidence of naturalization or invasiveness elsewhere
- Unarmed (no spines, thorns or burrs)
- Fodder tree (palatable to browsing animals)
- Non-toxic
- Edible fruit
- Ornamental and medicinal value
- Not known to spread vegetatively