

Taxon: <i>Brya ebenus</i> (L.) DC.	Family: Fabaceae
Common Name(s): cocoswood ebony cocuwood grenadilla Jamaican raintree Jamaican-ebony West Indian-ebony	Synonym(s): Aspalathus ebenus L.

Assessor: Chuck Chimera	Status: Assessor Approved	End Date: 3 May 2017
WRA Score: 4.0	Designation: L	Rating: Low Risk

Keywords: Tropical Tree, Spiny, Dense Stands, N-Fixing, Coppices

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	y = 1*multiplier (see Appendix 2), n= question 205	y
302	Garden/amenity/disturbance weed		
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)	n
401	Produces spines, thorns or burrs	y=1, n=0	y
402	Allelopathic		
403	Parasitic	y=1, n=0	n
404	Unpalatable to grazing animals		
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		
408	Creates a fire hazard in natural ecosystems		
409	Is a shade tolerant plant at some stage of its life cycle		
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	n
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		
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		
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		
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
	Lewis, G. (1988). Four Little-Known Species of Leguminosae from Cuba. <i>Willdenowia</i> , 18(1), 223-229	No evidence of domestication

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 3 May 2017]	"Native: Southern America Caribbean: Cuba; Jamaica"

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 3 May 2017]	

203	Broad climate suitability (environmental versatility)	y
	Source(s)	Notes
	Dave's Garden. 2017. Jamaican Rain Tree, Jamaican Ebony, West Indian Ebony, Granadilla - <i>Brya ebenus</i> . http://davesgarden.com/guides/pf/go/170931/ . [Accessed 3 May 2017]	"Hardiness: USDA Zone 10a: to -1.1 °C (30 °F) USDA Zone 10b: to 1.7 °C (35 °F) USDA Zone 11: above 4.5 °C (40 °F)"
	Powell, C., Wiles, A., Serrant, S., Collins, M., Barber, S., Hendricks, A. M., & Bailey, A. 2015. Some Common Jamaican Trees. Natural History Society of Jamaica, Kingston	"Sea level - 1000 m" [Elevation range of 1000 m, demonstrating some environmental versatility]

Qsn #	Question	Answer
204	Native or naturalized in regions with tropical or subtropical climates	y
	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 3 May 2017]	"Native: Southern America Caribbean: Cuba; Jamaica"

Qsn #	Question	Answer
205	Does the species have a history of repeated introductions outside its natural range?	y
	Source(s)	Notes
	indiaplants.com. 2017. <i>Brya ebenus</i> , <i>Asplanthus ebenus</i> . http://www.indiaplants.com/plant-details.php?x=VQPd1ex9jco= . [Accessed 3 May 2017]	"Generally available in India in quantities of: Over hundreds" [Cultivated in India]
	Dave's Garden. 2017. Jamaican Rain Tree, Jamaican Ebony, West Indian Ebony, Granadilla - <i>Brya ebenus</i> . http://davesgarden.com/guides/pf/go/170931/ . [Accessed 3 May 2017]	"Regional This plant has been said to grow in the following regions: Mulberry, Florida Peachtree City, Georgia"
	Benthall, A.P. 1946. The Trees of Calcutta and its Neighbourhood. Thacker Spink & Co., Calcutta	"This very attractive plant is a native of the West Indies, but is now commonly grown in India for its graceful habit of growth and its fragrant orange flowers. It is often seen' in Calcutta gardens."

Qsn #	Question	Answer
301	Naturalized beyond native range	y
	Source(s)	Notes
	Liogier, A.H. & Martorell, L.F. 2000. Flora of Puerto Rico and adjacent islands: a systematic synopsis. Second Edition Revised. La Editorial, UPR, San Juan, Puerto Rico	" <i>Brya ebenus</i> (L.) DC. Between Caguas and Cayey, locally naturalized, Puerto Rico; Cuba, Jamaica, St. Croix. (II:117)"
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	" <i>Brya ebenus</i> (L.) DC. Fabaceae - Papilionaceae Total N° of Refs: 3 Preferred Climate/s: Tropical References: Cuba-A-14, United States o America-N-101, India-W-1977."

Qsn #	Question	Answer
302	Garden/amenity/disturbance weed	
	Source(s)	Notes
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	" <i>Brya ebenus</i> (L.) DC. Fabaceae - Papilionaceae Total N° of Refs: 3 Preferred Climate/s: Tropical References: Cuba-A-14, United States o America-N-101, India-W-1977." [Cited as a weed, but unable to corroborate with listed references]
	Global Register of Introduced and Invasive Species. 2017. <i>Brya ebenus</i> . http://griis.org/search3.php . [Accessed 3 May 2017]	<i>Brya ebenus</i> DC. (L.) India Plantae terrestrial Alien [Cited in Randall (2017). No indication of negative impacts reported on this website]

Qsn #	Question	Answer
303	Agricultural/forestry/horticultural weed	n
	Source(s)	Notes
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	No evidence

304	Environmental weed	n
	Source(s)	Notes
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	No evidence

305	Congeneric weed	n
	Source(s)	Notes
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	No evidence

401	Produces spines, thorns or burrs	y
	Source(s)	Notes
	Dave's Garden. 2017. Jamaican Rain Tree, Jamaican Ebony, West Indian Ebony, Granadilla - <i>Brya ebenus</i> . http://davesgarden.com/guides/pf/go/170931/ . [Accessed 3 May 2017]	"Danger: Plant has spines or sharp edges; use extreme caution when handling"
	Lewis, G. (1988). Four Little-Known Species of Leguminosae from Cuba. <i>Willdenowia</i> , 18(1), 223-229	[Stipules somewhat spiny] "Shrub or small tree (to 8 m) deciduous in the dry season in its native habitat but often evergreen in Calcutta, sometimes branching from the base or with a main trunk and slender drooping branches; bark rough, fissured, greyish brown; stipules somewhat spiny; leaves 1-3 foliolate, subsessile (i. e. with scarcely any petiole); leaflets obovate-elliptic, quite tough and leathery, glabrous or lightly hairy on the lower face, notched at the apex, 7-20(-25) mm long; calyx 5-toothed, c. 3 mm long; bracts and bracteoles small and persistent"
	Macfadyen, J. 1837. The Flora of Jamaica. Ranunculaceae - Leguminosae. Longman, Orme, Brown, Green, & Longmans, London	[With short sharp prickles] "A shrub, or tree 15–20 feet in height, with erect fastigiate branches; branchlets angulose, armed with short sharp prickles, with clusters of leaves in their axils."

402	Allelopathic	
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	Unknown. No evidence found

403	Parasitic	n
	Source(s)	Notes

Qsn #	Question	Answer
	Lewis, G. (1988). Four Little-Known Species of Leguminosae from Cuba. <i>Willdenowia</i> , 18(1), 223-229	"Shrub or small tree (to 8 m) deciduous in the dry season in its native habitat but often evergreen in Calcutta, sometimes branching from the base or with a main trunk and slender drooping branches; bark rough, fissured, greyish brown; stipules somewhat spiny; leaves 1-3-foliolate, subsessile (i. e. with scarcely any petiole" [Fabaceae. No evidence]

404	Unpalatable to grazing animals	
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	Unknown

405	Toxic to animals	n
	Source(s)	Notes
	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
	WRA Specialist. 2017. Personal Communication	Wood may be an allergen to people

406	Host for recognized pests and pathogens	
	Source(s)	Notes
	Top Tropicals. 2017. <i>Brya ebenus</i> , <i>Aspalathus ebenus</i> . https://toptropicals.com/catalog/uid/Brya_ebenus.htm . [Accessed 3 May 2017]	"No environmental or pest problems."
	Howard, F.W., Pemberton, R.W., Hodges, G.S., Steinberg, B., McLean, D. & Liu, H. 2006. Host Plant Range of Lobate Lac Scale, <i>Paratachardina lobata</i> , in Florida. <i>Proceedings of the Florida State Horticultural Society</i> 119: 398-408	"Table 1. The host range of lobate lac scale, <i>Paratachardina lobata</i> , in southern Florida, species based on observations during 2002-2006, arranged in alphabetical order. *Indicates species native to Florida." [Includes <i>Brya ebenus</i>]

407	Causes allergies or is otherwise toxic to humans	
	Source(s)	Notes
	Hausen, B. M., Bruhn, G., & Koenig, W. A. (1991). New hydroxyisoflavans as contact sensitizers in cocus wood <i>Brya ebenus</i> DC (Fabaceae). <i>Contact Dermatitis</i> , 25(3), 149-155	"A 15-year-old girl developed perioral dermatitis and swelling of the lips, having played a flute made of cocus wood for 2 years. Patch tests with wood shavings, as well as with subsequently isolated constituents named focus 1 and focus II. were Strongly positive. After complete purification, bolt Contact allergens were identified as isoflavan derivatives, While Cocus 1 was shown to be 7,8-dihydroxy-2,4,5-trimethoxyisoflavan, the structure of focus II could not be elucidated exactly. It could have been Either 7,8,3'-trihydroxy 2,4-dimethoxyisoflavan or 7,8,2-trihydroxy-3',4-dimethoxyisoflavan The exact position of the hydroxy and methoxy group in C-2 and C-3 can be determined only by complete synthesis Of both compounds or by isolation of greater amounts of focus II for further oxidation experiments. Due to the stronger patch test reaction and the higher yield cocus I in the wood, this hydroxyisoflavan must be recognized as the main contact allergen."

Qsn #	Question	Answer
	The Wood Database. 2017. Cocuswood. http://www.wood-database.com/cocuswood/ . [Accessed 3 May 2017]	[Working with wood may cause allergies] "Allergies/Toxicity: Although severe reactions are quite uncommon, Cocuswood has been reported to cause skin irritation. See the articles Wood Allergies and Toxicity and Wood Dust Safety for more information."
	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

408	Creates a fire hazard in natural ecosystems	
	Source(s)	Notes
	Macfadyen, J. 1837. The Flora of Jamaica. Ranunculaceae - Leguminosae. Longman, Orme, Brown, Green, & Longmans, London	"Common, especially in dry savannahs, on the South side of the Island." [Unknown. Dry savannahs may be fire prone ecosystems]

409	Is a shade tolerant plant at some stage of its life cycle	
	Source(s)	Notes
	McLaughlin, J., Balerdi, C. & Beckford, M. 2007. Small Trees for Miami-Dade Landscapes. UF-IFAS/Miami-Dade County Extension Service, Homestead, FL	"Full sun"
	indiaplants.com. 2017. <i>Brya ebenus</i> , <i>Asplanthus ebenus</i> . http://www.indiaplants.com/plant-details.php?x=VQPd1ex9jco= . [Accessed 3 May 2017]	"Light: Sun growing, Semi shade"
	Useful Tropical Plants Database. 2017. <i>Brya ebenus</i> . http://tropical.theferns.info/viewtropical.php?id=Brya+ebenus . [Accessed 3 May 2017]	"Prefers a position in full sun, though it can succeed in most settings apart from humid shade where it seldom flowers"
	Dave's Garden. 2017. Jamaican Rain Tree, Jamaican Ebony, West Indian Ebony, Granadilla - <i>Brya ebenus</i> . http://davesgarden.com/guides/pf/go/170931/ . [Accessed 3 May 2017]	"Sun Exposure: Full Sun Sun to Partial Shade"

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y
	Source(s)	Notes
	Dave's Garden. 2017. Jamaican Rain Tree, Jamaican Ebony, West Indian Ebony, Granadilla - <i>Brya ebenus</i> . http://davesgarden.com/guides/pf/go/170931/ . [Accessed 3 May 2017]	"Soil pH requirements: 6.1 to 6.5 (mildly acidic) 6.6 to 7.5 (neutral) 7.6 to 7.8 (mildly alkaline)"
	indiaplants.com. 2017. <i>Brya ebenus</i> , <i>Asplanthus ebenus</i> . http://www.indiaplants.com/plant-details.php?x=VQPd1ex9jco= . [Accessed 3 May 2017]	"Will grow in all types of soils. Good drainage is important. "

Qsn #	Question	Answer
411	Climbing or smothering growth habit	n
	Source(s)	Notes
	Lewis, G. (1988). Four Little-Known Species of Leguminosae from Cuba. <i>Willdenowia</i> , 18(1), 223-229	"Shrub or small tree (to 8 m)"
412	Forms dense thickets	y
	Source(s)	Notes
	Jennings, O. E. 1917. A Contribution to the Botany of the Isle of Pines, Cuba, Based upon the Specimens of Plants from the Island Contained in the Herbarium of the Carnegie Museum Under Date of October, 1916. <i>Annals of the Carnegie Museum</i> XI: 19-290	"On the dry "Mal Pais" gravelly soils of the northeastern part of the island the Granadillo occurs in large numbers in thickets or as scattered plants. The plants grow to a height of from six or eight up to perhaps fifteen feet, with a rounded crown of stiff bushy branches."
501	Aquatic	n
	Source(s)	Notes
	Jennings, O. E. 1917. A Contribution to the Botany of the Isle of Pines, Cuba, Based upon the Specimens of Plants from the Island Contained in the Herbarium of the Carnegie Museum Under Date of October, 1916. <i>Annals of the Carnegie Museum</i> XI: 19-290	[Terrestrial tree] "General Distribution: Dry gravelly savannas in the Bahamas, Cuba, Isle of Pines, and Jamaica."
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 3 May 2017]	Family: Fabaceae (alt.Leguminosae) Subfamily: Papilionoideae Tribe: Dalbergieae
503	Nitrogen fixing woody plant	y
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	Family: Fabaceae (alt.Leguminosae) Subfamily: Papilionoideae Tribe: Dalbergieae
504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	Notes
	Powell, C., Wiles, A., Serrant, S., Collins, M., Barber, S., Hendricks, A. M., & Bailey, A. 2015. Some Common Jamaican Trees. Natural History Society of Jamaica, Kingston	"This small tree grows up to 8 m in height. It may originally have come to Jamaica from Cuba. Ebony which is also called coccus wood, has a rough bark and short branches with spines. Its leaves are small somewhat egg-shaped and are inclined to cluster together. The plant sometimes shed its leaves."

Qsn #	Question	Answer
601	Evidence of substantial reproductive failure in native habitat	n
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	No evidence found
602	Produces viable seed	y
	Source(s)	Notes
	Lewis, G. (1988). Four Little-Known Species of Leguminosae from Cuba. Willdenowia, 18(1), 223-229	"fruit 1-seeded or more usually a loment of 2 broad, flat articles"
	Useful Tropical Plants Database. 2017. Brya ebenus. http://tropical.theferns.info/viewtropical.php?id=Brya+ebenus . [Accessed 3 May 2017]	"Propagation Seed "
603	Hybridizes naturally	
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	Unknown
604	Self-compatible or apomictic	
	Source(s)	Notes
	Lewis, G. (1988). Four Little-Known Species of Leguminosae from Cuba. Willdenowia, 18(1), 223-229	"flowers borne in axillary or subterminal fascicles, or sometimes solitary, yellowish fading to a tangerine colour, orangish-yellow or bright orange, lightly and delicately scented; standard petal up to c. 10 X 8 mm; stamens 10 fused into a sheath, this open along the upper margin, the filaments slightly unequal in length; ovary hairy with 3 hair types (fig. 3-12), 2-ov" ... "Conservation status and pollination biology unknown"
605	Requires specialist pollinators	n
	Source(s)	Notes
	indiaplants.com. 2017. Brya ebenus, Asplanthus ebenus. http://www.indiaplants.com/plant-details.php?x=VQPd1ex9jco= . [Accessed 3 May 2017]	"Attracts birds Attracts butterflies Attracts bees"
606	Reproduction by vegetative fragmentation	n
	Source(s)	Notes
	Useful Tropical Plants Database. 2017. Brya ebenus. http://tropical.theferns.info/viewtropical.php?id=Brya+ebenus . [Accessed 3 May 2017]	"Propagation Seed " [No evidence]
607	Minimum generative time (years)	
	Source(s)	Notes

Qsn #	Question	Answer
	indiaplants.com. 2017. <i>Brya ebenus</i> , <i>Asplanthus ebenus</i> . http://www.indiaplants.com/plant-details.php?x=VQPd1ex9jco= . [Accessed 3 May 2017]	"Growing tips: - Very fast growing."
	Dave's Garden. 2017. Jamaican Rain Tree, Jamaican Ebony, West Indian Ebony, Granadilla - <i>Brya ebenus</i> . http://davesgarden.com/guides/pf/go/170931/ . [Accessed 3 May 2017]	"On Dec 9, 2012, Summerbrookedee from Peachtree City, GA wrote: I have this tree in my back yard. I got it at a yard sale, the lady described the flowers to me and I knew I had to have it. It sat in its pot for a good six months before I planted it. Within 2 years it got a good 8 foot tall. (Don't tell me its slow growing) :) I planted it in mostly sun, in good rich soil. It seeded profusely this year. I have plenty of seeds to experiment with. I haven't counted but would guess 500 seed pods."

701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	n
	Source(s)	Notes
	Benthall, A.P. 1946. The Trees of Calcutta and its Neighbourhood. Thacker Spink & Co., Calcutta	"The pod is divided into several joints each of which contains a single seed." [No evidence. No means of external attachment]

702	Propagules dispersed intentionally by people	y
	Source(s)	Notes
	Top Tropicals. 2017. <i>Brya ebenus</i> , <i>Aspalathus ebenus</i> . https://toptropicals.com/catalog/uid/Brya_ebenus.htm . [Accessed 3 May 2017]	"A very decorative accent tree with many blossoms and unusual form and foliage. Leaves are tiny and evergreen. Requires a lot of sun for at least part of the day. Highly drought-tolerant." [Cultivated as an ornamental]
	indiaplants.com. 2017. <i>Brya ebenus</i> , <i>Asplanthus ebenus</i> . http://www.indiaplants.com/plant-details.php?x=VQPd1ex9jco= . [Accessed 3 May 2017]	"Generally available in India in quantities of: Over hundreds" [Sold as an ornamental]

703	Propagules likely to disperse as a produce contaminant	n
	Source(s)	Notes
	Efloraofindia. 2017. <i>Brya ebenus</i> . https://sites.google.com/site/efloraofindia/ . [Accessed 3 May 2017]	"Plant Habit- thorny shrub" ... "Fruits Type/ Shape/ Size Seeds- single seeded pod; ca. 1 cm long" [Unlikely. No evidence found. A woody plant with relatively large seeds]

704	Propagules adapted to wind dispersal	n
	Source(s)	Notes
	Lewis, G. (1988). Four Little-Known Species of Leguminosae from Cuba. <i>Willdenowia</i> , 18(1), 223-229	"fruit 1-seeded or more usually a loment of 2 broad, flat articles" [No evidence of adaptations for wind dispersal]

705	Propagules water dispersed	
	Source(s)	Notes
	Lewis, G. (1988). Four Little-Known Species of Leguminosae from Cuba. <i>Willdenowia</i> , 18(1), 223-229	"fruit 1-seeded or more usually a loment of 2 broad, flat articles" [Buoyancy of pods or seeds unknown]

Qsn #	Question	Answer
706	Propagules bird dispersed	n
	Source(s)	Notes
	Efloraofindia. 2017. <i>Brya ebenus</i> . https://sites.google.com/site/efloraofindia/ . [Accessed 3 May 2017]	"Fruits Type/ Shape/ Size Seeds- single seeded pod; ca. 1 cm long" [No evidence, or apparent adaptations for bird dispersal]
707	Propagules dispersed by other animals (externally)	n
	Source(s)	Notes
	Efloraofindia. 2017. <i>Brya ebenus</i> . https://sites.google.com/site/efloraofindia/ . [Accessed 3 May 2017]	"Fruits Type/ Shape/ Size Seeds- single seeded pod; ca. 1 cm long" [Pods & seeds lack means of external attachment]
708	Propagules survive passage through the gut	
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	Unknown if pods are consumed or if seeds survive gut passage
801	Prolific seed production (>1000/m2)	n
	Source(s)	Notes
	Efloraofindia. 2017. <i>Brya ebenus</i> . https://sites.google.com/site/efloraofindia/ . [Accessed 3 May 2017]	"Fruits Type/ Shape/ Size Seeds- single seeded pod; ca. 1 cm long" [Unlikely, given single seed per pod & relatively large seed size]
	Dave's Garden. 2017. Jamaican Rain Tree, Jamaican Ebony, West Indian Ebony, Granadilla - <i>Brya ebenus</i> . http://davesgarden.com/guides/pf/go/170931/ . [Accessed 3 May 2017]	"I planted it in mostly sun, in good rich soil. It seeded profusely this year. I have plenty of seeds to experiment with. I haven't counted but would guess 500 seed pods."
802	Evidence that a persistent propagule bank is formed (>1 yr)	
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	Unknown
803	Well controlled by herbicides	
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	Unknown. No information on herbicide efficacy or chemical control of this species
804	Tolerates, or benefits from, mutilation, cultivation, or fire	y
	Source(s)	Notes

Qsn #	Question	Answer
	McLaren, K. P., & McDonald, M. A. (2003). Coppice regrowth in a disturbed tropical dry limestone forest in Jamaica. <i>Forest Ecology and Management</i> , 180(1), 99-111	"An average of 23 shoots per stump was recorded for all individuals and the one-way ANOVA revealed that the species differed significantly in their average number of shoots found alive after 14 months ($P < 0:001$; Table 1; Fig. 1a)." [Brya ebenus demonstrates ability to coppice]
	Top Tropicals. 2017. <i>Brya ebenus</i> , <i>Aspalathus ebenus</i> . https://toptropicals.com/catalog/uid/Brya_ebenus.htm . [Accessed 3 May 2017]	"Mature height is 30 feet, but it's easy to keep under 15' with annual pruning." [Tolerates regular pruning]

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

- Elevation range exceeds 1000 m, demonstrating environmental versatility
- Thrives in tropical climates
- Naturalized in Puerto Rico, & possibly elsewhere
- Spiny
- Wood may cause dermatitis
- Tolerates many soil types
- Reported to form dense stands in native range
- Reproduces by seeds
- Seed dispersal vectors may be limited (uncertain)
- Able to coppice & resprout after cutting
- Limited ecological information lowers accuracy of risk prediction

Low Risk Traits

- No reports of negative environmental impacts in introduced range
- Ornamental
- May only thrive in high light environments (i.e. full sun)
- Not reported to spread vegetatively

Second Screening Results for Tree/tree-like shrubs

(A) Shade tolerant or known to form dense stands?> Yes. Possibly tolerates partial shade. Forms dense stands in native range.

(B) Bird or clearly wind-dispersed? No. Not clearly bird or wind-dispersed

Outcome = Accept (Low Risk)