

Family: *Fabaceae***Taxon:** *Dalbergia nigra***Synonym:** *Amerimnon nigrum* (Vell.) Kuntze
Pterocarpus niger Vell.**Common Name:** Bahia rosewood
Brazilian rosewood
Rio rosewood

| Questionnaire : | current 20090513 | Assessor: | Assessor | Designation: | EVALUATE |
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| Status: | Assessor Approved | Data Entry Person: | Assessor | WRA Score | 5 |
| 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 | | |
| 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 | | |
| 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 | | y |
| 410 | Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island) | | y=1, n=0 | | y |

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| 411 | Climbing or smothering growth habit | y=1, n=0 | n |
| 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 | 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 | |
| 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 | y |
| 705 | Propagules water dispersed | y=1, n=-1 | |
| 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 | 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) | y=-1, n=1 | |

Designation: EVALUATE

WRA Score **5**

Supporting Data:

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| 101 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Is the species highly domesticated? No] "Provenance trials on trunk form detected genetic variation within and among provenances; breeding may improve this limiting characteristic (Carvalho, 1994)." |
| 102 | 2014. WRA Specialist. Personal Communication. | NA |
| 103 | 2014. WRA Specialist. Personal Communication. | NA |
| 201 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Species suited to tropical or subtropical climate(s) 2-High] "The natural distribution of <i>D. nigra</i> ranges from northeastern (13°15'S) to southeastern (23°S) Brazil. There is a restricted occurrence in Brazil, from southern Bahia to northern São Paulo, including Espírito Santo, Minas Gerais and Rio de Janeiro in the Atlantic forest (tropical dense rainforest) (Carvalho, 1994)." |
| 202 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Quality of climate match data 2-High] |
| 203 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Broad climate suitability (environmental versatility)? Yes. Elevation range exceeds 1000 m] "In Brazil, <i>D. nigra</i> grows in various climates, where altitude ranges from 30-1700 m and the mean annual rainfall is 1000-2100 mm. The species tolerates up to a four-month dry season, with a moderate water deficit (Carvalho, 1994). Climatic amplitude (estimates) - Altitude range: 30 - 1700 m - Mean annual rainfall: 1000 - 2100 mm - Rainfall regime: summer; bimodal; uniform - Dry season duration: 0 - 4 months - Mean annual temperature: 19 - 25°C - Mean maximum temperature of hottest month: 23 - 27°C - Mean minimum temperature of coldest month: 16 - 22°C" |
| 204 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Native or naturalized in regions with tropical or subtropical climates? Yes] "The natural distribution of <i>D. nigra</i> ranges from northeastern (13°15'S) to southeastern (23°S) Brazil. There is a restricted occurrence in Brazil, from southern Bahia to northern São Paulo, including Espírito Santo, Minas Gerais and Rio de Janeiro in the Atlantic forest (tropical dense rainforest) (Carvalho, 1994)." |
| 205 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Does the species have a history of repeated introductions outside its natural range? No evidence] "D. nigra has been planted in some states of Brazil for the following purposes: land reclamation, ornamental, restoration of riparian forests, wood production and shading of pasture. The species has been planted experimentally in Colombia and Peru (Carrasco, 1978)." |
| 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] |
| 301 | 2014. WRA Specialist. Personal Communication. | [Naturalized beyond native range? No evidence, but limited history of planting outside native range] |
| 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 | 2001. Parsons, W.T./Cuthbertson, E.G.. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia | [Congeneric weed? Yes] "Dalbergia sissoo" ... "Dense thickets have now formed on sand dunes near Mandorah in Darwin harbour and there are scattered infestations elsewhere in the city." ... "Under favourable conditions, such as occurs at Darwin, it forms dense thickets to the virtual exclusion of most other plants." |
| 401 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Produces spines, thorns or burrs? No] "D. nigra is an evergreen to semi deciduous tree that typically reaches 10-25 m in height with a dbh of 15-80 cm (Carvalho, 1994; Lorenzi, 1992). In exceptional cases it reaches 50 m in height (Santos, 1987) and 155 cm in dbh (Leao and Vinha, 1975). The trunk is twisted and irregular, and the bole can reach 10 m. Leaves paripinnate compound, alternate, 5-13 cm long, with 10-20 pairs of alternate leaflets, 7 25 mm long, 4-10 mm wide, pilose when young and glabrous later (Carvalho, 1994; Lorenzi, 1992)." |

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| 402 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Allelopathic? Possibly No] "D. nigra is recommended to be planted in association with pastures in south central Brazil (Carvalho, 1997) and also with annual crops (Carvalho, 1994). In Colombia, this species has been planted experimentally with guaraná (Paullinia cupana). It can be used in windbreaks (Guimaraes and Fonseca, 1990). The species is used in mixed plantation for environmental restoration and widely used as an ornamental for scenic purposes (Lorenzi, 1992; Botelho et al., 1995)." |
| 403 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Parasitic? No] "D. nigra is an evergreen to semi-deciduous tree that typically reaches 10-25 m in height with a dbh of 15-80 cm (Carvalho, 1994; Lorenzi, 1992)." [Fabaceae] |
| 404 | 2008. Louppe, D./Oteng-Amoako, A.A./Brink, M.. Timbers 1: volume 7 of Plant Resources of Tropical Africa. PROTA, Wageningen, Netherlands | [Unpalatable to grazing animals? Probably No. Other Dalbergia species are palatable] "Dalbergia latifolia ... The foliage is used as fodder." ... "Dalbergia sissoo ... The foliage and young pods are useful as fodder, although it has been reported that fresh leaves may cause digestive disorders in livestock during the dry season." |
| 405 | 2014. The Wood Database. Brazilian Rosewood. http://www.wood-database.com/lumber-identification/hardwoods/brazilian-rosewood/ [Accessed 31 Jan 2014] | [Toxic to animals? No reports of toxicity to animals] "Allergies/Toxicity: Although severe reactions are quite uncommon, Brazilian Rosewood has been reported as a sensitizer. Usually most common reactions simply include eye and skin irritation." [No evidence of foliage being toxic, which would be the most likely way animals would be exposed] |
| 406 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Host for recognized pests and pathogens?] "In the southern Peru, Carrasco (1978) mentions that the cerambycid, <i>Stenodontes spinibarbis</i> , bores into the boles of living trees. Berti Filho (1979) found <i>Scolytus submarginatus</i> on <i>D. nigra</i> in São Paulo, Brazil. Pests recorded Insects: <i>Scolytus submarginatus</i> <i>Stenodontes spinibarbis</i> Pests recorded at the generic level (<i>Dalbergia</i>): Insects: <i>Coccus hesperidum</i> (brown soft scale) <i>Xylosandrus compactus</i> (shot-hole borer)" |
| 407 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Causes allergies or is otherwise toxic to humans? Potentially Yes] "Contact with wooden jewellery can cause dermatitis. The contact allergens of <i>Dalbergia</i> spp. have been identified as benzoquinones (Dias and Vale, 1992)." |
| 407 | 2014. The Wood Database. Brazilian Rosewood. http://www.wood-database.com/lumber-identification/hardwoods/brazilian-rosewood/ [Accessed 31 Jan 2014] | [Causes allergies or is otherwise toxic to humans? Possibly if exposed to wood] "Allergies/Toxicity: Although severe reactions are quite uncommon, Brazilian Rosewood has been reported as a sensitizer. Usually most common reactions simply include eye and skin irritation." |
| 408 | 2014. Arkive. Brazilian rosewood (<i>Dalbergia nigra</i>). http://www.arkive.org/brazilian-rosewood/dalbergia-nigra/ [Accessed 31 Jan 2014] | [Creates a fire hazard in natural ecosystems? No evidence, and unlikely given wet habitat] "The Brazilian rosewood grows in wet (hygrophilous) forests on rich soils, especially where the soil consists of clay and loam (a mix of sand, silt and clay) with good drainage. It grows across a range of climatic conditions that includes tropical lowlands and sub montane rainforests " |
| 409 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Is a shade tolerant plant at some stage of its life cycle? Yes] "D. nigra can grow in a moderately shaded environment." "- Tolerates shade; frost" |
| 410 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Tolerates a wide range of soil conditions ?] "D. nigra grows naturally even in low fertility soils, at pH greater than 5.2. It is not demanding of phosphorus and prefers soils with low aluminium content. In southern Bahia, it grows mainly in mountainous areas, occupying peaks and slopes with clay and sandy clay loam soils that are deep and well drained (Leao and Vinha, 1975)." "Soil descriptors - Soil texture: medium; heavy - Soil drainage: free - Soil reaction: acid; neutral - Special soil tolerances: infertile - Soil types: mountain soils; tropical soils" |
| 411 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Climbing or smothering growth habit? No] "D. nigra is an evergreen to semi-deciduous tree that typically reaches 10-25 m in height with a dbh of 15-80 cm (Carvalho, 1994; Lorenzi, 1992)." |

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| 412 | 1997. Carvalho, A. M. de. A synopsis of the genus <i>Dalbergia</i> (Fabaceae: Dalbergieae) in Brazil. <i>Brittonia</i> . 49(1): 87-109. | [Forms dense thickets? No evidence] "Ecology and distribution.-This tree is a typical component of the Atlantic forest from southern Bahia to northern Sao Paulo, with a major concentration on the rich soils once covered by hygrophilous forest of the Bahian Hylaea, extending from southern Bahia to northern Espirito Santo. According to Ledo and da Vinha (1975), the species grows extensively in that area, especially on undulating clay and loam soils with good drainage. <i>Dalbergia nigra</i> extends inland to eastern Minas Gerais, growing as a medium-sized tree in subdeciduous tropical forest along the river valleys. In the Atlantic forest, mature individuals are always large trees. Although now rare in undisturbed forest, the species regenerates well from stump sprouts and can be frequent as small trees in secondary forests and pastures." |
| 412 | 2005. CAB International. <i>Forestry Compendium</i> . CAB International, Wallingford, UK | [Forms dense thickets? No evidence] |
| 501 | 2005. CAB International. <i>Forestry Compendium</i> . CAB International, Wallingford, UK | [Aquatic? No] "In southern Bahia, it grows mainly in mountainous areas, occupying peaks and slopes with clay and sandy clay loam soils that are deep and well-drained (Leao and Vinha, 1975)." |
| 502 | 2005. CAB International. <i>Forestry Compendium</i> . CAB International, Wallingford, UK | [Grass? No] Fabaceae |
| 503 | 2005. CAB International. <i>Forestry Compendium</i> . CAB International, Wallingford, UK | [Nitrogen fixing woody plant? Yes] "D. nigra is a nitrogen-fixing tree (Galvao, 1984)." |
| 504 | 2005. CAB International. <i>Forestry Compendium</i> . CAB International, Wallingford, UK | [Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? Yes] "D. nigra is an evergreen to semi-deciduous tree that typically reaches 10-25 m in height with a dbh of 15-80 cm (Carvalho, 1994; Lorenzi, 1992)." |
| 601 | 1986. FAO. <i>Databook On Endangered Tree And Shrub Species And Provenances</i> Fao Forestry Paper 77. Forest Resources Division , FAO Forestry Department, Rome. Italy | [Evidence of substantial reproductive failure in native habitat? No] "In the Mata area, in Minas Gerais, young specimens are abundant and regeneration is fairly easy." |
| 601 | 1997. Carvalho, A. M. de. A synopsis of the genus <i>Dalbergia</i> (Fabaceae: Dalbergieae) in Brazil. <i>Brittonia</i> . 49(1): 87-109. | [Evidence of substantial reproductive failure in native habitat? Possibly] "Because of deforestation of its natural habitat and over-exploitation for its desirable wood, <i>Dalbergia nigra</i> has become extremely rare in nature. This led to its being the first tree species ever included in the Appendix I list of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES, 1992)." |
| 601 | 2005. CAB International. <i>Forestry Compendium</i> . CAB International, Wallingford, UK | [Evidence of substantial reproductive failure in native habitat? Possibly due to overharvesting] "D. nigra is on the official list of endangered Brazilian flora. According to Rizzini (1977), the species is already extinct in São Paulo State, Brazil, and it has become so scarce that it is now banned from international trade." |
| 602 | 2001. Ferraz-Grande, F. G., & Takaki, M.. Temperature dependent seed germination of <i>Dalbergia nigra</i> Allem (Leguminosae). <i>Brazilian Archives of Biology and Technology</i> . 44(4): 401-404. | [Produces viable seed? Yes] "The germination of endangered species <i>Dalbergia nigra</i> was studied and 30.5°C was found as optimum temperature, although the species presented a broad temperature range where germination occurs and light had no effect. The analysis of kinetics of seed germination confirmed the asynchronized germination below and above the optimum temperature. The light insensitive seed and germination also at high temperatures indicated that <i>D. nigra</i> could occur both in understories and gaps where the mean temperature was high." |
| 602 | 2005. CAB International. <i>Forestry Compendium</i> . CAB International, Wallingford, UK | [Produces viable seed? Yes] "Seeds of <i>D. nigra</i> are collected when the fruits are brown. Trees have annual or biannual production of seeds, whose dispersion is by wind." |
| 603 | 2005. CAB International. <i>Forestry Compendium</i> . CAB International, Wallingford, UK | [Hybridizes naturally? Unknown. No evidence of hybridization reported] |
| 604 | 2011. Ribeiro, R. A., Lemos-Filho, J. P., Ramos, A. C. S., & Lovato, M. B.. Phylogeography of the endangered rosewood <i>Dalbergia nigra</i> (Fabaceae): insights into the evolutionary history and conservation of the Brazilian Atlantic Forest. <i>Heredity</i> . 106(1): 4 | [Self-compatible or apomictic? Possibly No] "Its mating system is not known, but the congeneric tree <i>D. miscolobium</i> , from the Brazilian Cerrado exhibits outcrossing with an apparent self-incompatibility system (Gibbs and Sasaki, 1998), which possibly suggests a similar mating system in <i>D. nigra</i> ." |
| 605 | 2005. CAB International. <i>Forestry Compendium</i> . CAB International, Wallingford, UK | [Requires specialist pollinators? No evidence] "Fragrant white-yellowish flowers, 5-10 mm long, in axillary bunches up to 6 cm long, originating panicles up to 20 cm long (Carvalho, 1994)." [Flowers unspecialized] |
| 605 | 2011. Ribeiro, R. A., Lemos-Filho, J. P., Ramos, A. C. S., & Lovato, M. B.. Phylogeography of the endangered rosewood <i>Dalbergia nigra</i> (Fabaceae): insights into the evolutionary history and conservation of the Brazilian Atlantic Forest. <i>Heredity</i> . 106(1): 4 | [Requires specialist pollinators? No] "D. nigra is pollinated by bees (personal observation), and its seeds are dispersed by the wind (Carvalho, 1994)." |

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| 606 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Reproduction by vegetative fragmentation? No evidence] - Seed storage intermediate - Vegetative propagation by cuttings - Stand establishment using planting stock" |
| 606 | 2014. WRA Specialist. Personal Communication. | [Reproduction by vegetative fragmentation? No] No evidence of vegetative spread in the wild |
| 607 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Minimum generative time (years)? Unknown] "In Lavras, Minas Gerias (Brazil), in a stand of <i>Eucalyptus grandis</i> established to restore disturbed land, <i>D. nigra</i> was planted in the understorey and showed the highest growth rate among the 15 planted native species. After 3 years it reached a height of 1.83 m and a diameter at stem base of 2.6 cm (Davide et al., 1996)." |
| 607 | 2014. Arkive. Brazilian rosewood (<i>Dalbergia nigra</i>). http://www.arkive.org/brazilian-rosewood/dalbergia-nigra/ [Accessed 31 Jan 2014] | [Minimum generative time (years)? Unknown] "Very little is known about the ecology and reproduction of the Brazilian rosewood, but it is known to have a short flowering period between November and December and a long fruiting period between January and September." |
| 701 | 2011. Resende, L. C., Ribeiro, R. A., & Lovato, M. B.. Diversity and genetic connectivity among populations of a threatened tree (<i>Dalbergia nigra</i>) in a recently fragmented landscape of the Brazilian Atlantic Forest. <i>Genetica</i> . 139(9): 1159-1168. | [Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)? Unknown. Seeds may be germinating due to roadside disturbance, rather than due to movement of seeds along roads] "Trees of the threatened <i>D. nigra</i> may reach up to 35 m in height and have been described as typical of late secondary and climax forests (Carvalho 1994), although regeneration in pastures and roadsides has been detected in several areas (Carvalho 1997; personal observation)." |
| 702 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Propagules dispersed intentionally by people? Yes] "The species is used in mixed plantation for environmental restoration and widely used as an ornamental for scenic purposes (Lorenzi, 1992; Botelho et al., 1995)." |
| 703 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Propagules likely to disperse as a produce contaminant? No evidence] "The fruit is a samara, elliptical or oblong, flat, membranaceous, 3-8 cm long and 18-22 mm wide, with one seed (rarely two) located centrally (Carvalho, 1994)." ... "The seeds are dispersal by wind." |
| 704 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Propagules adapted to wind dispersal? Yes] "The fruit is a samara, elliptical or oblong, flat, membranaceous, 3-8 cm long and 18-22 mm wide, with one seed (rarely two) located centrally (Carvalho, 1994)." ... "The seeds are dispersal by wind." |
| 705 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Propagules water dispersed? Unknown] "The seeds are dispersal by wind."... "Vegetation types: rain forests; riparian forests" [Seeds adapted for wind dispersal, but occurrence in riparian forests could result in movement by water] |
| 706 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Propagules bird dispersed? No] "The fruit is a samara, elliptical or oblong, flat, membranaceous, 3-8 cm long and 18-22 mm wide, with one seed (rarely two) located centrally (Carvalho, 1994)." ... "The seeds are dispersal by wind." |
| 707 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Propagules dispersed by other animals (externally)? No evidence] "The fruit is a samara, elliptical or oblong, flat, membranaceous, 3-8 cm long and 18-22 mm wide, with one seed (rarely two) located centrally (Carvalho, 1994)." ... "The seeds are dispersal by wind." |
| 708 | 1998. Varty, N.. <i>Dalbergia nigra</i> . In: IUCN 2013. IUCN Red List of Threatened Species. Version 2013.2. www.iucnredlist.org [Accessed 31 Jan 2014] | [Propagules survive passage through the gut? Probably No] "Regeneration appears to be poor, possibly because of seed predation by rodents." |
| 708 | 2014. WRA Specialist. Personal Communication. | [Propagules survive passage through the gut? Unknown, but presumably wind dispersed seeds presumably not adapted for internal dispersal] |
| 801 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Prolific seed production (>1000/m ²)? No] "The fruit is a samara, elliptical or oblong, flat, membranaceous, 3-8 cm long and 18-22 mm wide, with one seed (rarely two) located centrally (Carvalho, 1994)." |
| 802 | 2004. Chaves, M. M. F., & Usberti, R.. Controlled seed deterioration in <i>Dalbergia nigra</i> and <i>Dimorphandra mollis</i> , endangered Brazilian forest species. <i>Seed Science and Technology</i> . 32(3): 813-823. | [Evidence that a persistent propagule bank is formed (>1 yr)? Unknown under natural conditions] " <i>D. nigra</i> and <i>D. mollis</i> presented orthodox seed behaviour in storage" ... " <i>D. mollis</i> presented higher seed storability than <i>D. nigra</i> " |
| 802 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK | [Evidence that a persistent propagule bank is formed (>1 yr)? Possibly] "Seeds with 12% moisture content, packed in semi-permeable bags and stored at 10°C with 65% relative humidity, maintained their germination rate for 105 days. After two years storage in semi-permeable containers at 3-5°C and 92% relative humidity, seeds had a germination rate of 65% (Carvalho, 1994)." ... "- Seed storage intermediate" |

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| 803 | 2001. Parsons, W.T./Cuthbertson, E.G.. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia | [Well controlled by herbicides? Presumably Yes] "Dalbergia sissoo ... Dalbergia is susceptible to picloram as a cut stump, basal bark or stem injection application." {Methods to control the invasive D. sissoo would presumably be effective for D. nigra} |
| 804 | 1997. Carvalho, A. M. de. A synopsis of the genus Dalbergia (Fabaceae: Dalbergieae) in Brazil. Brittonia. 49(1): 87-109. | [Tolerates, or benefits from, mutilation, cultivation, or fire? Yes] "Although now rare in undisturbed forest, the species regenerates well from stump sprouts and can be frequent as small trees in secondary forests and pastures." |
| 805 | 2014. WRA Specialist. Personal Communication. | [Effective natural enemies present locally (e.g. introduced biocontrol agents)? Unknown] |

Summary of Risk Traits

High Risk / Undesirable Traits

- Thrives in tropical climates
- Elevation range exceeds 1000 m
- Related Dalbergia species have become invasive
- Contact with wood may cause dermatitis
- Shade tolerant (may be able to invade intact forest)
- Tolerates many soil types
- Nitrogen fixing
- Seeds dispersed by wind, and intentionally planted by people
- Can resprout from cut stump
- Rarity within native range and missing ecological information makes accurate risk prediction difficult

Low Risk Traits

- No reports of naturalization or invasiveness to date (although this may be due to limited cultivation outside the native range)
- Unarmed (no spines, thorns or burrs)
- Valued for timber
- Not known to spread vegetatively
- Herbicides may provide effective control