

**Family:** *Poaceae*

**Taxon:** *Gigantochloa atter*

**Synonym:** *Bambusa thouarsii* Kunth

*Bambusa atter*. Hassk

*Gigantochloa verticillata* (Willd.) Munro sens

**Common Name:** sweet bamboo

pring legi

| Questionnaire : | current 20090513  | Assessor:          | HPWRA OrgData                                      | Designation: L      |
|-----------------|---|--------------------|--|---------------------|
| Status:         | Assessor Approved   | Data Entry Person: | HPWRA OrgData                                      | <b>WRA Score -3</b> |
| 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                                    | y                   |
| 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)             | n                   |
| 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   |                     |

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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                                       | y  |
| 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,<br>4+ years = -1 | >3 |
| 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                                      | 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                                      |    |
| 802 | Evidence that a persistent propagule bank is formed (>1 yr)                                    | y=1, n=-1                                      | n  |
| 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: L

WRA Score -3

## Supporting Data:

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| 101 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK  | [Is the species highly domesticated? No]  |
| 102 | 2013. WRA Specialist. Personal Communication.   | NA  |
| 103 | 2013. 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] "This species is native of Malaya, cultivated in Indian Botanic Gardens, Calcutta. In Java and Sumatra, it is commonly cultivated in village areas and very rarely found near the forest, on the forest edge and in other disturbed areas probably as remnants from previous human settlement." |
| 201 | 2006 (onwards). Clayton, W.D./Vorontsova, M.S./Harman, K.T./Williamson, H.. GrassBase - The Online World Grass Flora. <a href="http://www.kew.org/data/grasses-db.html">http://www.kew.org/data/grasses-db.html</a>   | [Species suited to tropical or subtropical climate(s) 2-High] "DISTRIBUTION Asia-tropical: Malesia and Papuaia."  |
| 202 | 2006 (onwards). Clayton, W.D./Vorontsova, M.S./Harman, K.T./Williamson, H.. GrassBase - The Online World Grass Flora. <a href="http://www.kew.org/data/grasses-db.html">http://www.kew.org/data/grasses-db.html</a>   | [Quality of climate match data 2-High]  |
| 203 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK  | [Broad climate suitability (environmental versatility)? Yes] "This bamboo is found in the low land and it has been observed growing from near the coast to about 1400 m above sea level." [Elevation range exceeds 1000 m, demonstrating environmental versatility]   |
| 204 | 2006 (onwards). Clayton, W.D./Vorontsova, M.S./Harman, K.T./Williamson, H.. GrassBase - The Online World Grass Flora. <a href="http://www.kew.org/data/grasses-db.html">http://www.kew.org/data/grasses-db.html</a>   | [Native or naturalized in regions with tropical or subtropical climates? Yes] "DISTRIBUTION Asia-tropical: Malesia and Papuaia."  |
| 205 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK  | [Does the species have a history of repeated introductions outside its natural range? No] "India - planted<br>Indonesia - natural<br>Java - natural<br>Sumatra - natural<br>Malaysia - planted<br>Peninsular Malaysia - natural"  |
| 205 | 2011. Benton, A./Thomson, L./Berg, P./Ruskin, S.. Farm and Forestry Production and Marketing Profile for Bamboo (various species). In Elevitch, C.R. (ed.) Specialty Crops for Pacific Island Agroforestry. Permanent Agriculture Resources (PAR), Holualoa, HI | [Does the species have a history of repeated introductions outside its natural range? Yes] "Table 2 .... Gigantochloa atter .... Status - Introduced -- CI, FSM, H, K, N, P, T, S, W&F" [Cook Islands, Federated States of Micronesia, Hawaii, Kiribati, Niue, Palau, Tonga, Samoa, Wallis & Futuna]  |
| 301 | 2007. Negi, P.S./Hajra, P.K.. Alien flora of Doon Valley, Northwest Himalaya. Current Science. 92(7): 968-978.  | [Naturalized beyond native range? No] "Naturalized and widely cultivated exotics are marked by asterisks in the enumeration." ... "Table 1. Exotics of the Doon Valley (enumeration)" [Gigantochloa atter listed in table, but not marked with an asterisk]   |
| 301 | 2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia   | [Naturalized beyond native range? No]   |
| 302 | 2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia   | [Garden/amenity/disturbance weed? No] 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] No evidence  |
| 304 | 2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia   | [Environmental weed? No] No evidence  |
| 305 | 2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia   | [Congeneric weed? No] Several Gigantochloa species are listed as naturalized, but there is no evidence or references to them as invasive weeds  |

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| 401 | 2006 (onwards). Clayton, W.D./Vorontsova, M.S./Harman, K.T./Williamson, H.. GrassBase - The Online World Grass Flora. <a href="http://www.kew.org/data/grasses-db.html">http://www.kew.org/data/grasses-db.html</a>   | [Produces spines, thorns or burrs? No] "Perennial; caespitose; clumped densely. Rhizomes short; pachymorph. Culms erect; 1500–2200 cm long; 50–100 mm diam.; woody; with aerial roots from the nodes. Culm internodes terete; thin-walled; 40–50 cm long; light green; distally hispid. Lateral branches dendroid. Culm-sheaths deciduous; 21–36 cm long; hispid; with black hairs; truncate at apex; auriculate; with 3–7 mm high auricles; ciliate on shoulders; shoulders with 4–6 mm long hairs. Culm-sheath ligule 3–6 mm high; dentate. Culm-sheath blade narrowly ovate; deciduous; reflexed. Leaf-sheath auricles erect; 1 mm long. Ligule an eciliate membrane; 2 mm long. Collar with external ligule. Leaf blade base with a brief petiole-like connection to sheath; petiole 0.3–0.5 cm long. Leaf-blades lanceolate, or oblong; 20–44 cm long; 30–90 mm wide. Leaf-blade surface glabrous." |
| 402 | 2013. WRA Specialist. Personal Communication.   | [Allelopathic? Unknown] No evidence found  |
| 403 | 2006 (onwards). Clayton, W.D./Vorontsova, M.S./Harman, K.T./Williamson, H.. GrassBase - The Online World Grass Flora. <a href="http://www.kew.org/data/grasses-db.html">http://www.kew.org/data/grasses-db.html</a>   | [Parasitic? No] Poaceae  |
| 404 | 2007. CTAHR Hawaii Forestry Extension. Timor-Leste Agricultural Rehabilitation, Economic Growth, and Natural Resources Management Project. <a href="http://www.ctahr.hawaii.edu/forestry/data/timor/bamboo.html#au-roma">http://www.ctahr.hawaii.edu/forestry/data/timor/bamboo.html#au-roma</a> [Accessed 20 Mar 2013] | [Unpalatable to grazing animals? No] "The very top of the culm where the main stem is as narrow as the branches is discarded and the leaves are eagerly eaten by livestock."   |
| 404 | 2011. Benton, A./Thomson, L./Berg, P./Ruskin, S.. Farm and Forestry Production and Marketing Profile for Bamboo (various species). In Elevitch, C.R. (ed.) Specialty Crops for Pacific Island Agroforestry. Permanent Agriculture Resources (PAR), Hualaloa, HI   | [Unpalatable to grazing animals? Unknown] "Bamboo leaves make excellent fodder for livestock including cows, horses and pigs." [Probably palatable, but no specific information on <i>G. atter</i> found]  |
| 405 | 2007. CTAHR Hawaii Forestry Extension. Timor-Leste Agricultural Rehabilitation, Economic Growth, and Natural Resources Management Project. <a href="http://www.ctahr.hawaii.edu/forestry/data/timor/bamboo.html#au-roma">http://www.ctahr.hawaii.edu/forestry/data/timor/bamboo.html#au-roma</a> [Accessed 20 Mar 2013] | [Toxic to animals? No] "The very top of the culm where the main stem is as narrow as the branches is discarded and the leaves are eagerly eaten by livestock."   |
| 405 | 2008. Wagstaff, D.J.. International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL  | [Toxic to animals? No] No evidence   |
| 406 | 2002. Mohanan, C.. Diseases of Bamboos in Asia: An Illustrated Manual. International Network for Bamboo and Rattan (INBAR), New Delhi   | [Host for recognized pests and pathogens?] "Appendix IIA. Checklist of Bamboo Diseases and Pathogens in Bamboo Stands Reported from Different Countries in Asia" ... "Disease - Witches'-broom; Pathogen - <i>Epichloe bambusae</i> ; Bamboo species affected" [List includes <i>G. atter</i> , but importance of this species as a host plant is not specified]   |
| 407 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK  | [Causes allergies or is otherwise toxic to humans? No] "In Central Java, people call this species bambu legi which means sweet bambu. Young shoots of this bamboo are as delicious as those of <i>Dendrocalamus asper</i> . The culm of this species is very useful for building material. It is also used for making musical instruments and other handicrafts. (Prawirohatmodjo, 1990)."   |
| 408 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK  | [Creates a fire hazard in natural ecosystems? No] No evidence  |
| 408 | 2013. Bamboo Information Centre. Bamboo Stems. <a href="http://www.bamboe-ic.nl/stammen_en.html">http://www.bamboe-ic.nl/stammen_en.html</a> [Accessed 21 Mar 2013]   | [Creates a fire hazard in natural ecosystems? No] "The fire resistance of bamboo stems is roughly the same as that of wood owing to the similar chemical structure of both materials. On the outside, however, bamboo has a natural protective layer composed mainly of silicon, resulting in the outside being well protected, even against fire."  |
| 409 | 2005. Anonymous. Environmental Conservation and Land Use Management of Wetland Ecosystem in Southeast Asia. Annual Report for April 2004 - March 2005. Japan Society for Promotion of Science, Tokyo  | [Is a shade tolerant plant at some stage of its life cycle?] "Table 1 The list of sample species in Gn. Halimun National Park" ... [Table lists species recorded in Low, Middle, and High Light sites. <i>Gigantochloa atter</i> was documented only from "High Light" sites, suggesting it may not be shade tolerant]   |
| 409 | 2013. Backyard Gardener. <i>Gigantochloa atter</i> . <a href="http://www.backyardgardener.com/plantname/pda_43fd.html">http://www.backyardgardener.com/plantname/pda_43fd.html</a> [Accessed 21 Mar 2013]   | [Is a shade tolerant plant at some stage of its life cycle?] "Light Range: Part Shade to Full Sun" [Shade tolerance ambiguous]   |
| 410 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK  | [Tolerates a wide range of soil conditions? Unknown] Soil requirements not specified   |

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| 410 | 2013. Backyard Gardener. <i>Gigantochloa atter</i> .<br><a href="http://www.backyardgardener.com/plantname/pda_43fd.html">http://www.backyardgardener.com/plantname/pda_43fd.html</a> [Accessed 21 Mar 2013]                           | [Tolerates a wide range of soil conditions?] "Soil Range: Sandy Loam to Clay Loam"  |
| 411 | 2006 (onwards). Clayton, W.D./Vorontsova, M.S./Harman, K.T./Williamson, H.. GrassBase - The Online World Grass Flora.<br><a href="http://www.kew.org/data/grasses-db.html">http://www.kew.org/data/grasses-db.html</a>                 | [Climbing or smothering growth habit? No] "Perennial; caespitose; clumped densely. Rhizomes short; pachymorph. Culms erect; 1500–2200 cm long; 50–100 mm diam.; woody; with aerial roots from the nodes."   |
| 412 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK   | [Forms dense thickets? No] "This species is native of Malaya, cultivated in Indian Botanic Gardens, Calcutta. In Java and Sumatra, it is commonly cultivated in village areas and very rarely found near the forest, on the forest edge and in other disturbed areas probably as remnants from previous human settlement. This bamboo is found in the low land and it has been observed growing from near the coast to about 1400 m above sea level. " [A sympodial, or clumping bamboo that may be densely cultivated] |
| 412 | 2013. Guadua Bamboo. <i>Gigantochloa atter</i> (Sweet Bamboo).<br><a href="http://www.guadubamboo.com/gigantochloa-atter.html">http://www.guadubamboo.com/gigantochloa-atter.html</a> [Accessed 21 Mar 2013]                           | [Forms dense thickets? No] "Gigantochloa atter, also known as Giant Atter or Sweet Bamboo, is a dense tropical clumping bamboo native of Malaysia." [A densely growing, but clumping bamboo]  |
| 501 | 2006 (onwards). Clayton, W.D./Vorontsova, M.S./Harman, K.T./Williamson, H.. GrassBase - The Online World Grass Flora.<br><a href="http://www.kew.org/data/grasses-db.html">http://www.kew.org/data/grasses-db.html</a>                 | [Aquatic? No] Terrestrial   |
| 502 | 2006 (onwards). Clayton, W.D./Vorontsova, M.S./Harman, K.T./Williamson, H.. GrassBase - The Online World Grass Flora.<br><a href="http://www.kew.org/data/grasses-db.html">http://www.kew.org/data/grasses-db.html</a>                 | [Grass? No] Poaceae   |
| 503 | 2006 (onwards). Clayton, W.D./Vorontsova, M.S./Harman, K.T./Williamson, H.. GrassBase - The Online World Grass Flora.<br><a href="http://www.kew.org/data/grasses-db.html">http://www.kew.org/data/grasses-db.html</a>                 | [Nitrogen fixing woody plant? No] Poaceae   |
| 504 | 2010. Gordon, D.R./Mitterdorfer, B./Pheloung, P.C. et al.. Guidance for addressing the Australian Weed Risk Assessment questions. Plant Protection Quarterly. 25(2): 56-74.  | [Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] "This question relates to perennial plants with tubers, corms or bulbs. This question is specifically to deal with plants that have specialized organs and should not include plants merely with rhizomes/ stolons"  |
| 601 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK   | [Evidence of substantial reproductive failure in native habitat? No] "This species is native of Malaya, cultivated in Indian Botanic Gardens, Calcutta. In Java and Sumatra, it is commonly cultivated in village areas and very rarely found near the forest, on the forest edge and in other disturbed areas probably as remnants from previous human settlement. This bamboo is found in the low land and it has been observed growing from near the coast to about 1400 m above sea level."                         |
| 602 | 2006 (onwards). Clayton, W.D./Vorontsova, M.S./Harman, K.T./Williamson, H.. GrassBase - The Online World Grass Flora.<br><a href="http://www.kew.org/data/grasses-db.html">http://www.kew.org/data/grasses-db.html</a>                 | [Produces viable seed? Yes] "FRUIT Caryopsis with adherent pericarp."   |
| 602 | 2013. Bamboo Land. <i>Gigantochloa atter</i> 'Pring Legi'.<br><a href="http://www.bambooland.com.au/Bamboo/Gigantochloa-atter-Pring-Legi">http://www.bambooland.com.au/Bamboo/Gigantochloa-atter-Pring-Legi</a> [Accessed 20 Mar 2013] | [Produces viable seed? Yes] "This bamboo flowered in 2007, producing some viable seeds. The plants now sold are from these seeds."  |
| 603 | 2010. Triplett, J.K./Oltrogge, K.A./Clark, L.G.. Phylogenetic relationships and natural hybridization among the North American woody bamboos (Poaceae: Bambusoideae: Arundinaria). American Journal of Botany. 97(3): 471-492.         | [Hybridizes naturally? Unknown] "Holttum (1958) suggested that the great morphological variation of <i>Gigantochloa Munro</i> in the Malay Peninsula could be due to hybrid swarms (although morphological studies [ Widjaja, 1987 ; Widjaja and Lester, 1987 ] have provided alternative explanations for diversity in that genus)."   |
| 604 | 2006 (onwards). Clayton, W.D./Vorontsova, M.S./Harman, K.T./Williamson, H.. GrassBase - The Online World Grass Flora.<br><a href="http://www.kew.org/data/grasses-db.html">http://www.kew.org/data/grasses-db.html</a>                 | [Self-compatible or apomictic? Unknown] "Fertile florets increasing in size upwards. Fertile lemma ovate; 6–9 mm long; chartaceous; without keel. Lemma margins ciliate. Lemma hairs tawny. Lemma apex acuminate. Palea 5–8 mm long; 7–10 -veined; 2-keeled. Palea keels ciliate. Palea apex entire; obtuse. Apical sterile florets 1 in number; barren; lanceolate."   |
| 605 | 1994. Zomlefer, W.B.. Guide to Flowering Plant Families. The University of North Carolina Press, Chapel Hill & London  | [Requires specialist pollinators? No] Poaceae [anemophilous. Wind-pollinated]   |
| 606 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK   | [Reproduction by vegetative fragmentation? No] "Vegetative propagation by cuttings" [No evidence of unassisted spread by vegetative means]  |

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| 607 | 2011. Benton, A./Thomson, L./Berg, P./Ruskin, S.. Farm and Forestry Production and Marketing Profile for Bamboo (various species). In Elevitch, C.R. (ed.) Specialty Crops for Pacific Island Agroforestry. Permanent Agriculture Resources (PAR), Holualoa, HI | [Minimum generative time (years)? 50+] "Table 2 (part 1). Characteristics of suggested priority species for Pacific Islands." ... "Gigantochloa atter" ... "Thought to flower gregariously after 50-60 years then die."   |
| 701 | 2011. Benton, A./Thomson, L./Berg, P./Ruskin, S.. Farm and Forestry Production and Marketing Profile for Bamboo (various species). In Elevitch, C.R. (ed.) Specialty Crops for Pacific Island Agroforestry. Permanent Agriculture Resources (PAR), Holualoa, HI | [Propagules likely to be dispersed unintentionally ? No] "Thought to flower gregariously after 50-60 years then die." [Unlikely, as seeds are infrequently produced and lack means of external attachment]  |
| 702 | 2011. Benton, A./Thomson, L./Berg, P./Ruskin, S.. Farm and Forestry Production and Marketing Profile for Bamboo (various species). In Elevitch, C.R. (ed.) Specialty Crops for Pacific Island Agroforestry. Permanent Agriculture Resources (PAR), Holualoa, HI | [Propagules dispersed intentionally by people? Yes] "Table 2 .... Gigantochloa atter .... Status - Introduced -- CI, FSM, H, K, N, P, T, S, W&F" [Cook Islands, Federated States of Micronesia, Hawaii, Kiribati, Niue, Palau, Tonga, Samoa, Wallis & Futuna]   |
| 703 | 2011. Benton, A./Thomson, L./Berg, P./Ruskin, S.. Farm and Forestry Production and Marketing Profile for Bamboo (various species). In Elevitch, C.R. (ed.) Specialty Crops for Pacific Island Agroforestry. Permanent Agriculture Resources (PAR), Holualoa, HI | [Propagules likely to disperse as a produce contaminant? No] "Thought to flower gregariously after 50-60 years then die." [Unlikely, as seeds are rarely produced]  |
| 704 | 2011. Benton, A./Thomson, L./Berg, P./Ruskin, S.. Farm and Forestry Production and Marketing Profile for Bamboo (various species). In Elevitch, C.R. (ed.) Specialty Crops for Pacific Island Agroforestry. Permanent Agriculture Resources (PAR), Holualoa, HI | [Propagules adapted to wind dispersal? Yes] "Thought to flower gregariously after 50-60 years then die." [Grass seed, so presumably dispersed by wind and/or gravity upon reaching reproductive maturity]   |
| 705 | 2013. WRA Specialist. Personal Communication.   | [Propagules water dispersed? Unknown] Perhaps possible if occurring along riverbanks, as is typical of other Gigantochloa species   |
| 706 | 2013. WRA Specialist. Personal Communication.   | [Propagules bird dispersed? No] Not fleshy-fruited, and only flowers after 50+ years  |
| 707 | 2006 (onwards). Clayton, W.D./Vorontsova, M.S./Harman, K.T./Williamson, H.. GrassBase - The Online World Grass Flora. <a href="http://www.kew.org/data/grasses-db.html">http://www.kew.org/data/grasses-db.html</a>   | [Propagules dispersed by other animals (externally)? No] "FRUIT Caryopsis with adherent pericarp." [No evidence, and no means of external attachment]   |
| 708 | 2013. WRA Specialist. Personal Communication.   | [Propagules survive passage through the gut? Unknown] Seeds probably unlikely to be ingested  |
| 801 | 2011. Benton, A./Thomson, L./Berg, P./Ruskin, S.. Farm and Forestry Production and Marketing Profile for Bamboo (various species). In Elevitch, C.R. (ed.) Specialty Crops for Pacific Island Agroforestry. Permanent Agriculture Resources (PAR), Holualoa, HI | [Prolific seed production (>1000/m2)? Unknown] "Thought to flower gregariously after 50-60 years then die."   |
| 802 | 2011. Benton, A./Thomson, L./Berg, P./Ruskin, S.. Farm and Forestry Production and Marketing Profile for Bamboo (various species). In Elevitch, C.R. (ed.) Specialty Crops for Pacific Island Agroforestry. Permanent Agriculture Resources (PAR), Holualoa, HI | [Evidence that a persistent propagule bank is formed (>1 yr)? No] "Thought to flower gregariously after 50-60 years then die." [Propagated vegetatively with effectively no seed bank until possibly at the end of the life cycle]  |
| 803 | 1961. Cruzado, H.J./Muzik, T.J./Kennard, W.C.. Control of Bamboo in Puerto Rico by Herbicides. Weeds. 9 (1): 20-26.   | [Well controlled by herbicides? Unknown] "Observations made 9 months after application show that monuron was the most effective herbicide since 10 out of 20 clumps treated were killed with this herbicide. Those killed included all plants of B. tulda, G. apus, and B. textilis." [No information on herbicide efficacy or chemical control of G. atter, but related species may be effectively controlled with herbicides]   |
| 804 | 2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK  | [Tolerates, or benefits from, mutilation, cultivation, or fire? Presumably Yes] "In Central Java, people call this species bambu legi which means sweet bambu. Young shoots of this bamboo are as delicious as those of Dendrocalamus asper. The culm of this species is very useful for building material. It is also used for making musical instruments and other handicrafts. (Prawirohatmodjo, 1990)." [Cultivated for repeated harvest of the culms & edible shoots, which will regrow with time] |
| 805 | 2013. 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
- Can grow from sea level to 1400 m elevation
- Produces viable seeds that may be dispersed by gravity, wind or people
- Will resprout after repeated cutting or harvesting of shoots & culms (may be difficult to remove from unwanted areas)

### **Low Risk / Desirable Traits**

- No negative impacts have been documented
- Non-toxic
- Edible shoots
- Landscaping and ornamental value
- A sympodial, or clumping bamboo
- Flowering occurs in plants that are 50+ years old
- Lack of seed production until end of long life cycle