Family: ***Araceae***

Taxon: ***Philodendron giganteum***

Synonym: *NA*

Common Name: Chinabush
giant philodendron
grande seguine

Questionaire : current 20090513
Status: Assessor Approved

Assessor: Assessor
Data Entry Person: Assessor

Designation: EVALUATE
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**	**n**
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**	**?**
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)**	**y**
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)**	
305	**Congeneric weed**	**n=0, y = 1*multiplier (see Appendix 2)**	
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**	**y**
406	**Host for recognized pests and pathogens**	**y=1, n=0**	
407	**Causes allergies or is otherwise toxic to humans**	**y=1, n=0**	**y**
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**	**n**

411	**Climbing or smothering growth habit**	**y=1, n=0**	**y**
412	**Forms dense thickets**	**y=1, n=0**	**n**
501	**Aquatic**	**y=5, n=0**	**n**
502	**Grass**	**y=1, n=0**	**n**
503	**Nitrogen fixing woody plant**	**y=1, n=0**	**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**	**y**
607	**Minimum generative time (years)**	**1 year = 1, 2 or 3 years = 0, 4+ years = -1**	
701	**Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)**	**y=1, n=-1**	**n**
702	**Propagules dispersed intentionally by people**	**y=1, n=-1**	**y**
703	**Propagules likely to disperse as a produce contaminant**	**y=1, n=-1**	**n**
704	**Propagules adapted to wind dispersal**	**y=1, n=-1**	**n**
705	**Propagules water dispersed**	**y=1, n=-1**	
706	**Propagules bird dispersed**	**y=1, n=-1**	**y**
707	**Propagules dispersed by other animals (externally)**	**y=1, n=-1**	**n**
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**	**n**
803	**Well controlled by herbicides**	**y=-1, n=1**	
804	**Tolerates, or benefits from, mutilation, cultivation, or fire**	**y=1, n=-1**	
805	**Effective natural enemies present locally (e.g. introduced biocontrol agents)**	**y=-1, n=1**	

Designation: EVALUATE **WRA Score** 5

Supporting Data:

101	2005. Acevedo-Rodríguez, P./Strong, M.T.. Monocotyledons and Gymnosperms of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium. 52: 1-415.	[Is the species highly domesticated? No] No evidence
102	2013. WRA Specialist. Personal Communication.	NA
103	2013. WRA Specialist. Personal Communication.	NA
201	2013. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Species suited to tropical or subtropical climate(s) 2-High] "Native: SOUTHERN AMERICA. Caribbean: Dominica; Guadeloupe; Martinique; Montserrat; Netherlands Antilles - Saba, St. Eustatius; Puerto Rico; St. Kitts and Nevis - St. Kitts; St. Vincent and Grenadines - St. Vincent; Trinidad and Tobago; Virgin Islands (British) - Tortola; Virgin Islands (U.S.) Brazil: Brazil - Para"
202	2013. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Quality of climate match data 2-High]
203	2012. Jungle Garden. Philodendron giganteum. http://junglegarden.blogspot.com/2012/05/philodendron-giganteum.html#.UmWNwhCmb4Y [Accessed 21 Oct 2013]	[Broad climate suitability (environmental versatility)? No] "Hardiness: USDA Zone 11, -1 °C This is the given zone but it's much contested and debated, partly due to the fact that philodendrons are sometimes hard to tell apart and some other species look very much like Philodendron giganteum. It seems more likely that this one will not be very happy if the temperature drops under 5°C."
203	2013. Dave's Garden. PlantFiles: Giant Philodendron - Philodendron giganteum. http://davesgarden.com/guides/pf/go/89665/ [Accessed 21 Oct 2013]	[Broad climate suitability (environmental versatility)? No] "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)"
204	2005. Acevedo-Rodríguez, P./Strong, M.T.. Monocotyledons and Gymnosperms of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium. 52: 1-415.	[Native or naturalized in regions with tropical or subtropical climates? Yes] "General distribution: Hispaniola, Puerto Rico, Virgin Islands, Lesser Antilles, Trinidad and Venezuela."
204	2012. van der Burg, W.J./de Freitas, J./Debrot, A.O./Lotz, L.A.P.. Naturalised and invasive alien plant species in theCaribbean Netherlands: status, distribution, threats, priorities and recommendations. PRI report 437. Plant Research International, Wagen	[Native or naturalized in regions with tropical or subtropical climates? Yes] "Philodendron giganteum is present on Saba and St. Eustatius (Howard 1979 vol 3). On The Mountain (‘Mt Scenery’ Saba) and the Quill, St Eustatius (Boldingh 1909). Distributed in Tropical America and is native to Dominica, Guadeloupe, Martinique, Montserrat, Saba, St. Eustatius, St. Kitts, St. Vincent (Broome et al. 2011)."
204	2013. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Native or naturalized in regions with tropical or subtropical climates? Yes] "Native: SOUTHERN AMERICA. Caribbean: Dominica; Guadeloupe; Martinique; Montserrat; Netherlands Antilles - Saba, St. Eustatius; Puerto Rico; St. Kitts and Nevis - St. Kitts; St. Vincent and Grenadines - St. Vincent; Trinidad and Tobago; Virgin Islands (British) - Tortola; Virgin Islands (U.S.) Brazil: Brazil - Para"
205	2005. Imada, C.T./Staples, G.W./Herbst, D.R.. Annotated Checklist of Cultivated Plants of Hawai‘i. The Bishop Museum, http://www2.bishopmuseum.org/HBS/botany/cultivatedplants/	[Does the species have a history of repeated introductions outside its natural range? Hawaii] "Locations: Foster Botanical Garden (Confirmed) Harold L. Lyon Arboretum Waimea Arboretum & Botanical Garden"
205	2013. Dave's Garden. PlantFiles: Giant Philodendron - Philodendron giganteum. http://davesgarden.com/guides/pf/go/89665/ [Accessed 21 Oct 2013]	[Does the species have a history of repeated introductions outside its natural range?] "This plant has been said to grow in the following regions: Miami, Florida Saint Cloud, Florida Plano, Texas"
301	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Naturalized beyond native range? No] No evidence
302	2007. Glasspool, A.F et al.. Invasive Alien Species in Bermuda – The Current Situation. pp 238-242 in Biodiversity That Matters: ... Jersey 6-12 Oct 2006 (ed. M. Pienkowski). UK Overseas Territories Conservation Forum, www.ukotcf.org	[Garden/amenity/disturbance weed? cause for concern] "Alien plant species considered locally invasive from the findings of the Bermuda Biodiversity Project Survey (in prep). Participants in the 2003 Darwin funded Invasive Alien Species Workshop also identified the following species as cause for concern; Morning glory Ipomoea indica, Schefflera, Murray red gum, Madagascar olive Norhonia emarginata, Paragrass Panicum barbinodes, Kudzu Pueraria lobata, Solandra, Yew, Elephant Ear Philodendron giganteum, Black medic, Calophyllum, and Sanseveria as potential problem species."

302	2012. van der Burg, W.J./de Freitas, J./Debrot, A.O./Lotz, L.A.P.. Naturalised and invasive alien plant species in theCaribbean Netherlands: status, distribution, threats, priorities and recommendations. PRI report 437. Plant Research International, Wagen	[Garden/amenity/disturbance weed? Yes. Invades disturbed and abandoned farmland] "On Saba it massively invades abandoned farmland on the slopes, smothering all other vegetation and entering the natural vegetation (team obs., Figure 28)." [Considered a native in Lesser Antilles, but behaving like a weed in disturbed habitat]
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. van der Burg, W.J./de Freitas, J./Debrot, A.O./Lotz, L.A.P.. Naturalised and invasive alien plant species in theCaribbean Netherlands: status, distribution, threats, priorities and recommendations. PRI report 437. Plant Research International, Wagen	[Environmental weed? Invades disturbed and abandoned farmland] "On Saba it massively invades abandoned farmland on the slopes, smothering all other vegetation and entering the natural vegetation (team obs., Figure 28)." [Considered a native in Lesser Antilles, but behaving like a weed in disturbed habitat]
305	2001. De Costa, W.A.J.M./Hitinayake, H.M.G.S.B./Dharmawardena, I.U.. A physiological investigation into the invasive behaviour of some plant species in a mid-country forest reserve in Sri Lanka. J. Natn. Sci. Foundation Sri Lanka. 29(1 & 2): 35-50.	[Congeneric weed? P. scandens listed as invasive, but impacts unspecified] "Abstract: An introduced and naturalized plant species which increases its population excessively at the expense of other species in a given community is defined as an invasive species. The objective of this study was to determine whether some selected physiological characteristics were responsible for the invasive behaviour of eight plant species in the Udawattakelle forest reserve. These included saplings of three tree species, three shrub species and two herbaceous species" … "Two of the early-successional invasive species (i.e. Scindapsus and Philodendron) are herbaceous species"
305	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Congeneric weed? No evidence. Several Philodendron species listed as naturalized, but none listed as weeds]
401	2005. Acevedo-Rodríguez, P./Strong, M.T.. Monocotyledons and Gymnosperms of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium. 52: 1-415.	[Produces spines, thorns or burrs? No] "Erect, terrestrial or epiphytic plant, to 2 m tall, or a root-climber to 8 m long; stem cylindrical, 8- 10 cm diam., producing scanty watery sap; cataphylls to 60 cm long, initially entire, weathering into persistent fibers. Leaf blades horizontal or directed downward, 25-60 × 17 50 cm, lanceolate or triangular-lanceolate, nearly coriaceous, slightly paler below, the apex obtuse to acute or acuminate, the base cordate, with sinuses not overlapping, the margins sinuate; petioles erect, to 1 m long, nearly cylindrical. Inflorescence axillary, solitary; peduncles 6 9 cm long, stout; spathe 14-21 cm long, constricted at the middle, with convolute margins on lower ½, to form an abaxially reddish tinged tube, the blade adaxially cream or white, abaxially yellowish green, with two brown spots where the margins overlap; spadix sessile, stout, as long as the spathe, with staminate portion whitish and pistillate portion yellowish green. Berry yellow to orange."
402	2013. WRA Specialist. Personal Communication.	[Allelopathic? Unknown]
403	1950. Simmonds, N.W.. Notes on the Biology of the Araceae of Trinidad. Journal of Ecology. 38(2): 277-291.	[Parasitic? No] "Normally germinates on the ground; seedlings occasionally seen on rocks in exposed coastal localities (e.g. Maracas Bay) and as epiphytes on forest trees. However, as death approaches, the leaves of climbing stems are reduced and come to resemble those of seedlings; hence inspection from the ground may suggest that the species has sometimes germinated as an epiphyte when in fact this has not occurred. Epiphytism does occur, then, though it is probably not a common event."
404	2013. Learn 2 Grow. Philodendron giganteum. http://www.learn2grow.com/plants/philodendron-giganteum/ [Accessed 20 Oct 2013]	[Unpalatable to grazing animals? Unknown. Calcium oxalate may deter browsing] "All parts of the giant philodendron are poisonous, containing the irritant calcium oxalate; juices from cut stems and leaves can cause a skin rash."
405	2011. Forero, L./Nader, G./Craigmill, A./DiTomaso, J.M./Puschner, B./Mass, J.. Livestock-poisoning plants of California Publication 8398. University of California Agriculture and Natural Resources, Richmond, CA	[Toxic to animals? Yes] "Table 7. Vines that should not be planted around livestock and horses" [Includes Philodendron spp.]
405	2013. Learn 2 Grow. Philodendron giganteum. http://www.learn2grow.com/plants/philodendron-giganteum/ [Accessed 20 Oct 2013]	[Toxic to animals? Yes] "All parts of the giant philodendron are poisonous, containing the irritant calcium oxalate; juices from cut stems and leaves can cause a skin rash."

406	2001. Dekle, G.W.. Red Wax Scale, Ceroplastes rubens Maskell (Insecta: Hemiptera: Coccidae). EENY-237. University of Florida, IFAS, Gainesville, FL	[Host for recognized pests and pathogens?] "Red wax scale, Ceroplastes rubens Maskell, was first found in Florida at an Orange County nursery on the foliage and stem of greenhouse grown Aglaonema pictum var. tricolor and A. oblongifolium 'Curtisii' in November 1955. This collection was a new Florida and continental United States record of an introduced plant pest. Introduced foliage plants apparently were responsible for the establishment of this insect in Florida." [List of host plants includes Philodendron giganteum]
407	2013. Dave's Garden. PlantFiles: Giant Philodendron - Philodendron giganteum. http://davesgarden.com/guides/pf/go/89665/ [Accessed 21 Oct 2013]	[Causes allergies or is otherwise toxic to humans? Yes] "Danger: All parts of plant are poisonous if ingested Handling plant may cause skin irritation or allergic reaction"
407	2013. Learn 2 Grow. Philodendron giganteum. http://www.learn2grow.com/plants/philodendron-giganteum/ [Accessed 20 Oct 2013]	[Causes allergies or is otherwise toxic to humans? Yes] "All parts of the giant philodendron are poisonous, containing the irritant calcium oxalate; juices from cut stems and leaves can cause a skin rash."
408	2005. Acevedo-Rodríguez, P./Strong, M.T.. Monocotyledons and Gymnosperms of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium. 52: 1-415.	[Creates a fire hazard in natural ecosystems? No] "Uncommon terrestrial or epiphytic herb of moist forests." [Herbaceous plant of wetter habitats]
409	1950. Simmonds, N.W.. Notes on the Biology of the Araceae of Trinidad. Journal of Ecology. 38(2): 277-291.	[Is a shade tolerant plant at some stage of its life cycle? Yes] "Flowering and fruiting abundant, often in deep shade."
409	2013. Dave's Garden. PlantFiles: Giant Philodendron - Philodendron giganteum. http://davesgarden.com/guides/pf/go/89665/ [Accessed 21 Oct 2013]	[Is a shade tolerant plant at some stage of its life cycle? Yes] "Sun Exposure: Light Shade, Partial to Full Shade"
410	2013. Learn 2 Grow. Philodendron giganteum. http://www.learn2grow.com/plants/philodendron-giganteum/ [Accessed 20 Oct 2013]	[Tolerates a wide range of soil conditions? No] "Grow giant philodendron in fertile, fast draining, moist soils that are not alkaline."
411	2012. van der Burg, W.J./de Freitas, J./Debrot, A.O./Lotz, L.A.P.. Naturalised and invasive alien plant species in theCaribbean Netherlands: status, distribution, threats, priorities and recommendations. PRI report 437. Plant Research International, Wagen	[Climbing or smothering growth habit? Yes] "On Saba it massively invades abandoned farmland on the slopes, smothering all other vegetation and entering the natural vegetation (team obs., Figure 28)."
411	2013. Learn 2 Grow. Philodendron giganteum. http://www.learn2grow.com/plants/philodendron-giganteum/ [Accessed 20 Oct 2013]	[Climbing or smothering growth habit? Yes] "Climbing upon the muscular trunks of large tropical trees, the giant philodendron brings magnificent, huge, dark green leaves to the lush, romantic, tropical jungle landscape. A large evergreen vine, or liana, it hails from the frost free islands of the West Indies and the land ring around the Caribbean Sea."
412	2012. van der Burg, W.J./de Freitas, J./Debrot, A.O./Lotz, L.A.P.. Naturalised and invasive alien plant species in theCaribbean Netherlands: status, distribution, threats, priorities and recommendations. PRI report 437. Plant Research International, Wagen	[Forms dense thickets? No. Smothering] "On Saba it massively invades abandoned farmland on the slopes, smothering all other vegetation and entering the natural vegetation (team obs., Figure 28)."
501	1950. Simmonds, N.W.. Notes on the Biology of the Araceae of Trinidad. Journal of Ecology. 38(2): 277-291.	[Aquatic? No] "Philodendron giganteum. Common in the wet northern parts, perhaps more widespread. Lowland and montane, reaching 3000 ft. (920 m.) on el Tucuche. On schist or limestone. Terrestrial and low-climbing in forests, it often flowers on the ground and rarely reaches 40 ft. (12 m.)."
502	2013. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Grass? No] Araceae
503	2013. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Nitrogen fixing woody plant? No] Araceae
504	2005. Acevedo-Rodríguez, P./Strong, M.T.. Monocotyledons and Gymnosperms of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium. 52: 1-415.	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] "Erect, terrestrial or epiphytic plant, to 2 m tall, or a root-climber to 8 m long; stem cylindrical, 8- 10 cm diam., producing scanty watery sap; cataphylls to 60 cm long, initially entire, weathering into persistent fibers."

601	2005. Acevedo-Rodríguez, P./Strong, M.T.. Monocotyledons and Gymnosperms of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium. 52: 1-415.	[Evidence of substantial reproductive failure in native habitat? No] "Distribution in Puerto Rico and the Virgin Islands: Uncommon terrestrial or epiphytic herb of moist forests. Aguas Buenas, Arecibo, Cabo Rojo, Fajardo, Guaynabo, Las Piedras, Luquillo, Río Grande, Toa Baja, Vega Alta, and Yabucoa; St. John, St. Thomas, and Tortola."
602	1950. Simmonds, N.W.. Notes on the Biology of the Araceae of Trinidad. Journal of Ecology. 38(2): 277-291.	[Produces viable seed? Yes] "Normally germinates on the ground; seedlings occasionally seen on rocks in exposed coastal localities (e.g. Maracas Bay) and as epiphytes on forest trees."
603	1956. West, E./Miller, H.N.. Some notes on philodendron hybrids. Proc. Fla. State Hort. Soc. 69: 343-347.	[Hybridizes naturally? Unknown. Hybridization is possible, but unknown if it can occur naturally] "The progressive step from self pollination of a species to the crossing of different species followed as a matter of natural curiosity. Since some of these hybrids were improvements in color or form over the parents, the hybrids have been continued." … "Philodendron X Wilsoni (P. giganteum Schott X P. radiatum Schott) This magnifi cent hybrid shows the influence of both par ents. It is vining in habit but not strongly so. The leaves are broadly ovate, up to 16 inches long and a foot or more in width."
604	1993. Whitehill, J.. Reproductive Biology of Philodendron giganteum, Anthurium crenatum, and Anthurium domjnescense (Araceae) in a Suntropical Moist Forest in Puerto Rico. Journal of the Tropical Resources Institute. 12(2): 50-53.	[Self-compatible or apomictic? Probably No] "Both structure and physiology in the Araceae seem intended to promote outcrossing."
604	1998. Kubitzki, K. (ed.). The Families and genera of vascular plants. Volume IV. Flowering plants, Monocotyledons: Alismatanae and Commelinanae (except Gramineae). Springer-Verlag, Berlin, Heidelberg, New York	[Self-compatible or apomictic? Unknown] "Araceae are always protogynous and the female (stigma receptivity) and male (anther dehiscence) phases usually do not overlap, so that obligate outcrossing is the general rule. Some cases of self-pollination or apomixis are suspected (Anthurium gracile, triploid Amorphophallus paeoniifolius, Arum idaeum, A. hygrophilum, Pinellia)."
605	1993. Whitehill, J.. Reproductive Biology of Philodendron giganteum, Anthurium crenatum, and Anthurium domjnescense (Araceae) in a Suntropical Moist Forest in Puerto Rico. Journal of the Tropical Resources Institute. 12(2): 50-53.	[Requires specialist pollinators? No evidence] "An inventory of insect visitors showed that species of the order Diptera visited all three study species. When approaching P. giganteum inflorescences from a distance, Diptera species flew in a zig-zag pattern typical of a scent-guided path (Gottsberger and Silberbauer-Gottsberger 1991). They were observed approaching from the back of the inflorescence, away from the spathe opening."
606	1993. Whitehill, J.. Reproductive Biology of Philodendron giganteum, Anthurium crenatum, and Anthurium domjnescense (Araceae) in a Suntropical Moist Forest in Puerto Rico. Journal of the Tropical Resources Institute. 12(2): 50-53.	[Reproduction by vegetative fragmentation? Yes] "Despite intricately coordinated mechanisms for sexual reproduction, the P. giganteum individuals at these sites appeared to be reproducing vegetatively, thus raising questions about the relative contribution of sexual versus asexual reproduction."
607	2013. Learn 2 Grow. Philodendron giganteum. http://www.learn2grow.com/plants/philodendron-giganteum/ [Accessed 20 Oct 2013]	[Minimum generative time (years)? Unknown, but able to spread vegetatively, so sexual maturity is not required for this species to reproduce] "Growth Rate: Fast"
701	1998. Kubitzki, K. (ed.). The Families and genera of vascular plants. Volume IV. Flowering plants, Monocotyledons: Alismatanae and Commelinanae (except Gramineae). Springer-Verlag, Berlin, Heidelberg, New York	[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)? No evidence, although disposal of cuttings or garden waste could possibly result in spread of this plant] "Dispersal of the genera with red- or orange-coloured berries is probably carried out mainly by birds, though data are scarce."
702	2013. Dave's Garden. PlantFiles: Giant Philodendron - Philodendron giganteum. http://davesgarden.com/guides/pf/go/89665/ [Accessed 21 Oct 2013]	[Propagules dispersed intentionally by people? Yes] Ornamental
702	2013. Learn 2 Grow. Philodendron giganteum. http://www.learn2grow.com/plants/philodendron-giganteum/ [Accessed 20 Oct 2013]	[Propagules dispersed intentionally by people? Yes] Ornamental
703	2013. WRA Specialist. Personal Communication.	[Propagules likely to disperse as a produce contaminant? No] No evidence that this plant has become a contaminant of produce, or is cultivated with produce
704	2013. eMonocot. Philodendron giganteum Schott. http://e-monocot.org/taxon/urn:kew.org:wcs:taxon:151610#description [Accessed 21 Oct 2013]	[Propagules adapted to wind dispersal? No] "Berries orange, oblong-cylindric, longitudinally sulcate, 6-7 mm long, 2 mm thick, seeds yellowish, rather thickly strophiolate [banded], barely 1 mm long."
705	1950. Simmonds, N.W.. Notes on the Biology of the Araceae of Trinidad. Journal of Ecology. 38(2): 277-291.	[Propagules water dispersed? Habitat suggests No] "Philodendron giganteum. Common in the wet northern parts, perhaps more widespread. Lowland and montane, reaching 3000 ft. (920 m.) on el Tucuche. On schist or limestone. Terrestrial and low-climbing in forests, it often flowers on the ground and rarely reaches 40 ft. (12 m.)."

705	1985. Croat, T.B.. Philodendron giganteum Schott. Collection Number 60837. Missouri Botanical Garden Herbarium. http://www.tropicos.org/Specimen/357387	[Propagules water dispersed? Possibly, although apparently primarily adapted for bird or mammal dispersal] "On rocks along river, nearly full shade but with light entering from river; stems to ca 1 m long"
706	1998. Kubitzki, K. (ed.). The Families and genera of vascular plants. Volume IV. Flowering plants, Monocotyledons: Alismatanae and Commelinanae (except Gramineae). Springer-Verlag, Berlin, Heidelberg, New York	[Propagules bird dispersed? Presumably Yes] "Dispersal of the genera with red- or orange-coloured berries is probably carried out mainly by birds, though data are scarce."
706	2013. eMonocot. Philodendron giganteum Schott. http://e-monocot.org/taxon/urn:kew.org:wcs:taxon:151610 #description [Accessed 21 Oct 2013]	[Propagules bird dispersed? Presumably Yes] "Berries orange, oblong-cylindric, longitudinally sulcate, 6-7 mm long, 2 mm thick, seeds yellowish, rather thickly strophiolate [banded], barely 1 mm long."
707	2013. eMonocot. Philodendron giganteum Schott. http://e-monocot.org/taxon/urn:kew.org:wcs:taxon:151610 #description [Accessed 21 Oct 2013]	[Propagules dispersed by other animals (externally)? No] "Berries orange, oblong-cylindric, longitudinally sulcate, 6-7 mm long, 2 mm thick, seeds yellowish, rather thickly strophiolate [banded], barely 1 mm long." [Adapted for internal dispersal, with no means of external attachment]
708	2013. eMonocot. Philodendron giganteum Schott. http://e-monocot.org/taxon/urn:kew.org:wcs:taxon:151610 #description [Accessed 21 Oct 2013]	[Propagules survive passage through the gut? Presumably Yes] "Berries orange, oblong-cylindric, longitudinally sulcate, 6-7 mm long, 2 mm thick, seeds yellowish, rather thickly strophiolate [banded], barely 1 mm long."
801	1993. Whitehill, J.. Reproductive Biology of Philodendron giganteum, Anthurium crenatum, and Anthurium domjnescense (Araceae) in a Suntropical Moist Forest in Puerto Rico. Journal of the Tropical Resources Institute. 12(2): 50-53.	[Prolific seed production (>1000/m2)? No. Study suggests that vegetative spread is the main mode of reproduction of this species] "Despite intricately coordinated mechanisms for sexual reproduction, the P. giganteum individuals at these sites appeared to be reproducing vegetatively, thus raising questions about the relative contribution of sexual versus asexual reproduction."
802	1998. Kubitzki, K. (ed.). The Families and genera of vascular plants. Volume IV. Flowering plants, Monocotyledons: Alismatanae and Commelinanae (except Gramineae). Springer-Verlag, Berlin, Heidelberg, New York	[Evidence that a persistent propagule bank is formed (>1 yr)? No] "The seeds of Araceae, particularly those with large chlorophyllous embryos, do not remain viable for a long time."
802	2012. Jungle Garden. Philodendron giganteum. http://junglegarden.blogspot.com/2012/05/philodendron-giganteum.html#.UmWNwhCmb4Y [Accessed 21 Oct 2013]	[Evidence that a persistent propagule bank is formed (>1 yr)? No] "the seeds should be ultra fresh and not have had the opportunity to dry out after harvesting"
803	2013. WRA Specialist. Personal Communication.	[Well controlled by herbicides? Unknown] No information on herbicide efficacy or chemical control of this species. Epiphytic habit may make herbicide application difficult & with potential for non-target impacts
804	1993. Whitehill, J.. Reproductive Biology of Philodendron giganteum, Anthurium crenatum, and Anthurium domjnescense (Araceae) in a Suntropical Moist Forest in Puerto Rico. Journal of the Tropical Resources Institute. 12(2): 50-53.	[Tolerates, or benefits from, mutilation, cultivation, or fire? Unknown] "Despite intricately coordinated mechanisms for sexual reproduction, the P. giganteum individuals at these sites appeared to be reproducing vegetatively, …" [Ability to spread vegetatively may allow for resprouting from cut fragments or root stock]
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
- Invasive in abandoned farmland
- All parts of plant are poisonous
- Shade tolerant
- Can smother other vegetation
- Capable of spreading vegetatively
- Seeds potentially bird-dispersed

Low Risk Traits

- Reports of invasiveness are from within native range. No evidence of naturalization or invasiveness outside native range reported to date
- Unarmed (no spines, thorns or burrs)
- Valued as an ornamental
- Not likely to form a persistent seed bank