

Taxon: *Philodendron burle-marxii* G.M.Barroso

Family: Araceae

Common Name(s): 'Burle Marx'
philodendron

Synonym(s):

Assessor: Chuck Chimera

Status: Assessor Approved

End Date: 23 Mar 2017

WRA Score: 0.0

Designation: L

Rating: Low Risk

Keywords: Tropical, Herbaceous, Epiphyte, Poisonous, Shade-Tolerant

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	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)	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		
403	Parasitic	y=1, n=0	n
404	Unpalatable to grazing animals		
405	Toxic to animals	y=1, n=0	y
406	Host for recognized pests and pathogens		
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

Qsn #	Question	Answer Option	Answer
410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)		
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		
602	Produces viable seed		
603	Hybridizes naturally		
604	Self-compatible or apomictic		
605	Requires specialist pollinators	y=-1, n=0	y
606	Reproduction by vegetative fragmentation		
607	Minimum generative time (years)		
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)		
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	n
706	Propagules bird dispersed		
707	Propagules dispersed by other animals (externally)	y=1, n=-1	n
708	Propagules survive passage through the gut		
801	Prolific seed production (>1000/m ²)	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	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)		

Supporting Data:

Qsn #	Question	Answer
101	Is the species highly domesticated?	n
	Source(s)	Notes
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of Philodendron Section Macrobelum. Kew Bulletin, 60(4), 465-513	[No evidence] "Very few collections of <i>Philodendron burle marxii</i> were found during this study. It belongs to subsection <i>Belocardium</i> (Krause 1913). This subsection includes those species with uni-ovulate locules and basal placentation, occurring in Brazil, mainly in the Amazonian region. <i>P. pulchellum</i> is quite similar, but while <i>P. burle-marxii</i> has a linear-oblong leaf blade, <i>P. pulchellum</i> has elliptic oblong leaves with acuminate rather than acute apices."

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
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of Philodendron Section Macrobelum. Kew Bulletin, 60(4), 465-513	"DISTRIBUTION. West part of Amazonas state in Brazil, Colombia and Ecuador."

202	Quality of climate match data	High
	Source(s)	Notes
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of Philodendron Section Macrobelum. Kew Bulletin, 60(4), 465-513	

203	Broad climate suitability (environmental versatility)	n
	Source(s)	Notes
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of Philodendron Section Macrobelum. Kew Bulletin, 60(4), 465-513	"habitat. Epiphytic in Tropical Rain Forest; altitude: no data."
	Dave's Garden. 2017. <i>Philodendron</i> 'Burle Marx' - <i>Philodendron</i> . http://davesgarden.com/guides/pf/go/129059/ . [Accessed 23 Mar 2017]	Hardiness: USDA Zone 10b: to 1.7 °C (35 °F) USDA Zone 11: above 4.5 °C (40 °F)"

Qsn #	Question	Answer
204	Native or naturalized in regions with tropical or subtropical climates	y
	Source(s)	Notes
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of <i>Philodendron</i> Section <i>Macrobelum</i> . <i>Kew Bulletin</i> , 60(4), 465-513	"DISTRIBUTION. West part of Amazonas state in Brazil, Colombia and Ecuador."

205	Does the species have a history of repeated introductions outside its natural range?	?
	Source(s)	Notes
	Dave's Garden. 2017. <i>Philodendron</i> 'Burle Marx' - <i>Philodendron</i> . http://davesgarden.com/guides/pf/go/129059/ . [Accessed 23 Mar 2017]	"Regional: This plant has been said to grow in the following regions: Big Pine Key, Florida Boca Raton, Florida Fort Myers, Florida Miami, Florida Naples, Florida Pinellas Park, Florida Deridder, Louisiana Gonzales, Louisiana"

301	Naturalized beyond native range	n
	Source(s)	Notes
	Randall, R.P. (2017). <i>A Global Compendium of Weeds</i> . 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence
	Wagner, W.L., Herbst, D.R.& Lorence, D.H. 2017. <i>Flora of the Hawaiian Islands</i> . Smithsonian Institution, Washington, D.C. http://botany.si.edu/ . [Accessed 23 Mar 2017]	No evidence for <i>Philodendron burle-marxii</i> to date. <i>Philodendron erubescens</i> , <i>Philodendron lacerum</i> , <i>Philodendron pinnatifidum</i> , & <i>Philodendron scandens</i> currently reported as naturalized in the Hawaiian Islands.

302	Garden/amenity/disturbance weed	n
	Source(s)	Notes
	Randall, R.P. (2017). <i>A Global Compendium of Weeds</i> . 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence

303	Agricultural/forestry/horticultural weed	n
	Source(s)	Notes
	Randall, R.P. (2017). <i>A Global Compendium of Weeds</i> . 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence

304	Environmental weed	n
	Source(s)	Notes
	Randall, R.P. (2017). <i>A Global Compendium of Weeds</i> . 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence

305	Congeneric weed	y
	Source(s)	Notes

Qsn #	Question	Answer
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	"Philodendron aurantiifolium ... Weed of: Bananas, Orchards & Plantations References: Costa Rica-A-1513." ... "Philodendron hederaceum ... Weed of: Bananas, Orchards & Plantations References: Singapore-U-811, Singapore- U-1290, Costa Rica-A-1513, Singapore-U- 1839, Marshall Islands-W-1977, Singapore-W-1977" ... "Philodendron inaequilaterum ... Weed of: Bananas, Orchards & Plantations References: Costa Rica-A-1513."
	De Costa, W. A. J. M., Hitinayake, H. M. J. B., & Dharmawardana, I. U. (2010). A physiological investigation into the invasive behaviour of some plant species in a mid-country forest reserve in Sri Lanka. Journal of the National Science Foundation of Sri Lanka, 29(1-2): 35-50	[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"

401	Produces spines, thorns or burrs	n
	Source(s)	Notes
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of Philodendron Section Macrobelum. Kew Bulletin, 60(4), 465-513	[No evidence] "Appressed epiphytic vine on large trees. Stem: green becoming light brown in the mature parts, internodes 2.5 - 8 cm long. Prophyll 24 x 5 cm, narrowly lanceolate. Petiole 9-14 cm long, medium green, matte. Leaf blade 34 - 60 x 6 - 8 cm, narrowly oblong, apex acute, base auriculate to truncate, distinctly paler on lower surface with translucent margins, subcoriaceous, primary lateral veins 5-6 per side, not very distinct; posterior divisions absent."

402	Allelopathic	n
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	Unknown

403	Parasitic	n
	Source(s)	Notes
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of Philodendron Section Macrobelum. Kew Bulletin, 60(4), 465-513	"Appressed epiphytic vine on large trees." [Araceae. No evidence]

Qsn #	Question	Answer
404	Unpalatable to grazing animals	
	Source(s)	Notes
	Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume IV. Flowering plants, Monocotyledons: Alismatanae and Commelinanae (except Gramineae). Springer-Verlag, Berlin, Heidelberg, New York	[Unknown. Toxicity may deter browsing] "The Araceae are well known as a family which includes poisonous plants. Many ornamentals (e.g. species of Alocasia, Caladium, Dieffenbachia, Philodendron, Zantedeschia) are known to cause poisoning, particularly when vegetative plant parts are accidentally eaten by children and pets."
	WRA Specialist. 2017. Personal Communication	Unknown. Calcium oxalate may deter browsing

405	Toxic to animals	y
	Source(s)	Notes
	Dave's Garden. 2017. Philodendron 'Burle Marx' - Philodendron. http://davesgarden.com/guides/pf/go/129059/ . [Accessed 23 Mar 2017]	"Danger: All parts of plant are poisonous if ingested Handling plant may cause skin irritation or allergic reaction"
	Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume IV. Flowering plants, Monocotyledons: Alismatanae and Commelinanae (except Gramineae). Springer-Verlag, Berlin, Heidelberg, New York	"The Araceae are well known as a family which includes poisonous plants. Many ornamentals (e.g. species of Alocasia, Caladium, Dieffenbachia, Philodendron, Zantedeschia) are known to cause poisoning, particularly wheu vegetative plant parts are accidentally eaten by children and pets."

406	Host for recognized pests and pathogens	
	Source(s)	Notes
	Burke, D. 2005. The Complete Burke's Backyard: The Ultimate Book of Fact Sheets. Murdoch Books, Millers Point, Australia	"Philodendrons are easy to grow and almost pest and disease free."

407	Causes allergies or is otherwise toxic to humans	y
	Source(s)	Notes
	Dave's Garden. 2017. Philodendron 'Burle Marx' - Philodendron. http://davesgarden.com/guides/pf/go/129059/ . [Accessed]	"Danger: All parts of plant are poisonous if ingested Handling plant may cause skin irritation or allergic reaction"
	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 entry for <i>Philodendron burle-marxii</i> , but several other species have toxic properties or contain Irritating crystals of calcium oxalate

408	Creates a fire hazard in natural ecosystems	n
	Source(s)	Notes
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of <i>Philodendron</i> Section <i>Macrobelyum</i> . Kew Bulletin, 60(4), 465-513	"Epiphytic in Tropical Rain Forest" [No evidence. Herbaceous and occurs in wetter habitats]

Qsn #	Question	Answer
409	Is a shade tolerant plant at some stage of its life cycle	y
	Source(s)	Notes
	Rogers, G. 2017. Philodendron 'Burle-Marx' Fills Space in the Shade. http://northcountycurrent.com/gardening/philodendron-%e2%80%98burle-marx%e2%80%99-fills-space-in-the-shade/ . [Accessed 23 Mar 2017]	"It is slowly taking over the shaded north-facing impossible garden bed in front of my home. Garden friend Laure Hristov presented me a couple of branches with dangling roots in a garbage bag maybe 3 years ago. I planted the sad sticks in a mulch-covered bed in the shade, and here we are now with the bed blanketed. Success. And now more on well-behaved. It would be easy to say the blanket-job is a little excessive, but I'm happy, it has not spread elsewhere, it gets along better then you might expect with the woody plants in the bed, and the plant is easy to thin or remove."
	NParks Flora&FaunaWeb. 2017. Philodendron burle-marxii. https://florafaunaweb.nparks.gov.sg/special-pages/plant-detail.aspx?id=5359 . [Accessed 23 Mar 2017]	"Light Preference : Semi-Shade"
	Dave's Garden. 2017. Philodendron 'Burle Marx' - Philodendron. http://davesgarden.com/guides/pf/go/129059/ . [Accessed 23 Mar 2017]	"Sun Exposure: Sun to Partial Shade Light Shade"

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	
	Source(s)	Notes
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of Philodendron Section Macrobelum. Kew Bulletin, 60(4), 465-513	"Epiphytic in Tropical Rain Forest"
	Dave's Garden. 2017. Philodendron 'Burle Marx' - Philodendron. http://davesgarden.com/guides/pf/go/129059/ . [Accessed 23 Mar 2017]	"Soil pH requirements: 5.6 to 6.0 (acidic) 6.1 to 6.5 (mildly acidic)"

411	Climbing or smothering growth habit	y
	Source(s)	Notes
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of Philodendron Section Macrobelum. Kew Bulletin, 60(4), 465-513	"Appressed epiphytic vine on large trees."

412	Forms dense thickets	n
	Source(s)	Notes
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of Philodendron Section Macrobelum. Kew Bulletin, 60(4), 465-513	"Appressed epiphytic vine on large trees."

Qsn #	Question	Answer
501	Aquatic	n
	Source(s)	Notes
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of Philodendron Section Macrobelum. Kew Bulletin, 60(4), 465-513	"Epiphytic in Tropical Rain Forest"
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 23 Mar 2017]	Family: Araceae Subfamily: Aroideae Tribe: Philodendreae
503	Nitrogen fixing woody plant	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 23 Mar 2017]	Family: Araceae Subfamily: Aroideae Tribe: Philodendreae
504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	Notes
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of Philodendron Section Macrobelum. Kew Bulletin, 60(4), 465-513	"Appressed epiphytic vine on large trees. Stem: green becoming light brown in the mature parts, internodes 2.5 - 8 cm long."
601	Evidence of substantial reproductive failure in native habitat	
	Source(s)	Notes
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of Philodendron Section Macrobelum. Kew Bulletin, 60(4), 465-513	"DISTRIBUTION. West part of Amazonas state in Brazil, Colombia and Ecuador." [Unknown. No evidence]
602	Produces viable seed	
	Source(s)	Notes
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of Philodendron Section Macrobelum. Kew Bulletin, 60(4), 465-513	"Berries not seen"
	Dave's Garden. 2017. Philodendron 'Burle Marx' - Philodendron. http://davesgarden.com/guides/pf/go/129059/ . [Accessed 23 Mar 2017]	"Propagation Methods: From herbaceous stem cuttings By air layering"

Qsn #	Question	Answer
603	Hybridizes naturally	
	Source(s)	Notes
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of Philodendron Section Macrobelum. Kew Bulletin, 60(4), 465-513	Unknown. No evidence found. [Hybridization documented in genus]
604	Self-compatible or apomictic	
	Source(s)	Notes
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of Philodendron Section Macrobelum. Kew Bulletin, 60(4), 465-513	[Unknown] "Inflorescence, peduncle 3.5 - 6 cm long. Spathe 12-13 cm long, green outside becoming white at the apex, inside cream. Spadix c. 11 cm long; male zone 7.5 - 8 cm long, chestnut-coloured in the postfloral inflorescence; male sterile zone c. 0.6 cm long; female zone 3 cm long, whitish green. Flowers: stamens 0.8-1.2 x 0.7-1 mm; intermediate staminodes 1 - 1.5 x 0.8 - 1.2 mm; gynoecium 1-1.5 x 0.8-1 mm; ovary 5-locular, one ovule per locule, placentation basal."
605	Requires specialist pollinators	y
	Source(s)	Notes
	Burke, D. 2005. The Complete Burke's Backyard: The Ultimate Book of Fact Sheets. Murdoch Books, Millers Point, Australia	"In Australia tree philodendrons don't have any insect pollinators, so they don't set seed unless pollinated by hand."
606	Reproduction by vegetative fragmentation	
	Source(s)	Notes
	Dave's Garden. 2017. Philodendron 'Burle Marx' - Philodendron. http://davesgarden.com/guides/pf/go/129059/ . [Accessed 23 Mar 2017]	"Propagation Methods: From herbaceous stem cuttings By air layering" [Unknown. Possibly]
607	Minimum generative time (years)	
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	Unknown. May be able to spread vegetatively before first flowering

Qsn #	Question	Answer
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	
	Source(s)	Notes
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of <i>Philodendron</i> Section <i>Macrobelum</i> . <i>Kew Bulletin</i> , 60(4), 465-513	"Berries not seen" [Seeds may be rarely produced in cultivation. Some <i>Philodendron</i> seeds possess sticky mucilaginous material on seeds which may enable seeds to adhere to animals, clothing of vehicles]
	Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume IV. Flowering plants, Monocotyledons: Alismatanae and Commelinanae (except Gramineae). Springer-Verlag, Berlin, Heidelberg, New York	"True epiphytes are known in <i>Anthurium</i> , <i>Philodendron</i> and <i>Stenospermation</i> . Here the plants are always independent of the ground, their seeds germinating directly on the host tree after dispersal, probably by birds."

702	Propagules dispersed intentionally by people	y
	Source(s)	Notes
	Dave's Garden. 2017. <i>Philodendron</i> 'Burle Marx' - <i>Philodendron</i> . http://davesgarden.com/guides/pf/go/129059/ . [Accessed 23 Mar 2017]	Cultivated as an ornamental

703	Propagules likely to disperse as a produce contaminant	n
	Source(s)	Notes
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of <i>Philodendron</i> Section <i>Macrobelum</i> . <i>Kew Bulletin</i> , 60(4), 465-513	"Appressed epiphytic vine on large trees. " ... "Berries not seen" [No evidence. Unlikely in cultivation]

704	Propagules adapted to wind dispersal	n
	Source(s)	Notes
	Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume IV. Flowering plants, Monocotyledons: Alismatanae and Commelinanae (except Gramineae). Springer-Verlag, Berlin, Heidelberg, New York	"True epiphytes are known in <i>Anthurium</i> , <i>Philodendron</i> and <i>Stenospermation</i> . Here the plants are always independent of the ground, their seeds germinating directly on the host tree after dispersal, probably by birds."

705	Propagules water dispersed	n
	Source(s)	Notes
	Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume IV. Flowering plants, Monocotyledons: Alismatanae and Commelinanae (except Gramineae). Springer-Verlag, Berlin, Heidelberg, New York	"True epiphytes are known in <i>Anthurium</i> , <i>Philodendron</i> and <i>Stenospermation</i> . Here the plants are always independent of the ground, their seeds germinating directly on the host tree after dispersal, probably by birds."

706	Propagules bird dispersed	
	Source(s)	Notes

Qsn #	Question	Answer
	Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume IV. Flowering plants, Monocotyledons: Alismatanae and Commelinanae (except Gramineae). Springer-Verlag, Berlin, Heidelberg, New York	[Unknown for <i>Philodendron burle-marxii</i> . Possibly if seeds are produced] "Dispersal by mammals, including primates, has been observed (e.g. <i>Anchomanes difformis</i> - chimpanzee; <i>Philodendron bipinnatifidum</i> monkeys, bats; <i>Xanthosoma robustum</i> - bats). The seeds of Araceae, particularly those with large chlorophyllous embryos, do not remain viable for a long time. Bulbils with hooks or hairlike processes are found in Remusatia, which must be dispersed by birds or mammals."

707	Propagules dispersed by other animals (externally)	n
	Source(s)	Notes
	Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume IV. Flowering plants, Monocotyledons: Alismatanae and Commelinanae (except Gramineae). Springer-Verlag, Berlin, Heidelberg, New York	"True epiphytes are known in <i>Anthurium</i> , <i>Philodendron</i> and <i>Stenospermation</i> . Here the plants are always independent of the ground, their seeds germinating directly on the host tree after dispersal, probably by birds."

708	Propagules survive passage through the gut	n
	Source(s)	Notes
	Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume IV. Flowering plants, Monocotyledons: Alismatanae and Commelinanae (except Gramineae). Springer-Verlag, Berlin, Heidelberg, New York	[Unknown for <i>Philodendron burle-marxii</i> . Possibly if seeds are produced] "Dispersal by mammals, including primates, has been observed (e.g. <i>Anchomanes difformis</i> - chimpanzee; <i>Philodendron bipinnatifidum</i> monkeys, bats; <i>Xanthosoma robustum</i> - bats). The seeds of Araceae, particularly those with large chlorophyllous embryos, do not remain viable for a long time. Bulbils with hooks or hairlike processes are found in Remusatia, which must be dispersed by birds or mammals."

801	Prolific seed production (>1000/m2)	n
	Source(s)	Notes
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of <i>Philodendron</i> Section <i>Macrobelyum</i> . <i>Kew Bulletin</i> , 60(4), 465-513	"Berries not seen"
	Dave's Garden. 2017. <i>Philodendron</i> 'Burle Marx' - <i>Philodendron</i> . http://davesgarden.com/guides/pf/go/129059/ . [Accessed 23 Mar 2017]	"Propagation Methods: From herbaceous stem cuttings By air layering Seed Collecting: Unknown - Tell us"

Qsn #	Question	Answer
802	Evidence that a persistent propagule bank is formed (>1 yr)	n
	Source(s)	Notes
	Sakuragui, C., Mayo, S., & Zappi, D. (2005). Taxonomic Revision of Brazilian Species of <i>Philodendron</i> Section <i>Macrobelum</i> . <i>Kew Bulletin</i> , 60(4), 465-513	"Berries not seen"
	Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume IV. Flowering plants, Monocotyledons: Alismatanae and Commelinanae (except Gramineae). Springer-Verlag, Berlin, Heidelberg, New York	"The seeds of Araceae, particularly those with large chlorophyllous embryos, do not remain viable for a long time."

803	Well controlled by herbicides	y
	Source(s)	Notes
	Mahoney, J. 2017. How to Kill a Philodendron. http://homeguides.sfgate.com/kill-philodendron-27558.html . [Accessed 23 Mar 2017]	[No evidence of weediness, but herbicides, if necessary, provide effective control] "You may need to kill your philodendrons if they overwhelm their surroundings, contract disease or if you simply no longer want them." ... "Foliar Spray" ... "... herbicide application is a fast-acting way to kill the plant and ensure it does not come back." ... "Mix a 2-percent solution of glyphosate herbicide with diesel fuel or kerosene in a spray bottle. Products that contain glyphosate are sold with varying concentrations, so read the product label carefully for specific mixing instructions. Use a small spray bottle to kill a small philodendron houseplant, or a garden sprayer if treating a dense patch of large philodendron bush plants, such as lacy tree philodendron (<i>Philodendron bipinnatifidum</i>)." ... "Spray the herbicide solution directly onto the leaves of the philodendron, being careful not to target surrounding plants. The kerosene or diesel fuel helps to fully coat the leaves and doesn't drip off as readily as herbicide mixed with water; the blue marking dye makes it easy to distinguish leaves that you already sprayed." ... "Cut Stem Application. 1. Prepare a 18- to 21 percent solution of glyphosate herbicide mixed with kerosene or diesel fuel in a small, disposable bowl. Add blue marking dye, if desired, but it's not as necessary with this type of application. 2. Cut thick stemmed philodendrons, such as the larger, tree-like cut-leaf philodendron (<i>Philodendron bipinnatifidum</i>), with lopping shears or a pruning saw, leaving an 8- to 12-inch stem protruding from the ground. 3. Paint the cut tip of the philodendron stems with the herbicide solution, using a small household paintbrush. Paint the stems within one hour of cutting because fresh-cut stems are better able to absorb the herbicide into the root system. 4. Paint the outside of the remaining stem with the herbicide solution, providing a greater surface area through which the herbicide absorbs into the roots. 5. Allow a few days for the herbicide to take effect, in which the plant slowly dries out and dies, then pull the plant up by the root and discard."

804	Tolerates, or benefits from, mutilation, cultivation, or fire	y
	Source(s)	Notes

Qsn #	Question	Answer
	Staples, G.W. & Herbst, D.R. 2005. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	"Older, leggy plants can be removed by cutting the tops off and rerooting them; the stumps send up one or more shoots and soon become dense and full again."
	WRA Specialist. 2017. Personal Communication	Probably Yes. Other <i>Philodendron</i> species resprout after cutting & 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

- Adapted to tropical climates
- Other *Philodendron* species are weedy
- Poisonous to animals and humans
- Epiphytic climber
- Shade tolerant
- Seeds, if produced, may be bird-dispersed
- Spread intentionally by people
- *Philodendron* spp. can resprout after cutting & pruning
- Limited ecological information reduces accuracy of risk prediction

Low Risk Traits

- No reports of invasiveness or naturalization
- Unarmed (no spines, thorns, or burrs)
- Ornamental
- Seed production may be limited in cultivation (possibly due to pollinator limitations)
- Limited or absent seed production limits ability to spread
- Herbicides can effectively control *Philodendron* spp.