

Taxon: Schefflera pueckleri (K. Koch) Frodin

Family: Araliaceae

Common Name(s): duo rui mu
mallet flower

Synonym(s): Tupidanthus calyptratus Hook. f. &
Tupidanthus pueckleri K. Koch

Assessor: Chuck Chimera

Status: Assessor Approved

End Date: 11 Feb 2020

WRA Score: 1.0

Designation: EVALUATE

Rating: Evaluate

Keywords: Tropical Tree, Climber, Ornamental, Monoecious, Bird-dispersed

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		
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	n
406	Host for recognized pests and pathogens		
407	Causes allergies or is otherwise toxic to humans		
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		

Qsn #	Question	Answer Option	Answer
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		
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		
604	Self-compatible or apomictic		
605	Requires specialist pollinators	y=-1, n=0	n
606	Reproduction by vegetative fragmentation		
607	Minimum generative time (years)		
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	y=1, n=-1	n
702	Propagules dispersed intentionally by people	y=1, n=-1	y
703	Propagules likely to disperse as a produce contaminant	y=1, n=-1	n
704	Propagules adapted to wind dispersal	y=1, n=-1	n
705	Propagules water dispersed	y=1, n=-1	n
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)		
802	Evidence that a persistent propagule bank is formed (>1 yr)		
803	Well controlled by herbicides	y=-1, n=1	y
804	Tolerates, or benefits from, mutilation, cultivation, or fire		
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
	Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. Flora of China. Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	[Not domesticated] "This species is used medicinally and as an ornamental. <i>Tupidanthus calyptratus</i> has been included in <i>Schefflera</i> (where the combination <i>S. pueckleri</i> must be used) by some authors (e.g., Frodin and Govaerts, World Checklist Bibliogr. Araliaceae. 2004 ["2003"]; Lowry, Bull. Mus. Natl. Hist. Nat., B, Adansonia 11: 117– 155. 1989)."

102	Has the species become naturalized where grown?	
	Source(s)	Notes
	WRA Specialist. (2020). Personal Communication	NA

103	Does the species have weedy races?	
	Source(s)	Notes
	WRA Specialist. (2020). Personal Communication	NA

201	Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"	High
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2020). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 9 Feb 2020]	"Native Asia-Temperate CHINA: China [Yunnan Sheng (s.), Xizang Zizhiqu] Asia-Tropical INDIAN SUBCONTINENT: Bangladesh, India INDO-CHINA: Cambodia, Laos, Myanmar, Thailand, Vietnam"

202	Quality of climate match data	High
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2020). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 9 Feb 2020]	

Qsn #	Question	Answer
203	Broad climate suitability (environmental versatility)	n
	Source(s)	Notes
	Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. Flora of China. Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Climbing on forest trees; 900–1700 m."
	Plant This. (2020). <i>Schefflera pueckleri</i> http://www.plantthis.com.au . [Accessed 10 Feb 2020]	"Hardiness zones: 10-13"

204	Native or naturalized in regions with tropical or subtropical climates	y
	Source(s)	Notes
	Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. Flora of China. Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Climbing on forest trees; 900–1700 m. Xizang, S Yunnan [Bangladesh, Cambodia, India, Laos, Myanmar, Thailand, Vietnam]."
	USDA, Agricultural Research Service, National Plant Germplasm System. (2020). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 9 Feb 2020]	"Native Asia-Temperate CHINA: China [Yunnan Sheng (s.), Xizang Zizhiqu] Asia-Tropical INDIAN SUBCONTINENT: Bangladesh, India INDO-CHINA: Cambodia, Laos, Myanmar, Thailand, Vietnam"

205	Does the species have a history of repeated introductions outside its natural range?	?
	Source(s)	Notes
	Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. Flora of China. Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"This species is used medicinally and as an ornamental."
	Dave's Garden. (2020). <i>Schefflera</i> Species, Mallet Flower - <i>Schefflera pueckleri</i> . https://davesgarden.com/guides/pf/go/56271/ . [Accessed 10 Feb 2020]	Reported in California, but extent of cultivation unknown

301	Naturalized beyond native range	n
	Source(s)	Notes
	Imada, C. (2019). Hawaiian Naturalized Vascular Plants Checklist (February 2019 update). Bishop Museum Technical Report 69. Bishop Museum, Honolulu, HI	No evidence to date
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence to date

302	Garden/amenity/disturbance weed	
-----	--	--

Qsn #	Question	Answer
	Source(s)	Notes
	Houzz. (2020). <i>Schefflera pueckleri</i> (<i>Tupidanthus calyptratus</i>). https://www.houzz.com/discussions/1622522/schefflera-pueckleri-tupidanthus-calyptratus . [Accessed 11 Feb 2020]	[May be a problem if planted too close to pavement] "unfortunately, I have to say that I have seen the superficial roots of the one in my courtyard raise a 3' concrete paver over 24" within 7 years. "

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 to date

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 to date

305	Congeneric weed	y
	Source(s)	Notes
	Staples, G.W. & Herbst, D.R. 2005. <i>A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places</i> . Bishop Museum Press, Honolulu, HI	" <i>Schefflera actinophylla</i> ... It is now extensively naturalized and rapidly spreading and is without question one of the worst weed trees currently invading the wet forests in the Hawaiian Islands."
	Weber, E. 2017. <i>Invasive Plant Species of the World, 2nd Edition: A Reference Guide to Environmental Weeds</i> . CAB International, Wallingford, UK	[<i>Schefflera actinophylla</i>] "The tree invades a number of natural habitats of high conservation value in Florida and Hawaii. It is capable of invading undisturbed rainforest due to its shade tolerance. In Florida, the tree is found in sand pine scrub, cypress stands and tropical hammocks. The plant threatens scrub pinweed (<i>Lechua cernua</i>) by shading out (Langeland and Craddock Burks, 1998). In Hawaii <i>Schefflera</i> spreads deep into forests (Motooka et al., 2003). Saplings form dense thickets, displacing other plants. Seedlings often grow in the old leaf bases of palms (Langeland and Craddock Burks, 1998)."

401	Produces spines, thorns or burrs	n
	Source(s)	Notes
	Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. <i>Flora of China</i> . Vol. 13 (<i>Clusiaceae</i> through <i>Araliaceae</i>). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	[No evidence] "Trees, small, at first erect, later becoming lofty climbers, to 30 m tall, glabrous. Stem to ca. 15 cm in diam. at base. Leaves 7–10-foliolate; petiole 15–35(–60) cm; petiolules 3–5 cm; leaflets elliptic to obovate or oblong-lanceolate, 12–23 × 4– 8.5 cm, lateral veins 20–30 pairs, base acute to attenuate, margin entire, apex shortly acuminate."

402	Allelopathic	
	Source(s)	Notes

Qsn #	Question	Answer
	Fujii, Y., Parvez, S. S., Parvez, M., Ohmae, Y., & Iida, O. 2003. Screening of 239 medicinal plant species for allelopathic activity using the sandwich method. <i>Weed Biology and Management</i> , 3(4): 233-241	Unknown. Allelopathic chemicals may be present in a related species, <i>Schefflera octophylla</i>

403	Parasitic	n
	Source(s)	Notes
	Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. <i>Flora of China</i> . Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Trees, small, at first erect, later becoming lofty climbers, to 30 m tall, glabrous." [Araliaceae. No evidence]

404	Unpalatable to grazing animals	
	Source(s)	Notes
	Whyte, H. D., & Lusk, C. H. (2019). Woody debris in treefall gaps shelters palatable plant species from deer browsing, in an old growth temperate forest. <i>Forest Ecology and Management</i> , 448, 198-207	[Unknown. Other <i>Schefflera</i> species are palatable to deer] "Four species known to be preferred by deer were widespread at our sites (<i>Coprosma grandifolia</i> , <i>Geniostoma ligustrifolium</i> , <i>Meliccytus ramiflorus</i> , <i>Schefflera digitata</i>), and several other species occurred more sporadically (Table 2)."

405	Toxic to animals	n
	Source(s)	Notes
	Plant This. (2020). <i>Schefflera pueckleri</i> http://www.plantthis.com.au . [Accessed 10 Feb 2020]	"No hazards currently listed."
	Quattrocchi, U. 2012. <i>CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology</i> . CRC Press, Boca Raton, FL	No evidence

406	Host for recognized pests and pathogens	
	Source(s)	Notes
	Dave's Garden. (2020). <i>Schefflera</i> Species, Mallet Flower - <i>Schefflera pueckleri</i> . https://davesgarden.com/guides/pf/go/56271/ . [Accessed 11 Feb 2020]	"On Jan 19, 2010, Vestia from San Francisco, CA wrote: I find this plant much hardier than the more common <i>S. actinophylla</i> ; as a house plant it is much less prone to pests, especially spidermites, and outdoors it's more robust as a container plant. One of my faves for the tropical look."

Qsn #	Question	Answer
	Leahy, R. M. (1986). Alternaria leaf blight of Brassia and related hosts. Plant Pathology Circular No. 283. Florida Department of Agriculture and Consumer Services	[Possibly] "Many of the plants belonging to the family Araliaceae are used extensively for interiorscaping and as accent plants in homes and public buildings. The Araliaceae represent a large part of the foliage plant trade in Florida and because of this, foliar diseases affecting these plants are of great concern. One particular foliar blight caused by the fungus <i>Alternaria panax</i> Whetzel (1912) (5A. <i>actinophylla</i> Miller (1957) and <i>A. araliae</i> Green. (1953)] (6), is commonly found on many important members of the Araliaceae, most notably <i>Brassia actinophylla</i> Endl. (3,5). This disease was first reported on <i>Panax quinquefolius</i> L. or ginseng. Besides <i>Brassia actinophylla</i> , other important susceptible hosts represented in DPI files include <i>Schefflera arboricola</i> Hayata, <i>Dizygotheca elegantissima</i> (Hort. Veitch) R. Vig. & Guilt., <i>Polyscias balfouriana</i> (Hort. Sander) Bailey, <i>Polyscias fruticosa</i> (L.) Harms, <i>Tupidanthus calyptratus</i> Hock. F. & T. Thorns., <i>Fatsia japonica</i> (Thunb.) Decne. & Planch, and various species of <i>Aralia</i> (1)."

407	Causes allergies or is otherwise toxic to humans	
	Source(s)	Notes
	Plant This. (2020). <i>Schefflera pueckleri</i> http://www.plantthis.com.au . [Accessed 10 Feb 2020]	"No hazards currently listed."
	Kadereit J., & Bittrich V. (eds). (2018). The Families and Genera of Vascular Plants, Volume XV. Flowering Plants Eudicots Apiales, Gentianales (except Rubiaceae). Springer, Cham, Switzerland	[May cause contact dermatitis] "The polyacetylene falcarinol (known from <i>Hedera helix</i> , <i>Schefflera arboricola</i> , <i>S. pueckleri</i> , and the intergeneric hybrid X <i>Fatshedera</i>) is an allergen that causes contact dermatitis in humans."
	Quattrocchi, U. 2012. CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	[No evidence] "Diuretic"

408	Creates a fire hazard in natural ecosystems	n
	Source(s)	Notes
	Los Angeles County Fire Department. (2017). Plant Selection Guidelines by Zone. https://www.fire.lacounty.gov/wp-content/uploads/2017/11/Plant-Selection-Guidelines.pdf . [Accessed 11 Feb 2020]	"Zone A (20' from any qualifying structure or the property line whichever is first)" [<i>Tupidanthus calyptratus</i> considered appropriate for Zone A. Unlikely to increase fire risk]

Qsn #	Question	Answer
409	Is a shade tolerant plant at some stage of its life cycle	
	Source(s)	Notes
	<p>SelecTree. "Schefflera pueckleri Tree Record." 1995-2020. Feb 10, 2020. https://selecttree.calpoly.edu/tree-detail/schefflera-pueckleri. [Accessed 10 Feb 2020]</p>	"Exposure Partial Shade."
	<p>Dave's Garden. (2020). Schefflera Species, Mallet Flower - Schefflera pueckleri. https://davesgarden.com/guides/pf/go/56271/. [Accessed 10 Feb 2020]</p>	"Sun Exposure: Sun to Partial Shade"
	<p>Plant This. (2020). Schefflera pueckleri http://www.plantthis.com.au. [Accessed 10 Feb 2020]</p>	"Sunlight: hot overhead sun to dappled light"

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	n
	Source(s)	Notes
	<p>SelecTree. "Schefflera pueckleri Tree Record." 1995-2020. Feb 10, 2020. https://selecttree.calpoly.edu/tree-detail/schefflera-pueckleri. [Accessed 11 Feb 2020]</p>	"Moist Soil. Loam or Sand Texture. Slightly Acidic to Slightly Alkaline Soil pH."
	<p>Plant This. (2020). Schefflera pueckleri http://www.plantthis.com.au. [Accessed 10 Feb 2020]</p>	"Soil Moisture: dry between watering to constantly moist Soil: ordinary soil, enriched soil, mildly acidic to mildly alkaline"

411	Climbing or smothering growth habit	y
	Source(s)	Notes
	<p>Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. Flora of China. Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis</p>	"Trees, small, at first erect, later becoming lofty climbers, to 30 m tall, glabrous." ... "Climbing on forest trees; 900–1700 m."

412	Forms dense thickets	
	Source(s)	Notes
	<p>Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. Flora of China. Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis</p>	[No evidence] "Climbing on forest trees; 900–1700 m. Xizang, S Yunnan [Bangladesh, Cambodia, India, Laos, Myanmar, Thailand, Vietnam]."

501	Aquatic	n
	Source(s)	Notes
	<p>Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. Flora of China. Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis</p>	"Climbing on forest trees; 900–1700 m."

502	Grass	n
-----	-------	---

Qsn #	Question	Answer
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2020). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 9 Feb 2020]	Family: Araliaceae Subfamily: Aralioideae

503	Nitrogen fixing woody plant	n
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2020). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 9 Feb 2020]	Family: Araliaceae Subfamily: Aralioideae

504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	Notes
	Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. Flora of China. Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Trees, small, at first erect, later becoming lofty climbers, to 30 m tall, glabrous. Stem to ca. 15 cm in diam. at base."

601	Evidence of substantial reproductive failure in native habitat	n
	Source(s)	Notes
	Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. Flora of China. Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	[No evidence] "Climbing on forest trees; 900–1700 m. Xizang, S Yunnan [Bangladesh, Cambodia, India, Laos, Myanmar, Thailand, Vietnam]."

602	Produces viable seed	y
	Source(s)	Notes
	Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. Flora of China. Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Fruit a drupe, leathery. Seeds many, endosperm uniform."
	rarepalmseeds.com. (2020). <i>Schefflera pueckleri</i> Mallet Flower. https://www.rarepalmseeds.com/schefflera-pueckleri . [Accessed 11 Feb 2020]	Seeds sold commercially

603	Hybridizes naturally	
	Source(s)	Notes
	WRA Specialist. (2020). Personal Communication	Unknown. No evidence found

Qsn #	Question	Answer
604	Self-compatible or apomictic	
	Source(s)	Notes
	<p>SelecTree. "Schefflera pueckleri Tree Record." 1995-2020. Feb 10, 2020. https://selecttree.calpoly.edu/tree-detail/schefflera-pueckleri. [Accessed 11 Feb 2020]</p>	"Flowers Inconspicuous. Flowers in Spring or Summer. Has separate male and female flowers on the same tree (monoecious)."
	<p>Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. Flora of China. Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis</p>	[Unknown. Possible. Plants monoecious] "Inflorescence pseudo-lateral, a compound umbel or panicle of umbels; secondary axes 3–5, each 4–8 cm, very stout, with large ovate sheathing leathery bracts at base; umbels 3–7 flowered; pedicels 1.5–2 cm, stout. Flowers 1.5–3 cm in diam. Calyx tube leathery, smooth. Stamens 30–70, densely packed."

605	Requires specialist pollinators	n
	Source(s)	Notes
	<p>Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. Flora of China. Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis</p>	"Inflorescence pseudo-lateral, a compound umbel or panicle of umbels; secondary axes 3–5, each 4–8 cm, very stout, with large ovate sheathing leathery bracts at base; umbels 3–7 flowered; pedicels 1.5–2 cm, stout. Flowers 1.5–3 cm in diam. Calyx tube leathery, smooth. Stamens 30–70, densely packed."
	<p>Kadereit J., & Bittrich V. (eds). (2018). The Families and Genera of Vascular Plants, Volume XV. Flowering Plants Eudicots Apiales, Gentianales (except Rubiaceae). Springer, Cham, Switzerland</p>	"Pollination in Araliaceae appears to be effected primarily by insects, but few species have been studied in great detail. Pollinators are attracted by nectar (often copious, produced by the floral nectary disc) and presumably pollen."

606	Reproduction by vegetative fragmentation	
	Source(s)	Notes
	WRA Specialist. (2020). Personal Communication	Unknown

607	Minimum generative time (years)	
	Source(s)	Notes
	<p>SelecTree. "Schefflera pueckleri Tree Record." 1995-2020. Feb 10, 2020. https://selecttree.calpoly.edu/tree-detail/schefflera-pueckleri. [Accessed 11 Feb 2020]</p>	"Growth Rate: 24 Inches per Year. Longevity Less than 50 years."

701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	n
	Source(s)	Notes
	<p>Kanjilal, U.N., Kanjilal, P.C. & Das, A. (1938) Flora of Assam. Volume 2. Connaraceae to Cornaceae. Prabasi Press, Calcutta</p>	"Fruit succulent, 1-1.5 in. across; seeds numerous, thinly compressed, about .2 in. long." [No evidence. No means of external attachment]

702	Propagules dispersed intentionally by people	y
	Source(s)	Notes

Qsn #	Question	Answer
	Dave's Garden. (2020). Schefflera Species, Mallet Flower - <i>Schefflera pueckleri</i> . https://davesgarden.com/guides/pf/go/56271/ . [Accessed 10 Feb 2020]	"Regional This plant has been said to grow in the following regions: Carpinteria, California Hayward, California Oakland, California San Diego, California San Francisco, California Upland, California"
	Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. Flora of China. Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"This species is used medicinally and as an ornamental."

703	Propagules likely to disperse as a produce contaminant	n
	Source(s)	Notes
	Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. Flora of China. Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Fruit a drupe, leathery. Seeds many, endosperm uniform." [Unlikely]

704	Propagules adapted to wind dispersal	n
	Source(s)	Notes
	Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. Flora of China. Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Fruit a drupe, leathery. Seeds many, endosperm uniform." ... "Fruit depressed-globose, 2–3.5 cm in diam., stigmatic crest usually forming an irregular “Y” or “H”; exocarp fleshy." [Fleshy-fruited; bird and mammal dispersed]

705	Propagules water dispersed	n
	Source(s)	Notes
	Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. Flora of China. Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Fruit a drupe, leathery." ... "Trees, small, at first erect, later becoming lofty climbers, to 30 m tall, glabrous." [No obvious adaptations, and unlikely given natural distribution. Not generally found near waterways]

706	Propagules bird dispersed	y
	Source(s)	Notes
	Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. Flora of China. Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Fruit a drupe, leathery. Seeds many, endosperm uniform." [Presumably Yes]

Qsn #	Question	Answer
	Kadereit J., & Bittrich V. (eds). (2018). The Families and Genera of Vascular Plants, Volume XV. Flowering Plants Eudicots Apiales, Gentianales (except Rubiaceae). Springer, Cham, Switzerland	[Family description] "The fleshy drupes that characterize most species of Araliaceae suggest vertebrate dispersal of the pyrenes. In species with small fruits, the disperser likely ingests the entire drupe, allowing some of the pyrenes to pass through undigested, as has been demonstrated in <i>Hedera helix</i> for birds (especially thrushes, families Muscicapidae and Turdidae) and possibly mammals (deer and martens) (Metcalf 2005). Alternatively, when the fruits are quite large, it appears that dispersers may feed on the fleshy mesocarp, discarding the hardened pyrenes."

707	Propagules dispersed by other animals (externally)	n
	Source(s)	Notes
	Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. Flora of China. Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Fruit a drupe, leathery. Seeds many, endosperm uniform." [No means of external attachment]
	Kadereit J., & Bittrich V. (eds). (2018). The Families and Genera of Vascular Plants, Volume XV. Flowering Plants Eudicots Apiales, Gentianales (except Rubiaceae). Springer, Cham, Switzerland	"The fleshy drupes that characterize most species of Araliaceae suggest vertebrate dispersal of the pyrenes. In species with small fruits, the disperser likely ingests the entire drupe, allowing some of the pyrenes to pass through undigested, as has been demonstrated in <i>Hedera helix</i> for birds (especially thrushes, families Muscicapidae and Turdidae) and possibly mammals (deer and martens) (Metcalf 2005). Alternatively, when the fruits are quite large, it appears that dispersers may feed on the fleshy mesocarp, discarding the hardened pyrenes."

708	Propagules survive passage through the gut	y
	Source(s)	Notes
	Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. Flora of China. Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Fruit a drupe, leathery. Seeds many, endosperm uniform." [Presumably yes]
	Kadereit J., & Bittrich V. (eds). (2018). The Families and Genera of Vascular Plants, Volume XV. Flowering Plants Eudicots Apiales, Gentianales (except Rubiaceae). Springer, Cham, Switzerland	[Family description] "The fleshy drupes that characterize most species of Araliaceae suggest vertebrate dispersal of the pyrenes. In species with small fruits, the disperser likely ingests the entire drupe, allowing some of the pyrenes to pass through undigested, as has been demonstrated in <i>Hedera helix</i> for birds (especially thrushes, families Muscicapidae and Turdidae) and possibly mammals (deer and martens) (Metcalf 2005). Alternatively, when the fruits are quite large, it appears that dispersers may feed on the fleshy mesocarp, discarding the hardened pyrenes."

801	Prolific seed production (>1000/m2)	
	Source(s)	Notes
	Kanjilal, U.N., Kanjilal, P.C. & Das, A. (1938) Flora of Assam. Volume 2. Connaraceae to Cornaceae. Prabasi Press, Calcutta	"Fruit succulent, 1-1.5 in. across; seeds numerous, thinly compressed, about .2 in. long."

Qsn #	Question	Answer
	Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds.). 2007. Flora of China. Vol. 13 (Clusiaceae through Araliaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	[Unknown] "Fruit a drupe, leathery. Seeds many, endosperm uniform."

802	Evidence that a persistent propagule bank is formed (>1 yr)	
	Source(s)	Notes
	Dave's Garden. (2020). Schefflera Species, Mallet Flower - <i>Schefflera pueckleri</i> . https://davesgarden.com/guides/pf/go/56271/ . [Accessed 11 Feb 2020]	[Possibly No] "Seed does not store well; sow as soon as possible"

803	Well controlled by herbicides	y
	Source(s)	Notes
	Weber, E. 2017. Invasive Plant Species of the World, 2nd Edition: A Reference Guide to Environmental Weeds. CABI Publishing, Wallingford, UK	"Seedlings and young saplings can be hand-pulled. Basal bark application and cut stump application of triclopyr is moderately effective, but it is better to apply herbicide into notches cut into the cambium. Seedlings can be sprayed with glyphosate or triclopyr (Motooka et al., 2003; Englberger, 2009)." [Methods to control the invasive <i>Schefflera actinophylla</i> would probably be effective in controlling <i>Schefflera pueckleri</i> , if necessary]

804	Tolerates, or benefits from, mutilation, cultivation, or fire	
	Source(s)	Notes
	WRA Specialist. (2020). Personal Communication	Unknown. Other <i>Schefflera</i> species can resprout after cutting

805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	
	Source(s)	Notes
	WRA Specialist. (2020). Personal Communication	Unknown

Summary of Risk Traits:

High Risk / Undesirable Traits

- Thrives in tropical climates
- Roots may damage pavement
- Other Schefflera species are invasive
- May cause contact dermatitis
- Trees, small, at first erect, later becoming lofty climbers (potential to smother supporting vegetation)
- Seeds dispersed by birds, possibly other animals and intentionally by people
- Gaps in biological and ecological information may reduce accuracy of risk prediction

Low Risk Traits

- No reports of invasiveness or naturalization, but limited evidence of widespread introduction outside native range
- Unarmed (no spines, thorns, or burrs)
- Ornamental
- Herbicides used to control other invasive Schefflera species would likely be effective if needed

Second Screening Results for Tree/tree-like shrubs

(A) Shade tolerant or known to form dense stands?> Unknown. Tolerates partial shade. No evidence of dense stand formation

(B) Bird or clearly wind-dispersed?> Yes. Dispersed by birds

(C) Life cycle <4 years? Unknown. Reported to have a fast growth rate.

Outcome = Evaluate further