

**Taxon:** *Chambeyronia macrocarpa* (Brongn.) Vieill. ex Becc.

**Family:** Arecaceae

**Common Name(s):** Blushing Palm  
Flame Thrower Palm  
Red Feather Palm  
Red leaf palm

**Synonym(s):** *Chambeyronia hookeri* Becc.  
*Kentia macrocarpa* Vieill. ex Brongn.  
*Kentiopsis macrocarpa* Brongn.

**Assessor:** Chuck Chimera

**Status:** In Progress

**End Date:** 20 May 2022

**WRA Score:** -3.0

**Designation:** L(Hawai'i)

**Rating:** Low Risk

**Keywords:** Tropical Palm, Unarmed, Shade-Tolerant, Slow Growing, 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	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		
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	y=1, n=0	n

Qsn #	Question	Answer Option	Answer
408	Creates a fire hazard in natural ecosystems	y=1, n=0	n
409	Is a shade tolerant plant at some stage of its life cycle	y=1, n=0	y
410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y=1, n=0	y
411	Climbing or smothering growth habit	y=1, n=0	n
412	Forms dense thickets	y=1, n=0	n
501	Aquatic	y=5, n=0	n
502	Grass	y=1, n=0	n
503	Nitrogen fixing woody plant	y=1, n=0	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	y=1, n=-1	n
607	Minimum generative time (years)	1 year = 1, 2 or 3 years = 0, 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	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)	y=1, n=-1	n
803	Well controlled by herbicides		
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
	Moore, H. E., & Uhl, N. W. (1984). The indigenous palms of New Caledonia. <i>Allertonia</i> , 3(5), 313-402	[No evidence] "DISTRIBUTION: Wet forest or gallery forest nearly throughout New Caledonia."

102	Has the species become naturalized where grown?	
	Source(s)	Notes
	WRA Specialist. (2022). Personal Communication	NA

103	Does the species have weedy races?	
	Source(s)	Notes
	WRA Specialist. (2022). 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
	Moore, H. E., & Uhl, N. W. (1984). The indigenous palms of New Caledonia. <i>Allertonia</i> , 3(5), 313-402	"DISTRIBUTION: Wet forest or gallery forest nearly throughout New Caledonia."
	Pintaud, J.-C., & Baker, W. J. (2008). A Revision of the Palm Genera (Arecaceae) of New Caledonia. <i>Kew Bulletin</i> , 63(1), 61-73	Endemic to New Caledonia.

202	Quality of climate match data	High
	Source(s)	Notes
	Pintaud, J.-C., & Baker, W. J. (2008). A Revision of the Palm Genera (Arecaceae) of New Caledonia. <i>Kew Bulletin</i> , 63(1), 61-73	Endemic to New Caledonia.

203	Broad climate suitability (environmental versatility)	n
	Source(s)	Notes
	Deweese, J. (2018). <i>Designing with Palms</i> . Timber Press, Portland, OR	"Culture: hardiness, 30°F (-1° C); exposure, shade to part shade, full sun in moist climates; soil, well-drained, moist; climate, cool tropical, subtropical, mild Mediterranean"
	Riffle, R.L. & Craft, P. 2003. <i>An Encyclopedia of Cultivated Palms</i> . Timber Press, Portland, OR.	Endemic to rain forest on the island of New Caledonia at elevations from 2000 to 3000 feet. Not hardy outside zones of 10 - 11 without protection.

204	Native or naturalized in regions with tropical or subtropical climates	y
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Qsn #	Question	Answer
	<b>Source(s)</b>	<b>Notes</b>
	Moore, H. E., & Uhl, N. W. (1984). The indigenous palms of New Caledonia. <i>Allertonia</i> , 3(5), 313-402	"DISTRIBUTION: Wet forest or gallery forest nearly throughout New Caledonia."
	Pintaud, J.-C., & Baker, W. J. (2008). A Revision of the Palm Genera (Arecaceae) of New Caledonia. <i>Kew Bulletin</i> , 63(1), 61-73	Endemic to New Caledonia.

<b>205</b>	<b>Does the species have a history of repeated introductions outside its natural range?</b>	<b>y</b>
	<b>Source(s)</b>	<b>Notes</b>
	Dransfield, J., Uhl, N. W., Asmussen, C. B., Baker, W. J., Harley, M. M., & Lewis, C. E. (2008). <i>Genera Palmarum- The Evolution and Classification of the Palms</i> . Royal Botanic Gardens, Kew	" <i>Chambeyronia macrocarpa</i> is probably the most widely cultivated New Caledonian palm."
	Moore, H. E., & Uhl, N. W. (1984). The indigenous palms of New Caledonia. <i>Allertonia</i> , 3(5), 313-402	"Many New Caledonian palms have been introduced into cultivation of late through the efforts of Kenneth Foster, Don Hodel, Jack Ingwersen, L. H. MacDaniels, and collectors for the International Palm Society seed bank. Some of these are now flowering and fruiting, for example <i>Actinokentia divaricata</i> and <i>Chambeyronia macrocarpa</i> at the Wahiawa Botanic Garden of the Honolulu Botanic Gardens system (cf. Baker, 1980, for a listing of these and others in Hawaii). Both the above, however, were introduced into Europe not long after their discovery."

<b>301</b>	<b>Naturalized beyond native range</b>	<b>n</b>
	<b>Source(s)</b>	<b>Notes</b>
	Imada, C. (2019). <i>Hawaiian Naturalized Vascular Plants Checklist</i> (February 2019 update). Bishop Museum Technical Report 69. Bishop Museum, Honolulu, HI	No evidence
	GBIF Secretariat (2022). <i>Chambeyronia macrocarpa</i> (Brongn.) Vieill. ex Becc. GBIF Backbone Taxonomy. Checklist dataset. <a href="https://www.gbif.org/species/2732008">https://www.gbif.org/species/2732008</a> . [Accessed 20 May 2022]	No evidence
	Randall, R.P. (2017). <i>A Global Compendium of Weeds</i> . 3rd Edition. Perth, Western Australia. R.P. Randall	Reports of naturalization in Portugal, and Europe in general, have not been corroborated by current references.

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

Qsn #	Question	Answer
303	<b>Agricultural/forestry/horticultural weed</b>	n
	<b>Source(s)</b>	<b>Notes</b>
	CABI. (2022). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	No evidence
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence.

304	<b>Environmental weed</b>	n
	<b>Source(s)</b>	<b>Notes</b>
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence
	CABI. (2022). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	No evidence

305	<b>Congeneric weed</b>	n
	<b>Source(s)</b>	<b>Notes</b>
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence
	CABI. (2022). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	No evidence

401	<b>Produces spines, thorns or burrs</b>	n
	<b>Source(s)</b>	<b>Notes</b>
	Moore, H. E., & Uhl, N. W. (1984). The indigenous palms of New Caledonia. <i>Allertonia</i> , 3(5), 313-402	"Single-stemmed, unarmed, monoecious palms." ... "Trunks gray, to 15 m. high or more, about 25 cm. in diam., enlarged at base but roots not prominent. Leaves about 10, spreading, often red when first exposed; sheath solid green to nearly blue-green or lined or spotted with lighter green or pale brown to whitish, yellow inside, 1.15-1.2 m. long; petiole 12.5-45 cm. long; rachis 2.1-4 m long; pinnae 37-40 on each side, stiff, coriaceous, deep dull green, the basal pinnae about 45 cm. long and 1 cm. wide, with lorae, the median pinnae 1-1.5 m. long, 4.8-7.3 cm. wide, the apical pinnae 11-40 cm. long, 2.5-3.5 cm. wide, the ramenta abundant on midrib and often on prominent lateral veins on each side near base beneath, medifixed, pale with brown flecking."

402	<b>Allelopathic</b>	
	<b>Source(s)</b>	<b>Notes</b>
	WRA Specialist. (2022). Personal Communication	Unknown. No evidence found

Qsn #	Question	Answer
403	<b>Parasitic</b>	n
	<b>Source(s)</b>	<b>Notes</b>
	Moore, H. E., & Uhl, N. W. (1984). The indigenous palms of New Caledonia. <i>Allertonia</i> , 3(5), 313-402	"Trunks gray, to 15 m. high or more, about 25 cm. in diam., enlarged at base but roots not prominent." [Arecaceae. No evidence]
404	<b>Unpalatable to grazing animals</b>	
	<b>Source(s)</b>	<b>Notes</b>
	WRA Specialist. (2022). Personal Communication	Unknown
405	<b>Toxic to animals</b>	n
	<b>Source(s)</b>	<b>Notes</b>
	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	<b>Host for recognized pests and pathogens</b>	
	<b>Source(s)</b>	<b>Notes</b>
	CABI. (2022). <i>Invasive Species Compendium</i> . Wallingford, UK: CAB International. <a href="http://www.cabi.org/isc">www.cabi.org/isc</a>	"Minor host of: <i>Aleurotrachelus atratus</i> (palm-infesting whitefly)"
	LLIFLE - Encyclopedia of living forms. (2022). <i>Chambeyronia macrocarpa</i> . <a href="http://www.llifle.com/">http://www.llifle.com/</a> . [Accessed 20 May 2022]	"Pests & Diseases: Quite resistant to pests/diseases."
	Palmpedia. (2020). <i>Chambeyronia macrocarpa</i> . <a href="https://www.palmpedia.net/wiki/Chambeyronia_macrocarpa">https://www.palmpedia.net/wiki/Chambeyronia_macrocarpa</a> . [Accessed 20 May 2022]	"These palms are not bothered much by pests, though scale and whitefly can be a problem. Most of the time, ladybugs and other weapons in Mother Nature's arsenal will keep bad bugs at bay."
407	<b>Causes allergies or is otherwise toxic to humans</b>	n
	<b>Source(s)</b>	<b>Notes</b>
	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
408	<b>Creates a fire hazard in natural ecosystems</b>	n
	<b>Source(s)</b>	<b>Notes</b>
	Moore, H. E., & Uhl, N. W. (1984). The indigenous palms of New Caledonia. <i>Allertonia</i> , 3(5), 313-402	"Wet forest or gallery forest nearly throughout New Caledonia." [No evidence of flammability]
409	<b>Is a shade tolerant plant at some stage of its life cycle</b>	y
	<b>Source(s)</b>	<b>Notes</b>

Qsn #	Question	Answer
	Palmpedia. (2020). <i>Chambeyronia macrocarpa</i> . <a href="https://www.palmpedia.net/wiki/Chambeyronia_macrocarpa">https://www.palmpedia.net/wiki/Chambeyronia_macrocarpa</a> . [Accessed 20 May 2022]	"Light Req: Full sun to partial shade. It likes full sun but can also grow in partial shade."
	Deweese, J. (2018). <i>Designing with Palms</i> . Timber Press, Portland, OR	"shade to part shade, full sun in moist climates"
	Riffle, R.L. & Craft, P. 2003. <i>An Encyclopedia of Cultivated Palms</i> . Timber Press, Portland, OR.	Relishes partial shade, especially when young or in hot climates.

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y
	Source(s)	Notes
	LLIFLE - Encyclopedia of living forms. (2022). <i>Chambeyronia macrocarpa</i> . <a href="http://www.llifle.com/">http://www.llifle.com/</a> . [Accessed 20 May 2022]	"Habitat: It grows in many soil types in the understory of moist rainforests or gallery forest nearly throughout New Caledonia from sea level to an elevation of 1000 metres."
	Pintaud, J. C. (2000). An introduction to the palms of New Caledonia. <i>Palms</i> 44: 132-140	"In fact, only eight species are to be found on both ultramafic and schistose soils, including the common <i>Basselinia gracilis</i> , <i>Burretiokentia vieillqrdii</i> and <i>Chambeyronia macrocarpa</i> ."
	Palmpedia. (2020). <i>Chambeyronia macrocarpa</i> . <a href="https://www.palmpedia.net/wiki/Chambeyronia_macrocarpa">https://www.palmpedia.net/wiki/Chambeyronia_macrocarpa</a> . [Accessed 20 May 2022]	"Water Req: Moderate. It does best in moist well drained soil."
	Riffle, R.L. & Craft, P. 2003. <i>An Encyclopedia of Cultivated Palms</i> . Timber Press, Portland, OR.	A water-lover that needs rich, humus laden, well-drained soil.

411	Climbing or smothering growth habit	n
	Source(s)	Notes
	Moore, H. E., & Uhl, N. W. (1984). The indigenous palms of New Caledonia. <i>Allertonia</i> , 3(5), 313-402	"Trunks gray, to 15 m. high or more, about 25 cm. in diam., enlarged at base but roots not prominent."

412	Forms dense thickets	n
	Source(s)	Notes
	Gravelat, C. (2021). <i>Understanding New Caledonia</i> . University Press of New Caledonia, Nouméa	"Flourishing beneath the tall canopy trees is an understory comprising a wealth of ferns (e.g. the <i>Cyathea intermedia</i> tree fern, whose trunk can reach a height of 35m), palm trees (e.g. <i>Chambeyronia macrocarpa</i> ), and terrestrial and epiphytic orchids ( <i>Eriaxis rigida</i> , <i>Earina deplanchei</i> ), for the most part endemic." [No evidence]
	Pintaud, J. C. (2000). An introduction to the palms of New Caledonia. <i>Palms</i> 44: 132-140	"Many other species are hardly more abundant, including <i>Cyphophoenix nucele</i> , <i>Kentiopsis pyriformis</i> , <i>Lavoixia macrocarpa</i> , <i>Actinokentia huerlimannii</i> , <i>Burretiokentia grandiflora</i> , which are all known from less than 100 mature plants." [No evidence]
	Moore, H. E., & Uhl, N. W. (1984). The indigenous palms of New Caledonia. <i>Allertonia</i> , 3(5), 313-402	"Wet forest or gallery forest nearly throughout New Caledonia." [No evidence]

Qsn #	Question	Answer
501	<b>Aquatic</b>	n
	<b>Source(s)</b>	<b>Notes</b>
	Moore, H. E., & Uhl, N. W. (1984). The indigenous palms of New Caledonia. <i>Allertonia</i> , 3(5), 313-402	[Terrestrial] "Wet forest or gallery forest nearly throughout New Caledonia."

502	<b>Grass</b>	n
	<b>Source(s)</b>	<b>Notes</b>
	WFO (2022). World Flora Online. Published on the Internet; <a href="http://www.worldfloraonline.org">http://www.worldfloraonline.org</a> . [Accessed 20 May 2022]	Angiosperms Arecales Bromhead Arecaceae Bercht. & J.Presl Chambeyronia Vieill. ex Brongn. & Gris Chambeyronia macrocarpa (Brongn.) Vieill. ex Becc.

503	<b>Nitrogen fixing woody plant</b>	n
	<b>Source(s)</b>	<b>Notes</b>
	Riffle, R.L.& Craft, P. 2003. An Encyclopedia of Cultivated Palms. Timber Press, Portland, OR.	Arecaceae.

504	<b>Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)</b>	n
	<b>Source(s)</b>	<b>Notes</b>
	Moore, H. E., & Uhl, N. W. (1984). The indigenous palms of New Caledonia. <i>Allertonia</i> , 3(5), 313-402	"Trunks gray, to 15 m. high or more, about 25 cm. in diam., enlarged at base but roots not prominent."

601	<b>Evidence of substantial reproductive failure in native habitat</b>	n
	<b>Source(s)</b>	<b>Notes</b>
	WFO (2022). World Flora Online. Published on the Internet; <a href="http://www.worldfloraonline.org">http://www.worldfloraonline.org</a> . [Accessed 20 May 2022]	"IUCN Red List Status: Least Concern"

602	<b>Produces viable seed</b>	y
	<b>Source(s)</b>	<b>Notes</b>
	Ellison, D. & Ellison, A. (2001). Cultivated Palms of the World. UNSW Press, Sydney, Australia	"Fresh seed should germinate m 3 to 4 months."
	LLIFLE - Encyclopedia of living forms. (2022). <i>Chambeyronia macrocarpa</i> . <a href="http://www.llifle.com/">http://www.llifle.com/</a> . [Accessed 20 May 2022]	"Propagation: Seeds."
	Riffle, R.L.& Craft, P. 2003. An Encyclopedia of Cultivated Palms. Timber Press, Portland, OR.	Seed germinates in 90 days if not let to dry out.

603	<b>Hybridizes naturally</b>	
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Qsn #	Question	Answer
	<b>Source(s)</b>	<b>Notes</b>
	Pintaud, J.-C., & Baker, W. J. (2008). A Revision of the Palm Genera (Arecaceae) of New Caledonia. Kew Bulletin, 63 (1), 61–73	[Unknown] "Chambeyronia macrocarpa is more accurately interpreted as a species complex and is in much need of further study. Available collections and molecular phylogenetic data are as yet insufficient to provide an adequate treatment of these species."

604	Self-compatible or apomictic	
	<b>Source(s)</b>	<b>Notes</b>
	Moore, H. E., & Uhl, N. W. (1984). The indigenous palms of New Caledonia. Allertonia, 3(5), 313-402	"Single-stemmed, unarmed, monoecious palms." [Unknown. Possible]

605	Requires specialist pollinators	n
	<b>Source(s)</b>	<b>Notes</b>
	Dransfield, J., Uhl, N. W., Asmussen, C. B., Baker, W. J., Harley, M. M., & Lewis, C. E. (2008). Genera Palmarum-The Evolution and Classification of the Palms. Royal Botanic Gardens, Kew	"For a long time, it was assumed that palms are wind-pollinated (Delpino 1870), but a growing number of detailed studies show that wind pollination is an exception and that the overwhelming majority of palms studied are insect pollinated."
	Pintaud, J. C. (2000). An introduction to the palms of New Caledonia. Palms 44: 132-140	"No precise studies of fruit dispersal nor of pollination have been made."

606	Reproduction by vegetative fragmentation	n
	<b>Source(s)</b>	<b>Notes</b>
	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	"Most Arecaceae are reproduced by seed." [family description]
	LLIFLE - Encyclopedia of living forms. (2022). Chambeyronia macrocarpa. <a href="http://www.llifle.com/">http://www.llifle.com/</a> . [Accessed 20 May 2022]	"Propagation: Seeds."

607	Minimum generative time (years)	>3
	<b>Source(s)</b>	<b>Notes</b>
	Palmpedia. (2020). Chambeyronia macrocarpa. <a href="https://www.palmpedia.net/wiki/Chambeyronia_macrocarpa">https://www.palmpedia.net/wiki/Chambeyronia_macrocarpa</a> . [Accessed 20 May 2022]	"Growth Rate: Slow. This slow growing palm can get up to 10– 20 ft tall and 15-20 ft wide." [Presumably >3 years]
	Riffle, R.L. (2008). Timber Press Pocket Guide to Palms. Timber Press, Portland, OR	Growth rate: slow to medium

701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	n
	<b>Source(s)</b>	<b>Notes</b>
	Moore, H. E., & Uhl, N. W. (1984). The indigenous palms of New Caledonia. Allertonia, 3(5), 313-402	"Fruit ellipsoid to obovoid to subglobose, 3.8-4.6 cm. long, 2.4-2.6 cm. in diam." [Single-seeded fruit large and lack means of external attachment]

Qsn #	Question	Answer
702	<b>Propagules dispersed intentionally by people</b>	<b>y</b>
	<b>Source(s)</b>	<b>Notes</b>
	Dransfield, J., Uhl, N. W., Asmussen, C. B., Baker, W. J., Harley, M. M., & Lewis, C. E. (2008). <i>Genera Palmarum- The Evolution and Classification of the Palms</i> . Royal Botanic Gardens, Kew	" <i>Chambeyronia macrocarpa</i> is probably the most widely cultivated New Caledonian palm."
	Hodel, D. R., & Pintaud, J. C. (1998). <i>Palms of New Caledonia =: Les Palmiers de Nouvelle-Caledonie</i> . Kampon Tansacha Nong Nooch Tropical Garden, Thailand	"Despite their long history of introduction and attempted cultivation since the late 19th century, relatively few New Caledonia palms are well established in gardens, collections, and landscapes, and even fewer are flowering and fruiting. <i>Chambeyronia macrocarpa</i> is the only species to have persisted for any significant time. It was growing in the 1920s and 1930s and fruiting up until at least 1965 at the Jardin Botanico at Rio de Janeiro, Brazil. Fruiting plants are now found in Hawaii, Australia, Venezuela, Tahiti, and of course New Caledonia."
	Hodel, D., & Pintaud, J. (2021). The varieties of <i>Chambeyronia macrocarpa</i> (Arecaceae). <i>PalmArbor</i> , 5, 1-20	[ <i>Chambeyronia macrocarpa</i> var. <i>macrocarpa</i> ] "It is the most widely cultivated variety and can be found wherever palms are grown in tropical and subtropical areas."

703	<b>Propagules likely to disperse as a produce contaminant</b>	<b>n</b>
	<b>Source(s)</b>	<b>Notes</b>
	Moore, H. E., & Uhl, N. W. (1984). The indigenous palms of New Caledonia. <i>Allertonia</i> , 3(5), 313-402	"Fruit ellipsoid to obovoid to subglobose, 3.8-4.6 cm. long, 2.4-2.6 cm. in diam." [No evidence. Unlikely given fruit size and time to maturity]

704	<b>Propagules adapted to wind dispersal</b>	<b>n</b>
	<b>Source(s)</b>	<b>Notes</b>
	Moore, H. E., & Uhl, N. W. (1984). The indigenous palms of New Caledonia. <i>Allertonia</i> , 3(5), 313-402	"Fruit ellipsoid to obovoid to subglobose, 3.8-4.6 cm. long, 2.4-2.6 cm. in diam." [No evidence]

705	<b>Propagules water dispersed</b>	<b>n</b>
	<b>Source(s)</b>	<b>Notes</b>
	Pintaud, J. C. (2000). An introduction to the palms of New Caledonia. <i>Palms</i> 44: 132-140	[Bird-dispersed. No evidence fruit are seeds are buoyant, or that trees commonly occur in riparian areas] "The largest pigeon able to fly, called notou ( <i>Ducula goliath</i> ), endemic to the rainforests of New Caledonia is well known to eat and disperse the large fruits of <i>Chambeyronia macrocarpa</i> , and hunters often look for <i>Chambeyronia</i> stands in order to find the notous."

706	<b>Propagules bird dispersed</b>	<b>y</b>
	<b>Source(s)</b>	<b>Notes</b>
	Pintaud, J. C. (2000). An introduction to the palms of New Caledonia. <i>Palms</i> 44: 132-140	"The largest pigeon able to fly, called notou ( <i>Ducula goliath</i> ), endemic to the rainforests of New Caledonia is well known to eat and disperse the large fruits of <i>Chambeyronia macrocarpa</i> , and hunters often look for <i>Chambeyronia</i> stands in order to find the notous."

Qsn #	Question	Answer
	WRA Specialist. (2022). Personal Communication	Although bird-dispersed in native range, the lack of large frugivores in the Hawaiian Islands may limit dispersal of this palm

707	Propagules dispersed by other animals (externally)	n
	Source(s)	Notes
	Pintaud, J. C. (2000). An introduction to the palms of New Caledonia. Palms 44: 132-140	"The largest pigeon able to fly, called notou ( <i>Ducula goliath</i> ), endemic to the rainforests of New Caledonia is well known to eat and disperse the large fruits of <i>Chambeyronia macrocarpa</i> , and hunters often look for <i>Chambeyronia</i> stands in order to find the notous."
	WRA Specialist. (2022). Personal Communication	Seed-caching introduced rodents might carry and feed on seeds, as they do with other palm species, and a small number may escape predation. However, this is likely to be uncommon and not an important, or long distance, dispersal vector.

708	Propagules survive passage through the gut	y
	Source(s)	Notes
	Pintaud, J. C. (2000). An introduction to the palms of New Caledonia. Palms 44: 132-140	"The largest pigeon able to fly, called notou ( <i>Ducula goliath</i> ), endemic to the rainforests of New Caledonia is well known to eat and disperse the large fruits of <i>Chambeyronia macrocarpa</i> ." [Presumably yes]

801	Prolific seed production (>1000/m2)	
	Source(s)	Notes
	Moore, H. E., & Uhl, N. W. (1984). The indigenous palms of New Caledonia. <i>Allertonia</i> , 3(5), 313-402	"Trunks gray, to 15 m. high or more, about 25 cm. in diam., enlarged at base but roots not prominent." ... "Fruit ellipsoid to obovoid to subglobose, 3.8-4.6 cm. long, 2.4-2.6 cm. in diam." [Unknown, but unlikely given size of single-seeded fruit]

802	Evidence that a persistent propagule bank is formed (>1 yr)	n
	Source(s)	Notes
	Ellison, D. & Ellison, A. (2001). <i>Cultivated Palms of the World</i> . UNSW Press, Sydney, Australia	"Fresh seed should germinate in 3 to 4 months."
	Riffle, R.L. & Craft, P. 2003. <i>An Encyclopedia of Cultivated Palms</i> . Timber Press, Portland, OR.	"Seed germinates in 90 days if not let to dry out."

803	Well controlled by herbicides	
	Source(s)	Notes
	WRA Specialist. (2022). Personal Communication	Unknown. No information on herbicide efficacy or chemical control of this species

804	Tolerates, or benefits from, mutilation, cultivation, or fire	

Qsn #	Question	Answer
	<b>Source(s)</b>	<b>Notes</b>
	LLIFLE - Encyclopedia of living forms. (2022). <i>Chambeyronia macrocarpa</i> . <a href="http://www.llifle.com/">http://www.llifle.com/</a> . [Accessed 20 May 2022]	[May not tolerate digging up or cutting fronds] "The root system of this species is very sensitive and good sized specimen is extremely difficult to successfully dig and transplant to another location." ... "Palms only have a set number of new leaves that can sprout and grow per year and removing fronds will not increase that number. If you cut off more than what will grow annually, you could be left with a pretty bare and bald Palm."

805	<b>Effective natural enemies present locally (e.g. introduced biocontrol agents)</b>	
	<b>Source(s)</b>	<b>Notes</b>
	WRA Specialist. (2022). Personal Communication	Unknown

**Summary of Risk Traits:**

High Risk / Undesirable Traits

- Grows and could spread in regions with tropical climates
- Shade tolerant
- Tolerates many soil types
- Reproduces by seeds
- Self-fertile
- Seeds dispersed by birds and through intentional cultivation

Low Risk Traits

- No reports of naturalization or invasiveness
- Unarmed (no spines, thorns, or burrs)
- Non-toxic
- Slow growing
- Relatively large seeds unlikely to be dispersed long distances by birds present in the Hawaiian Islands
- Fruit and seed size may limit long distance, or accidental dispersal