

Key Words: Low Risk, Ornamental Palm, Unarmed, Endangered, Bird-dispersed

Family: *Areaceae*

Taxon: *Thrinax radiata*

Synonym: *Coccothrinax martii* (Griseb. & H. Wendl.) Be **Common Name:** Florida thatch
Coccothrinax radiata (Lodd. ex Schult. & Sch Florida thatch palm
Thrinax floridana Sarg. Jamaican thatch
Thrinax martii Griseb. & H. Wendl. Silk-top thatch palm
Thrinax wendlandiana Becc.

Questionnaire :	current 20090513	Assessor:	Chuck Chimera	Designation: L
Status:	Assessor Approved	Data Entry Person:	Chuck Chimera	WRA Score -2
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	y
301	Naturalized beyond native range		y = 1*multiplier (see Appendix 2), n= question 205	n
302	Garden/amenity/disturbance weed		n=0, y = 1*multiplier (see Appendix 2)	n
303	Agricultural/forestry/horticultural weed		n=0, y = 2*multiplier (see Appendix 2)	n
304	Environmental weed		n=0, y = 2*multiplier (see Appendix 2)	n
305	Congeneric weed		n=0, y = 1*multiplier (see Appendix 2)	n
401	Produces spines, thorns or burrs		y=1, n=0	n
402	Allelopathic		y=1, n=0	
403	Parasitic		y=1, n=0	n
404	Unpalatable to grazing animals		y=1, n=-1	
405	Toxic to animals		y=1, n=0	n
406	Host for recognized pests and pathogens		y=1, n=0	n
407	Causes allergies or is otherwise toxic to humans		y=1, n=0	n
408	Creates a fire hazard in natural ecosystems		y=1, n=0	
409	Is a shade tolerant plant at some stage of its life cycle		y=1, n=0	

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y=1, n=0	n
411	Climbing or smothering growth habit	y=1, n=0	n
412	Forms dense thickets	y=1, n=0	
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	y
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	y
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)	y=1, n=-1	y
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: L	WRA Score -2

Supporting Data:

101	1997. Henderson, A./Galeano, G./Bernal, R.. Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	[Is the species highly domesticated? No] No evidence
102	2012. WRA Specialist. Personal Communication.	NA
103	2012. WRA Specialist. Personal Communication.	NA
201	1997. Henderson, A./Galeano, G./Bernal, R.. Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	[Species suited to tropical or subtropical climate(s) 2-High] "Northwestern Caribbean in Mexico (Quintana Roo, Yucatan), Cayman Islands, Belize, Honduras (Atlantida, Islas de la Bahia), United States (Florida), Bahamas, Jamaica, Cuba, and Hispaniola"
202	1997. Henderson, A./Galeano, G./Bernal, R.. Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	[Quality of climate match data 2-High]
203	1997. Henderson, A./Galeano, G./Bernal, R.. Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	[Broad climate suitability (environmental versatility)? No] "coastal regions on limestone or sandy soil close to the sea, often in sand-dune scrub."
203	2003. Riffle, R.L./Craft, P.. An Encyclopedia of Cultivated Palms. Timber Press, Portland, OR.	[Broad climate suitability (environmental versatility)? No] "This is another relatively cold-hardy species and is adaptable to zones 10 and 11, with occasional handsome specimens seen in warm microclimates of 9b."
204	1997. Henderson, A./Galeano, G./Bernal, R.. Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	[Native or naturalized in regions with tropical or subtropical climates? Yes] "Northwestern Caribbean in Mexico (Quintana Roo, Yucatan), Cayman Islands, Belize, Honduras (Atlantida, Islas de la Bahia), United States (Florida), Bahamas, Jamaica, Cuba, and Hispaniola"
205	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Does the species have a history of repeated introductions outside its natural range? Yes] "It was introduced to the Hawaiian Islands early in the twentieth century."
205	2010. Brown, S.H.. <i>Thrinax radiata</i> . University of Florida, IFAS Extension, Gainesville, FL lee.ifas.ufl.edu/Hort/GardenPubsAZ/Florida_Thatc h_Palm.pdf	[Does the species have a history of repeated introductions outside its natural range? Yes] "It is now widely planted outside its historical range in South Florida and in many islands of the Caribbean."
301	2007. Randall, R.P.. Global Compendium of Weeds - Index [Online Database]. http://www.hear.org/gcw/	[Naturalized beyond native range? No] No evidence
301	2012. Wagner, W.L./Herbst, D.R./Khan, N./Flynn, T.. Hawaiian Vascular Plant Updates: A Supplement to the Manual of the Flowering Plants of Hawai'i & Hawai'i's Ferns & Fern Allies. http://botany.si.edu/pacificislandbiodiversity/hawaiianflora/supplement.htm	[Naturalized beyond native range? No] No evidence
302	2007. Randall, R.P.. Global Compendium of Weeds - Index [Online Database]. http://www.hear.org/gcw/	[Garden/amenity/disturbance weed? No] No evidence
303	2007. Randall, R.P.. Global Compendium of Weeds - Index [Online Database]. http://www.hear.org/gcw/	[Agricultural/forestry/horticultural weed? No] No evidence
304	2007. Randall, R.P.. Global Compendium of Weeds - Index [Online Database]. http://www.hear.org/gcw/	[Environmental weed? No] No evidence
304	2008. Meyer, J-Y./Lavergne, C./Hodel, D. R.. Time Bombs in Gardens: Invasive Ornamental Palms in Tropical Islands, with Emphasis on French Polynesia (Pacific Ocean) and the Mascarenes (Indian Ocean). Palms. 52: 71-83.	[Environmental weed? No] No evidence
305	2008. Meyer, J-Y./Lavergne, C./Hodel, D. R.. Time Bombs in Gardens: Invasive Ornamental Palms in Tropical Islands, with Emphasis on French Polynesia (Pacific Ocean) and the Mascarenes (Indian Ocean). Palms. 52: 71-83.	[Congeneric weed? No] No evidence

401	1997. Henderson, A./Galeano, G./Bernal, R.. Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	[Produces spines, thorns or burrs? No] "Stems 1.5-12 m tall and 6-13 cm diameter. Leaf sheaths with fine fibers; petiole elongate, 36-04 cm long; blade with 51-63 leaflets, the middle ones 0.7-1.1 m long, lighter green on the lower surface."
401	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	[Produces spines, thorns or burrs? No] "Solitary, unarmed, hermaphroditic."
402	2012. WRA Specialist. Personal Communication.	[Allelopathic? Unknown] No information available
403	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Parasitic? No] Arecaceae
404	2012. WRA Specialist. Personal Communication.	[Unpalatable to grazing animals? Unknown]
405	2008. Wagstaff, D.J.. International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL	[Toxic to animals? No] No evidence
406	2010. Brown, S.H.. <i>Thrinax radiata</i> . University of Florida, IFAS Extension, Gainesville, FL lee.ifas.ufl.edu/Hort/GardenPubsAZ/Florida_Thatc h_Palm.pdf	[Host for recognized pests and pathogens? No] "The Florida thatch palm requires little in the way of fertilizer. Insects are rarely a problem. Currently there are no known cases of infections of the Florida thatch palm by either ganoderma butt rot (<i>Ganoderma zonatum</i>) or Lethal Yellowing disease."
407	2009. Calvo-Irabién, L.M./Zapata, M.T./Iriarte-Vivar, S.. Effects of leaf harvest on <i>Thrinax radiata</i> palm: implications for management and conservation. <i>Journal of Tropical Forest Science</i> . 21(1): 34-44.	[Causes allergies or is otherwise toxic to humans? No] "Chit palm leaves have a wide variety of uses, including roof thatch, brooms, handcrafts and wrapping of food to be cooked in a hole in the ground. Its leaves also have several minor ritual, medicinal and ornamental uses (Calvo-Irabién & Ceballos- Gonzalez 2004)."
407	2010. Brown, S.H.. <i>Thrinax radiata</i> . University of Florida, IFAS Extension, Gainesville, FL lee.ifas.ufl.edu/Hort/GardenPubsAZ/Florida_Thatc h_Palm.pdf	[Causes allergies or is otherwise toxic to humans? No] "Human hazards: None"
408	1996. Bergh, C./Wisby, J.. Fire History of Lower Keys Pine Rocklands. The Nature Conservancy, Florida Keys Initiative, Key West, FL	[Creates a fire hazard in natural ecosystems? Possibly] "The south Florida slash pine (<i>Pinus ellioti</i> var. <i>densa</i>) and palms (<i>Coccothrinax argentata</i> , <i>Thrinax morrisii</i> , <i>Thrinax radiata</i> , and <i>Serenoa repens</i>) that characterize Keys pine rockland are fire-adapted and dependent on periodic fires for their long-term persistence (Snyder et al. 1991)."
409	2003. Riffle, R.L./Craft, P.. An Encyclopedia of Cultivated Palms. Timber Press, Portland, OR.	[Is a shade tolerant plant at some stage of its life cycle? Yes] "It is slow growing in full sun and very slow growing in partial shade."
409	2010. Brown, S.H.. <i>Thrinax radiata</i> . University of Florida, IFAS Extension, Gainesville, FL lee.ifas.ufl.edu/Hort/GardenPubsAZ/Florida_Thatc h_Palm.pdf	[Is a shade tolerant plant at some stage of its life cycle? Possibly Yes] "It is adapted to growing in full sun or varying shade. Its canopy is dense and globular in full sun and open and airy under shade."
410	1995. Olmsted, I./Alvarez-Buylla, E.R.. Sustainable Harvesting of Tropical Trees: Demography and Matrix Models of Two Palm Species in Mexico. <i>Ecological Applications</i> . 5(2): 484-500.	[Tolerates a wide range of soil conditions? No] "It grows only on alkaline substrates, such as coral sands or calcareous rock (Read 1975)."
411	1997. Henderson, A./Galeano, G./Bernal, R.. Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	[Climbing or smothering growth habit? No] "Stems 1.5-12 m tall and 6-13 cm diameter. Leaf sheaths with fine fibers; petiole elongate, 36-04 cm long; blade with 51-63 leaflets, the middle ones 0.7-1.1 m long, lighter green on the lower surface."
412	1995. Olmsted, I./Alvarez-Buylla, E.R.. Sustainable Harvesting of Tropical Trees: Demography and Matrix Models of Two Palm Species in Mexico. <i>Ecological Applications</i> . 5(2): 484-500.	[Forms dense thickets? No] "Thrinax showed greatest abundance of all categories in the mature coastal forest (Venadito) with 2977 individuals/ha" [0.2977 plants/m2. High density, but no evidence that other plants are excluded]
412	2008. Deppe, J.L./Rotenberry, J.T.. Scale-dependent habitat use by fall migratory birds: vegetation structure, floristics, and geography. <i>Ecological Monographs</i> . 78(3): 461-487.	[Forms dense thickets? Potentially] "Palm-dominated thickets (PT) are taller and have more trees, a better-developed canopy and, as their name implies, a much higher abundance of the three native palm species, <i>Pseudophoenix sargentii</i> , <i>Thrinax radiata</i> , and <i>Coccothrinax readii</i> , than shrub-dominated thickets (ST)." [A component of thicket vegetation]

501	1997. Henderson, A./Galeano, G./Bernal, R.. Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	[Aquatic? No] ""Stems 1.5-12 m tall and 6-13 cm diameter. " [Terrestrial palm]
502	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Grass? No] Arecaceae
503	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Nitrogen fixing woody plant? No] Arecaceae
504	1997. Henderson, A./Galeano, G./Bernal, R.. Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] "Stems 1.5-12 m tall and 6-13 cm diameter. Leaf sheaths with fine fibers; petiole elongate, 36-04 cm long; blade with 51-63 leaflets, the middle ones 0.7-1.1 m long, lighter green on the lower surface."
601	2009. Calvo-Irabién, L.M./Zapata, M.T./Iriarte-Vivar, S.. Effects of leaf harvest on <i>Thrinax radiata</i> palm: implications for management and conservation. <i>Journal of Tropical Forest Science</i> . 21(1): 34-44.	[Evidence of substantial reproductive failure in native habitat? Yes] "The chit palm (<i>Thrinax radiata</i> , Arecaceae) was legally designated a threatened species in Mexico in 1994 (NOM-059-ECOL 2001). Nevertheless, illegal harvest and sale of this palm species is frequent. Chit palm populations are threatened primarily by habitat destruction from human activities (mainly tourism, agriculture and livestock raising), although direct use by local people, particularly harvesting whole individuals, and leaf harvest, are important threats (Olmsted & Alvarez-Buylla 1995, Calvo-Irabién & Ceballos- Gonzalez 2004). Under the current legislation, any commercial exploitation of this species requires a permit which includes clear statements of population status and effect of harvest."
601	2010. Nelson, G.. The Trees of Florida. 2nd Edition. Pineapple Press Inc, Sarasota, FL	[Evidence of substantial reproductive failure in native habitat? Possibly in Florida] "Native, state endangered." ... "A commercially exploited species found naturally in shallow, coastal soils of the Florida Keys and the southernmost peninsula."
602	1995. Olmsted, I./Alvarez-Buylla, E.R.. Sustainable Harvesting of Tropical Trees: Demography and Matrix Models of Two Palm Species in Mexico. <i>Ecological Applications</i> . 5(2): 484-500.	[Produces viable seed? Yes] "Seed germination.-Germination of <i>Thrinax</i> under natural conditions took 4 mo and only an average of 8% and 17% of <i>Thrinax</i> seeds germinated at Santa Teresa and Venadito, respectively, under natural conditions."
602	2012. Dave's Gardern. PlantFiles: Florida Thatch Palm - <i>Thrinax radiata</i> . http://davesgarden.com/guides/pf/go/60367/	[Produces viable seed? Yes] "Propagation Methods: From seed; winter sow in vented containers, coldframe or unheated greenhouse"
603	1990. Nauman, C.E.. Intergeneric hybridization between <i>Coccothrinax</i> and <i>Thrinax</i> (Palmae: Coryphoideae). <i>Principes</i> . 34(4): 191-198.	[Hybridizes naturally? Unknown] "Unusual plants of what appeared to be a species of <i>Thrinax</i> were found in the Lower Florida Keys. The plants produced abundant inflorescences but anthesis and fruit set did not occur. The sterility, apparent intermediateness in several leaf characters, and consistent co-occurrence of <i>T. morrisii</i> and <i>Coccothrinax argentata</i> suggested a hybrid. Results of an evaluation of 3 criteria for testing the hypothesis of hybridity are discussed."
604	1986. Henderson, A.. A Review of Pollination Studies in the Palmae. <i>Botanical Review</i> . 52: 221-259.	[Self-compatible or apomictic? Yes] "The genus was considered wind pollinated, and self-compatible."
604	2009. Calvo-Irabién, L.M./Zapata, M.T./Iriarte-Vivar, S.. Effects of leaf harvest on <i>Thrinax radiata</i> palm: implications for management and conservation. <i>Journal of Tropical Forest Science</i> . 21(1): 34-44.	[Self-compatible or apomictic? Potentially] "The ramified inflorescence is 50 to 60 cm long, and can bear up to 11 000 small (ca. 5 mm), bisexual flowers."
605	1997. Henderson, A./Galeano, G./Bernal, R.. Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	[Requires specialist pollinators? No] "The simple flowers with their much reduced perianth and exerted anthers and stigmas have been considered adaptations to wind pollination (Read, 1975). Insects, however, are also probably involved in pollen transfer (Uhl and Moore, 1977)."
606	2003. Riffle, R.L./Craft, P.. An Encyclopedia of Cultivated Palms. Timber Press, Portland, OR.	[Reproduction by vegetative fragmentation? Possibly] "This species rarely forms suckers but is usually a solitary-trunked palm with slender stems attaining maximum heights of only 5 inches." [Limited ability to spread vegetatively]
607	1995. Olmsted, I./Alvarez-Buylla, E.R.. Sustainable Harvesting of Tropical Trees: Demography and Matrix Models of Two Palm Species in Mexico. <i>Ecological Applications</i> . 5(2): 484-500.	[Minimum generative time (years)? 31-55] " <i>Thrinax</i> attains a height of 3 m at an age of 31-55 yr and <i>Coccothrinax</i> at an age of 63 yr. Both species start reproducing when 4 m tall."

607	2009. Calvo-Irabién, L.M./Zapata, M.T./Iriarte-Vivar, S.. Effects of leaf harvest on <i>Thrinax radiata</i> palm: implications for management and conservation. <i>Journal of Tropical Forest Science</i> . 21(1): 34–44.	[Minimum generative time (years)? >3+] "Plants reach reproductive maturity when approximately 3 m tall, and yearly produce between 300 and 3000 white-coloured fruits per individual (Olmsted & Alvarez-Buylla 1995). Each fruit contains one seed, and these seeds are plain, shiny, brown in colour and measure 7 mm in diameter (Quero 1992). This species grows slowly and growth rate depends mainly on light conditions; a 15 m tall palm is approximately 70 to 100 years old (Olmsted & Alvarez-Buylla 1995)."
701	1997. Henderson, A./Galeano, G./Bernal, R.. <i>Field Guide to the Palms of the Americas</i> . Princeton University Press, Princeton, NJ	[Propagules likely to be dispersed unintentionally? No] "Fruits are one-seeded, globose, small, and white or yellowish white at maturity..." [Genus] ... "fruits globose, 7-8 mm diameter, white." [No evidence, and no means of external attachment]
702	2005. Staples, G.W./Herbst, D.R.. <i>A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places</i> . Bishop Museum Press, Honolulu, HI	[Propagules dispersed intentionally by people? Yes] ""It was introduced to the Hawaiian Islands early in the twentieth century." [Ornamental]
703	2010. Brown, S.H.. <i>Thrinax radiata</i> . University of Florida, IFAS Extension, Gainesville, FL lee.ifas.ufl.edu/Hort/GardenPubsAZ/Florida_Thatc h_Palm.pdf	[Propagules likely to disperse as a produce contaminant? No] No evidence
704	1997. Henderson, A./Galeano, G./Bernal, R.. <i>Field Guide to the Palms of the Americas</i> . Princeton University Press, Princeton, NJ	[Propagules adapted to wind dispersal? No] "Fruits are one-seeded, globose, small, and white or yellowish white at maturity..." [Genus] ... "fruits globose, 7-8 mm diameter, white." [Species]
705	2007. Zona, S.. Additions to "A Review of Animal-mediated seed dispersal of Palms". <i>Virtual Herbarium</i> , http://www.virtualherbarium.org/palms/psdispersal.html	[Propagules water dispersed? No] " <i>Thrinax radiata</i> " ... "Dispersal Agent = <i>Mimus polyglottos</i> (A)"
706	1997. Henderson, A./Galeano, G./Bernal, R.. <i>Field Guide to the Palms of the Americas</i> . Princeton University Press, Princeton, NJ	[Propagules bird dispersed? Presumably Yes] "Fruits are one-seeded, globose, small, and white or yellowish white at maturity..." [Genus] ... "fruits globose, 7-8 mm diameter, white." [Species]
706	2007. Zona, S.. Additions to "A Review of Animal-mediated seed dispersal of Palms". <i>Virtual Herbarium</i> , http://www.virtualherbarium.org/palms/psdispersal.html	[Propagules bird dispersed? Yes] " <i>Thrinax radiata</i> " ... "Dispersal Agent = <i>Mimus polyglottos</i> (A)"
707	1997. Henderson, A./Galeano, G./Bernal, R.. <i>Field Guide to the Palms of the Americas</i> . Princeton University Press, Princeton, NJ	[Propagules dispersed by other animals (externally)? No] "Fruits are one-seeded, globose, small, and white or yellowish white at maturity..." [Genus] ... "fruits globose, 7-8 mm diameter, white." [No evidence, and no means of external attachment]
708	1997. Henderson, A./Galeano, G./Bernal, R.. <i>Field Guide to the Palms of the Americas</i> . Princeton University Press, Princeton, NJ	[Propagules survive passage through the gut? Presumably Yes] "Fruits are one-seeded, globose, small, and white or yellowish white at maturity..." [Genus] ... "fruits globose, 7-8 mm diameter, white." [Species]
708	2012. Scherbaum, C./Estrada, A.. Selectivity in feeding preferences and ranging patterns in spider monkeys <i>Ateles geoffroyi yucatanensis</i> of northeastern Yucatan peninsula, Mexico. <i>Current Zoology</i> . Online First: .www.actazool.org/site_media/onlinefirst/do	[Propagules survive passage through the gut? Yes] "Table 1 Plant species used by the spider monkeys as food resources during the study period" [<i>Thrinax radiata</i> - fr= ripe fruit consumed, and seeds presumably dispersed by spider monkeys]
801	2009. Calvo-Irabién, L.M./Zapata, M.T./Iriarte-Vivar, S.. Effects of leaf harvest on <i>Thrinax radiata</i> palm: implications for management and conservation. <i>Journal of Tropical Forest Science</i> . 21(1): 34–44.	[Prolific seed production (>1000/m ²)? Potentially yes] "Plants reach reproductive maturity when approximately 3 m tall, and yearly produce between 300 and 3000 white-coloured fruits per individual (Olmsted & Alvarez-Buylla 1995). Each fruit contains one seed, and these seeds are plain, shiny, brown in colour and measure 7 mm in diameter (Quero 1992)."
802	1995. Olmsted, I./Alvarez-Buylla, E.R.. Sustainable Harvesting of Tropical Trees: Demography and Matrix Models of Two Palm Species in Mexico. <i>Ecological Applications</i> . 5(2): 484-500.	[Evidence that a persistent propagule bank is formed (>1 yr)? No evidence] "Germination of <i>Thrinax</i> under natural conditions took 4 mo and only an average of 8% and 17% of <i>Thrinax</i> seeds germinated at Santa Teresa and Venadito, respectively, under natural conditions."
802	2009. Davies, R./Nadarajan, J./Pritchard, H.W.. Cryopreservation of Difficult-to-Handle Palm Seeds. <i>CryoLetters</i> . 30 (5): 382-397.	[Evidence that a persistent propagule bank is formed (>1 yr)? Probably No] "This project was aimed at developing cryopreservation protocols for one orthodox (<i>Washingtonia filifera</i>) and two recalcitrant palm species namely, <i>Arenga westerhoutii</i> and <i>Thrinax radiata</i> respectively."
803	2012. WRA Specialist. Personal Communication.	[Well controlled by herbicides? Unknown] No information on herbicide efficacy or chemical control of this species

804	2009. Calvo-Irabién, L.M./Zapata, M.T./Iriarte-Vivar, S.. Effects of leaf harvest on <i>Thrinax radiata</i> palm: implications for management and conservation. <i>Journal of Tropical Forest Science</i> . 21(1): 34–44.	[Tolerates, or benefits from, mutilation, cultivation, or fire? Possibly No. Too much leaf harvest negatively affects this palm] "Our results showed that even under a single defoliation event, the high intensity leaf harvest treatment had negative effect on size and number of new leaves, suggesting that complete removal of opened leaves is not a sustainable harvest practice on the long run, particularly under a scenario of repeated defoliation."
805	2012. 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 (could potentially spread in areas with similar climate)
- Self-compatible (one plant may produce seeds)
- Seeds bird-dispersed

Low Risk / Desirable Traits

- Ornamental value
- Unarmed palm (no spines)
- Long time before reproductive maturity is reached (31-55 years)
- Leaves used for thatching