

**Family:** *Areaceae*

**Taxon:** *Raphia farinifera*

**Synonym:** *Raphia pedunculata* P. Beauv.  
*Raphia ruffia* (Jacq.) Mart.  
*Sagus farinifera* Gaertn. (basionym)  
*Sagus ruffia* Jacq.

**Common Name:** raffia palm  
raphia  
Bastpalme  
rafia  
rafiapalm

**Questionnaire :** current 20090513      **Assessor:** Patti Clifford      **Designation:** EVALUATE  
**Status:** Assessor Approved      **Data Entry Person:** Patti Clifford      **WRA Score** 5

101	Is the species highly domesticated?	y=-3, n=0	n
102	Has the species become naturalized where grown?	y=1, n=-1	
103	Does the species have weedy races?	y=1, n=-1	
201	Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"	(0-low; 1-intermediate; 2-high) (See Appendix 2)	High
202	Quality of climate match data	(0-low; 1-intermediate; 2-high) (See Appendix 2)	High
203	Broad climate suitability (environmental versatility)	y=1, n=0	y
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	n
301	Naturalized beyond native range	y = 1*multiplier (see Appendix 2), n= question 205	y
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	y
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	
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	n
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	n
602	Produces viable seed	y=1, n=-1	y
603	Hybridizes naturally	y=1, n=-1	
604	Self-compatible or apomictic	y=1, n=-1	
605	Requires specialist pollinators	y=-1, n=0	n
606	Reproduction by vegetative fragmentation	y=1, n=-1	
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	
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	y
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	
802	Evidence that a persistent propagule bank is formed (>1 yr)	y=1, n=-1	
803	Well controlled by herbicides	y=-1, n=1	
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)	y=-1, n=1	

Designation: EVALUATE

WRA Score 5

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**Supporting Data:**

101	2012. WRA Specialist. Personal Communication.	[Is the species highly domesticated? No] No evidence of domestication that reduces invasive traits.
102	2012. WRA Specialist. Personal Communication.	[Has the species become naturalized where grown? NA]
103	2012. WRA Specialist. Personal Communication.	[Does the species have weedy races? NA]
201	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). <a href="http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl">http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl</a>	[Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"? 2 - High] Native region: Tropical Africa - Kenya; Tanzania; Uganda; Cameroon; Benin; Burkina Faso; Cote D'Ivoire; Gambia; Ghana; Nigeria, Senegal, Sierra Leone; Togo; Angola; Malawi; Mozambique; Zambia; Zimbabwe.
202	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). <a href="http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl">http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl</a>	[Quality of climate match data? 2 - High] Native region: Tropical Africa - Kenya; Tanzania; Uganda; Cameroon; Benin; Burkina Faso; Cote D'Ivoire; Gambia; Ghana; Nigeria, Senegal, Sierra Leone; Togo; Angola; Malawi; Mozambique; Zambia; Zimbabwe.
203	2012. Beck, C.. Growing <i>Raphia farinifera</i> in Palm Beach County [Accessed November 9 2012]. Palm Beach Sycad Society, <a href="http://www.palmbeachpalmcycadsociety.com/palms/documents/RaphiaFarinifera.pdf">http://www.palmbeachpalmcycadsociety.com/palms/documents/RaphiaFarinifera.pdf</a>	[Broad climate suitability (environmental versatility)? Yes] <i>Raphia farinifera</i> is typically found in swamps or rainforests at elevations up to 2,600 feet.
203	2012. Dave's Garden. PlantFiles: <i>Raphia farinifera</i> [Accessed November 9 2012]. <a href="http://davesgarden.com/guides/pf/go/60875/">http://davesgarden.com/guides/pf/go/60875/</a>	[Broad climate suitability (environmental versatility)?] Hardiness: USDA Zone 10a: to -1.1 °C (30 °F) USDA Zone 10b: to 1.7 °C (35 °F) USDA Zone 11: above 4.5 °C (40 °F)
203	2012. Tropicos.org. Tropicos [Online Database]. Missouri Botanical Garden, <a href="http://www.tropicos.org/">http://www.tropicos.org/</a>	[Broad climate suitability (environmental versatility)? Yes] Specimen records from Tropicos: Gabon - elevation 50 m - collected 7/23/1986 - collection # 6637; Tanzania - elevation 1130 m - collected 8/13/1999 - collection # 294; Uganda - elevation 1060 m - collected 6/19/1998 - collection# 584.
204	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). <a href="http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl">http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl</a>	[Native or naturalized in regions with tropical or subtropical climates? 2 - High] Native region: Tropical Africa - Kenya; Tanzania; Uganda; Cameroon; Benin; Burkina Faso; Cote D'Ivoire; Gambia; Ghana; Nigeria, Senegal, Sierra Leone; Togo; Angola; Malawi; Mozambique; Zambia; Zimbabwe.
205	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). <i>Palms</i> . 52: 71-83.	[Does the species have a history of repeated introductions outside its natural range?] "Members of "Palmeria-Union," a local palm amateur group, reported that a population 50 individuals of <i>Raphia farinifera</i> , native to tropical Africa and north and east Madagascar, is established in La Réunion along the Rivière Saint-Louis (Martz & Martz 2001). The botanist E. Jacob de Cordemoy (1895) also observed this species naturalized along the streams of Bras-Panon in La Réunion in the 19th century. However some <i>Raphia</i> populations have regressed because of increasing urbanization. It is also naturalized along many streams and riverbanks in Mauritius, particularly around Mare aux Vacoas and Moka plain (Rouillard & Guého 1981–1985, 1999), and is considered a potential invasive palm in the Seychelles (Dunlop et al. 2005)." [introduction period to this region is unclear]
205	2012. WRA Specialist. Personal Communication.	[Does the species have a history of repeated introductions outside its natural range? No] there is no evidence of repeated introductions and <i>Raphia farinifera</i> does not appear to be available via the Internet at this time.
301	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). <i>Palms</i> . 52: 71-83.	[Naturalized beyond native range? Yes] Locally naturalized in Mauritius, La Reunion and the Mascarene Islands.
301	2012. Licuala - Palmtalk Blog. Brazil 2009 - a prelude to the 2010 Biennial- <i>Raphia farinifera</i> [Accessed 10 November 2012]. <a href="http://www.palmtalk.org/forum/index.php?s=4637d52443fdc79f86668c230629b53c&amp;showtopic=20497&amp;st=0">http://www.palmtalk.org/forum/index.php?s=4637d52443fdc79f86668c230629b53c&amp;showtopic=20497&amp;st=0</a>	[Naturalized beyond native range? ] Naturalized in Brazil. [information from a blog]

302	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Garden/amenity/disturbance weed? No] No evidence.
303	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Agricultural/forestry/horticultural weed? No] No evidence.
304	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Environmental weed? No] No evidence.
305	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Congeneric weed? No] No evidence.
401	2012. Hyde, M.A./Wursten, B./Pallings, P.. Flora of Zimbabwe: Species information: <i>Raphia farinifera</i> [Accessed 10 November 2012]. <a href="http://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=111960">http://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=111960</a>	[Produces spines, thorns or burrs?] "Large, stemless or short-stemmed palm tree. Leaves huge, up to 18 m, pinnate. Flowers unisexual in huge, branched inflorescences. Fruit oblong, with overlapping "polished", golden-brown scales."
401	2012. Palmpedia. <i>Raphia farinifera</i> - Palmpedia [Accessed 10 November 2012]. <a href="http://www.palmpedia.net/wiki/Raphia_farinifera">http://www.palmpedia.net/wiki/Raphia_farinifera</a>	[Produces spines, thorns or burrs? Yes] Leaf margins with small (1-3 mm long) yellow spines from base to apex of leaflet.
402	2012. WRA Specialist. Personal Communication.	[Allelopathic? Unknown]
403	2010. Nickrent, D.. The parasitic plant connection. Department of Plant Biology, Southern Illinois University, Carbondale <a href="http://www.parasiticplants.siu.edu/index.html">http://www.parasiticplants.siu.edu/index.html</a>	[Parasitic? No] Not a parasitic family.
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 <a href="http://books.google.com/books?id=h7tbd-5ZAQ8C&amp;pg=PA17&amp;lpg=PA17&amp;dq=International+poisonous+plants+checklist:+an+evidence-based+reference&amp;">http://books.google.com/books?id=h7tbd-5ZAQ8C&amp;pg=PA17&amp;lpg=PA17&amp;dq=International+poisonous+plants+checklist:+an+evidence-based+reference&amp;</a>	[Toxic to animals? No] No evidence.
405	2012. National Center for Biotechnology Information. PubMed. <a href="http://www.ncbi.nlm.nih.gov/sites/entrez">http://www.ncbi.nlm.nih.gov/sites/entrez</a>	[Toxic to animals? No] No evidence.
405	2012. Specialized Information Services, U.S. National Library of Medicine. TOXNET toxicology data network [online database]. National Institutes of Health, <a href="http://toxnet.nlm.nih.gov/">http://toxnet.nlm.nih.gov/</a>	[Toxic to animals? No] No evidence.
406	2012. WRA Specialist. Personal Communication.	[Host for recognized pests and pathogens? Unknown]
407	2007. Bingham, M.. The raffia palm. Black Lechwe. 15: <a href="http://naturezambia.com/content/raffia.shtml">.http://naturezambia.com/content/raffia.shtml</a>	[Causes allergies or is otherwise toxic to humans? No] "All palms are put to many uses, and raffia is no exception. Raffia fibre, stripped from the surface of the leaf segments, or the leaf segments themselves, are much used in ornamental weaving, and basketwork, beautiful examples of which are sold at the Serenje junction. The midribs of the leaves are used as poles or they may be cleaved into planks to make furniture, such as chairs and beds (Mwinilunga), floats for lamps to attract fish (Lake Bangweulu), and for roof thatching (not recorded in Zambia)."
407	2008. Wagstaff, D.J.. International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL <a href="http://books.google.com/books?id=h7tbd-5ZAQ8C&amp;pg=PA17&amp;lpg=PA17&amp;dq=International+poisonous+plants+checklist:+an+evidence-based+reference&amp;">http://books.google.com/books?id=h7tbd-5ZAQ8C&amp;pg=PA17&amp;lpg=PA17&amp;dq=International+poisonous+plants+checklist:+an+evidence-based+reference&amp;</a>	[Causes allergies or is otherwise toxic to humans? No] No evidence.
407	2012. National Center for Biotechnology Information. PubMed. <a href="http://www.ncbi.nlm.nih.gov/sites/entrez">http://www.ncbi.nlm.nih.gov/sites/entrez</a>	[Causes allergies or is otherwise toxic to humans? No] No evidence.

407	2012. Specialized Information Services, U.S. National Library of Medicine. TOXNET toxicology data network [online database]. National Institutes of Health, <a href="http://toxnet.nlm.nih.gov/">http://toxnet.nlm.nih.gov/</a>	[Causes allergies or is otherwise toxic to humans? No] No evidence.
408	2012. WRA Specialist. Personal Communication.	[Creates a fire hazard in natural ecosystems? No] No evidence.
409	2012. Beck, C.. Growing <i>Raphia farinifera</i> in Palm Beach County [Accessed November 9 2012]. Palm Beach Sycad Society, <a href="http://www.palmbeachpalmcycadsociety.com/palms/documents/RaphiaFarinifera.pdf">http://www.palmbeachpalmcycadsociety.com/palms/documents/RaphiaFarinifera.pdf</a>	[Is a shade tolerant plant at some stage of its life cycle?] Full sun to partial shade.
409	2012. Dave's Garden. PlantFiles: <i>Raphia farinifera</i> [Accessed November 9 2012]. <a href="http://davesgarden.com/guides/pf/go/60875/">http://davesgarden.com/guides/pf/go/60875/</a>	[Is a shade tolerant plant at some stage of its life cycle?] Full sun.
409	2012. Plant this. <i>Raphia farinifera</i> [Accessed 10 November 2012. <a href="http://plantthis.com.au/plant-information.asp?gardener=21562">http://plantthis.com.au/plant-information.asp?gardener=21562</a>	[Is a shade tolerant plant at some stage of its life cycle?] Sunlight: warm low sun to dappled light
409	2012. WRA Specialist. Personal Communication.	[Is a shade tolerant plant at some stage of its life cycle? Unknown] Unclear from references.
410	2012. Beck, C.. Growing <i>Raphia farinifera</i> in Palm Beach County [Accessed November 9 2012]. Palm Beach Sycad Society, <a href="http://www.palmbeachpalmcycadsociety.com/palms/documents/RaphiaFarinifera.pdf">http://www.palmbeachpalmcycadsociety.com/palms/documents/RaphiaFarinifera.pdf</a>	[Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)?] Soil in the Beck Garden: sand over a layer of hardpan (pineland flatwood habitat).
410	2012. Plant this. <i>Raphia farinifera</i> [Accessed 10 November 2012. <a href="http://plantthis.com.au/plant-information.asp?gardener=21562">http://plantthis.com.au/plant-information.asp?gardener=21562</a>	[Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)? No] Soil: enriched soil, mildly acidic to mildly alkaline
411	2012. Hyde, M.A./Wursten, B./Pallings, P.. Flora of Zimbabwe: Species information: <i>Raphia farinifera</i> [Accessed 10 November 2012. <a href="http://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=111960">http://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=111960</a>	[Climbing or smothering growth habit? No] Palm.
412	2012. WRA Specialist. Personal Communication.	[Forms dense thickets? Unknown]
501	2012. Hyde, M.A./Wursten, B./Pallings, P.. Flora of Zimbabwe: Species information: <i>Raphia farinifera</i> [Accessed 10 November 2012. <a href="http://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=111960">http://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=111960</a>	[Aquatic? No] Terrestrial, <i>Arecaceae</i> .
502	2012. Hyde, M.A./Wursten, B./Pallings, P.. Flora of Zimbabwe: Species information: <i>Raphia farinifera</i> [Accessed 10 November 2012. <a href="http://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=111960">http://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=111960</a>	[Grass? No] Palm; <i>Arecaceae</i> .
503	2010. <a href="http://www.nationmaster.com/encyclopedia/Nitrogen-fixation">www.nationmaster.com</a> . Encyclopedia Nitrogen fixation. Nationmaster.com, <a href="http://www.nationmaster.com/encyclopedia/Nitrogen-fixation">http://www.nationmaster.com/encyclopedia/Nitrogen-fixation</a>	[Nitrogen fixing woody plant? No] <i>Arecaceae</i> .
503	2012. Hyde, M.A./Wursten, B./Pallings, P.. Flora of Zimbabwe: Species information: <i>Raphia farinifera</i> [Accessed 10 November 2012. <a href="http://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=111960">http://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=111960</a>	[Nitrogen fixing woody plant? No] <i>Arecaceae</i> .
504	2012. Hyde, M.A./Wursten, B./Pallings, P.. Flora of Zimbabwe: Species information: <i>Raphia farinifera</i> [Accessed 10 November 2012. <a href="http://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=111960">http://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=111960</a>	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] Palm [not herbaceous].
601	2012. Beck, C.. Growing <i>Raphia farinifera</i> in Palm Beach County [Accessed November 9 2012]. Palm Beach Sycad Society, <a href="http://www.palmbeachpalmcycadsociety.com/palms/documents/RaphiaFarinifera.pdf">http://www.palmbeachpalmcycadsociety.com/palms/documents/RaphiaFarinifera.pdf</a>	[Evidence of substantial reproductive failure in native habitat? No] <i>Raphia farinifera</i> is not threatened in the wild.

602	2012. Dave's Garden. PlantFiles: <i>Raphia farinifera</i> [Accessed November 9 2012]. <a href="http://davesgarden.com/guides/pf/go/60875/">http://davesgarden.com/guides/pf/go/60875/</a>	[Produces viable seed? Yes] Propagate from seed.
603	2012. WRA Specialist. Personal Communication.	[Hybridizes naturally? Unknown]
604	2012. WRA Specialist. Personal Communication.	[Self-compatible or apomictic? Unknown]
605	2007. Bingham, M.. The raffia palm. Black Lechwe. 15: <a href="http://naturezambia.com/content/raffia.shtml">.http://naturezambia.com/content/raffia.shtml</a>	[Requires specialist pollinators? No] Wind-pollinated.
606	2012. WRA Specialist. Personal Communication.	[Reproduction by vegetative fragmentation? Unknown]
607	2007. Bingham, M.. The raffia palm. Black Lechwe. 15: <a href="http://naturezambia.com/content/raffia.shtml">.http://naturezambia.com/content/raffia.shtml</a>	[Minimum generative time (years)? > 3] Nineteen years after a seed of <i>Raphia farinifera</i> was planted in Zambia, the palm began to flower. Four years later the first mature fruit began to fall.
607	2012. Beck, C.. Growing <i>Raphia farinifera</i> in Palm Beach County [Accessed November 9 2012]. Palm Beach Sycad Society, <a href="http://www.palmbeachpalmcycadsociety.com/palms/documents/RaphiaFarinifera.pdf">http://www.palmbeachpalmcycadsociety.com/palms/documents/RaphiaFarinifera.pdf</a>	[Minimum generative time (years)? > 3] Flowering in habitat occurs in 20 to 25 years, fruit can take 5 to 6 years to mature.
701	2012. WRA Specialist. Personal Communication.	[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)? No] No evidence of unintentional dispersal.
702	2008. Meyer, J-Y./Laverigne, 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.	[Propagules dispersed intentionally by people?] "Members of "Palmeriaie-Union," a local palm amateur group, reported that a population 50 individuals of <i>Raphia farinifera</i> , native to tropical Africa and north and east Madagascar, is established in La Réunion along the Rivière Saint-Louis (Martz & Martz 2001). The botanist E. Jacob de Cordemoy (1895) also observed this species naturalized along the streams of Bras-Panon in La Réunion in the 19th century. However some <i>Raphia</i> populations have regressed because of increasing urbanization. It is also naturalized along many streams and riverbanks in Mauritius, particularly around Mare aux Vacoas and Moka plain (Rouillard & Guého 1981–1985, 1999), and is considered a potential invasive palm in the Seychelles (Dunlop et al. 2005)." [introduction period to these areas is not clear]
702	2012. WRA Specialist. Personal Communication.	[Propagules dispersed intentionally by people? No] No evidence of intentional importation.
703	2012. WRA Specialist. Personal Communication.	[Propagules likely to disperse as a produce contaminant? No] No evidence.
704	2012. Palmpedia. <i>Raphia farinifera</i> - Palmpedia [Accessed 10 November 2012]. <a href="http://www.palmpedia.net/wiki/Raphia_farinifera">http://www.palmpedia.net/wiki/Raphia_farinifera</a>	[Propagules adapted to wind dispersal? No] "FRUIT ovoid, 5-6 x 4-4.5 cm with a conical base and a rounded apex with a beak to 5 mm, covered in about 12 rows of reflexed scales, these with a median vertical groove, the largest scales about 16 x 16 mm, chestnut-brown in colour. SEED ovoid, about 3.5 x 3.2 cm; endosperm densely ruminant, the ruminations almost reaching the centre of the seed. " [no adaptation for wind dispersal]
705	2007. Bingham, M.. The raffia palm. Black Lechwe. 15: <a href="http://naturezambia.com/content/raffia.shtml">.http://naturezambia.com/content/raffia.shtml</a>	[Propagules water dispersed? Yes] A wetland species, it occurs in peat dambos and on banks of perennial streams in frost-free zones. While it never stands in water, it grows on banks and elevated areas, with most of the root system in the water, but rooted into firm ground.
706	2007. Bingham, M.. The raffia palm. Black Lechwe. 15: <a href="http://naturezambia.com/content/raffia.shtml">.http://naturezambia.com/content/raffia.shtml</a>	[Propagules bird dispersed? Yes] The palmnut vulture disperses the seed in Zambia.
707	2012. Palmpedia. <i>Raphia farinifera</i> - Palmpedia [Accessed 10 November 2012]. <a href="http://www.palmpedia.net/wiki/Raphia_farinifera">http://www.palmpedia.net/wiki/Raphia_farinifera</a>	[Propagules dispersed by other animals (externally)? No] "FRUIT ovoid, 5-6 x 4-4.5 cm with a conical base and a rounded apex with a beak to 5 mm, covered in about 12 rows of reflexed scales, these with a median vertical groove, the largest scales about 16 x 16 mm, chestnut-brown in colour. SEED ovoid, about 3.5 x 3.2 cm; endosperm densely ruminant, the ruminations almost reaching the centre of the seed. " [no adaptation for external attachment]

708	2007. Bingham, M.. The raffia palm. Black Lechwe. 15: <a href="http://naturezambia.com/content/raffia.shtml">.http://naturezambia.com/content/raffia.shtml</a>	[Propagules survive passage through the gut? Yes] "One or occasionally two nuts per fruit, have a thin covering of orange pulp, which attracts dispersal agents, civets, genets, bushpig and the palmnut vulture."
801	2007. Bingham, M.. The raffia palm. Black Lechwe. 15: <a href="http://naturezambia.com/content/raffia.shtml">.http://naturezambia.com/content/raffia.shtml</a>	[Prolific seed production (>1000/m2)? ] The palm has a huge mass of flowering spikes. The largest spikes have as many as 500 fruits, although in many of these the seeds are aborted.
801	2012. WRA Specialist. Personal Communication.	[Prolific seed production (>1000/m2)? Unknown] Number of viable seeds is unclear.
802	2012. WRA Specialist. Personal Communication.	[Evidence that a persistent propagule bank is formed (>1 yr)? Unknown]
803	2012. WRA Specialist. Personal Communication.	[Well controlled by herbicides? Unknown]
804	2007. Bingham, M.. The raffia palm. Black Lechwe. 15: <a href="http://naturezambia.com/content/raffia.shtml">.http://naturezambia.com/content/raffia.shtml</a>	[Tolerates, or benefits from, mutilation, cultivation, or fire? Yes] The mature and juvenile palms can survive relatively light burns, and fire, or more likely smoke, stimulates the germination of the seeds.
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**

- Native to tropical regions
- Thrives in a diversity of environments
- Naturalized in island ecosystems and possibly in Brazil
- Armed (has spines, thorns, burrs)
- Possibly shade tolerant
- Water dispersed
- Animal dispersed
- Bird dispersed
- Fire tolerant (fire may stimulate seed germination)

### **Low Risk / Desirable Traits**

- Not considered invasive (but naturalized)
- No species in the genus is considered invasive
- Not widely introduced or available
- Non-toxic
- Limited soil tolerances