

Family: *Arecaceae*

Taxon: *Geonoma interrupta*

Synonym: *Geonoma binervia* Oerst.
Geonoma martinicensis Mart.
Geonoma oxycarpa Mart.

Common Name: Chontilla
Cortadera

Questionnaire :	current 20090513	Assessor:	Patti Clifford	Designation: H(HPWRA)
Status:	Assessor Approved	Data Entry Person:	Patti Clifford	WRA Score 6
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	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	
406	Host for recognized pests and pathogens		y=1, n=0	
407	Causes allergies or is otherwise toxic to humans		y=1, n=0	
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	

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	y
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	
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	
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	
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: H(HPWRA)

WRA Score **6**

Supporting Data:

101	2011. WRA Specialist. Personal Communication.	[Is the species highly domesticated? No] No evidence.
102	2011. WRA Specialist. Personal Communication.	[Has the species become naturalized where grown?] NA
103	2011. WRA Specialist. Personal Communication.	[Does the species have weedy races?] NA
201	2011. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database Index]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical" High] Native range: NORTHERN AMERICA Southern Mexico: Mexico - Chiapas, Oaxaca, Tabasco, Veracruz SOUTHERN AMERICA Mesoamerica: Belize; Costa Rica; Guatemala; Nicaragua; Panama Caribbean: Dominica; Guadeloupe; Haiti; Martinique; St. Lucia; St. Vincent and Grenadines - St. Vincent; Trinidad and Tobago - Trinidad Northern South America: French Guiana; Guyana; Suriname; Venezuela - Barinas, Bolivar, Lara, Merida, Monagas, Portuguesa, Sucre, Tachira, Yaracuy, Zulia Brazil: Brazil - Para, Rondonia, Roraima Western South America: Bolivia - Beni, La Paz; Colombia - Antioquia, Caqueta, Choco, Guajira, Magdalena, Meta, Norte de Santander, Putumayo, Risaralda, Santander, Valle; Ecuador - Morona-Santiago, Napo, Pastaza; Peru - Huanuco, Madre de Dios, San Martin
202	2011. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database Index]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Quality of climate match data? High] Native range: NORTHERN AMERICA Southern Mexico: Mexico - Chiapas, Oaxaca, Tabasco, Veracruz SOUTHERN AMERICA Mesoamerica: Belize; Costa Rica; Guatemala; Nicaragua; Panama Caribbean: Dominica; Guadeloupe; Haiti; Martinique; St. Lucia; St. Vincent and Grenadines - St. Vincent; Trinidad and Tobago - Trinidad Northern South America: French Guiana; Guyana; Suriname; Venezuela - Barinas, Bolivar, Lara, Merida, Monagas, Portuguesa, Sucre, Tachira, Yaracuy, Zulia Brazil: Brazil - Para, Rondonia, Roraima Western South America: Bolivia - Beni, La Paz; Colombia - Antioquia, Caqueta, Choco, Guajira, Magdalena, Meta, Norte de Santander, Putumayo, Risaralda, Santander, Valle; Ecuador - Morona-Santiago, Napo, Pastaza; Peru - Huanuco, Madre de Dios, San Martin
203	2008. Gargiullo, M.B./Magnuson, B.L./Kimball, L.D.. A field guide to plants of Costa Rica. Oxford University Press US, New York, NY	[Broad climate suitability (environmental versatility)? Yes] In Costa Rica, altitude 0-1200 m, sometimes to 1900, but usually around 600 m. Habitat: Very wet understory.
204	2011. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database Index]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Native or naturalized in regions with tropical or subtropical climates? Y] Native range: NORTHERN AMERICA Southern Mexico: Mexico - Chiapas, Oaxaca, Tabasco, Veracruz SOUTHERN AMERICA Mesoamerica: Belize; Costa Rica; Guatemala; Nicaragua; Panama Caribbean: Dominica; Guadeloupe; Haiti; Martinique; St. Lucia; St. Vincent and Grenadines - St. Vincent; Trinidad and Tobago - Trinidad Northern South America: French Guiana; Guyana; Suriname; Venezuela - Barinas, Bolivar, Lara, Merida, Monagas, Portuguesa, Sucre, Tachira, Yaracuy, Zulia Brazil: Brazil - Para, Rondonia, Roraima Western South America: Bolivia - Beni, La Paz; Colombia - Antioquia, Caqueta, Choco, Guajira, Magdalena, Meta, Norte de Santander, Putumayo, Risaralda, Santander, Valle; Ecuador - Morona-Santiago, Napo, Pastaza; Peru - Huanuco, Madre de Dios, San Martin
205	2011. WRA Specialist. Personal Communication.	[Does the species have a history of repeated introductions outside its natural range? N] No evidence of repeated introductions.
301	2007. Randall, R.P.. Global Compendium of Weeds - Index [Online Database]. http://www.hear.org/gcw/	[Naturalized beyond native range? No] No evidence of naturalization.
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.
305	2007. Randall, R.P.. Global Compendium of Weeds - Index [Online Database]. http://www.hear.org/gcw/	[Congeneric weed? No] No evidence.
401	2008. Gargiullo, M.B./Magnuson, B.L/Kimball, L.D.. A field guide to plants of Costa Rica. Oxford University Press US, New York, NY	[Produces spines, thorns or burrs? No] Small understory palm, stems solitary, underground or aboveground to 1.5 m tall, about 3 cm diameter. Leaves alternate, stalk about 15-60 cm long, much shorter than blade, blade to 1.2 m long, 17-36 cm wide, simple, or split in 2-15 irregular, broad-based segments, blade tip forked, base tapered to stalk.
402	2011. WRA Specialist. Personal Communication.	[Allelopathic?] Unknown.
403	2008. Gargiullo, M.B./Magnuson, B.L/Kimball, L.D.. A field guide to plants of Costa Rica. Oxford University Press US, New York, NY	[Parasitic? No] Arecaceae.
403	2010. Nickrent, D.. The parasitic plant connection. Department of Plant Biology, Southern Illinois University, Carbondale http://www.parasiticplants.siu.edu/index.html	[Parasitic? No] Arecaceae.
404	2011. WRA Specialist. Personal Communication.	[Unpalatable to grazing animals] Unknown.
405	2011. WRA Specialist. Personal Communication.	[Toxic to animals?] Unknown.
406	2011. WRA Specialist. Personal Communication.	[Host for recognized pests and pathogens?] Unknown.
407	2011. Sona, S.. Heart of palm use: a family survey. Fairchild Topical Botanic Garden, http://www.virtualherbarium.org/palmresearch/Hearts_of_Palm_table.html	[Causes allergies or is otherwise toxic to humans?] According to Scott Zona, Ph.D, Palm biologists, IUCN Palm Specialist Group's research, <i>Geonoma interrupta</i> is used as a heart of palm food.
407	2011. WRA Specialist. Personal Communication.	[Causes allergies or is otherwise toxic to humans?] This species is not widely introduced and its allergic or toxic effects on humans may not yet be documented.
408	2008. Gargiullo, M.B./Magnuson, B.L/Kimball, L.D.. A field guide to plants of Costa Rica. Oxford University Press US, New York, NY	[Creates a fire hazard in natural ecosystems.? No] Habitat: Very wet understory. [unlikely]
409	2001. Ellison, D./Ellison, A.. Cultivated palms of the world. UNSW Press, Sydney.	[Is a shade tolerant plant at some stage of its life cycle? Yes] <i>Geonoma interrupta</i> is suitable for subtropical and tropical areas and requires a moist spot in the shade or semi-shade.
410	2011. WRA Specialist. Personal Communication.	[Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)?] Unknown.
411	2008. Gargiullo, M.B./Magnuson, B.L/Kimball, L.D.. A field guide to plants of Costa Rica. Oxford University Press US, New York, NY	[Climbing or smothering growth habit? No] Small understory palm, stems solitary, underground or aboveground to 1.5 m tall, about 3 cm diameter. Leaves alternate, stalk about 15-60 cm long, much shorter than blade, blade to 1.2 m long, 17-36 cm wide, simple, or split in 2-15 irregular, broad-based segments, blade tip forked, base tapered to stalk.
412	2011. WRA Specialist. Personal Communication.	[Forms dense thickets?] Unknown.
501	2008. Gargiullo, M.B./Magnuson, B.L/Kimball, L.D.. A field guide to plants of Costa Rica. Oxford University Press US, New York, NY	[Aquatic? No] Terrestrial. Arecaceae.
502	2008. Gargiullo, M.B./Magnuson, B.L/Kimball, L.D.. A field guide to plants of Costa Rica. Oxford University Press US, New York, NY	[Grass? No] Arecaceae.
503	2008. Gargiullo, M.B./Magnuson, B.L/Kimball, L.D.. A field guide to plants of Costa Rica. Oxford University Press US, New York, NY	[Nitrogen fixing woody plant? No] Arecaceae.
504	2008. Gargiullo, M.B./Magnuson, B.L/Kimball, L.D.. A field guide to plants of Costa Rica. Oxford University Press US, New York, NY	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] Arecaceae.

601	2001. Ellison, D./Ellison, A.. Cultivated palms of the world. UNSW Press, Sydney.	[Evidence of substantial reproductive failure in native habitat? No] Native to Central and South American rainforests where it is widespread.
601	2008. Gargiullo, M.B./Magnuson, B.L./Kimball, L.D.. A field guide to plants of Costa Rica. Oxford University Press US, New York, NY	[Evidence of substantial reproductive failure in native habitat? No] Probably the most common species of <i>Geonoma</i> in Costa Rica.
602	2001. Ellison, D./Ellison, A.. Cultivated palms of the world. UNSW Press, Sydney.	[Produces viable seed? Yes] Seed should germinate in 2-4 months.
603	1999. Knudsen, J.T.. Floral scent differentiation among coflowering, sympatric species of <i>Geonoma</i> (Arecaceae). <i>Plant Species Biology</i> . 14: 137-142.	[Hybridizes naturally?] So far, no taxa of hybrid origin have been described in <i>Geonoma</i> .
604	2011. WRA Specialist. Personal Communication.	[Self-compatible or apomictic?] Unknown.
605	1993. Listabarth, C.. Pollination in <i>Geonoma macrostachys</i> and three congeners, <i>G. acaulis</i> , <i>G. gracilis</i> , and <i>G. interrupta</i> . <i>Botanica Acta</i> . 106: 496-506.	[Requires specialist pollinators? No] "The branched inflorescences of <i>G. interrupta</i> are also protandrous, but unlike the other species of <i>Geonoma</i> observed, staminate and pistillate anthesis of individual flowers are, for the most, overlapping. A broad spectrum of visitors is attracted (bees, wasps, flies, and beetles), which all may act as pollinators. Outcrossing is especially encouraged during the purely female phase at the end of the flowering cycle when there are no more staminate flowers in the inflorescence."
606	2003. Zona, S./James, A./Maidman, K.. <i>Palms of Dominica</i> . 47: 151-157.	[Reproduction by vegetative fragmentation? Yes] "Our observations confirm that this palm is weakly clustering. Clearly, reproductive potential is both sexual via seeds and asexual via suckering."
607	2003. Zona, S./James, A./Maidman, K.. <i>Palms of Dominica</i> . 47: 151-157.	[Minimum generative time (years)? 2-3] "Our observations confirm that this palm is weakly clustering. Clearly, reproductive potential is both sexual via seeds and asexual via suckering."
701	2011. WRA Specialist. Personal Communication.	[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)? No] No evidence of accidental dispersal. [rarely sold on the internet]
702	2011. Southeast growers. <i>Geonoma interrupta</i> . www.southeastgrowers.com , http://www.southeastgrowers.com/ZA%20Geonoma%20interrupta.htm	[Propagules dispersed intentionally by people? Yes]
702	2011. www.georgiavines.com . <i>Geonoma interrupta</i> . www.georgiavines.com , http://www.georgiavines.com/cart/index.php?main_page=product_info&products_id=1202	[Propagules dispersed intentionally by people? Yes] Georgiavines.com has <i>Geonoma interrupta</i> for sale.
703	1993. Vandermeer, J.. Successional patterns of understory palms in an old cacao plantation on the caribbean coast of Costa Rica. <i>Principes</i> . 37: 73-79. http://www.palms.org/principes/1993/vol37n2p73-79.pdf	[Propagules likely to disperse as a produce contaminant? No] No evidence.
704	1993. Vandermeer, J.. Successional patterns of understory palms in an old cacao plantation on the caribbean coast of Costa Rica. <i>Principes</i> . 37: 73-79. http://www.palms.org/principes/1993/vol37n2p73-79.pdf	[Propagules adapted to wind dispersal? No] "Several others (<i>Geonoma cuneata</i> , <i>G. interrupta</i> , <i>G. tp.</i> , <i>Chamaedorea exorrhiza</i> ,* <i>Asterogyne martiana</i> , <i>Bactris sp.</i> , <i>Bactris hondurensis</i> , <i>Prestoead ecurrans</i> , <i>Calyptrogyne sarapiquensis</i> , and the cyclanth <i>Carludoaica palmata</i>) have infructescences that suggest bird dispersal."
705	1993. Vandermeer, J.. Successional patterns of understory palms in an old cacao plantation on the caribbean coast of Costa Rica. <i>Principes</i> . 37: 73-79. http://www.palms.org/principes/1993/vol37n2p73-79.pdf	[Propagules water dispersed?] Unknown.
706	1993. Vandermeer, J.. Successional patterns of understory palms in an old cacao plantation on the caribbean coast of Costa Rica. <i>Principes</i> . 37: 73-79. http://www.palms.org/principes/1993/vol37n2p73-79.pdf	[Propagules bird dispersed? Yes] "Several others (<i>Geonoma cuneata</i> , <i>G. interrupta</i> , <i>G. tp.</i> , <i>Chamaedorea exorrhiza</i> ,* <i>Asterogyne martiana</i> , <i>Bactris sp.</i> , <i>Bactris hondurensis</i> , <i>Prestoead ecurrans</i> , <i>Calyptrogyne sarapiquensis</i> , and the cyclanth <i>Carludoaica palmata</i>) have infructescences that suggest bird dispersal."

706	2008. Gargiullo, M.B./Magnuson, B.L./Kimball, L.D.. A field guide to plants of Costa Rica. Oxford University Press US, New York, NY	[Propagules bird dispersed? Yes] Fruit fleshy, purple black pea-like, about 1 cm long.
707	1993. Vandermeer, J.. Successional patterns of understory palms in an old cacao plantation on the caribbean coast of Costa Rica. Principes. 37: 73-79. http://www.palms.org/principes/1993/vol37n2p73-79.pdf	[Propagules dispersed by other animals (externally)? No]" Several others (Geonoma cuneata, G. interrupta, G. tp., Chamaedorea exorrhiza,* Asterogyne martiana, Bactris sp., Bactris hondurensis, Prestoead ecurrens, Calyptrogyne sarapiquensis, and the cyclanth Carludoaica palmata) have infructescenses that suggest bird dispersal." [no means of external attachment]
708	1993. Vandermeer, J.. Successional patterns of understory palms in an old cacao plantation on the caribbean coast of Costa Rica. Principes. 37: 73-79. http://www.palms.org/principes/1993/vol37n2p73-79.pdf	[Propagules survive passage through the gut ?Yes] "Several others (Geonoma cuneata, G. interrupta, G. tp., Chamaedorea exorrhiza,* Asterogyne martiana, Bactris sp., Bactris hondurensis, Prestoead ecurrens, Calyptrogyne sarapiquensis, and the cyclanth Carludoaica palmata) have infructescenses that suggest bird dispersal."
801	2003. Zona, S./James, A./Maidman, K.. Palms of Dominica. 47: 151-157.	[Prolific seed production (>1000/m2)?] "Geonoma interrupta grows in areas that lie within the Northern Forest Reserve, the Morne Diablotin National Park and the Morne Trois Pitons National Park. We found abundant evidence of seedlings and juveniles at the site, a finding that suggests the palms are reproducing and regenerating. Although we encountered thousands of seedlings, a very small percentage survives to adulthood. We were unable to ascertain what factor(s) caused mortality of seedling palms of this species, although the foraging activities of feral pigs may play some role."
802	2011. WRA Specialist. Personal Communication.	[Evidence that a persistent propagule bank is formed (>1 yr)?] Unknown.
803	2011. WRA Specialist. Personal Communication.	[Well controlled by herbicides?] Unknown.
804	2011. WRA Specialist. Personal Communication.	[Tolerates, or benefits from, mutilation, cultivation, or fire?] Unknown.
805	2011. WRA Specialist. Personal Communication.	[Effective natural enemies present locally (e.g. introduced biocontrol agents)?] Unknown.