

Family: *Urticaceae*

Taxon: *Laportea aestuans*

Synonym: *Urtica aestuans* L. (basionym)

Common Name: West Indian-nettle

Questionnaire :	current 20090513	Assessor:	Patti Clifford	Designation:	H(HPWRA)
Status:	Assessor Approved	Data Entry Person:	Patti Clifford	WRA Score	10
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		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)		y
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		
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		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	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	1
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	y=1, n=-1	y
702	Propagules dispersed intentionally by people	y=1, n=-1	n
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	
707	Propagules dispersed by other animals (externally)	y=1, n=-1	n
708	Propagules survive passage through the gut	y=1, n=-1	
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 10

Supporting Data:

101	2012. WRA Specialist. Personal Communication.	[Is the species highly domesticated? No] No evidence of domestication that reduced 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). 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"? 2 - high] Native distributional range: South Tropical Africa: Malawi; Mozambique; Zambia; Zimbabwe Western Indian Ocean: Madagascar; Mauritius; Reunion NORTHERN AMERICA Mexico SOUTHERN AMERICA Caribbean: Antigua and Barbuda - Antigua; Bahamas; Barbados; Dominica; Grenada; Guadeloupe; Jamaica; Martinique; Montserrat; Netherlands Antilles - Saba; Puerto Rico; St. Kitts and Nevis; St. Lucia; St. Vincent and Grenadines; Virgin Islands (British) - Tortola; Virgin Islands (U.S.) Mesoamerica: Costa Rica; Guatemala; Honduras; Nicaragua; Panama Northern South America: French Guiana; Guyana; Suriname Western South America: Ecuador [incl. Galapagos]; Peru
202	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Quality of climate match data? 2 - high] Native distributional range: South Tropical Africa: Malawi; Mozambique; Zambia; Zimbabwe Western Indian Ocean: Madagascar; Mauritius; Reunion NORTHERN AMERICA Mexico SOUTHERN AMERICA Caribbean: Antigua and Barbuda - Antigua; Bahamas; Barbados; Dominica; Grenada; Guadeloupe; Jamaica; Martinique; Montserrat; Netherlands Antilles - Saba; Puerto Rico; St. Kitts and Nevis; St. Lucia; St. Vincent and Grenadines; Virgin Islands (British) - Tortola; Virgin Islands (U.S.) Mesoamerica: Costa Rica; Guatemala; Honduras; Nicaragua; Panama Northern South America: French Guiana; Guyana; Suriname Western South America: Ecuador [incl. Galapagos]; Peru
203	2012. Chen, J./Lin, q./Friis, I./Wilmot-Deary, C. M./Monro, A.K.. Flora of China - Urticaceae - <i>Laportea aestuans</i> . Missouri Botanical Garden, St. Louis, MO & Harvard University Herbaria, Cambridge, MA http://www.efloras.org/florataxon.aspx?flora_id=2&taxon	[Broad climate suitability (environmental versatility)? No] "Disturbed moist places by streams in forests; 200-500 m."
203	2012. Dave's Garden. PlantFiles - West Indian woodnettle - <i>Laportea aestuans</i> . http://davesgarden.com/guides/pf/go/188644/	[Broad climate suitability (environmental versatility)? No] USDA Zone 9a: to -6.6 °C (20 °F) USDA Zone 9b: to -3.8 °C (25 °F) 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)
204	2009. Isaac, W.-A.P./Brathwaite, R.A.I./Khan, A.. Weed Composition of Banana Fields in St. Vincent with Emphasis on the Occurrence of <i>Commelina diffusa</i> . World Journal of Agricultural Sciences. 5(S): 837-846.	[Native or naturalized in regions with tropical or subtropical climates ? Yes] <i>Laportea aestuans</i> is a major weed of banana orchards in St. Vincent. Banana production is the foundation of the agricultural sector and weed management is a major cost factor.
204	2012. The Institute for Regional Conservation. Florida Inventory of South Florida Database [online] <i>Laportea sestuans</i> (L.) Chew - West Indian woodnettle. http://regionalconservation.org/ircs/database/plants/PlantPage.asp?TXCODE=Lapoaest	[Native or naturalized in regions with tropical or subtropical climates ? Yes] Naturalized in South Florida.
205	2012. WRA Specialist. Personal Communication.	[Does the species have a history of repeated introductions outside its natural range? No] No evidence of repeated introductions.
301	2009. Isaac, W.-A.P./Brathwaite, R.A.I./Khan, A.. Weed Composition of Banana Fields in St. Vincent with Emphasis on the Occurrence of <i>Commelina diffusa</i> . World Journal of Agricultural Sciences. 5(S): 837-846.	[Naturalized beyond native range? Yes] <i>Laportea aestuans</i> is a major weed of banana orchards in St. Vincent. Banana production is the foundation of the agricultural sector and weed management is a major cost factor.

302	2007. Randall, R.. Global Compendium of Weeds - <i>Laportea aestuans</i> . http://www.hear.org/gcw/species/laportea_aestuans/	[Garden/amenity/disturbance weed? No] No evidence.
303	2006. Queneherve, P./Chabrier, C./Auwerkerken, A./Topart, P./Martiny, B./Marie-Luce, S.. Status of weeds as reservoirs of plant parasitic nematodes in banana fields in Martinique. <i>Crop Protection</i> . 25: 860-867.	[Agricultural/forestry/horticultural weed?] <i>Laportea</i> is a weed of banana fields in Martinique. [no indication of impact]
303	2009. Isaac, W.-A.P./Brathwaite, R.A.I./Khan, A.. Weed Composition of Banana Fields in St. Vincent with Emphasis on the Occurrence of <i>Commelina diffusa</i> . <i>World Journal of Agricultural Sciences</i> . 5(S): 837-846.	[Agricultural/forestry/horticultural weed? Yes] <i>Laportea aestuans</i> is a major weed of banana orchards in St. Vincent. Banana production is the foundation of the agricultural sector and weed management is a major cost factor.
304	2007. Randall, R.. Global Compendium of Weeds - <i>Laportea aestuans</i> . http://www.hear.org/gcw/species/laportea_aestuans/	[Environmental weed? No] No evidence.
305	2012. WRA Specialist. Personal Communication.	[Congeneric weed? No] No evidence of a congeneric species that is invasive. [controlled or impacting systems]
401	2012. Boufford, D.. Flora of North America Vol. 3 Urticaceae. eFloras, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=233500742	[Produces spines, thorns or burrs? No] "Herbs , annual, 1-10 dm, sparsely to densely pubescent with stinging hairs and stipitate-glandular, nonstinging hairs. Leaf blades broadly ovate to nearly orbiculate, 9-20 × 6-16 cm, base rounded or abruptly attenuate, auriculate, margins regularly serrate or dentate, apex short-acuminate."
402	2012. WRA Specialist. Personal Communication.	[Allelopathic? Unknown]
403	2012. Boufford, D.. Flora of North America Vol. 3 Urticaceae. eFloras, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=233500742	[Parasitic? No] Urticaceae.
404	2012. WRA Specialist. Personal Communication.	[Unpalatable to grazing animals? Unknown]
405	2012. National Center for Biotechnology Information. PubMed. http://www.ncbi.nlm.nih.gov/sites/entrez	[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, http://toxnet.nlm.nih.gov/	[Toxic to animals? No] No evidence.
406	2006. Queneherve, P./Chabrier, C./Auwerkerken, A./Topart, P./Martiny, B./Marie-Luce, S.. Status of weeds as reservoirs of plant parasitic nematodes in banana fields in Martinique. <i>Crop Protection</i> . 25: 860-867.	[Host for recognized pests and pathogens?] <i>Laportea aestuans</i> is a host for the root nematode (<i>Meloidogyne</i> spp.) in banana fields in Martinique.
406	2010. Sanchez-Monge, A./Retana-Salazar, A./Brenes, S./Aguero, R.. New records of aphid-plant associations (Hemiptera: Aphididae) from Eastern Costa Rica. <i>Florida Entomologist</i> . 93: 489-492. http://journals.fcla.edu/flaent/article/view/76148/73806	[Host for recognized pests and pathogens?] Host for <i>Myzus persicae</i> in Costa Rica.
407	2012. National Center for Biotechnology Information. PubMed. http://www.ncbi.nlm.nih.gov/sites/entrez	[Causes allergies or is otherwise toxic to humans? No] No evidence of toxicity.
407	2012. Specialized Information Services, U.S. National Library of Medicine. TOXNET toxicology data network [online database]. National Institutes of Health, http://toxnet.nlm.nih.gov/	[Causes allergies or is otherwise toxic to humans? No] No evidence of toxicity.
408	2012. WRA Specialist. Personal Communication.	[Creates a fire hazard in natural ecosystems? No] No evidence of biomass accumulation that would create a fire hazard.
409	1994. Jones, M.. Flowering plants of the Gambia. CRC Press, Boca Raton, FL	[Is a shade tolerant plant at some stage of its life cycle? Yes] A weed of newly cultivated lands and disturbed soil, often in shade.

409	2012. Dave's Garden. PlantFiles - West Indian woodnettle - <i>Laportea aestuans</i> . http://davesgarden.com/guides/pf/go/188644/	[Is a shade tolerant plant at some stage of its life cycle?] Full sun; sun to partial shade.
410	2008. Focho, D.A./Ndam, W.T./Fonge, B.A.. Medicinal plants of Aguambu - Bamumbu in the Lebialem highlands, southwest province of Cameroon. African Journal of Pharmacy and Pharmacology. 3: 1-13. http://www.academicjournals.org/ajpp/pdf/%20pdf2009/January/Ja	[Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)? Yes] <i>Laportea aestuans</i> grows on soil of volcanic origin in the Lebialem highlands, southwest province of Cameroon.
410	2012. Dave's Garden. PlantFiles - West Indian woodnettle - <i>Laportea aestuans</i> . http://davesgarden.com/guides/pf/go/188644/	[Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)?] Soil pH requirements: 6.1 to 6.5 (mildly acidic) 6.6 to 7.5 (neutral) 7.6 to 7.8 (mildly alkaline)
411	2012. Boufford, D.. Flora of North America Vol. 3 Urticaceae. eFloras, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=233500742	[Climbing or smothering growth habit? No] Herbs, 1-10 dm.
412	2012. WRA Specialist. Personal Communication.	[Forms dense thickets? No] No evidence.
501	2012. Boufford, D.. Flora of North America Vol. 3 Urticaceae. eFloras, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=233500742	[Aquatic? No] Terrestrial.
502	2012. Boufford, D.. Flora of North America Vol. 3 Urticaceae. eFloras, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=233500742	[Grass? No] Urticaceae.
503	2012. Boufford, D.. Flora of North America Vol. 3 Urticaceae. eFloras, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=233500742	[Nitrogen fixing woody plant? No] Herbaceous.
504	2012. Boufford, D.. Flora of North America Vol. 3 Urticaceae. eFloras, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=233500742	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] No underground storage organs.
601	2012. WRA Specialist. Personal Communication.	[Evidence of substantial reproductive failure in native habitat? No] No evidence.
602	2007. Oladipo, O.T./Oke, S.O.. Seedbank dynamics, seedling emergence and survival of herbaceous species in successional plots in Ile-Ife, Southwestern Nigeria. Research Journal of Botany. 2: 76-85.	[Produces viable seed? Yes] In this study on seedbank dynamics, seedling emergence and survival of herbaceous species in Nigeria, there were 1813 seeds of <i>Laportea aestuans</i> in a core sample. The sample went to the depth of 15 cm.
604	2012. WRA Specialist. Personal Communication.	[Self-compatible or apomictic? Unknown]
605	2012. Miller, N.G.. The genera of the Urticaceae in the Southwestern United States. Journal of the Arnold Arboretum. http://biostor.org/reference/61993.text	[Requires specialist pollinators? No] Wind pollination is a characteristic of the Urticaceae family.
606	2012. WRA Specialist. Personal Communication.	[Reproduction by vegetative fragmentation? Unknown]
607	2012. Boufford, D.. Flora of North America Vol. 3 Urticaceae. eFloras, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=233500742	[Minimum generative time (years)? 1] Annual.
701	2009. Isaac, W.-A.P./Brathwaite, R.A.I./Khan, A.. Weed Composition of Banana Fields in St. Vincent with Emphasis on the Occurrence of <i>Commelina diffusa</i> . World Journal of Agricultural Sciences. 5(S): 837-846.	[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)? Yes] <i>Laportea aestuans</i> is a significant weed in Banana orchards in St. Vincent.
702	2012. WRA Specialist. Personal Communication.	[Propagules dispersed intentionally by people? No] No evidence of seed availability online.

703	2012. WRA Specialist. Personal Communication.	[Propagules likely to disperse as a produce contaminant? No] No evidence.
704	2012. WRA Specialist. Personal Communication.	[Propagules adapted to wind dispersal? No] Fruit an achene.
705	2012. Chen, J./Lin, q./Friis, I./Wilmot-Dear, C. M./Monro, A.K.. Flora of China - Urticaceae - <i>Laportea aestuans</i> . Missouri Botanical Garden, St. Louis, MO & Harvard University Herbaria, Cambridge, MA http://www.efloras.org/florataxon.aspx?flora_id=2&taxon	[Propagules water dispersed? Yes] "Disturbed moist places by streams in forests; 200-500 m."
706	2012. WRA Specialist. Personal Communication.	[Propagules bird dispersed ? Unknown]
707	2012. Chen, J./Lin, q./Friis, I./Wilmot-Dear, C. M./Monro, A.K.. Flora of China - Urticaceae - <i>Laportea aestuans</i> . Missouri Botanical Garden, St. Louis, MO & Harvard University Herbaria, Cambridge, MA http://www.efloras.org/florataxon.aspx?flora_id=2&taxon	[Propagules dispersed by other animals (externally)? No] Fruit an achene. [no means of external attachment]
708	2012. WRA Specialist. Personal Communication.	[Propagules survive passage through the gut? Unknown]
801	2007. Oladipo, O.T./Oke, S.O.. Seedbank dynamics, seedling emergence and survival of herbaceous species in successional plots in Ile-Ife, Southwestern Nigeria. Research Journal of Botany. 2: 76-85.	[Prolific seed production (>1000/m ²)? Yes] In this study on seedbank dynamics, seedling emergence and survival of herbaceous species in Nigeria, there were 1813 seeds of <i>Laportea aestuans</i> in a core sample. The sample went to the depth of 15 cm.
803	2012. WRA Specialist. Personal Communication.	[Well controlled by herbicides? Unknown]
804	2012. WRA Specialist. Personal Communication.	[Tolerates, or benefits from, mutilation, cultivation, or fire? Unknown]
805	2012. WRA Specialist. Personal Communication.	[Effective natural enemies present locally (e.g. introduced biocontrol agents)? Unknown]

Summary of Risk Traits:

High Risk:

- Native to tropical regions
- Naturalized in Florida
- Invasive agricultural weed in banana orchards
- Shade tolerant
- Tolerant of a wide variety of soils
- Short generative time
- Accidental dispersal by humans
- Water dispersed (invades riparian areas)
- Prolific seed production

Low Risk:

- Not an environmental weed
- Does not have a broad environmental versatility
- Not a climbing, smothering plant
- Limited dispersal mechanisms