

Family: *Asteraceae*

Taxon: *Pluchea carolinensis*

Synonym: *Conyza carolinensis* Jacq. (basionym)
Pluchea symphytifolia auct.

Common Name: cattletongue
cure-for-all
sweet-scent
wild tobacco
tabat-diable

Questionnaire : current 20090513
Status: Assessor Approved

Assessor: Patti Clifford
Data Entry Person: Patti Clifford

Designation: H(HPWRA)

WRA Score 15

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	y
302	Garden/amenity/disturbance weed	n=0, y = 1*multiplier (see Appendix 2)	
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)	y
305	Congeneric weed	n=0, y = 1*multiplier (see Appendix 2)	y
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	
409	Is a shade tolerant plant at some stage of its life cycle	y=1, n=0	n

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	y
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	y
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	2
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	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	y
705	Propagules water dispersed	y=1, n=-1	n
706	Propagules bird dispersed	y=1, n=-1	n
707	Propagules dispersed by other animals (externally)	y=1, n=-1	n
708	Propagules survive passage through the gut	y=1, n=-1	n
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	y
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: H(HPWRA)			WRA Score 15

Supporting Data:

101	2010. WRA Specialist. Personal Communication.	No evidence.
201	2010. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	Native: United States - Florida; Mexico; Belize; Costa Rica; El Salvador; Guatemala; Honduras; Mexico; Antigua and Barbuda; Bahamas; Bermuda; Cuba; Dominica; Guadeloupe; Jamaica; Martinique; Puerto Rico; Panama; Nicaragua; St. Kitts and Nevis; St. Vincent and Grenadines; Venezuela
202	2010. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	Native: United States - Florida; Mexico; Belize; Costa Rica; El Salvador; Guatemala; Honduras; Mexico; Antigua and Barbuda; Bahamas; Bermuda; Cuba; Dominica; Guadeloupe; Jamaica; Martinique; Puerto Rico; Panama; Nicaragua; St. Kitts and Nevis; St. Vincent and Grenadines; Venezuela
203	2010. Dave's Garden. Plant Files: <i>Pluchea carolinensis</i> . http://davesgarden.com/guides/pf/go/88894/	USDA Hardiness zones: 9b-11.
203	2010. U.S. Forest Service. <i>Pluchea carolinensis</i> (Jacq.) G. Don Asteraceae. U.S. Forest Service, http://www.fs.fed.us/global/iitf/pdf/shrubs/Pluchea%20carolinensis.pdf	"A minimum of about 1000 mm of mean annual precipitation is required in upland sites, but it grows in much drier climates along streams and near mangroves and marshes. Cure-for-all may be found from near sea level to 1,000 m in elevation in Hawaii."
204	2010. U.S. Forest Service. <i>Pluchea carolinensis</i> (Jacq.) G. Don Asteraceae. U.S. Forest Service, http://www.fs.fed.us/global/iitf/pdf/shrubs/Pluchea%20carolinensis.pdf	"The species has naturalized in Hawaii, Guam and other Pacific Islands, Taiwan, West Africa, and probably in many other places in the tropics."
205	2010. U.S. Forest Service. <i>Pluchea carolinensis</i> (Jacq.) G. Don Asteraceae. U.S. Forest Service, http://www.fs.fed.us/global/iitf/pdf/shrubs/Pluchea%20carolinensis.pdf	"The species has naturalized in Hawaii, Guam and other Pacific Islands, Taiwan, West Africa, and probably in many other places in the tropics."
301	2010. U.S. Forest Service. <i>Pluchea carolinensis</i> (Jacq.) G. Don Asteraceae. U.S. Forest Service, http://www.fs.fed.us/global/iitf/pdf/shrubs/Pluchea%20carolinensis.pdf	"The species has naturalized in Hawaii, Guam and other Pacific Islands, Taiwan, West Africa, and probably in many other places in the tropics."
302	2010. U.S. Forest Service. <i>Pluchea carolinensis</i> (Jacq.) G. Don Asteraceae. U.S. Forest Service, http://www.fs.fed.us/global/iitf/pdf/shrubs/Pluchea%20carolinensis.pdf	"It is common in disturbed areas such as construction sites, riverbanks, the margins of hammocks, road cuts and fill, vacant lots, eroded sites, landslides, burned areas, and abandoned fields." [see 3.04 environmental weed]
303	2003. Motooka, P./Castro, L./Nelson, D./Nagai, G./Ching,L.. Weeds of Hawaii's Pastures and Natural Areas: An Identification and Management Guide. College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa, http://www.ctahr.hawaii .	Displaces forages in pastures.
304	2003. Motooka, P./Castro, L./Nelson, D./Nagai, G./Ching,L.. Weeds of Hawaii's Pastures and Natural Areas: An Identification and Management Guide. College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa, http://www.ctahr.hawaii .	Displaces natives in natural areas.
305	1998. Inderjit, C.L.F./Dakshini, K.M.M.. <i>Pluchea lanceolata</i> : a noxious perennial weed. Weed Technology. 12: .	<i>Pluchea lanceolata</i> (DC.) C. B. Clarke is an aggressive weed in India. It causes considerable damage in winter and summer season crops.
401	1999. Wagner, W. L./Herbst, D. R./Sohmer, S. H.. Manual of the flowering plants of Hawaii. Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	No spines, thorns or burrs.
402	2010. WRA Specialist. Personal Communication.	Unknown.
403	2010. U.S. Forest Service. <i>Pluchea carolinensis</i> (Jacq.) G. Don Asteraceae. U.S. Forest Service, http://www.fs.fed.us/global/iitf/pdf/shrubs/Pluchea%20carolinensis.pdf	Not parasitic.

404	2010. WRA Specialist. Personal Communication.	Unknown.
405	2010. National Center for Biotechnology Information. PubMed. U.S. National Library of Medicine, Bethesda, Maryland http://www.ncbi.nlm.nih.gov/sites/entrez	No evidence.
405	2010. Specialized Information Services, U.S. National Library of Medicine. TOXNET Toxicology Data Network [Online Database]. National Institutes of Health, http://toxnet.nlm.nih.gov/	No evidence.
406	2010. WRA Specialist. Personal Communication.	Unknown.
407	2006. Hodges, S./Bennett, B.C.. The ethnobotany of <i>Pluchea carolinensis</i> (Jac. Economic Botany. 60: 75-84.	<i>Pluchea carolinensis</i> is used extensively in the material medica of Cuban and Haitian healers in Florida.
407	2010. U.S. Forest Service. <i>Pluchea carolinensis</i> (Jacq.) G. Don Asteraceae. U.S. Forest Service, http://www.fs.fed.us/global/iitf/pdf/shrubs/Pluchea%20carolinensis.pdf	"It has several herbal applications including aromatic baths, control of fever, treatment of uterine fibroids, relief of sore throat and stomach pain, poultices for wounds and skin ulcers, as an analgesic, and for the treatment of malaria."
408	2010. WRA Specialist. Personal Communication.	Unknown.
409	2010. U.S. Forest Service. <i>Pluchea carolinensis</i> (Jacq.) G. Don Asteraceae. U.S. Forest Service, http://www.fs.fed.us/global/iitf/pdf/shrubs/Pluchea%20carolinensis.pdf	"The species is intolerant and cannot endure overhead shade."
410	2010. U.S. Forest Service. <i>Pluchea carolinensis</i> (Jacq.) G. Don Asteraceae. U.S. Forest Service, http://www.fs.fed.us/global/iitf/pdf/shrubs/Pluchea%20carolinensis.pdf	<i>Pluchea carolinensis</i> "is adapted to a wide variety of soils and sites. It tolerates excessively well to poorly-drained soils, the full range of soil textures, acid and alkaline reactions, salt and salt spray, and compaction."
411	1999. Wagner, W. L./Herbst, D. R./Sohmer, S. H.. Manual of the flowering plants of Hawaii. Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	Erect shrub 10-15(-20)dm tall.
412	2006. Global Invasive Species Database. <i>Pluchea carolinensis</i> . National Biological Information Infrastructure (NBII) & IUCN/SSC Invasive Species Specialist Group (ISSG), http://issg.org/database/species/references.asp?si=1338&fr=1&sts=&lang=EN	Can form dense thickets in dry habitats.
501	1999. Wagner, W. L./Herbst, D. R./Sohmer, S. H.. Manual of the flowering plants of Hawaii. Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	Terrestrial.
502	1999. Wagner, W. L./Herbst, D. R./Sohmer, S. H.. Manual of the flowering plants of Hawaii. Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	Asteraceae.
503	1999. Wagner, W. L./Herbst, D. R./Sohmer, S. H.. Manual of the flowering plants of Hawaii. Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	Asteraceae.
504	1999. Wagner, W. L./Herbst, D. R./Sohmer, S. H.. Manual of the flowering plants of Hawaii. Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	Shrub.
601	2010. WRA Specialist. Personal Communication.	No evidence.
602	2002. Hammer, R.L.. Fleabanes - a genus worth cultivating. Tillandsia Web. Dade Chapter of the Florida Native Plant Society, http://www.dade.fnpschapters.org/pastnewslets/2002/newslet207.html	Easily grown from seed.

603	1992. Thaman, R.R.. Show+full+item+record">http://scholarspace.manoa.hawaii.edu/handle/10125/719?mode=full&submit_simple>Show+full+item+record	"Of particular interest are the shrubby species <i>Pluchea indica</i> and <i>P. carolinensis</i> , and a hybrid of the two, all of which have become naturalized in ruderal habitats in the Gilberts."
604	2010. WRA Specialist. Personal Communication.	Unknown.
605	2007. Cate, C.A.. Monitoring, assessing and evaluating the pollinator species (Hymenoptera: Apoidea) found on a native brush site, a revegetated site and an urban garden. http://repository.tamu.edu/bitstream/handle/1969.1/ETD-TAMU-1297/CATE-DISSERTATION.p	<i>Pluchea carolinensis</i> is pollinated by <i>Apis mellifera</i> .
606	2010. WRA Specialist. Personal Communication.	Unknown.
607	2006. Global Invasive Species Database. <i>Pluchea carolinensis</i> . National Biological Information Infrastructure (NBII) & IUCN/SSC Invasive Species Specialist Group (ISSG), http://issg.org/database/species/references.asp?si=1338&fr=1&sts=&lang=EN	Fast growing.
701	2004. Space, J.C./Imada, C.T.. Report to the Republic of Kiribati on invasive plant species on the islands of Tarawa, Abemama, Butaritari and Maiana. U.S.D.A. Forest Service Pacific Southwest Research Station Institute of Pacific Islands Forestry, Bisho	" <i>Pluchea carolinensis</i> (te kaikare, te kare, sour bush) is found on Tarawa (along the airport and in areas to the south to and along the road to Temaiku) and on Butaritari (along the airstrip and main road). <i>Pluchea indica</i> (Indian fleabane, Indian pluchea, Indian camphorweed) is present on Butaritari, mostly near the coast. These are shrubby species with wind-dispersed seed. <i>Pluchea carolinensis</i> is naturalizing extensively on Tongatapu, Tonga, and is reported to be widespread but not presently abundant on Guam. These species may have been accidentally introduced as a result of military activity as both were also introduced to Penrhyn Island (Cook Islands) when an airfield was built there during the Second World War (Bill Sykes, pers. com.) and are commonly found in conjunction with other World War II airfields in the Pacific."
702	2006. Hodges, S./Bennett, B.C.. The ethnobotany of <i>Pluchea carolinensis</i> (Jac. Economic Botany. 60: 75-84.	Used medicinally by Haitians and Cubans.
703	2010. WRA Specialist. Personal Communication.	No evidence.
704	2010. U.S. Forest Service. <i>Pluchea carolinensis</i> (Jacq.) G. Don Asteraceae. U.S. Forest Service, http://www.fs.fed.us/global/iitf/pdf/shrubs/Pluchea%20carolinensis.pdf	The seeds are wind-dispersed.
705	2010. WRA Specialist. Personal Communication.	Wind dispersed.
706	2010. WRA Specialist. Personal Communication.	Wind dispersed.
707	2010. U.S. Forest Service. <i>Pluchea carolinensis</i> (Jacq.) G. Don Asteraceae. U.S. Forest Service, http://www.fs.fed.us/global/iitf/pdf/shrubs/Pluchea%20carolinensis.pdf	Wind-dispersed.
708	2010. WRA Specialist. Personal Communication.	Unknown.
801	2010. U.S. Forest Service. <i>Pluchea carolinensis</i> (Jacq.) G. Don Asteraceae. U.S. Forest Service, http://www.fs.fed.us/global/iitf/pdf/shrubs/Pluchea%20carolinensis.pdf	<i>Pluchea carolinensis</i> "blooms in spring and summer in Florida and produces seeds prolifically. A collection of seeds from Puerto Rico weighed an average of 0.00025 g/seed or 40 million seeds/kg. Because the seeds failed to germinate on moist filter paper, it is not known whether this represents a reasonable estimate for the species"
802	2010. WRA Specialist. Personal Communication.	Unknown.
803	2003. Motooka, P./Castro, L./Nelson, D./Nagai, G./Ching, L.. Weeds of Hawaii's Pastures and Natural Areas: An Identification and Management Guide. College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa, http://www.ctahr.hawaii .	"Sensitive to 1lb/acre 2,4-D, 0.5 lb/acre dicamba, and 0.25 lb/acre triclopyr. Readily controlled by 0.5 lb/acre triclopyr in drizzle applications(56). HAVO staff reported control with foliar application of glyphosate at 1% product."

804	2010. U.S. Forest Service. <i>Pluchea carolinensis</i> (Jacq.) G. Don Asteraceae. U.S. Forest Service, http://www.fs.fed.us/global/iitf/pdf/shrubs/Pluchea%20carolinensis.pdf	"In Hawaii, cure-for-all quickly invades burned areas, but being early successional, is soon replaced by other species. Plants sprout after fires if they are not too intense."
805	2010. U.S. Forest Service. <i>Pluchea carolinensis</i> (Jacq.) G. Don Asteraceae. U.S. Forest Service, http://www.fs.fed.us/global/iitf/pdf/shrubs/Pluchea%20carolinensis.pdf	"A seed insect, <i>Acinia picturata</i> (Diptera: Tephritidae), was introduced in Hawaii and although now well established, has had no significant effect on the shrub."
