

Taxon: <i>Tradescantia fluminensis</i>	Family: Commelinaceae
Common Name(s): spiderwort wandering-Jew wandering-sailor	Synonym(s): <i>Tradescantia albiflora</i> Kunth <i>Tradescantia decora</i> W.Bull. <i>Tradescantia laekenensis</i> L.H.Bailey & <i>Tradescantia mundula</i> Kunth <i>Tradescantia tenella</i> Kunth

Assessor: Chuck Chimera	Status: Assessor Approved	End Date: 4 Mar 2015
WRA Score: 17.0	Designation: H(HPWRA)	Rating: High Risk

Keywords: Environmental Weed, Succulent Herb, Dense Groundcover, Spreads Vegetatively, Smothering

Qsn #	Question	Answer Option	Answer
101	Is the species highly domesticated?	y=-3, n=0	n
102	Has the species become naturalized where grown?		
103	Does the species have weedy races?		
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	y
301	Naturalized beyond native range	y = 1*multiplier (see Appendix 2), n= question 205	y
302	Garden/amenity/disturbance weed		
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)	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		
403	Parasitic	y=1, n=0	n
404	Unpalatable to grazing animals	y=1, n=-1	n
405	Toxic to animals		
406	Host for recognized pests and pathogens	y=1, n=0	n
407	Causes allergies or is otherwise toxic to humans		

Qsn #	Question	Answer Option	Answer
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	n
411	Climbing or smothering growth habit	y=1, n=0	y
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		
603	Hybridizes naturally		
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	y
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	y
703	Propagules likely to disperse as a produce contaminant	y=1, n=-1	y
704	Propagules adapted to wind dispersal		
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	y
708	Propagules survive passage through the gut	y=1, n=-1	y
801	Prolific seed production (>1000/m ²)	y=1, n=-1	n
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	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	n

Supporting Data:

Qsn #	Question	Answer
101	Is the species highly domesticated?	n
	Source(s)	Notes
	Staples, G.W., Herbst, D.R. & Imada, C.T. 2006. New Hawaiian plant records for 2004. Bishop Museum Occasional Papers 88: 6-9	[Assessment of non-variegated form] "Variegated cultivars of <i>T. fluminensis</i> have been grown as ornamentals in the Hawaiian Islands for many years, but recently a form with dark green, non-variegated leaves has been found naturalized in sites on two islands."
102	Has the species become naturalized where grown?	
	Source(s)	Notes
	WRA Specialist. 2015. Personal Communication	NA
103	Does the species have weedy races?	
	Source(s)	Notes
	WRA Specialist. 2015. Personal Communication	NA
201	Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"	High
	Source(s)	Notes
	USDA, ARS, National Genetic Resources Program. 2015. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. URL: http://www.ars-grin.gov/ . [Accessed 2 Mar 2015]	"Native: SOUTHERN AMERICA Brazil: Brazil - Minas Gerais, Parana, Rio Grande do Sul, Santa Catarina, Sao Paulo Southern South America: Argentina - Buenos Aires, Chaco, Cordoba, Corrientes, Entre Rios, Formosa, Jujuy, Misiones, Salta, Santa Fe, Tucuman; Paraguay - Alto Parana, Central, Cordillera, Paraguari; Uruguay"
202	Quality of climate match data	High
	Source(s)	Notes
	USDA, ARS, National Genetic Resources Program. 2015. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. URL: http://www.ars-grin.gov/ . [Accessed 2 Mar 2015]	
203	Broad climate suitability (environmental versatility)	y
	Source(s)	Notes
	Benson, D., & McDougall, L. 2002. Ecology of Sydney plant species. Part 9 Monocotyledon families Agavaceae to Juncaginaceae. <i>Cunninghamia</i> 7(4): 695-930	"Altitude: 0–1000 m"

Qsn #	Question	Answer
	Missouri Botanical Garden. 2015. <i>Tradescantia fluminensis</i> . http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?kempercode=b622 . [Accessed 4 Mar 2015]	"Zone: 9 to 12"
	Tropicos.org. 2015. Tropicos [Online Database]. Missouri Botanical Garden. http://www.tropicos.org/ . [Accessed 4 Mar 2015]	[Elevation distribution within native range exceeds 1000 m, demonstrating environmental versatility] Collected from 150 m elevation, 26°00'00"S latitude to 3300 m, 16°31'00"S latitude.

204	Native or naturalized in regions with tropical or subtropical climates	y
	Source(s)	Notes
	USDA, ARS, National Genetic Resources Program. 2015. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. URL: http://www.ars-grin.gov/ . [Accessed 2 Mar 2015]	"Native: SOUTHERN AMERICA Brazil: Brazil - Minas Gerais, Parana, Rio Grande do Sul, Santa Catarina, Sao Paulo Southern South America: Argentina - Buenos Aires, Chaco, Cordoba, Corrientes, Entre Rios, Formosa, Jujuy, Misiones, Salta, Santa Fe, Tucuman; Paraguay - Alto Parana, Central, Cordillera, Paraguari; Uruguay"
	Langeland, K.A. & Burks, K.C. (eds.). 2008. Identification and Biology of Non-Native Plants in Florida's Natural Areas. UF/IFAS Distribution, Gainesville, FL	"Noted as naturalized in sandy woods and waste places from Florida to North Carolina (Small 1933), but in later works shown only for Florida (e.g., Radford et al. 1968, Godfrey and Wooten 1979)."

205	Does the species have a history of repeated introductions outside its natural range?	y
	Source(s)	Notes
	Global Invasive Species Database. 2005. <i>Tradescantia fluminensis</i> . http://www.issg.org/database/species/ecology.asp?fr=1&si=497 . [Accessed 4 Mar 2015]	"Introduction pathways to new locations For ornamental purposes: 'Commonest of all houseplants ' (Mabberley, 1997)."
	Standish, R. J. 2001. The ecological impact and control of an invasive weed <i>Tradescantia fluminensis</i> in lowland forest remnants. PhD Dissertation. Massey University, Palmerston North, New Zealand	" <i>Tradescantia fluminensis</i> (Commelinaceae) (syn. <i>T. albiflora</i> ; R. Faden, pers. comm.) is a ground-smothering perennial herb native to South America (Esler, 1978). It has replaced native ground cover in forest remnants in New Zealand (Kelly and S kipworth, 1984a), eastern Australia (Dunphy, 1991) and Florida (Wunderlin, 1998)."
	Staples, G.W., Herbst, D.R. & Imada, C.T. 2006. New Hawaiian plant records for 2004. Bishop Museum Occasional Papers 88: 6-9	"Variegated cultivars of <i>T. fluminensis</i> have been grown as ornamentals in the Hawaiian Islands for many years, but recently a form with dark green, non-variegated leaves has been found naturalized in sites on two islands."

301	Naturalized beyond native range	y
	Source(s)	Notes

Qsn #	Question	Answer
	<p>USDA, ARS, National Genetic Resources Program. 2015. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. URL: http://www.ars-grin.gov/. [Accessed 3 Mar 2015]</p>	<p>" Naturalized: AFRICA Macaronesia: Portugal - Azores, Madeira Islands; Spain - Canary Islands Northern Africa: Morocco Southern Africa: South Africa - KwaZulu-Natal, Mpumalanga; Swaziland AUSTRALASIA Australia: Australia - Tasmania, Victoria New Zealand: New Zealand EUROPE Southwestern Europe: France - Corsica; Portugal; Spain NORTHERN AMERICA Southeastern U.S.A.: United States - Alabama, Florida, Louisiana Southwestern U.S.A.: United States - California"</p>
	<p>Staples, G.W., Herbst, D.R. & Imada, C.T. 2006. New Hawaiian plant records for 2004. Bishop Museum Occasional Papers 88: 6-9</p>	<p>"Variegated cultivars of <i>T. fluminensis</i> have been grown as ornamentals in the Hawaiian Islands for many years, but recently a form with dark green, non-variegated leaves has been found naturalized in sites on two islands. Plants have been found in shaded, moist situations along stream banks, and in shaded forest edges where they carpet the ground, forming a dense mat. The plants appear to be spreading vegetatively. This species was not listed as potentially invasive in the Hawaiian Islands (Staples et al. 2000) but 3 other taxa of Commelinaceae were included, all on the basis of their vegetative spread. It seems unlikely that <i>T. fluminensis</i> would be seriously invasive or capable of causing harm, but the naturalized plants should be eradicated before they spread."</p>

302	Garden/amenity/disturbance weed	
	Source(s)	Notes
	<p>Langeland, K.A. & Burks, K.C. (eds.). 2008. Identification and Biology of Non-Native Plants in Florida's Natural Areas. UF/IFAS Distribution, Gainesville, FL</p>	<p>"Recognized in 1947 (Bailey and Bailey 1947) as a common weed under benches in commercial greenhouses, and as naturalized in the Southeast (Bailey and Bailey 1976)."</p>
	<p>Global Invasive Species Database. 2005. <i>Tradescantia fluminensis</i>. http://www.issg.org/database/species/ecology.asp?fr=1&si=497. [Accessed 4 Mar 2015]</p>	<p>[Requires disturbance] "<i>Tradescantia fluminensis</i> does not appear to be a significant weed of crops (CABI, 2004). It is considered a significant environmental weed for its impacts to native biodiversity. <i>T. fluminensis</i> is a 'symptomatic invader' in the sense that it requires disturbance (i.e., increased light, increased soil nitrogen) for establishment."</p>

Qsn #	Question	Answer
303	Agricultural/forestry/horticultural weed	n
	Source(s)	Notes
	Langeland, K.A. & Burks, K.C. (eds.). 2008. Identification and Biology of Non-Native Plants in Florida's Natural Areas. UF/IFAS Distribution, Gainesville, FL	"an agricultural weed in its native range, particularly Brazil (Kelly and Skipworth 1984)."
	Global Invasive Species Database. 2005. <i>Tradescantia fluminensis</i> . http://www.issg.org/database/species/ecology.asp?fr=1&si=497 . [Accessed 4 Mar 2015]	" <i>Tradescantia fluminensis</i> does not appear to be a significant weed of crops (CABI, 2004)."

304	Environmental weed	y
	Source(s)	Notes
	Benson, D., & McDougall, L. 2002. Ecology of Sydney plant species. Part 9 Monocotyledon families Agavaceae to Juncaginaceae. <i>Cunninghamia</i> 7(4): 695-930	"Conservation: Widely naturalised on creek banks and in shaded places. Troublesome weed capable of choking out low-growing native species. Prevents germination of native species (Standish et al. 2001)."
	Langeland, K.A. & Burks, K.C. (eds.). 2008. Identification and Biology of Non-Native Plants in Florida's Natural Areas. UF/IFAS Distribution, Gainesville, FL	"Forms dense monocultural ground cover that can be 60 cm (2 ft) deep in overlapping leafy stems (Kelly and Skipworth 1984). Smothers native ground cover and seedlings of overstorey species (K. C. Burks, Florida DEP, personal observation; Godfrey and Wooten 1979); acts similarly in remnant lowland forests of New Zealand (Kelly and Skipworth 1984), where it has become an important natural area pest. Also a weed of disturbed areas in New South Wales, Australia (Reed 1977), and an agricultural weed in its native range, particularly Brazil (Kelly and Skipworth 1984)."
	Standish, R. J., Robertson, A. W., & Williams, P. A. (2001). The impact of an invasive weed <i>Tradescantia fluminensis</i> on native forest regeneration. <i>Journal of Applied Ecology</i> , 38(6): 1253-1263	" <i>Tradescantia fluminensis</i> is an invasive weed of New Zealand, eastern Australia and Florida, where it carpets the ground in canopy-depleted native forest remnants and prevents regeneration."

305	Congeneric weed	y
	Source(s)	Notes
	Weber, E. 2003. <i>Invasive Plant Species of the World. A Reference Guide to Environmental Weeds</i> . CABI Publishing, Wallingford, UK	" <i>Tradescantia spathacea</i> " ... "Coastal tropical hammocks and scrub, pinelands, disturbed sites. Its dense clumps form a continuous cover on the floor, preventing growth and establishment of native plants. Tree seedlings are unable to grow in these stands"

401	Produces spines, thorns or burrs	n
	Source(s)	Notes

Qsn #	Question	Answer
	Langeland, K.A. & Burks, K.C. (eds.). 2008. Identification and Biology of Non-Native Plants in Florida's Natural Areas. UF/IFAS Distribution, Gainesville, FL	[No evidence] "Creeping, trailing, subsucculent perennial herb, much branched, with branch tips erect; often forming dense ground cover; prostrate stems rooting freely at nodes. Leaves parallel-veined, alternate, simple, all glossy green or tinged with purple below; leaf blades arising from short, closed sheaths (tops often ciliate); blades to 5 cm (2 in) long and 2 cm (0.75 in) wide, oblong to ovate, with tips pointed; glabrous or with ciliate margins. Flowers white, in small clusters at stem tips, subtended by 1-3 leaflike bracts similar in size and form to stem leaves; 3 sepals and petals, separate; sepals usually with a line of hairs; 6 stamens, white bearded (pilose); ovary 3-celled, 6-seeded. Fruits small, 3-parted capsules; seeds black, pitted."

402	Allelopathic	
	Source(s)	Notes
	WRA Specialist. 2015. Personal Communication	Unknown

403	Parasitic	n
	Source(s)	Notes
	Flora of North America Editorial Committee. 2000, Flora of North America: North of Mexico, Volume 22. Oxford University Press, Oxford, UK	"Herbs, decumbent, rooting at nodes. Leaves 2-ranked; blade lanceolate-elliptic to ovate lanceolate, 2.5--5 ´ 1--2 cm (distal leaf blades wider or narrower than sheaths when sheaths opened, flattened), margins ciliolate, apex acute, glabrous. Inflorescences terminal, becoming leaf opposed, sometimes axillary from distalmost leaf axil, 1--2 cyme pairs per stem; bracts mostly foliaceous, occasionally reduced." [No evidence. Commelinaceae]

404	Unpalatable to grazing animals	n
	Source(s)	Notes
	Global Invasive Species Database. 2005. <i>Tradescantia fluminensis</i> . http://www.issg.org/database/species/ecology.asp?fr=1&si=497 . [Accessed 4 Mar 2015]	"Cattle and chickens eat <i>T. fluminensis</i> (Timmins & Mackenzie 1995; pers. obs.) but damage other forest plants and the soil in the process. "
	Benson, D., & McDougall, L. 2002. Ecology of Sydney plant species. Part 9 Monocotyledon families Agavaceae to Juncaginaceae. <i>Cunninghamia</i> 7(4): 695-930	"Shoots eaten by rabbits (P. Kubiak pers. comm.)."

405	Toxic to animals	
	Source(s)	Notes
	Jubb, K. V.F., Kennedy, P.C. & Palmer, N. (eds.). 1993. Pathology of Domestic Animals, Volume 1. Academic Press, San Diego, CA	"Contact hypersensitivity is rarely documented in dogs, cats and horses." ... "One well documented case in the dog describes contact hypersensitivity to <i>Tradescantia fluminensis</i> (wandering Jew plant)."
	Floridata. 2012. <i>Tradescantia fluminensis</i> . http://www.floridata.com/ref/T/trad_flu.cfm . [Accessed 4 Mar 2015]	[Possible allergen to dogs] "Dogs kept in yards with a groundcover of wandering Jew have developed rashes."

Qsn #	Question	Answer
406	Host for recognized pests and pathogens	n
	Source(s)	Notes
	Waipara, N. W. (2006). Isolation of white rot, <i>Sclerotinia sclerotiorum</i> , causing leaf necrosis on <i>Tradescantia fluminensis</i> in New Zealand. <i>Australasian Plant Disease Notes</i> , 1(1): 27-28	"Abstract. <i>Sclerotinia sclerotiorum</i> is reported from diseased plants of <i>Tradescantia fluminensis</i> . The fungus was isolated from necrotic leaf lesions on observed plants that were infesting parkland near Auckland, New Zealand. Subsequent reinoculation of <i>S. sclerotiorum</i> onto leaf and stem tissue satisfied Koch's postulates that <i>T. fluminensis</i> is a host of this isolate."
	Missouri Botanical Garden. 2015. <i>Tradescantia fluminensis</i> . http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?kempercode=b622 . [Accessed 4 Mar 2015]	"No serious insect or disease problems. Rot may occur if soils are kept too moist. Watch for mealybugs, scale, whiteflies and spider mites."
	Crop Knowledge Master. 1992. <i>Sclerotinia sclerotiorum</i> . http://www.extento.hawaii.edu/Kbase/Crop/Type/s_scler.htm . [Accessed 4 Mar 2015]	[<i>Tradescantia</i> is not the only host in Hawaii] " <i>Sclerotinia sclerotiorum</i> is among the most nonspecific, omnivorous, and successful of plant pathogens. Plants susceptible to this pathogen encompass 64 families, 225 genera, and 361 species (Purdy, 1979). Some hosts are: cabbage, common bean, citrus, celery, coriander, melon, squash, soybean, tomato, lettuce, and cucumber. <i>S. sclerotiorum</i> is geographically cosmopolitan and has a broad ecological distribution, though it is most common in temperate regions. It was originally believed to occur only in cool, moist areas, but is now known to occur in hot, dry areas as well."

407	Causes allergies or is otherwise toxic to humans	
	Source(s)	Notes
	Wüthrich, B., & Johansson, S. G. O. (1997). Allergy to the ornamental indoor green plant <i>Tradescantia</i> 'Albifloxia'. <i>Allergy</i> , 5 (5), 556-559	"We report on a 32-year-old atopic female office employee with a moderate tree pollinosis who also suffered from indoor-related perennial rhinoconjunctivitis. Once when she repotted her two ornamental nonflowering green plants of the genus <i>Tradescantia</i> (synonym: <i>Albifloxia</i> ; family <i>Commelinaceae</i>), she immediately experienced itching of the face, throat, and conjunctiva; swelling of the lips; and dyspnea and wheezing. Skin prick tests with the leaves of <i>Tradescantia</i> (<i>T. albifloxia</i> and <i>T. fluminensis</i>) (<i>Ta</i> and <i>Tf</i>) were strongly positive as was the specific IgE to <i>Ta</i> leaves extract. On RAST inhibition studies, no cross-reactivity was found between <i>Ta</i> and <i>Ficus benjamina</i> (weeping fig), a nonflowering green plant, which produces, in its milky sap, an important respiratory allergen. Green plants should be considered potential indoor allergens and tested in plant-keepers referred for allergologic investigation."
	Dave's Garden. 2015. PlantFiles: Wandering Jew, Inch Plant - <i>Tradescantia fluminensis</i> . http://davesgarden.com/guides/pf/go/54391/ . [Accessed 4 Mar 2015]	[Possibly to susceptible individuals] "Danger: Handling plant may cause skin irritation or allergic reaction"

408	Creates a fire hazard in natural ecosystems	n
	Source(s)	Notes

Qsn #	Question	Answer
	Benson, D., & McDougall, L. 2002. Ecology of Sydney plant species. Part 9 Monocotyledon families Agavaceae to Juncaginaceae. <i>Cunninghamia</i> 7(4): 695-930	"Fire response: Fleshy nature makes it difficult to burn. Resprouted after high intensity fire in 1994 (at Lane Cove), with peak flowering in 3 years (P. Kubiak pers. comm.)."
	Staples, G.W., Herbst, D.R. & Imada, C.T. 2006. New Hawaiian plant records for 2004. Bishop Museum Occasional Papers 88: 6-9	[No evidence. Unlikely given habitat & herbaceous growth form] "Plants have been found in shaded, moist situations along stream banks, and in shaded forest edges where they carpet the ground, forming a dense mat." ... "T. fluminensis is a sprawling herb with stems 1–2 m long that root at the nodes"
	Global Invasive Species Database. 2005. <i>Tradescantia fluminensis</i> . http://www.issg.org/database/species/ecology.asp?fr=1&si=497 . [Accessed 4 Mar 2015]	No evidence

409	Is a shade tolerant plant at some stage of its life cycle	y
	Source(s)	Notes
	Benson, D., & McDougall, L. 2002. Ecology of Sydney plant species. Part 9 Monocotyledon families Agavaceae to Juncaginaceae. <i>Cunninghamia</i> 7(4): 695-930	"Exposure: Full sun–deep shade."
	Floridata. 2012. <i>Tradescantia fluminensis</i> . http://www.floridata.com/ref/T/trad_flu.cfm . [Accessed 4 Mar 2015]	"Light: This species will tolerate low light levels, but it also will grow in full sun. When light is marginal, the plants develop elongated internodes and dull foliage."
	Langeland, K.A. & Burks, K.C. (eds.). 2008. Identification and Biology of Non-Native Plants in Florida's Natural Areas. UF/IFAS Distribution, Gainesville, FL	"Occurs most densely in partial or full shade of disturbed and undisturbed hammocks, particularly in moist or wet areas but also in well-drained woodlands and shady residential yards."
	Staples, G.W., Herbst, D.R. & Imada, C.T. 2006. New Hawaiian plant records for 2004. Bishop Museum Occasional Papers 88: 6-9	"Plants have been found in shaded, moist situations along stream banks, and in shaded forest edges where they carpet the ground, forming a dense mat."

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	n
	Source(s)	Notes
	Floridata. 2012. <i>Tradescantia fluminensis</i> . http://www.floridata.com/ref/T/trad_flu.cfm . [Accessed 4 Mar 2015]	"...prefers rich organic soil, but it will root directly into bark mulch or survive in poor sandy soil if watered sufficiently." ... "Moist, well drained soil is best, but green wandering Jew tolerates both flooding and drought well."
	Missouri Botanical Garden. 2015. <i>Tradescantia fluminensis</i> . http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?kempercode=b622 . [Accessed 4 Mar 2015]	"Plants like a consistently moist but well-drained soil during the growing season, with reduced watering from fall to late winter."
	Dave's Garden. 2015. PlantFiles: Wandering Jew, Inch Plant - <i>Tradescantia fluminensis</i> . http://davesgarden.com/guides/pf/go/54391/ . [Accessed 4 Mar 2015]	"Soil pH requirements: 6.1 to 6.5 (mildly acidic) 6.6 to 7.5 (neutral)"

411	Climbing or smothering growth habit	y
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Qsn #	Question	Answer
	Source(s)	Notes
	Langeland, K.A. & Burks, K.C. (eds.). 2008. Identification and Biology of Non-Native Plants in Florida's Natural Areas. UF/IFAS Distribution, Gainesville, FL	[Smothers ground cover & seedlings] "Creeping, trailing, subsucculent perennial herb, much branched, with branch tips erect; often forming dense ground cover; prostrate stems rooting freely at nodes." ... "Forms dense monocultural ground cover that can be 60 cm (2 ft) deep in overlapping leafy stems (Kelly and Skipworth 1984). Smothers native ground cover and seedlings of overstorey species (K. C. Burks, Florida DEP, personal observation; Godfrey and Wooten 1979); acts similarly in remnant lowland forests of New Zealand (Kelly and Skipworth 1984), where it has become an important naturalarea pest."

412	Forms dense thickets	y
	Source(s)	Notes
	Langeland, K.A. & Burks, K.C. (eds.). 2008. Identification and Biology of Non-Native Plants in Florida's Natural Areas. UF/IFAS Distribution, Gainesville, FL	"Forms dense monocultures & smothers other vegetation] Forms dense monocultural ground cover that can be 60 cm (2 ft) deep in overlapping leafy stems (Kelly and Skipworth 1984). Smothers native ground cover and seedlings of overstorey species (K. C. Burks, Florida DEP, personal observation; Godfrey and Wooten 1979); acts similarly in remnant lowland forests of New Zealand (Kelly and Skipworth 1984), where it has become an important naturalarea pest."

501	Aquatic	n
	Source(s)	Notes
	Langeland, K.A. & Burks, K.C. (eds.). 2008. Identification and Biology of Non-Native Plants in Florida's Natural Areas. UF/IFAS Distribution, Gainesville, FL	[Terrestrial herb] "Occurs most densely in partial or full shade of disturbed and undisturbed hammocks, particularly in moist or wet areas but also in well-drained woodlands and shady residential yards."

502	Grass	n
	Source(s)	Notes
	Flora of North America Editorial Committee. 2000, Flora of North America: North of Mexico, Volume 22. Oxford University Press, Oxford, UK	"Herbs, decumbent, rooting at nodes." [Commelinaceae]

503	Nitrogen fixing woody plant	n
	Source(s)	Notes
	Flora of North America Editorial Committee. 2000, Flora of North America: North of Mexico, Volume 22. Oxford University Press, Oxford, UK	"Herbs, decumbent, rooting at nodes." [Commelinaceae]

504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	Notes

Qsn #	Question	Answer
	Langeland, K.A. & Burks, K.C. (eds.). 2008. Identification and Biology of Non-Native Plants in Florida's Natural Areas. UF/IFAS Distribution, Gainesville, FL	"Creeping, trailing, subsucculent perennial herb, much branched, with branch tips erect; often forming dense ground cover; prostrate stems rooting freely at nodes. Leaves parallel-veined, alternate, simple, all glossy green or tinged with purple below; leaf blades arising from short, closed sheaths (tops often ciliate); blades to 5 cm (2 in) long and 2 cm (0.75 in) wide, oblong to ovate, with tips pointed; glabrous or with ciliate margins."

601	Evidence of substantial reproductive failure in native habitat	n
	Source(s)	Notes
	WRA Specialist. 2015. Personal Communication	No evidence. Seed production may be limited or absent in locations throughout its introduced range

602	Produces viable seed	
	Source(s)	Notes
	Langeland, K.A. & Burks, K.C. (eds.). 2008. Identification and Biology of Non-Native Plants in Florida's Natural Areas. UF/IFAS Distribution, Gainesville, FL	"Flowers in spring and fall in north Florida; level of seed viability not known."
	Weber, E. 2003. Invasive Plant Species of the World. A Reference Guide to Environmental Weeds. CAB International, Wallingford, UK	"Plants in Australia fail to set seeds; they spread solely by vegetative growth."
	Kelly, D. and Skipworth, J.P. 1984. <i>Tradescantia fluminensis</i> in a Manawatu (New Zealand) forest: I. Growth and effects on regeneration. <i>New Zealand Journal of Botany</i> , 22(3): 393-397	"Seed set was never observed so reproduction at this site was wholly vegetative."
	Staples, G.W., Herbst, D.R. & Imada, C.T. 2006. New Hawaiian plant records for 2004. <i>Bishop Museum Occasional Papers</i> 88: 6-9	[Unknown if seed production occurs in the Hawaiian Islands] "The plants appear to be spreading vegetatively."

603	Hybridizes naturally	
	Source(s)	Notes
	Anderson, E., & Hubricht, L. (1938). Hybridization in <i>Tradescantia</i> . III. The evidence for introgressive hybridization. <i>American Journal of Botany</i> , 25(6): 396-402	[Unknown. Hybridization occurs in genus] "Previous studies of the American species of <i>Tradescantia</i> have shown that interspecific hybridization is comparatively frequent between the eighteen or more species closely related to <i>Tradescantia virginiana</i> . The analysis in this research "further demonstrates that introgression is roughly proportional to the frequency of the introgressive species and that it is greater when plants are growing as weeds than when they occupy more natural habitats"

604	Self-compatible or apomictic	y
	Source(s)	Notes

Qsn #	Question	Answer
	Faden, R. B. (1992). Floral attraction and floral hairs in the Commelinaceae. <i>Annals of the Missouri Botanical Garden</i> , 79: 46-52	"On a purely taxonomic point finally, the position of the <i>Tradescantia fluminensis</i> group in the genus <i>Tradescantia</i> once again is raised (e.g. see Woodson, 1942). Unlike any other group in section <i>Tradescantia</i> all species are self-compatible and, together with data on the unique stigmatic surface (Owens, in press), its distinctiveness from <i>Tradescantia sensu stricto</i> is given further support. It requires at least sectional status and perhaps generic if genera such as <i>Phyodina</i> , chromosomally a very heterogeneous group (Jones, unpublished) can be maintained. [self-compatible] (2) Commelinaceae flowers are chiefly entomophilous or autogamous. The main insect visitors are social and solitary bees and syrphid flies."

605	Requires specialist pollinators	n
	Source(s)	Notes
	Faden, R. B. (1992). Floral attraction and floral hairs in the Commelinaceae. <i>Annals of the Missouri Botanical Garden</i> , 79: 46-52	"Commelinaceae flowers are chiefly entomophilous or autogamous. The main insect visitors are social and solitary bees and syrphid flies. Additional insects that I have recorded on Commelinaceae flowers include other Diptera, various families of Coleoptera, Hemiptera, Homoptera, Orthoptera, Thysanoptera, and occasional ants"

606	Reproduction by vegetative fragmentation	y
	Source(s)	Notes
	Langeland, K.A. & Burks, K.C. (eds.). 2008. <i>Identification and Biology of Non-Native Plants in Florida's Natural Areas</i> . UF/IFAS Distribution, Gainesville, FL	"Life History: Spreads successfully by vegetative means; stem fragments with just 1 node remaining viable and rooting freely (Kelly and Skipworth 1984). May have main stems averaging 1.5 m (5 ft) long, with an additional 1.5 m of branches; a dense square meter of cover potentially supporting a standing crop of 900 m (2,880 ft) of plant (Kelly and Skipworth 1984)."
	Staples, G.W., Herbst, D.R. & Imada, C.T. 2006. <i>New Hawaiian plant records for 2004</i> . Bishop Museum Occasional Papers 88: 6-9	"Plants have been found in shaded, moist situations along stream banks, and in shaded forest edges where they carpet the ground, forming a dense mat. The plants appear to be spreading vegetatively."

607	Minimum generative time (years)	1
	Source(s)	Notes
	Langeland, K.A. & Burks, K.C. (eds.). 2008. <i>Identification and Biology of Non-Native Plants in Florida's Natural Areas</i> . UF/IFAS Distribution, Gainesville, FL	[Able to reproduce vegetatively at an early growth stage] "Spreads successfully by vegetative means; stem fragments with just 1 node remaining viable and rooting freely (Kelly and Skipworth 1984)."

701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	y
	Source(s)	Notes
	Standish, R. J. (2002). Experimenting with methods to control <i>Tradescantia fluminensis</i> , an invasive weed of native forest remnants in New Zealand. <i>New Zealand Journal of Ecology</i> , 26(2): 161-170	"In New Zealand, <i>tradescantia</i> has spread through the dumping of rubbish and naturally via streams (Esler, 1978). Fragments as small as 1cm in length can successfully establish new plants by vegetative reproduction (Kelly and Skipworth, 1984a)."

Qsn #	Question	Answer
	Global Invasive Species Database. 2005. <i>Tradescantia fluminensis</i> . http://www.issg.org/database/species/ecology.asp?fr=1&si=497 . [Accessed 3 Mar 2015]	"Local dispersal methods: For ornamental purposes (local): Garden escape/garden waste: On animals: Road vehicles: Water currents"

702	Propagules dispersed intentionally by people	y
	Source(s)	Notes
	Global Invasive Species Database. 2005. <i>Tradescantia fluminensis</i> . http://www.issg.org/database/species/ecology.asp?fr=1&si=497 . [Accessed 3 Mar 2015]	"Introduction pathways to new locations: For ornamental purposes: 'Commonest of all houseplants ' (Mabberley, 1997)."
	Langeland, K.A. & Burks, K.C. (eds.). 2008. Identification and Biology of Non-Native Plants in Florida's Natural Areas. UF/IFAS Distribution, Gainesville, FL	"Still cultivated, most often as a house or patio plant. Once established, difficult to control without nontarget damage (J. Weimer, Paynes Prairie Preserve, 1996 personal communication)."
	Staples, G.W., Herbst, D.R. & Imada, C.T. 2006. New Hawaiian plant records for 2004. Bishop Museum Occasional Papers 88: 6-9	"Variegated cultivars of <i>T. fluminensis</i> have been grown as ornamentals in the Hawaiian Islands for many years, but recently a form with dark green, non-variegated leaves has been found naturalized in sites on two islands."

703	Propagules likely to disperse as a produce contaminant	y
	Source(s)	Notes
	Dave's Garden. 2015. PlantFiles: Wandering Jew, Inch Plant - <i>Tradescantia fluminensis</i> . http://davesgarden.com/guides/pf/go/54391/ . [Accessed 4 Mar 2015]	[Contaminant of transplanted palmetto] "On Jan 25, 2005, jrozier from Charleston, SC wrote: This is a nasty weed here in Charleston, SC. I got it with a palmetto transplanted here, and now it is everywhere."
	Langeland, K.A. & Burks, K.C. (eds.). 2008. Identification and Biology of Non-Native Plants in Florida's Natural Areas. UF/IFAS Distribution, Gainesville, FL	[Possibly, if a weed of agriculture] "Also a weed of disturbed areas in New South Wales, Australia (Reed 1977), and an agricultural weed in its native range, particularly Brazil (Kelly and Skipworth 1984)."
	Queensland Government. 2011. Weeds of Australia - <i>Tradescantia fluminensis</i> , http://keyserver.lucidcentral.org/weeds/data/030308000b07-490a-8d040605030c0f01/media/Html/Tradescantia_fluminensis.htm . [Accessed 3 Mar 2015]	[Soil contamination could possibly result in accidental dispersal with other plants] "Stem fragments easily break off and may be dispersed by water, vehicles, machinery, in dumped garden waste or in contaminated soil."

704	Propagules adapted to wind dispersal	
	Source(s)	Notes
	Weber, E. 2003. Invasive Plant Species of the World. A Reference Guide to Environmental Weeds. CABI Publishing, Wallingford, UK	"Fruits are papery capsules." [Seeds, if produced, could potentially be wind dispersed]

705	Propagules water dispersed	n
	Source(s)	Notes

Qsn #	Question	Answer
	Standish, R. J. (2002). Experimenting with methods to control <i>Tradescantia fluminensis</i> , an invasive weed of native forest remnants in New Zealand. <i>New Zealand Journal of Ecology</i> , 26(2): 161-170	"In New Zealand, <i>tradescantia</i> has spread through the dumping of rubbish and naturally via streams (Esler, 1978)."

706	Propagules bird dispersed	n
	Source(s)	Notes
	Queensland Government. 2011. Weeds of Australia - <i>Tradescantia fluminensis</i> , http://keyserver.lucidcentral.org/weeds/data/030308000b07-490a-8d040605030c0f01/media/Html/Tradescantia_fluminensis.htm . [Accessed 3 Mar 2015]	"This plant only reproduces vegetatively in Australia, by producing roots at the joints (i.e. nodes) of stems that come into contact with the soil (i.e. stolons). Stem fragments easily break off and may be dispersed by water, vehicles, machinery, in dumped garden waste or in contaminated soil."
	Langeland, K.A. & Burks, K.C. (eds.). 2008. Identification and Biology of Non-Native Plants in Florida's Natural Areas. UF/IFAS Distribution, Gainesville, FL	[Seeds, if produced, are not adapted for bird dispersal] "Fruits small, 3-parted capsules; seeds black, pitted."

707	Propagules dispersed by other animals (externally)	y
	Source(s)	Notes
	Global Invasive Species Database. 2005. <i>Tradescantia fluminensis</i> . http://www.issg.org/database/species/ecology.asp?fr=1&si=497 . [Accessed 3 Mar 2015]	"Local dispersal methods For ornamental purposes (local): Garden escape/garden waste: On animals: Road vehicles: Water currents:"
	Queensland Government. 2011. Weeds of Australia - <i>Tradescantia fluminensis</i> , http://keyserver.lucidcentral.org/weeds/data/030308000b07-490a-8d040605030c0f01/media/Html/Tradescantia_fluminensis.htm . [Accessed 3 Mar 2015]	"Stem fragments easily break off and may be dispersed by water, vehicles, machinery, in dumped garden waste or in contaminated soil."

708	Propagules survive passage through the gut	y
	Source(s)	Notes
	Blake, S., Wikelski, M., Cabrera, F., Guezou, A., Silva, M., Sadeghayobi, E., Yackulic, C. & Jaramillo, P. (2012). Seed dispersal by Galápagos tortoises. <i>Journal of Biogeography</i> , 39(11): 1961-1972	[Seeds of <i>Tradescantia fluminensis</i> present in the dung of tortoises. If produced, seeds survive passage through the gut] "Table 1 Summary data indicating the frequency of occurrence of intact seeds in dung piles of tortoises (<i>Chelonoidis nigra</i>) found in farmland and in the Galapagos National Park on the island of Santa Cruz."

801	Prolific seed production (>1000/m2)	n
	Source(s)	Notes
	Weber, E. 2003. Invasive Plant Species of the World. A Reference Guide to Environmental Weeds. CABI Publishing, Wallingford, UK	"Plants in Australia fail to set seeds..."

Qsn #	Question	Answer
	Standish, R. J. (2002). Experimenting with methods to control <i>Tradescantia fluminensis</i> , an invasive weed of native forest remnants in New Zealand. <i>New Zealand Journal of Ecology</i> , 26(2): 161-170	"Seed set was never observed so reproduction at this site was wholly vegetative."
	Staples, G.W., Herbst, D.R. & Imada, C.T. 2006. New Hawaiian plant records for 2004. Bishop Museum Occasional Papers 88: 6-9	"The plants appear to be spreading vegetatively."
	WRA Specialist. 2015. Personal Communication	Presumably does not seed prolifically, and may not produce any seeds within the Hawaiian Islands.

802	Evidence that a persistent propagule bank is formed (>1 yr)	n
	Source(s)	Notes
	Standish, R. J. (2002). Experimenting with methods to control <i>Tradescantia fluminensis</i> , an invasive weed of native forest remnants in New Zealand. <i>New Zealand Journal of Ecology</i> , 26(2): 161-170	"It has not been known to set seed in New Zealand (Healy and Edgar, 1980)."
	Langeland, K.A. & Burks, K.C. (eds.). 2008. Identification and Biology of Non-Native Plants in Florida's Natural Areas. UF/IFAS Distribution, Gainesville, FL	"level of seed viability not known."
	Staples, G.W., Herbst, D.R. & Imada, C.T. 2006. New Hawaiian plant records for 2004. Bishop Museum Occasional Papers 88: 6-9	[Limited or no seed production in the Hawaiian Islands] "The plants appear to be spreading vegetatively."

803	Well controlled by herbicides	y
	Source(s)	Notes
	Kelly, D. and Skipworth, J.P. (1984) <i>Tradescantia fluminensis</i> in a Manawatu (New Zealand) forest: II. Management by herbicides. <i>New Zealand Journal of Botany</i> 22: 399-402	"Paraquat at 2 kg active ingredient per ha reduced the standing crop of <i>Tradescantia</i> by over 50% within 10 weeks..Paraquat also damaged seven species of native plant, but this does not necessarily prevent it being useful for controlling <i>Tradescantia</i> in small forest remnants."
	McCluggage, T. 1998. Herbicide trials on <i>Tradescantia fluminensis</i> . Conservation Advisory Science Notes No. 180. Department of Conservation, Wellington, NZ	" <i>Tradescantia fluminensis</i> or wandering Jew is a problem weed in Northland that invades damp shady areas of the forest and stream banks. When established it covers the forest floor and prevents regeneration of any other vegetation. Trials of various herbicides and herbicide mixtures were conducted from November 1995 to June 1996 on <i>Tradescantia</i> growing in the Hikurangi Covenant of the Northern Dairy Company. Combinations of and resprays. Plots 11 and 12 had only one spraying of Escort applied in March 1996. They were monitored fortnightly by estimating for each plot the average of estimated ground cover as a percentage of leaves that had died off, and a percentage of stems that had died. Of all the herbicides trialled Grazon had a superior kill-rate and was the most cost-efficient. Using this information, a spray programme using Grazon was subsequently carried out over a 3.4 ha forest block that was infested heavily with <i>Tradescantia</i> ."

Qsn #	Question	Answer
	<p>Hurrell, G. A., James, T. K., Lusk, C. S., & Trolove, M. (2008). Herbicide selection for wandering Jew (<i>Tradescantia fluminensis</i>) control. <i>New Zealand Plant Protection</i>, 61: 368-373</p>	<p>[Effective, but optimal use rates yet to be determined] "Wandering Jew (<i>Tradescantia fluminensis</i>) prevents the regeneration of native forests in New Zealand. The herbicide triclopyr effectively controls this weed, but is damaging to many native plant species. To identify alternative herbicides, 16 active ingredients representing eight chemical groups were applied to container-grown wandering Jew plants of various ages in three experiments. In Experiment 1, triclopyr killed all plants (3 months old), while amitrole caused substantial damage to plants. In Experiment 2, amitrole, terbuthylazine, metsulfuron-methyl and triclopyr provided excellent control of 2 month- old plants. In Experiment 3, on 4 month-old plants, wandering Jew was highly susceptible to triclopyr, metsulfuron-methyl, fluroxypyr, glyphosate + fluroxypyr, metsulfuron-methyl + triclopyr and picloram + triclopyr. These herbicides were evaluated in a subsequent field trial and all except metsulfuron-methyl gave similar levels of control to Experiment 3. Further investigation of these chemicals is required to determine their optimal use rates and safety for native plants."</p>
	<p>Standish, R. J. (2002). Experimenting with methods to control <i>Tradescantia fluminensis</i>, an invasive weed of native forest remnants in New Zealand. <i>New Zealand Journal of Ecology</i>, 26(2): 161-170</p>	<p>[Triclopyr-based herbicide did not provide effective control in this experiment] "Herbicide spray and hand weeding, applied to separate experimental plots, did not prevent re growth of <i>tradescantia</i> after three successive treatments." ... "I used Grazon® herbicide (active constituent 600g l-1 triclopyr; DowElanco (NZ) Ltd, New Plymouth) on the basis of its successful control of <i>tradescantia</i> in previous trials..." ... "The herbicide was applied, 100 ml per 15 l water, to the foliage using a knapsack and sprayer, at a volume of 6–9 l per plot (or 1200–1800 l ha-1), depending on the depth of the mat of <i>tradescantia</i> within the plot." ... "The most effective method for sustained control of <i>tradescantia</i>, without invasion of other weeds, was artificial shading. Efforts to control <i>tradescantia</i> by repeated herbicide application or hand weeding resulted in the re-growth of <i>tradescantia</i> and invasion by other weeds that appeared to hinder native forest regeneration."</p>

Qsn #	Question	Answer
804	Tolerates, or benefits from, mutilation, cultivation, or fire	y
	Source(s)	Notes
	Global Invasive Species Database. 2005. <i>Tradescantia fluminensis</i> . http://www.issg.org/database/species/ecology.asp?fr=1&si=497 . [Accessed 3 Mar 2015]	"Physical: Hand weeding and rolling the weed up like a carpet are considered suitable for removal of small infestations (Porteous, 1993; C. Buddenhagen, pers. comm., 2001), if care is taken to remove every last piece. In heavily infested forest remnants, gaps left by removal of <i>T. fluminensis</i> are likely to be filled by other invasive species (Standish, 2002a)."
	Benson, D., & McDougall, L. 2002. Ecology of Sydney plant species. Part 9 Monocotyledon families Agavaceae to Juncaginaceae. <i>Cunninghamia</i> 7(4): 695-930	"Resprouted after high intensity fire in 1994 (at Lane Cove), with peak flowering in 3 years (P. Kubiak pers. comm.)."
	Weber, E. 2003. <i>Invasive Plant Species of the World. A Reference Guide to Environmental Weeds</i> . CABI Publishing, Wallingford, UK	"Small infestations can be removed by hand." ... "Follow-up treatments are necessary to control regrowth."
	Langeland, K.A. & Burks, K.C. (eds.). 2008. <i>Identification and Biology of Non-Native Plants in Florida's Natural Areas</i> . UF/IFAS Distribution, Gainesville, FL	"Spreads successfully by vegetative means; stem fragments with just 1 node remaining viable and rooting freely (Kelly and Skipworth 1984)."

Qsn #	Question	Answer
805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	n
	Source(s)	Notes
	Global Invasive Species Database. 2005. <i>Tradescantia fluminensis</i> . http://www.issg.org/database/species/ecology.asp?fr=1&si=497 . [Accessed 3 Mar 2015]	" <i>T. fluminensis</i> has been identified as a good candidate for biological control in New Zealand because it is widespread, and the risk of non-target effects are minimal to non-existent (Standish, 2001) and a research programme is underway (S. Fowler, pers. comm., 2003). Reducing both the weed's biomass and re-invasion of other weeds are the biggest challenges for a biocontrol programme to overcome (Standish, 2001). The gradual reduction of <i>T. fluminensis</i> that is likely to occur with biological control may reduce the chance of invasion by other weeds."

Qsn #	Question	Answer
	<p>Pereira, O.L., Barreto, R.W., Waipara, N., 2008. Pathogens from Brazil for classical biocontrol of <i>Tradescantia fluminensis</i>, Pp. 22-27 In M.H. Julien et al. (eds.). Proceedings of the XII International Symposium on Biological Control of Weeds, La Grande Motte, France, 22-27 April, 2007. CAB International, Wallingford, UK</p>	<p>[To date, no biological control agents have been introduced into the Hawaiian Islands'] "<i>Tradescantia fluminensis</i> Vell., also known as wandering Jew, is an herbaceous monocot native to South America. It is an invasive plant in New Zealand and the south-eastern United States where it is considered highly invasive by the Florida Exotic Pest Plant Council. The pathobiota of <i>T. fluminensis</i> in Brazil is almost unknown and could include phytopathogenic microorganisms that could be used in classical biological control programs. A survey for specialized, coevolved phytopathogenic microorganisms of <i>T. fluminensis</i> was initiated in 2003. Five fungal species have been collected including three basidiomycetes—a rust fungus (<i>Uredo</i> sp.), <i>Kordyana tradescantiae</i> (Pat.) Racib. and <i>Ceratobasidium</i> sp.; a hyphomycete—<i>Cercospora apii</i> Fresen. and an ascomycete—<i>Mycosphaerella</i> sp. A bacterial disease was also observed and the bacterium identified as <i>Burkholderia andropogonis</i> (Smith, 1911), based on morphological, biochemical and molecular methods. Its pathogenicity to <i>T. fluminensis</i> was confirmed, and a host-range test was performed. Unfortunately, results indicated that the bacterium is not sufficiently host-specific for classical introductions. Observations of the damage caused by fungal pathogens in the field suggest that those with the best potential as biological control agents are <i>Uredo</i> sp., <i>K. tradescantiae</i> and <i>Mycosphaerella</i> sp."</p>

Summary of Risk Traits:

High Risk / Undesirable Traits

- Elevation range exceeds 1000 m, demonstrating environmental versatility
- Thrives in tropical climates
- Naturalized on Maui, and Hawaii (Hawaiian Islands) and widely naturalized elsewhere
- An environmental weed in Florida, New Zealand, & Australia
- Other *Tradescantia* species have become invasive
- Contact may cause dermatitis with dogs & humans
- Shade tolerant
- Smothers low growing vegetation
- Forms dense ground cover that excludes other vegetation
- Self-compatible
- Spreads prolifically from vegetative fragments
- Able to reproduce vegetatively at an early growth stage
- Vegetative fragments easily dispersed by water, vehicles, machinery, animals, in dumped garden waste or in contaminated soil
- Able to resprout after cutting or fire
- No effective natural enemies present in the Hawaiian Islands

Low Risk Traits

- Unarmed (no spines, thorns or burrs)
- Palatable to cattle, chickens & rabbits
- Ornamental
- Seed production may be limited or absent within much of introduced range
- Herbicides may provide effective control