

Family: *Polygonaceae*

Taxon: *Reynoutria multiflora*

Synonym: *Fallopia multiflora* (Thunb.) Haraldson
Pleuropterus multiflorus (Thunb.) Turcz. ex N
Polygonum multiflorum Thunb. (basionym)

Common Name: Chinese fleecflower
 Chinese knotweed
 Fo-ti

Questionnaire :	current 20090513	Assessor:	Assessor	Designation:	H(HPWRA)
Status:	Assessor Approved	Data Entry Person:	Assessor	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		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		n=0, y = 1*multiplier (see Appendix 2)		
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)		y
401	Produces spines, thorns or burrs		y=1, n=0		n
402	Allelopathic		y=1, n=0		n
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		y

411	Climbing or smothering growth habit	y=1, n=0	y
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	2
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	y
705	Propagules water dispersed	y=1, n=-1	
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	
801	Prolific seed production (>1000/m2)	y=1, n=-1	n
802	Evidence that a persistent propagule bank is formed (>1 yr)	y=1, n=-1	
803	Well controlled by herbicides	y=-1, n=1	
804	Tolerates, or benefits from, mutilation, cultivation, or fire	y=1, n=-1	y
805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	y=-1, n=1	

Designation: H(HPWRA)

WRA Score 10

Supporting Data:

101	2001. Hanelt, P. (ed.). Mansfeld's Encyclopedia of Agricultural and Horticultural Crops (except Ornamentals), Volume 1. Springer-Verlag, Berlin, Heidelberg, New York	[Is the species highly domesticated? No] "In Japan and Korea, cultivated as a medicinal and ornamental plant." [No evidence]
102	2013. WRA Specialist. Personal Communication.	NA
103	2013. WRA Specialist. Personal Communication.	NA
201	2001. Thin, N.N.. Fallopia multiflora (Thunb.) K. Haraldson [Internet] Record from Proseabase. van Valkenburg, J.L.C.H. and Bunyaphatsara, N. (Editors). PROSEA (Plant Resources of South-East Asia) Foundation, Bogor, Indonesia http://www.proseanet.org .	[Species suited to tropical or subtropical climate(s) 2-High] "Fallopia multiflora originates from China and is widely cultivated and naturalized in Japan, Taiwan and Vietnam, and to a lesser extent in Laos and Thailand." [Synonyms Polygonum multiflorum Thunb. (1784).]
202	2001. Thin, N.N.. Fallopia multiflora (Thunb.) K. Haraldson [Internet] Record from Proseabase. van Valkenburg, J.L.C.H. and Bunyaphatsara, N. (Editors). PROSEA (Plant Resources of South-East Asia) Foundation, Bogor, Indonesia http://www.proseanet.org .	[Quality of climate match data 2-High]
203	2003. Wu, Z.Y./Raven, P.H./Hong, D.Y. (eds.). Flora of China. Vol. 5 (Ulmaceae through Basellaceae). Science Press & Missouri Botanical Garden Press, Beijing & St. Louis	[Broad climate suitability (environmental versatility)? Yes] "Mountain slopes, rock crevices, thickets in valleys; 200-3000 m." [Elevation range well in excess of 1000 m]
203	2013. Dave's Garden. PlantFiles: Chinese Knotweed, Fo-ti - Fallopia multiflora. http://davesgarden.com/guides/pf/go/1030/ [Accessed 26 Aug 2013]	[Broad climate suitability (environmental versatility)? Yes. 5 Hardiness Zones] "Hardiness: USDA Zone 7b: to -14.9 °C (5 °F) USDA Zone 8a: to -12.2 °C (10 °F) USDA Zone 8b: to -9.4 °C (15 °F) 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	2001. Thin, N.N.. Fallopia multiflora (Thunb.) K. Haraldson [Internet] Record from Proseabase. van Valkenburg, J.L.C.H. and Bunyaphatsara, N. (Editors). PROSEA (Plant Resources of South-East Asia) Foundation, Bogor, Indonesia http://www.proseanet.org .	[Native or naturalized in regions with tropical or subtropical climates? Yes] "Fallopia multiflora originates from China and is widely cultivated and naturalized in Japan, Taiwan and Vietnam, and to a lesser extent in Laos and Thailand." [Synonyms Polygonum multiflorum Thunb. (1784).]
205	2013. Dave's Garden. PlantFiles: Chinese Knotweed, Fo-ti - Fallopia multiflora. http://davesgarden.com/guides/pf/go/1030/ [Accessed 26 Aug 2013]	[Does the species have a history of repeated introductions outside its natural range? Yes] "This plant has been said to grow in the following regions: Davis, California Cocoa, Florida Sarasota, Florida Bibb City, Georgia Royersford, Pennsylvania Cedar Park, Texas Fort Worth, Texas"
205	2013. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Does the species have a history of repeated introductions outside its natural range?? Yes] "Cultivated: ASIA-TEMPERATE Eastern Asia: Japan; Korea"
301	2001. Thin, N.N.. Fallopia multiflora (Thunb.) K. Haraldson [Internet] Record from Proseabase. van Valkenburg, J.L.C.H. and Bunyaphatsara, N. (Editors). PROSEA (Plant Resources of South-East Asia) Foundation, Bogor, Indonesia http://www.proseanet.org .	[Naturalized beyond native range? Yes] "Fallopia multiflora originates from China and is widely cultivated and naturalized in Japan, Taiwan and Vietnam, and to a lesser extent in Laos and Thailand." [Synonyms Polygonum multiflorum Thunb. (1784).]

302	2013. Dave's Garden. PlantFiles: Chinese Knotweed, Fo-ti - Fallopia multiflora. http://davesgarden.com/guides/pf/go/1030/ [Accessed 26 Aug 2013]	[Garden/amenity/disturbance weed? Potentially] "On Jun 16, 2010, Kalpavriksha from Sarasota, FL wrote: I'm saying Neutral giving this plants historical use as a TCM plant. Saying that Kudzu is also one! I'd really like to know which would outgrow the other. This guy roots anywhere it touches. Pull it up and the root pieces stay in the ground to resprout. At one friend's house it launched itself across the backyard on all three sides only then to invade the front yard. Irrigate ONLY to get this established and then none unless you want your property smothered." ... "On Feb 8, 2008, ivieee from Austin, TX wrote: I'd recommend growing it only in pots or hanging baskets. It has become invasive in my Zone 8 (Texas) yard. Pretty, though." ... "On Mar 24, 2002, mystic from Ewing, KY (Zone 6a) wrote: This is a deciduous woody, fast growing vine ... This has a very extensive root system with tuberous rhizomes it can quickly take over your herb garden."
303	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Agricultural/forestry/horticultural weed? No] No evidence to date
304	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Environmental weed? No] No evidence to date
305	2001. Thin, N.N.. Fallopia multiflora (Thunb.) K. Haraldson [Internet] Record from Proseabase. van Valkenburg, J.L.C.H. and Bunyapraphatsara, N. (Editors). PROSEA (Plant Resources of South-East Asia) Foundation, Bogor, Indonesia http://www.proseanet.org .	[Congeneric weed?] "Other botanical information - Fallopia is closely related to Polygonum and Persicaria. The genus Reynoutria is now treated as a section of Fallopia. Fallopia japonica (Houtt.) Ronse Decr. (synonym Polygonum cuspidatum Siebold & Zucc.) is a close relative of Fallopia multiflora. It originates from China and Japan, but has been widely introduced into other temperate regions as an ornamental climber. In Chinese medicine, it is well known as a laxative and an anticancer drug."
305	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Congeneric weed? Yes] Multiple species of Polygonum and Fallopia are listed as invasive weeds.
401	2005. Hu, Shiu-ying. Food plants of China. Chinese University Press, Hong Kong	[Produces spines, thorns or burrs? No] "Perennial woody climber; stems vinish, 3-4 m long, branched, basal portion lignified. Leaves alternate, petiolate. Stipules tubular, surrounding the stem; laminas ovate, subcordate, 5-7 cm long, 3-5 cm wide, apex acuminate."
402	2003. Fujii, Y./Parvez, S. S./Parvez, M.M./Ohmae, Y./Iida, O.. Screening of 239 medicinal plant species for allelopathic activity using the sandwich method. Weed Biology and Management. 3: 233-241.	[Allelopathic? No evidence] "Table 1. Screening of leaf litter of 239 medicinal plant species under different families using the sandwich method" [Polygonum multiflorum did not exhibit stronger inhibitory activity greater than the mean in these trials]
403	2005. Hu, Shiu-ying. Food plants of China. Chinese University Press, Hong Kong	[Parasitic? No] "Perennial woody climber; stems vinish, 3-4 m long, branched, basal portion lignified."
404	2013. Plants for a Future Database. Polygonum multiflorum. http://www.pfaf.org/user/Plant.aspx?LatinName=Polygonum+multiflorum [Accessed 26 Aug 2013]	[Unpalatable to grazing animals?] "Plants seem to be immune to the predations of rabbits"
405	2012. Wu, X./Chen, X./Huang, Q./Fang, D./Li, G./Zhang, G.. Toxicity of raw and processed roots of Polygonum multiflorum. Fitoterapia. 83(3): 469-475.	[Toxic to animals? Possibly No] "No toxicity or death was observed in mice treated by oral route at doses up to 100 g/kg with HSW's acetone extracts during 14 days of observation (Table 1) The LD50 could not be estimated in our experiments. The possible LD50 is higher than 100 g/kg. That means the LD50 was at least equivalent to 200 times of the upper dose of human stipulated in Chinese Pharmacopoeia (0.5 g/kg)."
406	2012. Xiong, G./Zhao, G./Li, L./Zhang, S.. First report of Alternaria astragali as a causative agent of leaf spot disease in Polygonum multiflorum Thunb.. African Journal of Microbiology Research. 6(3): 633-636.	[Host for recognized pests and pathogens? Ability of pathogen to affect other plants unknown] "Leaf necrosis was observed on leaves of Polygonum multiflorum Thunb. in Kunming, China, from 2008 to 2009. The causal fungus was isolated and pure cultured from the leaf spot lesions on prostate-specific antigen (PSA). Koch's postulates were fulfilled by inoculating leaves in vitro in a moist chamber and in vivo in field. Morphological and internal transcribed spacer (ITS) region sequence analysis (FJ379591) revealed that the fungal strain shared 99% nucleotide identity with Alternaria astragali (EF110523). This is the first report of A. astragali causing leaf spot on P. multiflorum Thunb. in China."

407	2013. Plants for a Future Database. Polygonum multiflorum. http://www.pfaf.org/user/Plant.aspx?LatinName=Polygonum+multiflorum [Accessed 26 Aug 2013]	[Causes allergies or is otherwise toxic to humans? Possibly, if taken medicinally, and at incorrect dosage] "Although no specific mention has been made for this species, there have been reports that some members of this genus can cause photosensitivity in susceptible people. Many species also contain oxalic acid (the distinctive lemony flavour of sorrel) - whilst not toxic this substance can bind up other minerals making them unavailable to the body and leading to mineral deficiency. Having said that, a number of common foods such as sorrel and rhubarb contain oxalic acid and the leaves of most members of this genus are nutritious and beneficial to eat in moderate quantities. Cooking the leaves will reduce their content of oxalic acid. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since it can aggravate their condition[238]." ... "Leaves - raw or cooked. Seed - raw or cooked. It is rather small and fiddly to utilize[105]. Flowers[179]. No more details are given. Root - cooked[2, 177]. It should be washed several times in order to leech out the bitterness[179]. This process will also remove many of the vitamins and minerals from the roots[K]. A famine food, it is only used when all else fails[105]." ... "He Shou Wu is considered to be one of the most important of the Chinese herbal tonics and is widely used in that country[218]. It is said to restore vitality and virility[174], working especially on the liver and the reproductive, urinary and circulatory systems[238]. Some care should be exercised, however, since excessive doses can cause skin rash and numbness of the extremities[238]. The roots and stems are antibacterial, anticholesterolemic, antispasmodic, astringent, cardiotoxic, demulcent, depurative, hypoglycaemic, laxative, sedative, tonic[116, 147, 174, 176, 238, 279]. The roots are taken internally in the treatment of menstrual and menopausal complaints, constipation in the elderly, swollen lymph glands and high cholesterol levels[238]. They are very effective in reducing high cholesterol levels in the blood and increase blood sugar levels[254]. Externally, they are used to treat ringworm, bleeding wounds and sores[238]. The roots are harvested in the autumn, preferably from plants 3 - 4 years old, and are dried for later use[238]. The leaves and roots tonify the liver and kidneys, fortify the blood, strengthen the muscles and prevent premature greying of the hair[218]. The stem is deobstruent and sedative[218]. It is taken internally in the treatment of insomnia and neurasthenia whilst it is applied externally to ringworm[176, 238]. The stems are harvested in late summer or early autumn and are dried for later use[238]. Extracts of the plant have shown antipyretic, antitumour, hypoglycaemic and sedative activity[218]."
408	2001. Thin, N.N.. Fallopia multiflora (Thunb.) K. Haraldson [Internet] Record from Proseabase. van Valkenburg, J.L.C.H. and Bunyapraphatsara, N. (Editors). PROSEA (Plant Resources of South-East Asia) Foundation, Bogor, Indonesia http://www.proseanet.org .	[Creates a fire hazard in natural ecosystems? No] "A perennial, dioecious, scandent herb, stems elongate, 1—3(—7) m long, glabrescent; rhizome thick, brown, red inside." ... "Ecology - Fallopia multiflora prefers sunny habitats with enough moisture, and tolerates shade and drought, but no flooding. It is commonly found in secondary forest or savanna." [No evidence, and habit and ecology suggest no]
409	2001. Thin, N.N.. Fallopia multiflora (Thunb.) K. Haraldson [Internet] Record from Proseabase. van Valkenburg, J.L.C.H. and Bunyapraphatsara, N. (Editors). PROSEA (Plant Resources of South-East Asia) Foundation, Bogor, Indonesia http://www.proseanet.org .	[Is a shade tolerant plant at some stage of its life cycle? Yes] "Fallopia multiflora prefers sunny habitats with enough moisture, and tolerates shade and drought, but no flooding."
410	2013. Plants for a Future Database. Polygonum multiflorum. http://www.pfaf.org/user/Plant.aspx?LatinName=Polygonum+multiflorum [Accessed 26 Aug 2013]	[Tolerates a wide range of soil conditions? Yes] "Suitable for: light (sandy), medium (loamy) and heavy (clay) soils. Suitable pH: acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It prefers moist soil."
411	2005. Hu, Shiu-ying. Food plants of China. Chinese University Press, Hong Kong	[Climbing or smothering growth habit? Yes] "Perennial woody climber; stems vining, 3-4 m long, branched, basal portion lignified."
412	2003. Wu, Z.Y./Raven,P.H./Hong, D.Y. (eds.). Flora of China. Vol. 5 (Ulmaceae through Basellaceae). Science Press & Missouri Botanical Garden Press, Beijing & St. Louis	[Forms dense thickets? Possibly] "Mountain slopes, rock crevices, thickets in valleys; 200-3000 m." [Unknown if species is a component of vegetation thickets, or forms thickets itself]
501	2001. Thin, N.N.. Fallopia multiflora (Thunb.) K. Haraldson [Internet] Record from Proseabase. van Valkenburg, J.L.C.H. and Bunyapraphatsara, N. (Editors). PROSEA (Plant Resources of South-East Asia) Foundation, Bogor, Indonesia http://www.proseanet.org .	[Aquatic? No] "...tolerates shade and drought, but no flooding. It is commonly found in secondary forest or savanna."
502	2013. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Grass? No] Polygonaceae

503	2003. Wu, Z.Y./Raven,P.H./Hong, D.Y. (eds.). Flora of China. Vol. 5 (Ulmaceae through Basellaceae). Science Press & Missouri Botanical Garden Press, Beijing & St. Louis	[Nitrogen fixing woody plant? No] "Herbs perennial." [Polygonaceae]
504	2010. Gordon, D.R./Mitterdorfer, B./Pheloung, P.C. et al.. Guidance for addressing the Australian Weed Risk Assessment questions. Plant Protection Quarterly. 25(2): 56-74.	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] "This question relates to perennial plants with tubers, corms or bulbs. This question is specifically to deal with plants that have specialized organs and should not include plants merely with rhizomes/ stolons (see 6.06)."
601	2003. Wu, Z.Y./Raven,P.H./Hong, D.Y. (eds.). Flora of China. Vol. 5 (Ulmaceae through Basellaceae). Science Press & Missouri Botanical Garden Press, Beijing & St. Louis	[Evidence of substantial reproductive failure in native habitat? No] No evidence
602	2013. Dave's Garden. PlantFiles: Chinese Knotweed, Fo-ti - Fallopia multiflora. http://davesgarden.com/guides/pf/go/1030/ [Accessed 26 Aug 2013]	[Produces viable seed? Yes] "Propagation Methods: From herbaceous stem cuttings From seed; direct sow outdoors in fall"
602	2013. Plants for a Future Database. Polygonum multiflorum. http://www.pfaf.org/user/Plant.aspx?LatinName=Polygonum+multiflorum [Accessed 26 Aug 2013]	[Produces viable seed? Yes] "Seed - sow spring in a cold frame. Germination is usually free and easy. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer if they have reached sufficient size. "
603	2013. WRA Specialist. Personal Communication.	[Hybridizes naturally? Unknown]
604	2003. Wu, Z.Y./Raven,P.H./Hong, D.Y. (eds.). Flora of China. Vol. 5 (Ulmaceae through Basellaceae). Science Press & Missouri Botanical Garden Press, Beijing & St. Louis	[Self-compatible or apomictic?] "Inflorescence terminal or axillary, paniculate, spreading, 10-20 cm; peduncle minutely papillate; bracts triangular-ovate, papillate, apex acute, each 2-4-flowered. Pedicel 2-3 mm, slender, articulate at base, elongate in fruit. Perianth white or greenish; tepals elliptic, unequal in size, outer 3 larger, accrescent and winged on abaxial surface in fruit; wings decurrent below to pedicels on abaxial surface in fruit; wings decurrent below to pedicels."
604	2013. Plants for a Future Database. Polygonum multiflorum. http://www.pfaf.org/user/Plant.aspx?LatinName=Polygonum+multiflorum [Accessed 26 Aug 2013]	[Self-compatible or apomictic? Possibly No] "There is a suggestion that this plant might be dioecious[178], in which case male and female plants will need to be grown if seed is required."
605	2013. Plants for a Future Database. Polygonum multiflorum. http://www.pfaf.org/user/Plant.aspx?LatinName=Polygonum+multiflorum [Accessed 26 Aug 2013]	[Requires specialist pollinators? No] "The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects."
606	2001. Thin, N.N.. Fallopia multiflora (Thunb.) K. Haraldson [Internet] Record from Proseabase. van Valkenburg, J.L.C.H. and Bunyapraphatsara, N. (Editors). PROSEA (Plant Resources of South-East Asia) Foundation, Bogor, Indonesia http://www.proseanet.org .	[Reproduction by vegetative fragmentation? Yes] "A perennial, dioecious, scandent herb, stems elongate, 1—3(—7) m long, glabrescent; rhizome thick, brown, red inside." ... "In China and Japan, Fallopia multiflora is mainly propagated through stem cuttings and rhizomes. Stem cuttings 30—40 cm long and rhizomes 3—5 cm long are commonly used."
606	2010. Gordon, D.R./Mitterdorfer, B./Pheloung, P.C. et al.. Guidance for addressing the Australian Weed Risk Assessment questions. Plant Protection Quarterly. 25(2): 56-74.	[Reproduction by vegetative fragmentation? Yes] "Answer 'yes' if the taxon is capable of naturally increasing its numbers by vegetative means. This may include reproduction by: rhizomes, stolons, bulbils, root fragments, suckers, plantlets, or division."
606	2013. Dave's Garden. PlantFiles: Chinese Knotweed, Fo-ti - Fallopia multiflora. http://davesgarden.com/guides/pf/go/1030/ [Accessed 26 Aug 2013]	[Reproduction by vegetative fragmentation? Yes] "On Jun 16, 2010, Kalpavriksha from Sarasota, FL wrote: " ... "This guy roots anywhere it touches. Pull it up and the root pieces stay in the ground to resprout."
607	1911. McCollom, W.C.. Vines and how to Grow Them. Doubleday, Page, and Company, Garden City, NY	[Minimum generative time (years)? 2+] "Another good climbing knotweed for quick effect, flowering the second season from planting, is P. multiflorum."
701	2001. Thin, N.N.. Fallopia multiflora (Thunb.) K. Haraldson [Internet] Record from Proseabase. van Valkenburg, J.L.C.H. and Bunyapraphatsara, N. (Editors). PROSEA (Plant Resources of South-East Asia) Foundation, Bogor, Indonesia http://www.proseanet.org .	[Propagules likely to be dispersed unintentionally? Unknown] "Nutlet acutely trigonous, 2.5 mm long, dark brown." [No means of external attachment, but small size may allow nutlets to adhere to mud on equipment, vehicles, or footwear]
702	2013. WRA Specialist. Personal Communication.	[Propagules dispersed intentionally by people? Yes] Cultivated for food & medicinal purposes
703	2013. WRA Specialist. Personal Communication.	[Propagules likely to disperse as a produce contaminant? No evidence] A plant cultivated for food and medicinal purposes, but with no reports of produce contamination found despite widespread use

704	2006. Li, X./Yin, X./Xia, B./Li, W./Li, Y.. Effects of bird seed dispersal on diversity of the invaded plants in several hedge types. <i>Acta Ecologica Sinica</i> . 26: 1657-1666.	[Propagules adapted to wind dispersal? Yes] "Table 2 Survey of the invaded plants that occurred in different hedge types" ... "Polygonum multiflorum - Dispersal agent = W: Wind"
705	2009. Mars, B.. The Desktop Guide to Herbal Medicine. Basic Health Publications, Laguna Beach, CA	[Propagules water dispersed? Potentially] "It grows along streambanks and in valley thickets and thrives in poor soil." [Distribution suggestions possible transport by water]
706	2001. Thin, N.N.. <i>Fallopia multiflora</i> (Thunb.) K. Haraldson [Internet] Record from Proseabase. van Valkenburg, J.L.C.H. and Bunyaphatsara, N. (Editors). PROSEA (Plant Resources of South-East Asia) Foundation, Bogor, Indonesia http://www.proseanet.org .	[Propagules bird dispersed? No] "Fruit a glossy nutlet covered by the perianth, broadly obovate to suborbicular, 7—8 mm long, 3 prominent wings abruptly decurrent on the pedicel. Nutlet acutely trigonous, 2.5 mm long, dark brown." [No evidence, and not fleshy-fruited]
707	2006. Li, X./Yin, X./Xia, B./Li, W./Li, Y.. Effects of bird seed dispersal on diversity of the invaded plants in several hedge types. <i>Acta Ecologica Sinica</i> . 26: 1657-1666.	[Propagules dispersed by other animals (externally)? No] "Table 2 Survey of the invaded plants that occurred in different hedge types" ... "Polygonum multiflorum - Dispersal agent = W: Wind"
708	2001. Thin, N.N.. <i>Fallopia multiflora</i> (Thunb.) K. Haraldson [Internet] Record from Proseabase. van Valkenburg, J.L.C.H. and Bunyaphatsara, N. (Editors). PROSEA (Plant Resources of South-East Asia) Foundation, Bogor, Indonesia http://www.proseanet.org .	[Propagules survive passage through the gut? Unknown] "Fruit a glossy nutlet covered by the perianth, broadly obovate to suborbicular, 7—8 mm long, 3 prominent wings abruptly decurrent on the pedicel. Nutlet acutely trigonous, 2.5 mm long, dark brown." [Fruit unlikely to be consumed or internally dispersed]
801	2013. Erfanzadeh, R./Kahnuj, S.H.H./Azamivand, H./Pétillon, J.. Comparison of soil seed banks of habitats distributed along an altitudinal gradient in northern Iran. <i>Flora</i> . 208(5-6): 312-320.	[Prolific seed production (>1000/m ²)? No. Not in this study] "Table 1. Average seed density m ⁻² of species in the seed bank and cover percentage of species in the above-ground vegetation in the different habitats." [Polygonum multiflorum - Average of seed density m ⁻² of species = 315.3 in the 0–5 cm soil layer in meadows]
802	2008. Royal Botanic Gardens Kew. Seed Information Database (SID). Version 7.1. http://data.kew.org/sid/	[Evidence that a persistent propagule bank is formed (>1 yr)? Unknown] "Storage Behaviour: Orthodox p. Storage Conditions: 100% viability following drying to mc's in equilibrium with 15% RH and freezing for 1 month at -20°C at RBG Kew, WP"
803	2003. Weber, E.. <i>Invasive Plant Species of the World. A Reference Guide to Environmental Weeds</i> . CABI Publishing, Wallingford, UK	[Well controlled by herbicides? Unknown] "'Fallopia japonica ... Chemical control includes spraying with glyphosate or 2,4-D amine." [Chemical control methods for the related Japanese knotweed may prove effective on Reynoutria multiflora: Syn - Fallopia multiflora]
804	2013. Dave's Garden. PlantFiles: Chinese Knotweed, Fo-ti - Fallopia multiflora. http://davesgarden.com/guides/pf/go/1030/ [Accessed 26 Aug 2013]	[Tolerates, or benefits from, mutilation, cultivation, or fire? Yes] "On Jun 16, 2010, Kalpavriksha from Sarasota, FL wrote: I'm saying Neutral giving this plants historical use as a TCM plant. Saying that Kudzu is also one! I'd really like to know which would outgrow the other. This guy roots anywhere it touches. Pull it up and the root pieces stay in the ground to resprout. " [Resprouts from rhizomes after removal of above ground vegetative material]
805	2013. WRA Specialist. Personal Communication.	[Effective natural enemies present locally (e.g. introduced biocontrol agents)? Unknown]

Summary of Risk Traits

High Risk / Undesirable Traits

- Thrives in tropical climates
- Elevation range exceeds 1000 m
- Widely cultivated and naturalized in Japan, Taiwan and Vietnam, and to a lesser extent in Laos and Thailand
- Aggressive growth in garden settings
- Related species are invasive
- Shade tolerant
- Climbing and smothering habit
- Spreads by seeds and vegetatively
- Reaches maturity in 2 years
- Wind-dispersed
- Resprouts from rhizomes after removal of above ground vegetative material

Low Risk Traits

- Not documented to be an environmental weed
- Unarmed (no spines, thorns or burrs)
- Edible and medicinal uses