

Assessment date 07/15/2021 Prepared by McCann

<b><i>Persicaria hydropiper</i> (L.) Delabre - (water pepper) ALL ZONES</b>		<b>Answer</b>	<b>Score</b>
1.01	Is the species highly domesticated?	n	0
1.02	Has the species become naturalised where grown?		
1.03	Does the species have weedy races?		
2.01	Species suited to Florida's USDA climate zones (0-low; 1-intermediate; 2-high) North Zone: suited to Zones 8, 9 Central Zone: suited to Zones 9, 10 South Zone: suited to Zone 10	3	
2.02	Quality of climate match data (0-low; 1-intermediate; 2-high)	3	
2.03	Broad climate suitability (environmental versatility)	y	1
2.04	Native or naturalized in habitats with periodic inundation North Zone: mean annual precipitation 50-70 inches Central Zone: mean annual precipitation 40-60 inches South Zone: mean annual precipitation 40-60 inches	y	1
2.05	Does the species have a history of repeated introductions outside its natural range?	y	
3.01	Naturalized beyond native range	y	2
3.02	Garden/amenity/disturbance weed	y	2
3.03	Weed of agriculture	y	4
3.04	Environmental weed	?	
3.05	Congeneric weed	y	2
4.01	Produces spines, thorns or burrs	n	0
4.02	Allelopathic	y	1
4.03	Parasitic	n	0
4.04	Unpalatable to grazing animals	?	
4.05	Toxic to animals	?	
4.06	Host for recognised pests and pathogens	?	
4.07	Causes allergies or is otherwise toxic to humans	n	0
4.08	Creates a fire hazard in natural ecosystems	n	0
4.09	Is a shade tolerant plant at some stage of its life cycle	n	0
4.10	Grows on infertile soils (oligotrophic, limerock, or excessively draining soils). North & Central Zones: infertile soils; South Zone: shallow limerock or Histisols.	n	0
4.11	Climbing or smothering growth habit	n	0
4.12	Forms dense thickets	n	0
5.01	Aquatic	y	5

5.02	Grass	n	0
5.03	Nitrogen fixing woody plant	n	0
5.04	Geophyte	n	0
6.01	Evidence of substantial reproductive failure in native habitat	n	0
6.02	Produces viable seed	y	1
6.03	Hybridizes naturally	n	-1
6.04	Self-compatible or apomictic	y	1
6.05	Requires specialist pollinators	n	0
6.06	Reproduction by vegetative propagation	y	1
6.07	Minimum generative time (years)	1 or fewer	1
7.01	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	y	1
7.02	Propagules dispersed intentionally by people	y	1
7.03	Propagules likely to disperse as a produce contaminant	y	1
7.04	Propagules adapted to wind dispersal	n	-1
7.05	Propagules water dispersed	y	1
7.06	Propagules bird dispersed	y	1
7.07	Propagules dispersed by other animals (externally)	?	
7.08	Propagules dispersed by other animals (internally)	?	
8.01	Prolific seed production	y	1
8.02	Evidence that a persistent propagule bank is formed (>1 yr)	y	1
8.03	Well controlled by herbicides	n	1
8.04	Tolerates, or benefits from, mutilation or cultivation	?	
8.05	Effective natural enemies present in U.S.	n	1
<b>Total Score</b>		<b>29</b>	
<b>Implemented Pacific Second Screening</b>		<b>n/a</b>	
<b>Risk Assessment Results</b>		<b>HIGH RISK</b>	

section	# questions answered	satisfy minimum?
A		10 yes
B		9 yes
C		20 yes
total		yes

	Reference	Source data
1.01	1. <i>Persicaria hydropiper</i> is used in traditional medicine and occasional food plant. We found no evidence of reduced weediness.	1. GoBotany. <a href="https://gobotany.nativeplanttrust.org/species/persicaria/hydropiper/">https://gobotany.nativeplanttrust.org/species/persicaria/hydropiper/</a> (Accessed 1 July 2021).
1.02	Skip	
1.03	Skip	
2.01	No computer analysis performed. 1. USDA Hardiness zones 5-9. We found no other information on hardiness zones.	1. Shoot Gardening. <a href="https://www.shootgardening.co.uk/plant/persicaria-hydropiper">https://www.shootgardening.co.uk/plant/persicaria-hydropiper</a> (Accessed 13 July 2021).
2.02	No computer analysis performed.	
2.03	1. The taxon is native to and found in temperate regions. 2,3. However, the taxon is present in koppen climates Cfa, Cfb, Csa, Dfa, Dfb, BSk, Aw, and Af (See maps).	1. A. K. M. Moyeenul Huq, Jamia Azdina Jamal, Johnson Stanlas. 2014. Ethnobotanical, Phytochemical, Pharmacological, and Toxicological Aspects of <i>Persicaria hydropiper</i> (L.) Delarbre. Evidence-Based Complementary and Alternative Medicine, vol. 2013 2. GBIF. <a href="https://www.gbif.org/species/7945761">https://www.gbif.org/species/7945761</a> (Accessed 13 July 2021). 3. Britannica. Koppen climate classification. <a href="https://www.britannica.com/science/Koppen-climate-classification">https://www.britannica.com/science/Koppen-climate-classification</a> (Accessed 13 July 2021).
2.04	1,2. Naturalized in areas with 28-97 inches of average annual rainfall (See maps). 3. The taxon is an aquatic species, so it is likely the plant can tolerate flooding. 4. Common in seasonally flooded areas.	1. GBIF. <a href="https://www.gbif.org/species/7945761">https://www.gbif.org/species/7945761</a> (Accessed 8 July 2021). 2. El Dorado Weather: The World Average Annual Precipitation Map. <a href="https://www.eldoradoweather.com/climate/world-maps/world-annual-precip-map.html">https://www.eldoradoweather.com/climate/world-maps/world-annual-precip-map.html</a> (Accessed 8 July 2021). 3. Mid-Atlantic Invaders Tool. <a href="https://www.invasive.org/midatlantic/subject.cfm?sub=56629">https://www.invasive.org/midatlantic/subject.cfm?sub=56629</a> (Accessed 8 July 2021). 4. CABI. <a href="https://www.cabi.org/isc/datasheet/42688">https://www.cabi.org/isc/datasheet/42688</a> (Accessed 8 July 2021).
2.05	1. Has been introduced to the U.S., Canada, Europe, Asia, NW Africa, New Zealand, and Australia. 2. The taxon is often found as a contaminant of crop and pasture seed.	1. Flora of North America. <a href="http://www.efloras.org/florataxon.aspx?flora_id=1&amp;taxon_id=242100096">http://www.efloras.org/florataxon.aspx?flora_id=1&amp;taxon_id=242100096</a> (Accessed 8 July 2021). 2. CABI. <a href="https://www.cabi.org/isc/datasheet/42688">https://www.cabi.org/isc/datasheet/42688</a> (Accessed 13 July 2021).
3.01	1. Native to Eurasia, not North America. Some believe <i>P. hydropiper</i> has a circumboreal distribution and is native to Eurasia and North America. 2. "Water-pepper smartweed is native to Europe, and has spread to all other continents." 3. Naturalized in New Zealand in 1906. 4. "Small (1903), states that it is 'common in moist or waste places throughout North America. Naturalized from Europe southward and eastward, said to be native in the north and west'. Munz & Keck (1959) regard it as 'probably naturalized' in California, and Scoggan (1957) records it as introduced in Alaska."	1. Illinois Wildflowers. <a href="https://www.illinoiswildflowers.info/weeds/plants/waterpepper.htm">https://www.illinoiswildflowers.info/weeds/plants/waterpepper.htm</a> (Accessed 1 July 2021). 2. GoBotany. <a href="https://gobotany.nativeplanttrust.org/species/persicaria/hydropiper/">https://gobotany.nativeplanttrust.org/species/persicaria/hydropiper/</a> (Accessed 1 July 2021). 3. New Zealand Plant Conservation Network. <a href="https://www.nzpcn.org.nz/flora/species/persicaria-hydropiper/">https://www.nzpcn.org.nz/flora/species/persicaria-hydropiper/</a> (Accessed 7 July 2021). 4. Timson, J. 1966. <i>Polygonum Hydropiper</i> L. Journal of Ecology, 54, 815-821.

3.02	1. Spreads aggressively in disturbed wetlands. 2. Prefers disturbed wetlands, and can spread aggressively.	1. NC State Extension. <a href="https://plants.ces.ncsu.edu/plants/persicaria-hydropiper/">https://plants.ces.ncsu.edu/plants/persicaria-hydropiper/</a> (Accessed 6 July 2021). 2. Illinois Wildflowers. <a href="https://www.illinoiswildflowers.info/weeds/plants/waterpepper.htm">https://www.illinoiswildflowers.info/weeds/plants/waterpepper.htm</a> (Accessed 13 July 2021). 3.
3.03	1. <i>Persicaria</i> is predominant in agricultural fields. 2. The taxon is a serious weed in irrigated land. 3. Dominant weed of barely and wheat crops. 4. Listed as a weed of agriculture.	1. A. K. M. Moyeenul Huq, Jamia Azdina Jamal, Johnson Stanslas. 2014. Ethnobotanical, Phytochemical, Pharmacological, and Toxicological Aspects of <i>Persicaria hydropiper</i> (L.) Delarbre. Evidence-Based Complementary and Alternative Medicine, vol. 2014. 2. CABI. <a href="https://www.cabi.org/isc/datasheet/42688">https://www.cabi.org/isc/datasheet/42688</a> (Accessed 1 July 2021). 3. The Global Invasive Species Team. <a href="https://www.invasive.org/gist/global/australia/pol.html">https://www.invasive.org/gist/global/australia/pol.html</a> (Accessed 7 July 2021). 4. Global Compendium of Weeds. <a href="http://www.hear.org/gcw/species/polygonum_hydropiper/">http://www.hear.org/gcw/species/polygonum_hydropiper/</a> (Accessed 13 July 2021).
3.04	1. "Always found in natural or semi-natural habitats never far from water and usually where the ground is covered by shallow water in winter. Occurs widely where conditions of this kind are found, including damp rides in woods, damp meadows, and by the sides of streams, canals, lakes, reservoirs, and ponds." 2. Listed as an environmental weed, but we found no specific evidence.	1. Timson, J. 1966. <i>Polygonum Hydropiper</i> L. <i>Journal of Ecology</i> , 54, 815-821. 2. Global Compendium of Weeds. <a href="http://www.hear.org/gcw/species/polygonum_hydropiper/">http://www.hear.org/gcw/species/polygonum_hydropiper/</a> (Accessed 13 July 2021).
3.05	1. Many species of the genus <i>Persicaria</i> are aggressive weeds. <i>Persicaria perfoliata</i> is a fast growing plant that scrambles over other vegetation and blocks available light. 2. <i>Persicaria chinensis</i> is fast growing, forms dense mats, and smothers other vegetation.	1. CABI. <a href="https://www.cabi.org/isc/datasheet/109155">https://www.cabi.org/isc/datasheet/109155</a> (Accessed 8 July 2021). 2. CABI. <a href="https://www.cabi.org/isc/datasheet/118915">https://www.cabi.org/isc/datasheet/118915</a> (Accessed 8 July 2021).
4.01	1. No evidence of these characteristics.	1. Flora of North America. <a href="http://www.efloras.org/florataxon.aspx?flora_id=1&amp;taxon_id=242100096">http://www.efloras.org/florataxon.aspx?flora_id=1&amp;taxon_id=242100096</a> (Accessed 8 July 2021).
4.02	1. Contains allelopathic chemicals. 2. "The species is allelopathic	1 Cheema, Z.A., Farooq, M., Wahid, A. 2012. Allelopathy: Current
4.03	1. <i>Persicaria</i> is not in the parasite plant families.	1. Flora of North America. <a href="http://www.efloras.org/florataxon.aspx?flora_id=1&amp;taxon_id=242100096">http://www.efloras.org/florataxon.aspx?flora_id=1&amp;taxon_id=242100096</a> (Accessed 7 July 2021).
4.04	1. Animals usually don't graze due to the acrid taste of the leaves. "Species have been seen untouched in well-grazed fields and it seems that animals learn to avoid it." 2. However, water fowl or other animals may ingest the seeds. 3. Not usually grazed by livestock.	1. Timson, J. 1966. <i>Polygonum Hydropiper</i> L. <i>Journal of Ecology</i> , 54, 815-821. 2. CABI. <a href="https://www.cabi.org/isc/datasheet/42688">https://www.cabi.org/isc/datasheet/42688</a> (Accessed 6 July 2021). 3. New Zealand Plant Conservation Network. <a href="https://www.nzpcn.org.nz/flora/species/persicaria-hydropiper/">https://www.nzpcn.org.nz/flora/species/persicaria-hydropiper/</a> (Accessed 7 July 2021).
4.05	1. The taxon has been found to be toxic to pigs and sheep. 2. However, livestock seems to avoid the plant due to its peppery, burning flavor.	1. Huq, A. K., Jamal, J. A., & Stanslas, J. 2014. Ethnobotanical, Phytochemical, Pharmacological, and Toxicological Aspects of <i>Persicaria hydropiper</i> (L.) Delarbre. Evidence-based complementary and alternative medicine. 2. Timson, J. 1966. <i>Polygonum Hydropiper</i> L. <i>Journal of Ecology</i> , 54, 815-821.
4.06	No evidence.	

4.07	No evidence.	
4.08	No evidence.	
4.09	1. Shade intolerant,	1. USDA Plants Database. <a href="https://plants.usda.gov/home/plantProfile?symbol=POHY">https://plants.usda.gov/home/plantProfile?symbol=POHY</a> (Accessed 6 July 2021).
4.10	1. Grows well in most soils and tolerates a wide range of pH, but does best in poorly drained soils. 2. "Soil drainage: frequent standing water, occasionally wet"	1. CABI. <a href="https://www.cabi.org/isc/datasheet/42688">https://www.cabi.org/isc/datasheet/42688</a> (Accessed 9 July 2021). 2. NC State Extension. <a href="https://plants.ces.ncsu.edu/plants/persicaria-hydropiper/">https://plants.ces.ncsu.edu/plants/persicaria-hydropiper/</a> (Accessed 9 July 2021).
4.11	No evidence.	
4.12	1. "Sometimes found in large stands of some hundreds of plants." However, we found no evidence the taxon impedes movement.	1. Timson, J. 1966. <i>Polygonum Hydropiper</i> L. <i>Journal of Ecology</i> , 54, 815-821.
5.01	1. <i>Persicaria</i> is considered an obligate wetland plant. 2. Obligate wetland. 2. Taxon is an obligate wetland.	1. Mid-Atlantic Invaders Tool. <a href="https://www.invasive.org/midatlantic/subject.cfm?sub=56629">https://www.invasive.org/midatlantic/subject.cfm?sub=56629</a> (Accessed 1 July 2021). 2. NPSpecies. <a href="https://irma.nps.gov/NPSpecies/Species/Profile/504848">https://irma.nps.gov/NPSpecies/Species/Profile/504848</a> (Accessed 1 July 2021). 3. UT Herbarium. <a href="https://herbarium.utk.edu/vascular/vascular-browse-genus-results.php?GenusName=Persicaria">https://herbarium.utk.edu/vascular/vascular-browse-genus-results.php?GenusName=Persicaria</a> (Accessed 1 July 2021).
5.02	1. Taxon is in the Polygonaceae family.	1. USDA Plants Database. <a href="https://plants.usda.gov/home/plantProfile?symbol=POHY">https://plants.usda.gov/home/plantProfile?symbol=POHY</a> (Accessed 7 July 2021).
5.03	1. Taxon is not woody.	1. Flora of North America. <a href="http://www.efloras.org/florataxon.aspx?flora_id=1&amp;taxon_id=242100096">http://www.efloras.org/florataxon.aspx?flora_id=1&amp;taxon_id=242100096</a> (Accessed 7 July 2021).
5.04	1. <i>Periscaria</i> does not possess tubers, corms, or bulbs.	1. Flora of North America. <a href="http://www.efloras.org/florataxon.aspx?flora_id=1&amp;taxon_id=242100096">http://www.efloras.org/florataxon.aspx?flora_id=1&amp;taxon_id=242100096</a> (Accessed 7 July 2021).
6.01	We found no evidence. 1. Taxon is widespread in Europe.	1. GBIF. <a href="https://www.gbif.org/species/7945761">https://www.gbif.org/species/7945761</a> (Accessed 13 July 2021).
6.02	1. Propagated by seed. Seed germination varies. "In the USA, Justice (1941) showed that stratification of fresh seeds at 2-4°C for 18 weeks improved the otherwise low germination to over 90%, whilst in Japan, Nakamura (1970) demonstrated that removal of the seed coat, alternating temperatures and light all stimulated increased germination." 2. Propagated entirely by seed and produces viable seeds.	1. CABI. <a href="https://www.cabi.org/isc/datasheet/42688">https://www.cabi.org/isc/datasheet/42688</a> (Accessed 1 July 2021). 2. Timson, J. 1966. <i>Polygonum Hydropiper</i> L. <i>Journal of Ecology</i> , 54, 815-821.
6.03	No evidence.	

6.04	1. Self-pollinating. 2. Invariably self-pollinated.	1. CABI. <a href="https://www.cabi.org/isc/datasheet/42688">https://www.cabi.org/isc/datasheet/42688</a> (Accessed 1 July 2021). 2. Timson, J. 1966. <i>Polygonum Hydropiper</i> L. <i>Journal of Ecology</i> , 54, 815-821.
6.05	No evidence.	
6.06	1. " <i>P. hydropiper</i> is an annual herb which normally reproduces only by seed, although broken stems may root at the nodes and grow into new plants." 2. Propagated entirely by seed. "No natural vegetative reproduction but detached pieces of stem capable of growth if node present." Because the taxon roots at nodes, we answered "yes"	1. CABI. <a href="https://www.cabi.org/isc/datasheet/42688">https://www.cabi.org/isc/datasheet/42688</a> (Accessed 1 July 2021). 2. Timson, J. 1966. <i>Polygonum Hydropiper</i> L. <i>Journal of Ecology</i> , 54, 815-821.
6.07	1. Annual herb. "In temperate climatic zones, it germinates as the soil and water warm up in spring, flowers during the summer, and produces fruits from mid summer until killed by the frost in autumn or winter (Holm et al., 1997)." 2. Plants flower in 6-10 weeks after seed set, and lives for 6 months.	1. CABI. <a href="https://www.cabi.org/isc/datasheet/42688">https://www.cabi.org/isc/datasheet/42688</a> (Accessed 1 July 2021). 2. Timson, J. 1966. <i>Polygonum Hydropiper</i> L. <i>Journal of Ecology</i> , 54, 815-821.
7.01	1. Spreads through garden waste and boats and fishing equipment.	1. CABI. <a href="https://www.cabi.org/isc/datasheet/42688">https://www.cabi.org/isc/datasheet/42688</a> (Accessed 1 July 2021).
7.02	1,2,3. Seeds are sold online.	1. Amazon. <a href="https://www.amazon.com/Water-Pepper-Seeds-Maturity-hydropiper/dp/B01HXSMYG4">https://www.amazon.com/Water-Pepper-Seeds-Maturity-hydropiper/dp/B01HXSMYG4</a> (Accessed 13 July 2021). 2. Caribbean Garden Seed. <a href="https://www.caribbeangardenseed.com/products/water-pepper-seeds-maturity-approx-10-days-polygonum-hydropiper-knotweed">https://www.caribbeangardenseed.com/products/water-pepper-seeds-maturity-approx-10-days-polygonum-hydropiper-knotweed</a> (Accessed 13 July 2021). 3. Magic Garden Seeds. <a href="https://www.magicgardenseeds.com/The-Aromatic/Water-Pepper-(Polygonum-hydropiper)-A.POL01-">https://www.magicgardenseeds.com/The-Aromatic/Water-Pepper-(Polygonum-hydropiper)-A.POL01-</a> (Accessed 13 July 2021).
7.03	1. The taxon is a contaminant of crop and seed pastures. 2. Potential seed contaminant. 3. Seed contaminant.	1. CABI. <a href="https://www.cabi.org/isc/datasheet/42688">https://www.cabi.org/isc/datasheet/42688</a> (Accessed 1 July 2021). 2. GRIN. <a href="https://gringlobal.iita.org/gringlobal/taxonomydetail.aspx?id=400981">https://gringlobal.iita.org/gringlobal/taxonomydetail.aspx?id=400981</a> (Accessed 13 July 2021). 3. New Zealand Plant Conservation Network. <a href="https://www.nzpcn.org.nz/flora/species/persicaria-hydropiper/">https://www.nzpcn.org.nz/flora/species/persicaria-hydropiper/</a> (Accessed 13 July 2021).
7.04	1. Taxon is not adapted for wind dispersal.	1. Flora of North America. <a href="http://www.efloras.org/florataxon.aspx?flora_id=1&amp;taxon_id=242100096">http://www.efloras.org/florataxon.aspx?flora_id=1&amp;taxon_id=242100096</a> (Accessed 7 July 2021).
7.05	1. Fruits float in water and are dispersed through irrigation and flood. 2. Probably dispersed by water. 3. Dispersed by water.	1. CABI. <a href="https://www.cabi.org/isc/datasheet/42688">https://www.cabi.org/isc/datasheet/42688</a> (Accessed 1 July 2021). 2. Timson, J. 1966. <i>Polygonum Hydropiper</i> L. <i>Journal of Ecology</i> , 54, 815-821. 3. New Zealand Plant Conservation Network. <a href="https://www.nzpcn.org.nz/flora/species/persicaria-hydropiper/">https://www.nzpcn.org.nz/flora/species/persicaria-hydropiper/</a> (Accessed 7 July 2021).

7.06	1. Seeds are eaten by water fowl. 2. Dispersed by waterfowl.	1. CABI. <a href="https://www.cabi.org/isc/datasheet/42688">https://www.cabi.org/isc/datasheet/42688</a> (Accessed 1 July 2021). 2. Timson, J. 1966. <i>Polygonum Hydropiper</i> L. <i>Journal of Ecology</i> , 54, 815-821. 3. New Zealand Plant Conservation Network. <a href="https://www.nzpcn.org.nz/flora/species/persicaria-hydropiper/">https://www.nzpcn.org.nz/flora/species/persicaria-hydropiper/</a> (Accessed 7 July 2021).
7.07	1. <i>Persicaria</i> "may be carried either externally or internally by water buffalo, pigs, aquatic birds and other wildlife to new water bodies." We found no other evidence.	1. CABI. <a href="https://www.cabi.org/isc/datasheet/42688">https://www.cabi.org/isc/datasheet/42688</a> (Accessed 1 July 2021).
7.08	1. <i>Persicaria</i> "may be carried either externally or internally by water buffalo, pigs, aquatic birds and other wildlife to new water bodies." 2. However, another source suggests that animals do not graze the species, and that "it seems animals learn to avoid it." 3. Not usually grazed by livestock.	1. CABI. <a href="https://www.cabi.org/isc/datasheet/42688">https://www.cabi.org/isc/datasheet/42688</a> (Accessed 1 July 2021). 2. Timson, J. 1966. <i>Polygonum Hydropiper</i> L. <i>Journal of Ecology</i> , 54, 815-821. 3. New Zealand Plant Conservation Network. <a href="https://www.nzpcn.org.nz/flora/species/persicaria-hydropiper/">https://www.nzpcn.org.nz/flora/species/persicaria-hydropiper/</a> (Accessed 7 July 2021).
8.01	1. "Individual plants produce 385-3300 seeds, each weighing 1-2.5 mg (Datta and Banerjee 1973)." Seed production is not well-studied, and this is the only evidence we found.	1. CABI. <a href="https://www.cabi.org/isc/datasheet/42688">https://www.cabi.org/isc/datasheet/42688</a> (Accessed 1 July 2021).
8.02	1. "The species has been shown to form a long-term persistent soil seed bank, with seeds surviving in the soil for 10 years or longer in at least one investigation (maximum longevity 50 years; Thompson et al., 1997)." Seed production is not well-studied, and this is the only evidence we found.	1. Kew Seed Information Database. <a href="https://data.kew.org/sid/SidServlet?ID=17365&amp;Num=jPe">https://data.kew.org/sid/SidServlet?ID=17365&amp;Num=jPe</a> (Accessed 6 July 2021).
8.03	1. Well controlled by herbicides on dryland sites, but literature on wetland sites is lacking. 2. Taxon showed resistance to Atrazine in a cropland in France in 1989. 3. Resistant to triazines.	1. CABI. <a href="https://www.cabi.org/isc/datasheet/42688">https://www.cabi.org/isc/datasheet/42688</a> (Accessed 13 July 2021). 2. Heap, I. The International Herbicide-Resistant Weed Database. <a href="http://www.weedscience.org/Home.aspx">http://www.weedscience.org/Home.aspx</a> (Accessed 13 July 2021). 3. De Prado, R., Jorrín, J., García-Torres, L. 2012. <i>Weed and Crop Resistance to Herbicides</i> . Springer Science & Business Media.
8.04	1. <i>Persicaria hydropiper</i> tolerates a good deal of trampling. We found no other evidence.	1. Timson, J. 1966. <i>Polygonum Hydropiper</i> L. <i>Journal of Ecology</i> , 54, 815-821.
8.05	1. No natural enemies in U.S. have been recorded.	1. CABI. <a href="https://www.cabi.org/isc/datasheet/42688">https://www.cabi.org/isc/datasheet/42688</a> (Accessed 1 July 2021).