

<i>Rubus fruticosus</i> (<i>R. discolor</i>, <i>R. armeniacus</i>, <i>R. procerus</i>, <i>R. macrostemon</i>, <i>R. thyrsanthus</i>)-Himalayan blackberry			
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 US climates (USDA hardiness zones; 0-low, 1-intermediate, 2-high).		2
2.02	Quality of climate match data (0-low; 1-intermediate; 2-high).		2
2.03	Broad climate suitability (environmental versatility).	y	1
2.04	Native or naturalized with mean annual precipitation of 11-60 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	y	4
3.05	Congeneric weed	y	2
4.01	Produces spines, thorns or burrs	y	1
4.02	Allelopathic		
4.03	Parasitic		
4.04	Unpalatable to grazing animals	n	-1
4.05	Toxic to animals	n	0
4.06	Host for recognised pests and pathogens	y	1
4.07	Causes allergies or is otherwise toxic to humans.	n	0
4.08	Creates a fire hazard in natural ecosystems	y	1
4.09	Is a shade tolerant plant at some stage of its life cycle	y	1
4.10	Grows on any soil order representing >5% cover in the US.	y	1
4.11	Climbing or smothering growth habit		
4.12	Forms dense thickets	y	1
5.01	Aquatic	n	0
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		
6.02	Produces viable seed	y	1
6.03	Hybridizes naturally	y	1
6.04	Self-compatible or apomictic	y	1
6.05	Requires specialist pollinators		
6.06	Reproduction by vegetative propagation	y	1
6.07	Minimum generative time (years)		2
7.01	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)		
7.02	Propagules dispersed intentionally by people	y	1
7.03	Propagules likely to disperse as a produce contaminant		
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)	y	1
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	Y	-1
8.04	Tolerates, or benefits from, mutilation or cultivation		
8.05	Effective natural enemies present in the contiguous US and Alaska		

	Total Score	29	
	Implemented Pacific Second Screening	no	
	Risk Assessment Results	Reject	
	Completed 1/7/2014		

	Reference	Source data
1.01		Cultivated, but no evidence of selection for reduced weediness
1.02		Skip to 2.01
1.03		Skip to 2.01
2.01	1. 1.PERAL NAPPFAST Global Plant Hardiness (http://www.nappfast.org/Plant_hardiness/NAPPFAST%20Global%20zones/10a_year%20climate/PLANT_HARDINESS_10YR%20lgnd.tif). 2. Dave's Garden (http://davesgarden.com/guides/pf/go/1982/ [accessed 19 Dec 2013]). 2. Weber (2003) Invasive Plant Species of the World. CABI, Geobotanical Institute, Swiss Fed Inst of Tech, Zurich, Switzerland. Pp. 368-373.	No computer analysis performed. 1. Global hardiness zone 3-10 2. Suitable for USDA zones 3a to 8b 3. Native range well known (British Isles, France, Mediterranean islands)
2.02		No computer analysis performed. Native range well known refer to source data in 2.01.
2.03	1. Köppen-Geiger climate map (http://www.hydrol-earth-syst-sci.net/11/1633/2007/hess-11-1633-2007.pdf). 2. Refer to all references in question 2.01.	1. Distribution in the native and cultivated ranges is very widespread and occurs in more than 3 climatic groups including Aw, Dfa, and Cfa.
2.04	1. Brusse (1998) The biology of blackberry in south-eastern Australia. Plant Protection Quarterly 13:160-162. 2. Global Invasive Species Database (http://www.issg.org/database/species/ecology.asp?si=994 [accessed 19 Dec 2013])	1. In Australia grows in temperate climates with annual rainfall of at least 27.6 inches (700mm) and occurs at any altitude. 2. average annual rainfall greater than 76 cms (30 inches).
2.05	1. Multiple nursery websites (http://www.americanmeadows.com/perennials/berries/blackberry-chester ; http://www.starkbros.com/products/berry-plants/blackberry-plants ; http://www.localharvest.org/blackberries.jsp [accessed 6 Jan 2014]) 2. Invasive Species Compendium (http://www.cabi.org/isc/ [accessed 6 Jan 2014]). 3. USDA Plants Database (http://plants.usda.gov/ accessed 6 Jan 2014).	1. Commercially available on internet from multiple sources. 2. Listed as present and invasive in Japan, S. africa, Australia, New Zealand and present in US, Afghanistan, Turkey by CABI. 3. Listed noxious weed, quarantine, or prohibited in United States, Alabama, California, Florida, and Mass.
3.01	1. Holm, L. et al. (1979) A Geographical Atlas of World Weeds. John Wiley and Sons, New York. 2. Young (1993) Environmental weeds in Tasmania. Proc 10th Austral Weeds Conf and 14th Asian Pac Weed Science Soc 159-161. 3. Auld et al. (2003) Shared exotica: plant invasions of Japan and SE Australia. Cunninghamia 8:147-152. 4. USDA Plants Database (http://plants.usda.gov/ accessed 6 Jan 2014).	1. Principle weed in Australia and New Zealand. Present as a weed in Turkey and the United States. 2. Blackberry listed as weed in native forestry in Tasmania. 3. Invasive in Japan but not as widespread as it is in Australia. 4. Listed noxious weed, quarantine, or prohibited in United States, Alabama, California, Florida, and Mass.
3.02	1. Rubus discolor Weihe & Nees. Himalayan blackberry (www.fs.fed.us/global/iitf/pdf/shrubs/Rubus%20discolor.pdf [accessed 6 Jan 2014])	See source data 3.04 & 3.04. 1. Grows in vacant lots, logging sites, burned areas, along rivers, roads, fences, and railroad tracks.
3.03	1. Amor, Richardson, Pritchard, Bruzese (1998) Rubus fruticosus L. agg. In "The biology of Australian Weeds". Vol 2 eds. Panetta, Groves, Shepard, pp. 225-246. 2. Global Invasive Species Database (http://www.issg.org/database/species/ecology.asp?si=994 [accessed 19 Dec 2013]) 3. Declared plant policy: blackberry (Rubus fruticosus) Government of South Australia (www.pir.sa.gov.au/...policies/declared_plants.../blackberry_policy.pdf [accessed 6 Jan 2014])	1. Problem in pastures and forestry plantations in S. Australia. 2. "Forms impenetrable thickets in wastelands, pastures, shrublands, and forest plantations." 3. A weed of agriculture in South Australia.

3.04	1. Invasive Species Compendium (http://www.cabi.org/isc/ [accessed 6 Jan 2014]). 2. Balandier et al (2013) Architecture, cover and light interception by bramble (<i>Rubus fruticosus</i>): a common understory weed in temperate forests. <i>Forestry</i> 86:39-46. 3. Hoshovsky (2000) <i>Rubus discolor</i> Weihe & Nees. In <i>Invasive Plants of California's Wildlands</i> . Bossard et al. eds. Berkley, Los Angeles, London: Univ of Cali Press p277-281.	1. Competes aggressively with native species and can exclude and/or replace natives. Also, soil erosion occurs around the root mass resulting in increased sedimentation in watercourses (and spreading seeds). 2. Able to tolerate deep shade in forest understory impacting tree regeneration including oaks, beech, and Douglas fir by crowding out/excluding and/or competing for water and nutrients. 3. Dense thickets reduce native species by shading out natives and limit mammal movement.
3.05	1. Holm, L. et al. (1979) <i>A Geographical Atlas of World Weeds</i> . John Wiley and Sons, New York. 2. Pest Notes: Wild Blackberries. University of California Publication 7434 (http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7434.html [accessed 6 Jan 2014])	1. Multiple congeners listed as principle weeds and/or present as weed globally (including the United States). 2. Four species of <i>Rubus</i> considered weeds in California <i>R. laciniatus</i> , <i>R. discolor</i> (<i>fruticosus</i>), <i>R. parviflorus</i> (native), and <i>R. ursinus</i> (native)
4.01	1. PIER (http://www.hear.org/pier/species/rubus_discolor.htm [accessed 19 Dec 2013]). 2. Global Invasive Species Database (http://www.issg.org/database/species/ecology.asp?si=994 [accessed 19 Dec 2013])	1. Has straight or somewhat curved prickles 6-10 mm long. 2. "Thorny stems" "prickly canes".
4.02		No evidence
4.03		No evidence
4.04	1. Forsyth and Davis (2011) Diets of non-native deer in Australia estimated by macroscopic versus microhistological rumen analysis. <i>J Wildlife Manag</i> 75:1488-1497. 2. McEvoy et al. (2005) The effects of livestock grazing on ground flora in broadleaf woodlands in Northern Ireland. <i>Forest Ecol Manage</i> 225:39-50. 3. Tirmenstein (1989) <i>Rubus discolor</i> . In: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory, Fire Effects Information System. http://www.fs.fed.us/database/feis/plants/shurb/rubdis/all.html . 15 p.	1. Seeds of <i>R. fruticosus</i> detected (sometimes in large quantities) in rumen of deer in Australia. 2. Grazed woods in native range had less <i>R. fruticosus</i> . 3. deer, elk, rabbits, porcupines, beavers, and mountain beavers consume leaves, buds, twigs, and cambium, especially during the winter months. A large number of species consume the fruits and a number rely on the thickets of stems for escape and reproductive cover
4.05		1. See source data in 4.04
4.06	1. Cheon et al. (2013) First report of cane and leaf rust on <i>Rubus fruticosus</i> caused by <i>Kuehneola uredinis</i> in Korea. <i>Plant Disease</i> 97:1115. 2. Bobev, et al. (2013) First report of <i>Candidatus Phytoplasma solani</i> on blackberry (<i>Rubus fruticosus</i>) in Bulgaria. <i>Plant Disease</i> 97:282. 3. Morin et al. (2013) Invaded range of the blackberry pathogen <i>Phragmidium violaceum</i> in the Pacific Northwest of the USA and the search for its provenance. <i>Biol Inv</i> 15:1847-1861. 4. Rajaguru and Shaw (2010) Genetic differentiation between hosts and locations in populations of latent <i>Botrytis cinerea</i> in southern England. <i>Plant Path</i> 59:1081-1090. 5. Kuzmanovic et al. (2011) Detection of <i>Stolbur</i> phytoplasma on blackberry-a new natural host in Serbia. <i>Genetika-Belgrade</i> 43:559-568 (citing abstract). 6. Nordskog et al. (2003) Fungi occurring on aerial constituents of cultivated blackberry (<i>Rubus fruticosus</i> L.) in Norway. <i>Acta Agric Scand</i> Sect B 53:21-28 (citing abstract). 7. Reeder et al. (2010) ' <i>Candidatus Phytoplasma asteris</i> ' identified in blackberry (<i>Rubus fruticosus</i> agg.) in the United Kingdom. <i>Plant Path</i> 59:394. 8. Rebollar-Alviter et al. (2012) Fungicide spray programs to manage downy mildew (dryberry) of blackberry caused by <i>Peronospora sparsa</i> . <i>Crop Protection</i> 42:49-55. 9. Pest Notes: Wild Blackberries. University of California Publication 7434 (http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7434.html [accessed 6 Jan 2014])	1. Cane and leaf rust (<i>Kuehneola uredinis</i>) observed on <i>R. fruticosus</i> in Andong, Korea affecting 90% of leaves on several plants. 2. Severe stunting of single or grouped plants observed in Plovdiv, Bulgaria identified as <i>Candidatus Phytoplasma solani</i> and is not considered likely to be an isolated case/expected to spread to other hosts. 3. <i>Phragmidium violaceum</i> (rust fungus) widespread on taxa belonging to the <i>Rubus fruticosus</i> aggregate in the Pacific Northwest causing widespread damage on nearly all commercial plantings of blackberry cultivars. 4. <i>R. fruticosus</i> is a host for <i>Botrytis cinerea</i> causing a grey mold leading to substantial losses in numerous crops. This study took place in Southern England. 5. severe phytoplasma-like disease observed in <i>R. fruticosus</i> plants at three locations in central Serbia. 6. Recently introduced cultivated <i>R. fruticosus</i> (in Norway) had severe die-back and leaf/stem damage. Survey indicated there were 12 pathogenic fungi identified in 18 cultivars including <i>Botrytis cinerea</i> , <i>Gnomonia rubi</i> , and <i>Coniothyrium fuckelii</i> . 7. <i>R. fruticosus</i> found along roadside in UK displayed witches brooming caused by ' <i>Candidatus Phytoplasma asteris</i> '. 8. Downey mildew caused by <i>Peronospora sparsa</i> is a major disease of blackberry in Mexico. 9. Vector for Pierce's disease to other ag and non-ag areas.

4.07		No evidence
4.08	1. Global Invasive Species Database (http://www.issg.org/database/species/ecology.asp?si=994 [accessed 19 Dec 2013]) 2. Bruzese (1998) The biology of blackberry in southeastern Australia. Plant Protection Quarter 13:160-162. 3. Ainsworth and Mahr (2006) "Regrowth of blackberry two years after the 2003 wildfires" in 5th Australian Weeds Conference proceedings: managing weeds in a changing climate Preston et al. eds., Victoria in Weed Management Society of SA. pp211-214.	1. Dense thickets and litter buildup can cause potential fire hazards. 2. Because <i>R. fruticosus</i> has a biennial growth habit, there is much dead biomass from previous years resulting in increases in fuels for fire. 3. Even with high fire intensities, some blackberry always survived to produce new stems the following growing season."
4.09	1. Balandier et al (2013) Architecture, cover and light interception by bramble (<i>Rubus fruticosus</i>): a common understory weed in temperate forests. Forestry 86:39-46. 2. Balkan Ecology Project (http://www.balkep.org/ [accessed 19 Dec 2013]). 3. Caplan and Yeakley (2006) <i>Rubus armeniacus</i> (Himalayan blackberry) occurrence and growth in relation to soil and light conditions in Western Oregon. Northwest Sci 80:9-17. 4. Amor and Stephens (1976) Spread of weeds from roadsides into sclerophyll forest at Dartmore, Australia. Weed Research 16:111-118.	1. Bramble present in understory with canopy openness of only 5-7% indicating <i>R. fruticosus</i> can tolerate deep shade. 2. Can grow in full shade, semi shade, or no shade. 3. Present under open to nearly closed canopies (0-88% canopy cover). 4. Where native vegetation produces sufficient shade it may exclude blackberry.
4.10	1. Balkan Ecology Project (http://www.balkep.org/ [accessed 19 Dec 2013]) 2. Bernard and Brown (1977) Distribution of mammals, reptiles, and amphibians by BLM physiographic regions and A.W. Kuchler's associations for the eleven western states. Tech. Note 301. Denver, CO: U.S. Department of the Interior, Bureau of Land Management. 169 p. 3. Core (1974) Brambles. In: Gill and Healy, compilers. Shrubs and vines for Northeastern wildlife. Gen. Tech. Rep. NE-9. Broomall, PA: U.S. Department of Agriculture, Forest Service:16-19.	1. Soil pH acid, neutral-basic alkaline, can grow in very acid and very alkaline soils. Suitable for light (sandy), medium (loamy), and heavy (clay) soils. 2. Blackberries grow well on a variety of barren, infertile soil types. 3. These shrubs tolerate a wide range of soil pH and texture, but do require adequate soil moisture
4.11		No evidence
4.12	1. Global Invasive Species Database (http://www.issg.org/database/species/ecology.asp?si=994 [accessed 19 Dec 2013]) 2. Declared plant policy: blackberry (<i>Rubus fruticosus</i>) Government of South Australia (www.pir.sa.gov.au/...policies/declared_plants.../blackberry_policy.pdf [accessed 6 Jan 2014]) 3. Starr et al. (2003) <i>Rubus discolor</i> . (http://www.hear.org/Pier/pdf/pohreports/rubus_discolor.pdf . [accessed 6 Jan 2014])	1. "Forms impenetrable thickets in wastelands, pastures, shrublands, and forest plantations." 2. Forms dense thickets in forested gullies, on roadsides and along creeks. 3. Brambling vine that bears sharp prickles and forms impenetrable thickets.
5.01		
5.02		
5.03		
5.04		
6.01		No evidence
6.02	1. Pest Notes: Wild Blackberries. University of California Publication 7434 (http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7434.html [accessed 6 Jan 2014])	See source data 6.04, 6.07, 8.01, 8.02 1. viable seeds are spread from one area to another and hard seed coat and can remain dormant for an extended period of time.

6.03	1. Himalayan blackberry. <i>Rubus discolor</i> Weihe & Nees 2005. (www.uaf.edu/ces/ipm/profiles/RUDI.pdf [accessed 6 Jan 2014]) 2. Tirmenstein (1989) <i>Rubus discolor</i> . In: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory, Fire Effects Information System. http://www.fs.fed.us/database/feis/plants/shurb/rubdis/all.html . 15 p.	1. Reported to hybridize with numerous <i>Rubus</i> species 2. Himalayan blackberry hybridizes with <i>R. thyriger</i> , <i>R. calvatus</i> , and <i>R. schlehtendalii</i>
6.04	1. Balkan Ecology Project (http://www.balkep.org/ [accessed 19 Dec 2013]) 2. Pest Notes: Wild Blackberries. University of California Publication 7434 (http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7434.html [accessed 6 Jan 2014])	1. <i>R. fruticosus</i> is self fertile. 2. Bees are the primary pollinators, but the flowers can also be self-pollinated (crossing increases fruit set).
6.05		No evidence
6.06	1. Pest Notes: Wild Blackberries. University of California Publication 7434 (http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7434.html [accessed 6 Jan 2014]) 2. Willoughby and Davilla (1984) Plant species composition and life form spectra of tidal streambanks and adjacent riparian woodlands along the lower Sacramento River. In: Warner and Hendrix eds. California riparian systems: Ecology, conservation, and productive management: Proceedings of a conference; 1981 September 17-19; Davis, CA. Berkeley, CA: University of California Press: 642-651.	1. Expansion of established thicket is "almost always the result of vegetative growth from rhizomes." 2. capable of extensive and vigorous vegetative regeneration.
6.07	1. Balkan Ecology Project (http://www.balkep.org/ [accessed 19 Dec 2013]) 2. Tirmenstein (1989) <i>Rubus discolor</i> . In: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory, Fire Effects Information System. http://www.fs.fed.us/database/feis/plants/shurb/rubdis/all.html . 15 p.	1. Years to bearing fruit :2-3 years. 2. Biennial and second year canes bear fruit
7.01	1. Alston and Richardson (2006) The roles of habitat features, disturbance, and distance from putative source populations in structuring alien plant invasions at the urban/wildland interface on the Cape Peninsula, South Africa. <i>Biol Cons</i> 132:183-198. 2. River (2008) Best practice management guide for environmental weeds: Blackberry, <i>Rubus fruticosus</i> aggregate. CRC for Australian Weed Mangement. (www.weeds.org.au/WoNS/blackberry/docs/Blackberry_BPMG.pdf [accessed 6 Jan 2014])	1. "widespread weed species (e.g. <i>Hypochaeris radicata</i> , <i>Plantago lanceolata</i> , <i>Rubus fruticosus</i> , <i>Taraxacum officinale</i>) that are not cultivated as ornamentals and which were probably introduced with road material, or by hikers or in horse dung" 2. Seeds can also be spread in contaminated soil.
7.02	1. Starr et al. (2003) <i>Rubus discolor</i> . (http://www.hear.org/Pier/pdf/pohreports/rubus_discolor.pdf . [accessed 6 Jan 2014])	<i>R. fruticosus</i> is widely cultivated 1. Spreads rapidly from plantings. Humans transport the plant long distances for use as ornamental or for harvest.
7.03		No evidence
7.04		No evidence
7.05	1. Hoshovsky (2000) <i>Rubus discolor</i> Weihe & Nees. In <i>Invasive Plants of California's Wildlands</i> . Bossard et al. eds. Berkeley, Los Angeles, London: Univ of Cali Press p277-281.	1. seeds can be dispersed considerable distances by streams and rivers.

7.06	<p>1. Francis ed. (2009) Wildland Shrubs of the United States and its Territories :Thamnic Descriptions General Technical Report IITF-WB-1. USDA, Forest Service International Institute of Tropical Forestry and Shrub Sciences Laboratory (online resource [accessed 23 Dec 2013]) 2. Declared plant policy: blackberry (<i>Rubus fruticosus</i>) Government of South Australia (www.pir.sa.gov.au/...policies/declared_plants.../blackberry_policy.pdf) [accessed 6 Jan 2014]) 3. Starr et al. (2003) <i>Rubus discolor</i>. (http://www.hear.org/Pier/pdf/pohreports/rubus_discolor.pdf. [accessed 6 Jan 2014])</p>	<p>1. Seeds are dispersed by birds and mammals as well as by gravity. 2. "new infestations can start from seeds which are spread by birds and mammals." 3. Spread is facilitated by fruit eating birds and mammals.</p>
7.07		No evidence
7.08	<p>1. Francis ed. (2009) Wildland Shrubs of the United States and its Territories :Thamnic Descriptions General Technical Report IITF-WB-1. USDA, Forest Service International Institute of Tropical Forestry and Shrub Sciences Laboratory (online resource [accessed 23 Dec 2013]) 2. Forsyth and Davis (2011) Diets of non-native deer in Australia estimated by macroscopic versus microhistological rumen analysis. <i>J Wildlife Manag</i> 75:1488-1497. 3. Declared plant policy: blackberry (<i>Rubus fruticosus</i>) Government of South Australia (www.pir.sa.gov.au/...policies/declared_plants.../blackberry_policy.pdf) [accessed 6 Jan 2014]) 4. Starr et al. (2003) <i>Rubus discolor</i>. (http://www.hear.org/Pier/pdf/pohreports/rubus_discolor.pdf. [accessed 6 Jan 2014])</p>	<p>1. Seeds are dispersed by birds and mammals as well as by gravity. 2. Seeds of <i>R. fruticosus</i> detected (sometimes in large quantities) in rumen of deer in Australia. 3. "new infestations can start from seeds which are spread by birds and mammals." 4. Spread is facilitated by fruit eating birds and mammals.</p>
8.01	<p>1. Amor (1974) Ecology and control of blackberry (<i>Rubus fruticosus</i> L. agg.) II. Reproduction. <i>Weed Res</i> 14:213-238. 2. McDowell and Turner (2002) Reproductive effort in invasive and non-invasive <i>Rubus</i>. <i>Oecologia</i> 133:102-111. 3. Tirmenstein (1989) <i>Rubus discolor</i>. In: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory, Fire Effects Information System. http://www.fs.fed.us/database/feis/plants/shurb/rubdis/all.html. 15 p.</p>	<p>1. Thicket can produce 7000-13000 seeds per square meter. 2. Invasive <i>R. discolor</i> (<i>fruticosus</i>) invested more resources to reproduction than a native congener with increases in fruit number and fruit biomass relative to size (1.80 g fruit/ g total biomass compared to <i>R. ursinus</i> at 0.87 g/g). 3. There are 324,000 cleaned seeds/kg. 4. Each berry may contain as many as 80 seeds.</p>
8.02	<p>1. Brinkman (1974) <i>Rubus</i>. In: Seeds of Woody Plants in the US. Eds. Schopmeyer. US Agriculture Handbook No. 450. 2. Pest Notes: Wild Blackberries. University of California Publication 7434 (http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7434.html [accessed 6 Jan 2014]) 3. Bernard and Brown (1977) Distribution of mammals, reptiles, and amphibians by BLM physiographic regions and A.W. Kuchler's associations for the eleven western states. Tech. Note 301. Denver, CO: U.S. Department of the Interior, Bureau of Land Management. 169 p. 4. River (2008) Best practice management guide for environmental weeds: Blackberry, <i>Rubus fruticosus</i> aggregate. CRC for Australian Weed Management. (www.weeds.org.au/WoNS/blackberry/docs/Blackberry_BPMG.pdf) [accessed 6 Jan 2014])</p>	<p>1. Seeds can remain dormant for several years. 2. Hard seed coat and can remain dormant for an extended period of time. 3. Seeds of most blackberries can remain viable when stored in the soil for a period of at least several years</p>

8.03	<p>1. Peachey, E., editor. 2013. Pacific Northwest Weed Management Handbook [online]. Corvallis, OR: Oregon State University. http://pnwhandbooks.org/weed (accessed 31 July 2013). 2. Parsons and Amor (1968) Comparison of herbicides and times of spraying for the control of blackberry (<i>Rubus fruticosus</i>). <i>Aust J Exp Ag Anim Husb</i> 8:238-243. 3. Ferrell et al. (2009) Influence of herbicide and application timing on blackberry control. <i>Weed Tach</i> 23:531-534. 4. Willoughby et al. (2013) Triclopyr applied in the winter dormant season can give effective control of bramble (<i>Rubus fruticosus</i> L. agg.) without damaging young tree seedlings or other non-target vegetation.</p>	<p>1. Controlled by glyphosate (with possible re-treatment), metsulfuron, picloram, or triclopyr ester. 2. Several treatments resulted in up to 90% kill with Picloram and amitrole T as the most effective treatments. 3. Pyridine herbicides provided best control when applied in the fall with 83% control 12 mo after application (65% control when applied in the spring). 4. Dormant season application of 0.96 kg/ha triclopyr in water effectively controlled bramble while leaving the dormant seedlings of oak, beech, ash, birch, etc. unharmed.</p>
8.04	<p>1. Pest Notes: Wild Blackberries. University of California Publication 7434 (http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7434.html [accessed 6 Jan 2014])</p>	<p>Unknown if it benefits plant, however <i>Rubus</i> is able to regenerate after mowing, burning, or herbicide treatment.</p>
8.05		<p>No evidence</p>