

Family: Aquifoliaceae

Taxon: *Ilex aquifolium*

Synonym: *Ilex aquifolium* f. *bacciflava* (Weston) Rehder **Common Name:** English holly
Ilex aquifolium f. *ferox* (Aiton) C. K. Schneid. holly
Ilex aquifolium f. *heterophylla* (Aiton) Loes.
Ilex aquifolium f. *integrifolia* Nolte ex Loes.
Ilex aquifolium f. *pendula* (Loudon) Schelle

Questionnaire : current 20090513 **Assessor:** Patti Clifford **Designation:** H(HPWRA)
Status: Assessor Approved **Data Entry Person:** Patti Clifford **WRA Score** 17

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)	n
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	y
402	Allelopathic	y=1, n=0	
403	Parasitic	y=1, n=0	n
404	Unpalatable to grazing animals	y=1, n=-1	n
405	Toxic to animals	y=1, n=0	n
406	Host for recognized pests and pathogens	y=1, n=0	n
407	Causes allergies or is otherwise toxic to humans	y=1, n=0	y
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	n
412	Forms dense thickets	y=1, n=0	y
501	Aquatic	y=5, n=0	n
502	Grass	y=1, n=0	n
503	Nitrogen fixing woody plant	y=1, n=0	n
504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	y=1, n=0	n
601	Evidence of substantial reproductive failure in native habitat	y=1, n=0	n
602	Produces viable seed	y=1, n=-1	y
603	Hybridizes naturally	y=1, n=-1	
604	Self-compatible or apomictic	y=1, n=-1	n
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	>3
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	y=1, n=-1	n
702	Propagules dispersed intentionally by people	y=1, n=-1	y
703	Propagules likely to disperse as a produce contaminant	y=1, n=-1	
704	Propagules adapted to wind dispersal	y=1, n=-1	n
705	Propagules water dispersed	y=1, n=-1	
706	Propagules bird dispersed	y=1, n=-1	y
707	Propagules dispersed by other animals (externally)	y=1, n=-1	n
708	Propagules survive passage through the gut	y=1, n=-1	y
801	Prolific seed production (>1000/m2)	y=1, n=-1	y
802	Evidence that a persistent propagule bank is formed (>1 yr)	y=1, n=-1	y
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 17

Supporting Data:

101	2012. WRA Specialist. Personal Communication.	[Is the species highly domesticated? No] No evidence of domestication that reduces invasive traits.
102	2012. WRA Specialist. Personal Communication.	[Has the species become naturalized where grown? NA]
103	2012. WRA Specialist. Personal Communication.	[Does the species have weedy races? NA]
201	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical? 2 - high] Native distribution: Algeria; Morocco; Tunisia; Iran; Syria; Turkey; United Kingdom; Albania; Bulgaria; Former Yugoslavia; France; Portugal; Spain.
202	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Quality of climate match data? 2 - high] Native distribution: Algeria; Morocco; Tunisia; Iran; Syria; Turkey; United Kingdom; Albania; Bulgaria; Former Yugoslavia; France; Portugal; Spain.
203	1967. Peterken, G.F./Lloyd, P.S.. <i>Ilex aquifolium</i> L.. <i>Journal of Ecology</i> . 55: 841-858.	[Broad climate suitability (environmental versatility)? Yes] "In Britain it ranges from sea-level to 1600 ft (490 m) in Wales, 1650 ft (500 m) in Derby- shire, 1700 ft (520 m) in Argyll, and 1800 ft (550 m) on Mangerton Mountain (Comit. Fl.). Reaches 1400 m in France (Bonnier 1912-34); ranges between 400 and 1500 m in the Alps (Rikli 1946). Around the Mediterranean it is confined to the mountains; reaches 1900 m in the Caucasus; found between 1500 and 2300 m in the Atlas mountains."
204	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Native or naturalized in regions with tropical or subtropical climates? Yes] Native distribution: Algeria; Morocco; Tunisia; Iran; Syria; Turkey; United Kingdom; Albania; Bulgaria; Former Yugoslavia; France; Portugal; Spain.
205	1999. Wagner, W.L./Herbst, D.R./Sohmer, S.H.. <i>Manual of the flowering plants of Hawaii</i> . Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Does the species have a history of repeated introductions outside its natural range? Yes] Widely cultivated.
205	2012. Cal-IPC. Invasive plant management - plant profiles - <i>Ilex aquifolium</i> . http://www.cal-ipc.org/ip/management/plant_profiles/Ilex_aquifolium.php	[Does the species have a history of repeated introductions outside its natural range? Yes] Widely cultivated as an ornamental for landscaping.
301	2008. The Bishop Museum. Native and naturalized flowering plants of Hawaii - main Hawaiian Islands. The Bishop Museum, http://www.bishopmuseum.org/research/natsci/botany/dbandkeys/Main%20Islands%20Report.pdf	[Naturalized beyond native range? Yes] Naturalized on the islands of Maui and Hawaii.
301	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Naturalized beyond native range? Yes] Naturalized in: Australia; New Zealand; United States [w.], Hawaii.
302	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Garden/amenity/disturbance weed? No] Scored as an environmental weed.
303	2012. WRA Specialist. Personal Communication.	[Agricultural/forestry/horticultural weed? No] No evidence.
304	2006. California Invasive Plant Council. California Invasive Plant Inventory - Cal-IPC Publication 2006-02. California Invasive Plant Council, Berkeley, CA http://www.cal-ipc.org	[Environmental weed? Yes] <i>Ilex aquifolium</i> is considered to be a moderate invasive in California wildlands.
304	2010. Nawrocki, T.. English holly - <i>Ilex aquifolium</i> . Alaska Natural Heritage Program University of Alaska, Anchorage	[Environmental weed? Yes] "English holly invades undisturbed forests in the Pacific Northwest, and it has escaped cultivation and become invasive in moist, coastal forests in California. This species is considered one of the ten most invasive garden plants for sale in Tasmania. It invades bushland areas and threatens native species in several regions of Australia. English holly is known to form pure stands in its native range. Because this species is a tall shrub, it often shades out native vegetation and suppresses the germination and growth of native trees and shrubs."

305	2012. Fine Gardening. Plant guide - Ilex crenata (Japanese holly). Fine gardening, http://www.finegardening.com/plantguide/ilex-crenata-japanese-holly.aspx	[Congeneric weed? Yes] Ilex crenata is invasive.
305	2012. The University of Tennessee Institute of Agriculture. Horticultural species to be assessed by Department of Agriculture as invasive. University of Tennessee, http://eppserver.ag.utk.edu/Extension/invasives/plants/other.html	[Congeneric weed? Yes] Ilex crenata is considered an invasive weed in Tennessee.
401	2010. Nawrocki, T.. English holly - Ilex aquifolium. Alaska Natural Heritage Program University of Alaska, Anchorage	[Produces spines, thorns or burrs? Yes] "Leaves are alternate, petiolated, ovate to oblong, entire or lobed, leathery, and 2.5 to 6 cm long with glossy, dark green upper surfaces and spine-like teeth."
402	2012. WRA Specialist. Personal Communication.	[Allelopathic? Unknown]
403	1999. Wagner, W.L./Herbst, D.R./Sohmer, S.H.. Manual of the flowering plants of Hawaii. Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Parasitic? No] Aquifoliaceae.
404	1967. Peterken, G.F./Lloyd, P.S.. Ilex aquifolium L.. Journal of Ecology. 55: 841-858.	[Unpalatable to grazing animals? No] Sheep are fond of browsing the leaves of Ilex. It has been used as fodder for sheep and cattle.
405	1967. Peterken, G.F./Lloyd, P.S.. Ilex aquifolium L.. Journal of Ecology. 55: 841-858.	[Toxic to animals? No] Sheep are fond of browsing Ilex. It is used as fodder for cattle and sheep.
406	2012. Anonymous. Holly - Ilex aquifolium.	[Host for recognized pests and pathogens? No] "Insects are the main pest in holly and include: aphids, brown soft scale, cottony camellia scale, holly bud moth and holly leaf miner. When compared to other woody landscape pests, holly has relatively few serious diseases. Most diseases are more damaging in the nursery than in landscapes. Cylindrocladium leaf spot, botryosphaeria canker, and pythium and pytophthora root rots are the main diseases that affect holly. Root rots are most prevalent in nurseries and occur in poorly drained potting mediums."
407	1967. Peterken, G.F./Lloyd, P.S.. Ilex aquifolium L.. Journal of Ecology. 55: 841-858.	[Causes allergies or is otherwise toxic to humans?] Ilex aquifolium is used for a variety of purposes. Its berries and leaves are used as a medicinal. It is used as a hedge, Christmas decoration and for timber.
407	2012. Anonymous. Holly - Ilex aquifolium.	[Causes allergies or is otherwise toxic to humans? Yes] The berries are mildly toxic to people.
407	2012. Plants for a Future Database. Ilex aquifolium. http://www.pfaf.org/user/Plant.aspx?LatinName=Ilex+aquifolium	[Causes allergies or is otherwise toxic to humans? Yes] The berries are toxic, especially to children, and should not be used medicinally except under professional supervision.
408	1967. Peterken, G.F./Lloyd, P.S.. Ilex aquifolium L.. Journal of Ecology. 55: 841-858.	[Creates a fire hazard in natural ecosystems? No] "Holly shows a sensitivity to fire which may kill the stem of larger trees, but in less extreme cases may only cause superficial injury. This sensitivity is attributed by Turner & Watt (1939) to its thin bark. After such damage established individuals regenerate vigorously from the rootstock, which is rarely harmed, to produce a multistemmed structure characteristic, for example, of much younger scrub in the New Forest."
409	1967. Peterken, G.F./Lloyd, P.S.. Ilex aquifolium L.. Journal of Ecology. 55: 841-858.	[Is a shade tolerant plant at some stage of its life cycle? Yes] "Understory individuals shaded by a closed canopy cease active height growth at about 10 m (below oak) or as low as 5 m (below beech)."
409	2012. Plants for a Future Database. Ilex aquifolium. http://www.pfaf.org/user/Plant.aspx?LatinName=Ilex+aquifolium	[Is a shade tolerant plant at some stage of its life cycle? Yes] Ilex can grow in full shade, a little shade or no shade.
410	1967. Peterken, G.F./Lloyd, P.S.. Ilex aquifolium L.. Journal of Ecology. 55: 841-858.	[Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)? Yes] Substratum. Holly grows on a wide variety of soils from acid heath podsols to chalk soils or crevices in limestone rocks.
410	2012. Plants for a Future Database. Ilex aquifolium. http://www.pfaf.org/user/Plant.aspx?LatinName=Ilex+aquifolium	[Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)? Yes] Succeeds in most soils, including peat, chalk, gravels, sand and shales, so long as they are not water-logged, though wild plants are occasionally found in situations with standing winter water. Grows well in heavy clay soils.

411	1999. Wagner, W.L./Herbst, D.R./Sohmer, S.H.. Manual of the flowering plants of Hawaii. Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Climbing or smothering growth habit? No] Evergreen shrubs or small trees 2- 10 m tall.
412	2012. Hawkesbury-Nepean Catchment Management Authority. Fact Sheet holly (Ilex aquifolium). Australian Government,	[Forms dense thickets? Yes] Ilex forms very dense impenetrable clumps or thickets.
501	1999. Wagner, W.L./Herbst, D.R./Sohmer, S.H.. Manual of the flowering plants of Hawaii. Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Aquatic? No] Shrub or small tree; terrestrial.
502	1999. Wagner, W.L./Herbst, D.R./Sohmer, S.H.. Manual of the flowering plants of Hawaii. Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Grass? No] Aquifoliaceae; shrub or small tree.
503	1999. Wagner, W.L./Herbst, D.R./Sohmer, S.H.. Manual of the flowering plants of Hawaii. Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Nitrogen fixing woody plant? No] Aquifoliaceae.
504	1999. Wagner, W.L./Herbst, D.R./Sohmer, S.H.. Manual of the flowering plants of Hawaii. Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] Woody; shrub or small tree.
601	2012. WRA Specialist. Personal Communication.	[Evidence of substantial reproductive failure in native habitat? No]
602	1967. Peterken, G.F./Lloyd, P.S.. Ilex aquifolium L.. Journal of Ecology. 55: 841-858.	[Produces viable seed? Yes] Reproduces by seed or suckering.
602	2010. Nawrocki, T.. English holly - Ilex aquifolium. Alaska Natural Heritage Program University of Alaska, Anchorage	[Produces viable seed? Yes] "Seeds can germinate in undisturbed coastal forests, woodlands, and riparian areas in California and the Pacific Northwest. They also germinate in gardens, cultivated land, and disturbed areas."
603	1967. Peterken, G.F./Lloyd, P.S.. Ilex aquifolium L.. Journal of Ecology. 55: 841-858.	[Hybridizes naturally? No] No hybrids are naturally occurring in Britain.
604	1967. Peterken, G.F./Lloyd, P.S.. Ilex aquifolium L.. Journal of Ecology. 55: 841-858.	[Self-compatible or apomictic? No] Dioecious species.
605	1967. Peterken, G.F./Lloyd, P.S.. Ilex aquifolium L.. Journal of Ecology. 55: 841-858.	[Requires specialist pollinators? No] "Apis mellifera L. is the commonest insect visitor, but the following bees have been observed in southern England (O. W. Richards): Andrena wilkella Kby. (Andrenidae), Osmia rufa L. (Megachilidae) and Bombus lucorum L. (Apidae). B. lucorum and syrphid flies have been seen at the flowers in northern England."
605	2010. Nawrocki, T.. English holly - Ilex aquifolium. Alaska Natural Heritage Program University of Alaska, Anchorage	[Requires specialist pollinators? No] Flowers are pollinated by bees.
606	2010. Nawrocki, T.. English holly - Ilex aquifolium. Alaska Natural Heritage Program University of Alaska, Anchorage	[Reproduction by vegetative fragmentation? Yes] "English holly is also capable of vegetative reproduction. Low-hanging branches can root if in contact with the soil or covered by leaf litter, leafy twigs broken off the parent plant can form roots if covered by moist litter, and new plants can sprout from the horizontal roots of parent plants."
606	2012. Hawkesbury-Nepean Catchment Management Authority. Fact Sheet holly (Ilex aquifolium). Australian Government,	[Reproduction by vegetative fragmentation? Yes] Ilex also spreads by suckering.
607	1967. Peterken, G.F./Lloyd, P.S.. Ilex aquifolium L.. Journal of Ecology. 55: 841-858.	[Minimum generative time (years)? 4+] Individuals may produce flowers by their 10th year.
607	2012. Cal-IPC. Invasive plant management - plant profiles - Ilex aquifolium. http://www.cal-ipc.org/ip/management/plant_profiles/Ilex_aquifolium.php	[Minimum generative time (years)? 4+] Plants start producing seeds 5-12 years after germination.
701	2012. WRA Specialist. Personal Communication.	[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)? No] No evidence of accidental dispersal.
702	1999. Wagner, W.L./Herbst, D.R./Sohmer, S.H.. Manual of the flowering plants of Hawaii. Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Propagules dispersed intentionally by people? Yes] Widely cultivated, occasionally in Hawaii.

702	2010. Nawrocki, T.. English holly - <i>Ilex aquifolium</i> . Alaska Natural Heritage Program University of Alaska, Anchorage	[Propagules dispersed intentionally by people? Yes] English holly is commonly cultivated, and many different varieties have been developed. This species is grown commercially in the Pacific Northwest for sale as Christmas decorations.
702	2012. Cal-IPC. Invasive plant management - plant profiles - <i>Ilex aquifolium</i> . http://www.cal-ipc.org/ip/management/plant_profiles/Ilex_aquifolium.php	[Propagules dispersed intentionally by people? Yes] Commonly sold as an ornamental plant used for landscaping and Christmas decorations.
703	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Propagules likely to disperse as a produce contaminant?] Possible seed contaminant.
704	1999. Wagner, W.L./Herbst, D.R./Sohmer, S.H.. Manual of the flowering plants of Hawaii. Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Propagules adapted to wind dispersal? No] Fruit is a berry.
705	2012. WRA Specialist. Personal Communication.	[Propagules water dispersed? Unknown]
706	1967. Peterken, G.F./Lloyd, P.S.. <i>Ilex aquifolium</i> L.. <i>Journal of Ecology</i> . 55: 841-858.	[Propagules bird dispersed? Yes] Seeds are dispersed by birds.
706	2010. Nawrocki, T.. English holly - <i>Ilex aquifolium</i> . Alaska Natural Heritage Program University of Alaska, Anchorage	[Propagules bird dispersed? Yes] Seeds are primarily dispersed by birds after being ingested. Small mammals, such as foxes, occasionally ingest and disperse seeds.
706	2012. Hawkesbury-Nepean Catchment Management Authority. Fact Sheet holly (<i>Ilex aquifolium</i>). Australian Government,	[Propagules bird dispersed? Yes] Birds feed on the berries and disperse the seeds.
707	1967. Peterken, G.F./Lloyd, P.S.. <i>Ilex aquifolium</i> L.. <i>Journal of Ecology</i> . 55: 841-858.	[Propagules dispersed by other animals (externally)? No] Fruit a berry. [no means of external attachment]
708	1967. Peterken, G.F./Lloyd, P.S.. <i>Ilex aquifolium</i> L.. <i>Journal of Ecology</i> . 55: 841-858.	[Propagules survive passage through the gut? Yes] Seeds are dispersed by birds.
708	2012. Hawkesbury-Nepean Catchment Management Authority. Fact Sheet holly (<i>Ilex aquifolium</i>). Australian Government,	[Propagules survive passage through the gut? Yes] Birds feed on berries and disperse the seed.
801	2010. Nawrocki, T.. English holly - <i>Ilex aquifolium</i> . Alaska Natural Heritage Program University of Alaska, Anchorage	[Prolific seed production (>1000/m ²)? Yes] Mature plants can produce 120,000 seeds per year.
801	2012. Hawkesbury-Nepean Catchment Management Authority. Fact Sheet holly (<i>Ilex aquifolium</i>). Australian Government,	[Prolific seed production (>1000/m ²)? Yes] Seed production and dispersal: "Each berry contains up to four seeds; samples of twenty-six to thirty-two berries examined in the New Forest in September 1965 had averages of 3.4 - 3.9 seeds per berry, and samples of over 170 berries from northern England had 3.4 - 3.6. Each fertile twig on a tree may bear up to fifty berries. One tree standing alone, 15 ft (4.7 m) high and 12 ft (3.7 m) crown diameter, was estimated in June 1965 to bear 30,000 berries, or potentially 120,000 seeds.
802	1967. Peterken, G.F./Lloyd, P.S.. <i>Ilex aquifolium</i> L.. <i>Journal of Ecology</i> . 55: 841-858.	[Evidence that a persistent propagule bank is formed (>1 yr)? Yes] "As with many other bird-dispersed stony fruits, germination normally occurs in the second or third spring after formation of the seed, but seeds passed by birds may germinate sooner.
802	2010. Nawrocki, T.. English holly - <i>Ilex aquifolium</i> . Alaska Natural Heritage Program University of Alaska, Anchorage	[Evidence that a persistent propagule bank is formed (>1 yr)? Yes] Seeds are viable for 3 years.
803	2012. WRA Specialist. Personal Communication.	[Well controlled by herbicides? Unknown]
804	1967. Peterken, G.F./Lloyd, P.S.. <i>Ilex aquifolium</i> L.. <i>Journal of Ecology</i> . 55: 841-858.	[Tolerates, or benefits from, mutilation, cultivation, or fire? Yes] "Holly shows a sensitivity to fire which may kill the stem of larger trees, but in less extreme cases may only cause superficial injury. This sensitivity is attributed by Turner & Watt (1939) to its thin bark. After such damage established individuals regenerate vigorously from the rootstock, which is rarely harmed, to produce a multistemmed structure characteristic, for example, of much younger scrub in the New Forest." "Holly responds to cutting at ground level and pollarding at 2-3 m by producing vigorous leading shoots."
804	2010. Nawrocki, T.. English holly - <i>Ilex aquifolium</i> . Alaska Natural Heritage Program University of Alaska, Anchorage	[Tolerates, or benefits from, mutilation, cultivation, or fire? Yes] The aboveground portion of the plant is susceptible to fire, but plants resprout after they have been burned.

805	2012. Hawkesbury-Nepean Catchment Management Authority. Fact Sheet holly (<i>Ilex aquifolium</i>). Australian Government,	[Effective natural enemies present locally (e.g. introduced biocontrol agents?) There is no biological control at this time for <i>Ilex aquifolium</i> . [in Australia]
805	2012. WRA Specialist. Personal Communication.	[Effective natural enemies present locally (e.g. introduced biocontrol agents?) Unknown]

Summary of Risk Traits

High Risk:

- Native to subtropical region
- Wide environmental tolerance
- Naturalized
- Environmental weed
- Congeneric weed
- Spiny leaves
- Berries are mildly toxic
- Shade tolerant
- Tolerates a wide variety of soils
- Forms dense thickets
- Reproduces by vegetative fragmentation
- Viable seeds
- Bird and animal dispersed berries
- Prolific seed production
- Seeds are viable for three years (seedbank)
- Resprouts after a fire

Low Risk:

- Not parasitic
- Palatable to animals
- Does not create a fire hazard
- Not self-compatible
- Produces seeds 5-12 years after germination
- Not wind dispersed