DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES

Brazilian pepper *(Schinus terebinthifolius)*: NT Weed Risk Assessment Technical Report

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CHARLES DARWIN UNIVERSITY

NORTHERN TERRITORY GOVERNMENT

This report summarises the results and information used for the weed risk assessment of Brazilian pepper (*Schinus terebinthifolius*) in the Northern Territory. A feasibility of control assessment has also been completed for this species and is available on request.

Online resources are available at https://denr.nt.gov.au/land-resource-management/rangelands/publications/weed-management-publications which provide information about the NT Weed Risk Management System including an explanation of the scoring system, fact sheet, user guide, a map of the Northern Territory weed management regions and FAQs.

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Cover photo (top): brazilian pepper leaves and fruits (Source: Forest and Kim Starr, http://www.hear.org/starr/plants/images/image/?q=041018-0009)
Cover photo (bottom): brazilian pepper infestation

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Weed Risk = High

Section A: Invasiveness	75 %
Section B: Impact	74 %
Section C: Potential distribution	47 %
Total score = A x B x C x 1000 =	183

Taxon: *Schinus terebinthifolius* Raddi

Common name: Brazilian pepper

Other names: Broad-leaf pepper tree, Christmas berry (tree), Florida holly (USA); Aroeira (Brazil); Chichita (Argentina); Faux poivrier or False pepper (French Riviera).

Family: Anacardiaceae (cashew family)

Lifeform: Tree (sometimes sprawling shrub or vine)

Environment: Terrestrial to semi-aquatic

Origin: Tropical and sub-tropical South America

Description: Broad-topped, fast growing multi-stemmed shrub or small tree (c. 1-5m tall up to 10m). It can adapt its growth form to suit habitat conditions and can dominate the edges of saltmarsh or maritime forests as either a free-standing tree or a woody vine, depending on stand crowding. Leaves are alternate, pinnately compound, up to 22cm, oval leaflets (5-15) to 6cm with finely toothed margins. White flowers borne profusely in axillary clusters, fruits are red, 4-5mm in diameter, borne in clusters of hundreds of berries.

Habitat: Wide tolerance. In its native range, it occurs as scattered individuals through a variety of habitats from sea level to 700m elevation. Nearly all terrestrial habitats are affected in Florida. In Queensland, poorly drained or waterlogged areas support dense infestations. Seedlings do not tolerate saline conditions but trees can grow adjacent to salt marsh and occupy some mangrove habitats. Can tolerate flooding for several months.

Distribution: Naturalised in coastal Queensland, NSW and Western Australia, and subtropical areas worldwide. Commonly cultivated gardens in Alice Springs where it has not shown invasive behaviour.

Legislation: Declared noxious in Queensland and NSW.

Other: It has been detected and controlled in Darwin and Alice Springs in the past.

Formerly available for sale in nurseries in the Northern Territory.

In its native range, the dried berries are used as a spice and as medicine.

There is one other member of the genus *Schinus* in Australia, Peruvian pepper (*Schinus molle*). This species is widely naturalised globally and impacts native vegetation through temperate and subtropical Australia. It is recorded as naturalised in arid central Australia but has not been reported as posing a significant problem there.

Summary of weed risk information by section

Invasiveness: Highly invasive in some parts of the world and not recorded as a problem in others (e.g. southern California, Alice Springs). Typically most invasive in subtropical coastal areas (e.g. Florida, Hawaii, northern NSW and southern Queensland). In areas where it is invasive, it shows highly aggressive behaviour. Can be associated with disturbed areas but also invades intact vegetation. Berries spread by birds.

Impact: Replaces native vegetation and forms monocultures. Berries and sap can be poisonous, chemicals released by the crushed fruit can cause respiratory and other health problems.

Potential distribution: Favours tropical and sub-tropical coastal climate. The CLIMATCH model predicts that up to 40% of the NT is likely to have suitable climate (Figure 1). However, some of this area is in the arid zone where the species is unlikely to pose a problem. The remainder of the predicted potential distribution is in the regions of the Northern Territory with greater than 500mm annual rainfall including the Katherine region, the Gulf, the Victoria River District, Darwin coastal regions and the Tiwi Islands.

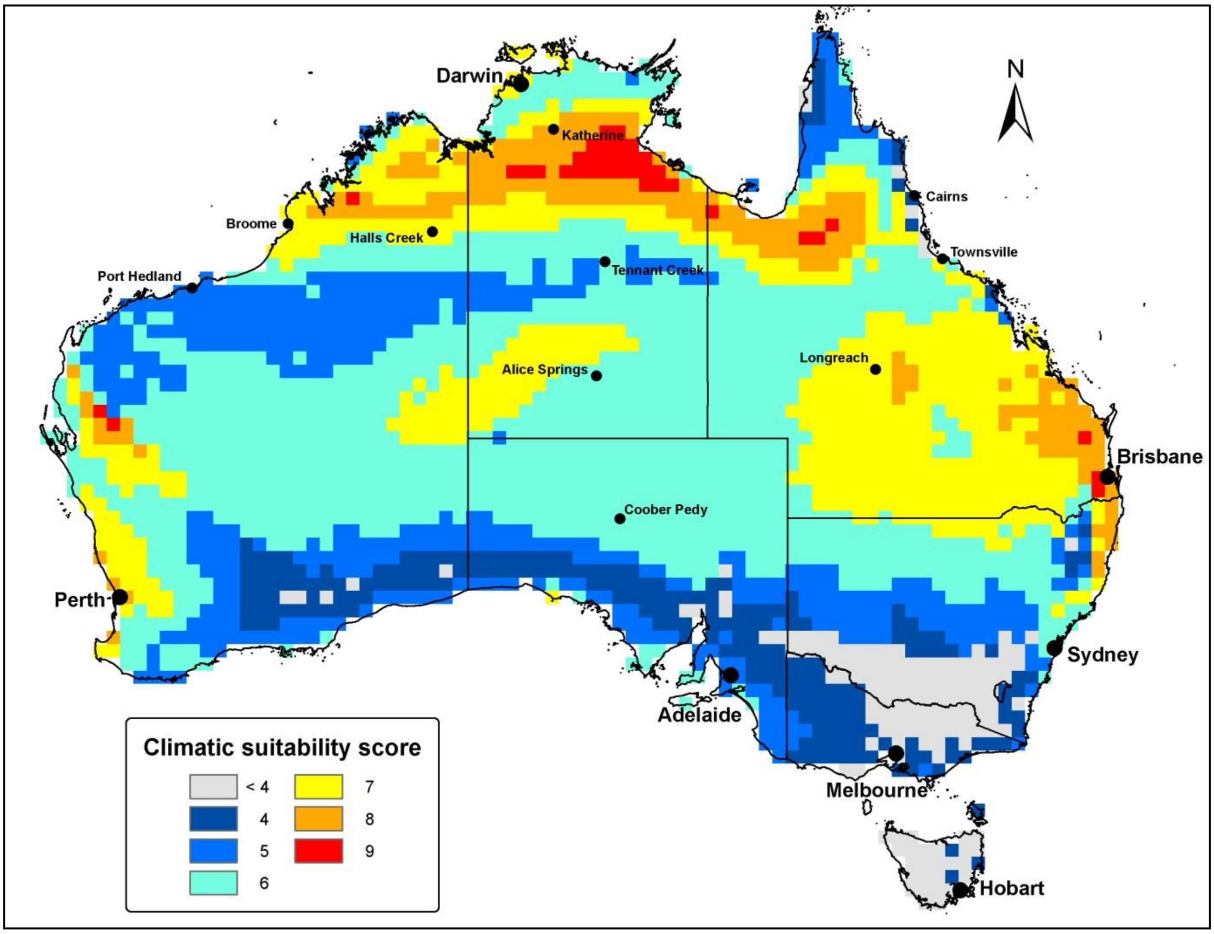

Figure 1. Potential distribution of Brazilian pepper (*Schinus terebinthifolius*) in Australia using CLIMATCH. Areas of suitable climate are indicated by a climatic suitability score of 7 or above out of 10 (source: NT Weed Management Branch 2007).

Weed Risk Assessment - Determinations

Invasiveness	*Determination*
1. What is the ability of the plant to establish amongst intact native environments?	Very high
2. What is the reproductive ability of the plant?	
a) Time to seeding	>3 years/never
b) Annual production of viable seed per square metre or plant	High
c) Vegetative reproduction	Frequent
3. Do propagules of the plant have properties that allow them to be dispersed long-distance by natural means?	
a) Flying animals (birds, bats)	Yes
b) Other wild animals	Yes
c) Water	Yes
d) Wind	No
4. How likely is long-distance dispersal by human means?	
a) Deliberate spread by people	Occasional
b) Accidentally by people and vehicles	Unlikely
c) Contaminated produce	Unlikely
d) Domestic/farm animals	Unlikely

Impacts	
1. What is the plants competitive potential?	High
2. What is the plant's potential to modify the existing fire behaviour and alter the fire regime?	No potential
3. What is the plant's potential to restrict the physical movement of people, animals, vehicles, machinery and/or water?	High
4. What is the plant's potential to negatively affect the health of animals and/or people?	Medium
5. Does the plant potentially have negative effects on natural and cultural values?	
a) reducing habitat quality for native animals	High
b) threatened species or communities	One
c) sites of natural significance	More than 1
6. Is the plant presumed to have negative effects on environmental health?	
a) soil chemistry/stability	Yes
b) water quality	Yes
c) hydrology	Yes

Potential distribution	
1. What is the climate suitability score (which indicates out of 10 the proportion of the NT environment that is suitable for the plant)?	4.0
2. How many broad habitat types in the NT will the plant potentially naturalise in (up to 5) ?	Three
3. What is the potential of the plant to occur throughout its favoured habitat in the NT (from those identified in question 2)?	Some

Weed Risk Assessment - Evidence Used

A INVASIVENESS

A1 What is the ability of the plant to establish amongst intact native environments?

Morton (1978) reported that it has crowed out native vegetation over vast areas of Florida (including the everglades), the Bahamas and all of the islands of Hawaii. It primarily invades degraded sites and the early successional stages of wetland and riparian vegetation, but may also become established in more mature communities.	Csurhes & Edwards (1998) Morton (1978)
Brazilian pepper is a pioneer of disturbed sites such as highway, canal and powerline rights-of-way, fallow fields, and drained cypress stands, but it is also successful in many undisturbed natural environments. Brazilian pepper successfully colonizes many native plant communities, including pine flatwoods, tropical hardwood hammocks, and mangrove forest.	Ferriter (1997)
In Australia, *S. terebinthifolius* is currently invading riparian habitats and coastal wetlands in south-eastern Queensland and northeastern New South Wales.	Panetta & McKee (1997)
The exotic Brazilian peppertree is a serious invader of both disturbed and natural areas in central and south Florida, forming fast-growing, impenetrable thickets that dominate entire ecosystems.	Treadwell & Cuda (2006)
It shades out other plants, as well as preventing reestablishment of other species due to the release of allelopathic substances.	Gogue et al. (1974)
Forms dense thickets of tangled woody stems that completely shade out and displace native vegetation.	Centre for Aquatic and Invasive Plants (2007)
The species has an intermediate tolerance of shade and can survive and grow slowly under forest canopies until disturbance releases it.	Francis (2007)
Naturalised populations exist throughout south-east Queensland, northern New South Wales and parts of Western Australia. Dense infestations occur on waterlogged or poorly drained soils in coastal areas of south-east Queensland. At a few locations it has formed an understorey within mature stands of *Casuarina glauca* (swamp oak) and along the edges of mangrove forest (in moist soil just above the high water mark). It can rapidly colonise disturbed bushland in low-lying areas and may suppress establishment of native vegetation. In the latter habitats, *S. teribinthifolius* may replace various species of grasses, sedges, and other ground plants.	Csurhes & Edwards (1998)
This shade and drought resistant tree can become the dominant understorey and out-competes native species for light and nutrients. The tree forms dense thicksets that completely shade out and displace native vegetation with a species poor shrubland.	Weber (2003)
Brazilian pepper-tree is one of the most aggressive of these non-native invaders [in Florida]. Where once there were ecologically productive mangrove communities, now there are pure stands of Brazilian pepper-trees. Scrub and pine flatwood communities are also being affected by this invasion. Nearly all terrestrial ecosystems in central and southern Florida are being encroached upon by the Brazilian pepper-tree.	Gioeli & Langeland (2007)
It is a pioneer species in disturbed habitats, but can also establish in undisturbed natural areas.	Californian Invasive Species Council (2005)
Brazilian pepper has established extensively in riparian areas in south east Queensland.	M. Hannon-Jones, Queensland Biosecurity, pers comm. (2007)
The low-growing, evergreen, deciduous tree is an aggressive invader of most mesic to wet lowland environments.	Pacific Island Ecosystems at Risk (2005)

Weed Risk Assessment - Evidence Used

A2a Reproductive ability: Time to seeding?

Begins reproducing 3 years after germination.	Californian Invasive Species Council (2005)

A2b Reproductive ability: Annual production of viable seed per square m ter or per plant?

More than 1,000 seeds per m2.	Californian Invasive Species Council (2005)

A2c Reproductive ability: Vegetative reproduction?

It re-sprouts from cut stumps and produces suckers from damaged roots.	Groves et al. (2005)
Like many hardwood species, Brazilian pepper has the capability of resprouting from above-ground stems and root crowns, under certain conditions, eg.cutting to a stump, bark girdling, fire, herbicide application. Resprouting is often profuse and the growth rates of the sprouts, which originate from dormant and adventitious buds, are very high. Brazilian pepper's generally shallow root system also favours the production of underground root suckers.	Ferriter (1997)
Can resprout from aboveground stems and root crowns following cutting, girdling, or fire. Its shallow root system allows for development of suckers that produce another plant.	Californian Invasive Species Council (2005)

A3a Propagule dispersal: Flying animals (birds, bats)

Seeds are spread by birds.	Weber (2003)
The small berries (c. 6 mm diameter) are dispersed by birds.	Csurhes & Edwards (1998)
In North America, catbirds and robins are commonly observed feeding on fruits; during some years flocks of the latter species disperse large quantities of seed into a variety of habitats.	Panetta & McKee (1997)
There appears to be no documented evidence of Australian birds feeding on fruits of *S. terebinthifolius.* It is likely, however, that birds that feed on fruits of *S. areira* L. could also consume *S. terebinthifolius,* since fruits of both species are of similar size and appearance.	Panetta & McKee (1997)
Its fruits are commonly consumed by frugivorous birds. The dispersal of seeds by these birds… has been responsible for the escape of this species into outlying, non-Brazilian pepper dominated ecosystems.	Ferriter (1997)
Small white flowers on the female trees are followed by bright red fruits which are dispersed by birds.	Groves et al. (2005)

A3b Propagule dispersal: Other wild animals

Schinus terebinthifolius seeds are also dispersed by small mammals in North America.	Panetta & McKee (1997)
Mammals such as raccoons and possums consume the fruits and deposit the seeds with fecal materials, giving the seeds a nutrient-rich microsite in which to establish.	Panetta & McKee (1997)
Ripe fruit spread by mammals.	Randall (2000)
Seeds are spread by mammals.	Weber (2003)

Weed Risk Assessment - Evidence Used

A3c Propagule dispersal: Water

The attractive fruits are readily transported by birds and animals, with water and gravity serving as less important dispersal agents.	Global Invasive Species Database (2006)

A3d Propagule dispersal: Wind

No specific information, however berries are c. 6mm in diameter and therefore are unlikely to be wind dispersed.	No reference

A4a Human dispersal: Deliberate spread by people

Available for sale in Queensland and the Northern Territory despite being prohibited in Queensland.	Groves et al. (2005)
Pepper tree has been in cultivation in Australia for almost 150 years and is recorded in nursery catalogues in Victoria in the mid 1860's.	Groves et al. (2005)

A4b Human dispersal: Accidentally by people and vehicles

Propagules likely to be dispersed unintentionally by people (plants growing in heavily trafficked areas).	Pacific Island Ecosystems at Risk (2005)

A4c Human dispersal: Contaminated produce

Propagules unlikely to be dispersed as a produce contaminant.	Pacific Island Ecosystems at Risk (2005)

A4d Human dispersal: Domestic/farm animals

Seeds are spread by mammals.	Weber (2003)
Unlikely to be dispersed by animals *externally*, though possibly through mud.	Pacific Island Ecosystems at Risk (2005)
Ripe fruit spread by mammals.	Randall (2000)

B IMPACTS

B1 What is the plant's competitive potential?

Predawn and noontime water potential differences were smaller in *Schinus* than in the native species at both sites during the wet season, but this pattern was found only in the disturbed area during the dry season. *Schinus* was most likely less affected by seasonality and more tolerant of root flooding than the native species studied.	Ewe & Sternberg (2003)
This shade and drought resistant tree can become the dominant understorey and out competes native species for light and nutrients. The tree forms dense thickets that completely shade out and displace native vegetation with a species poor shrubland.	Weber (2003)
In laboratory bioassays and greenhouse experiments, germination and biomass accumulation in two native Florida plant species, *Bidens alba* and *Rivina humilis*, were negatively affected by irrigation with aqueous extracts of Brazilian pepper leaves.	Morgan & Overholt (2004)
Schinus gas exchange characteristics could confer the exotic physiological advantages over native species.	Ewe & Sternberg (2003)

Weed Risk Assessment - Evidence Used

Once established, this pest will thrive in almost any location. It grows in wet sites where it can prevent Mangroves, Wax Myrtles and other plants from establishing. It seeds itself into the landscape and has become an unimaginable pesty weed.	Gilman (1999)
Aspects that contribute to its invasiveness include an effective mechanism of dispersal and tolerance of both shade and drought during establishment.	Panetta & McKee (1997)
Forms fast growing, impenetrable thickets that dominate entire ecosystems.	Treadwell & Cuda (2006)
Dense monocultures within a few years after *Schinus* invades an area. The dense canopy can shade out other vegetation. The tenacity of Brazilian pepper seedlings impairs competition by native vegetation and it may produce allelopathic chemicals. This species is locally invasive in certain riparian areas of Southern California and has aggressively colonized hundreds of thousands of acres in Florida.	Californian Invasive Species Council (2005)
Naturalised populations exist throughout southeast Queensland, northern east New South Wales and parts of Western Australia. Dense infestation occur on waterlogged or poorly drained soils in coastal areas of south-east Queensland. At a few locations it has formed an understorey within mature stands of *Casuarina glauca* (swamp oak) and along the edges of mangrove forest (in moist soil just above the high water mark). It can rapidly colonise disturbed bushland in low-lying areas and may suppress establishment of native vegetation. In the latter habitats, *S. teribithifolius* may replace various species of grasses, sedges, and other ground plants.	Csurhes & Edwards (1998)
Brazilian pepper has the ability to inhibit the growth of competing vegetation through the production of allelopathic substances.	Ferriter (1997)
S. terebithifolius is indigenous to the coast of tropical Brazil and can grow in the outer limits of vegetation exposed to salt spray.	Csurhes & Edwards (1998) Morton (1978)
Seedlings grow very slowly and can survive under the dense shade of mature stands, while exhibiting vigorous growth when the canopy is opened after a disturbance.	Ferriter (1997)
Morton (1978) reported that it has crowded out native vegetation over vast areas of Florida (including the everglades), the Bahamas and all of the islands of Hawaii. It is primarily invades degraded sites and the early successional stages of wetland and riparian vegetation, but may also become established in more mature communities.	Csurhes & Edwards (1998) Morton (1978)

B2 **What is the plant's potential to modify the existing fire behaviour and alter the fire regime?**

Decreased horizontal continuity of fuel load and decreased fire frequency and extent.	Brooks et al. (2004)
Once *S. terebinthifolius* forms dense stands, the high moisture retained by its litter and low fine-fuel levels in the understory may reduce the fire frequency in pyric pine rocklands.	Gordon (1998)
While plots that burned showed a reduction in the rate of *Schinus* invasion, invasion still progressed rapidly with or without the occurrence of fire.	Doren et al. (1991)
Because it and the species growing in its understory do not burn readily, Brazilian pepper tree has been recommended for planting as fire resistant barriers.	Francis (2007)

Weed Risk Assessment - Evidence Used

Shifts from surface to crown fire regimes may also occur when an invader changes the predominant fuel type from surface to crown fuels, reducing the frequency of surface fires and allowing crown fires to occur only during extreme fire weather and fuel conditions. Examples include the invasion of grasslands by the trees *Schinus terebinthifolius.*	Brooks et al. (2004)

B3 What is the plant's potential to restrict the physical movement of people, animals, vehicles, machinery and/or water?

The trees form dense thickets, extensive jungles.	Morton (1978)
Brazilian pepper tree is a many-stemmed shrub or small tree. Its branches form a nearly impenetrable tangle down to ground level.	Ferriter (1997)

B4 What is the plant's potential to negatively affect the health of animals and/or people?

Unripe fruits can be fatal to horses.	Francis (2007)
Brazilian pepper also poses several health and safety problems. A relative of poison ivy (*Toxicodendron radicans),* direct contact with the sap can cause severe and persistent skin irritation. Airborne chemical emissions from the blooms can also cause sinus and nasal congestion, rhinitis, sneezing, headaches, and eye irritation in some individuals. Consumption of foliage by horses and cattle can cause hemorrahages, intestinal compaction, and fatal colic. Birds that feed excessively on the fruit have been known to become intoxicated and later die.	Ferriter (1997)
Bark, leaves, and fruit contain chemical such as triperpene alcholds, ketones, acids, monoterpenes, and sesquiterpenes. Monoterpenes released by crushed fruit may cause respiratory problems.	Randall (2000)
Persons sitting or playing beneath Brazilian pepper trees exhibited flu-like symptoms, and sneezing, sinus congestion, chest pains and acute headache were among the possible inhalant effects (Morton 1969, 1978 cited in Ferriter 1997).	Ferriter (1997) Morton (1969) Morton (1978)
The plant is closely related to poison ivy (*Toxicodendron radicans* Kuntze) (Morton 1978) and the fruits have been reported to be toxic to birds and mammals.	Csurhes & Edwards (1998)
Pollen from its flowers appears not to be a significant source of irritation or it is sticky and not easily carried by wind.	Morton (1978) allergies, as

B5a Natural & cultural values: Reducing habitat quality for native animals

A stand of *S.terebinthifolius* casts deep shade and generally lacks an herbaceous understorey (Cronk & Fuller 1995 cited in Panetta and McKee 1997).	Cronk & Fuller (1995) Panetta & McKee (1997)
Dense *Schinus* infestations have the capacity to displace native species, reduce species diversity and have been shown to reduce faunal use of the community.	Ewe & Sternberg (2002)
Brazilian pepper stands provide relatively poor wildlife habitat.	Ferriter (1997)
The invasion of this aggressive, woody weed poses a serious threat to species diversity in many of Florida's native ecosystems, and is eliminating many indigenous sources of food for wildlife.	Ferriter (1997)
The impacts of this exotic invasive species on the margins of saltmarshes are also dramatic, but we do not know whether its effects are primarily due to shade cast by its over-hanging crowns or some other characteristic (e.g., allelopathy).	Spector & Putz (2006)

Weed Risk Assessment - Evidence Used

B5b Natural & cultural values: Threatened species of communities	Ferriter (1997)
Has displaced some populations of rare listed species, such as the Beach Jacquemontia (*Jacquemontia reclinata*) and Beach Star (*Remirea maritima)*.	
The U.S. Fish and Wildlife Service identified *S. terebinthifolius* as one of the most significant non-indigenous species currently threatening federally-listed threatened and endangered native plants throughout the Hawaiian islands	Hight et al. (2002)
The tree *Pternandra coerulescens* is restricted to coastal riparian habitat in the Northern Territory. *Schinus terebinthifolius* would have the potential to impact this species.	D. Liddle, NT Flora and Fauna Division, pers. comm. (2012) Kerrigan & Cowie (2006)
In Everglades National Park, anecdotal evidence suggests Brazilian pepper spread is threatening the nesting habitat of the gopher tortoise (*Gopherus polyphemus)*, a species threatened in Florida.	Ferriter (1997)

B5c Natural & cultural values: Sites of natural and cultural significance	
Found in the Malagasy region, including the Mascarene Islands (La Réunion, Mauritius and Rodrigues)…recognized as a biodiversity hotspot.	Baret et al. (2006)
It has been reported as spreading in National Parks and Nature Reserves in the Tweed region and in Nature Reserves in Lismore, NSW.	Ensbey (2002)
The Alligator Rivers coastal floodplains and the Arafura Swamp are two listed sites of conservation significance that could be affected by *Schinus terebinthifolius.*	D. Liddle, NT Flora and Fauna Division, pers. comm. (2012) Harrison et al. (2009)
In the Northern Territory it has the potential to effect many sites of significance (e.g Kakadu, Ramsar wetlands).	J. Woinarski, NT Biodiversity Conservation, pers. comm. (2007)

B6a Environmental health: Soil chemistry/stability	
Brazilian pepper tree has demonstrated seasonal allelopathic effects in Everglade National Park. Water leachates from various *Schinus* parts, i.e. fruit, fresh leaves, litter, stems etc. reduced germination on *Bromus rigidus* when the leachate supplied the moisture in germination studies.	Gogue et al. (1974)
Schinus terebinthifolius also appears to cause soil development and elevation increases in the shallow soil systems it colonizes.	Gordon (1998)

B6b Environmental health: Water quality	
The capacity of Schinus to extend out over and thereby influence adjacent areas in which it cannot root is shared by numerous other nonclimber species. In riparian areas in the arid southwest of the USA, for example, several invasive exotic species colonize stream banks, spread their crowns over waterways, and thereby modify water temperatures and other ecosystem properties to the great detriment of numerous native species (Vitousek 1986 cited in Spector & Putz).	Spector & Putz (2006) Vitousek (1986)

Weed Risk Assessment - Evidence Used

B6c Environmental health: Hydrology	Spector & Putz (2006)
Along forest edges, the above-ground biomass of saltmarsh plants overtopped by *Schinus* crowns was reduced by more than an order of magnitude… Over the longer term and especially with sea level rise, the absence of salt marsh soil stabilization provided by these plants could have adverse hydrological impacts.	
Three of the four native species sampled [in Florida] shifted from deep groundwater to shallow soil water usage in the wet season, but this shift was not seen for *Schinus*… *Schinus* water relations are less affected by seasonality than that of native species.	Ewe & Sternberg (2002)

C POTENTIAL DISTRIBUTION

C1 What is the CLIMATE suitability score (which indicates the proportion of the NT environment that is suitable for the plant)?

Brazilian pepper has been reported to have successfully naturalized in over 20 countries, now occurring in two sub-tropical belts worldwide.	Ferriter (1997)
Indigenous to subtropical Brazil, Paraguay, and Argentina, and has been introduced to various subtropical regions of the world including other parts of South America, Central America, the Bahama Islands, the Caribbean Islands, the United States, Mediterranean Europe, northern and South Africa, China, southern and southeastern Asia, Australia, and the Pacific Islands (Morton 1978; Campbell *et al.* 1980 cited in Ferriter 1997).	Ferriter (1997) Morton (1978)
Brazilian pepper does not become established in deeper wetland communities and rarely grows on sites inundated longer than three to six months.	Ferriter (1997)
Once established, this pest will thrive in almost any location [in Florida]. It grows in wet sites where it can prevent Mangroves, Wax Myrtles and other plants from establishing. It seeds itself into the landscape and has become an unimaginable pesty weed. Eliminate this plant from the landscape when possible.	Gilman (1999)
The CLIMATCH model used by the NT Weed Management Branch predicts that 40% of the Northern Territory is climatically suitable for *Schinus terebinthifolius* (see Figure 1).	NT Weed Management Branch (2007)
Current distribution in NSW extends from the Queensland border south to the Mid North coast region. Naturalised plants are generally uncommon and most of the infestations are as yet only localized having spread from nearby cultivated trees. In south eastern Queensland there are large naturalized populations of Broad-lead pepper tree. In Queensland dense infestations occur on waterlogged or poorly drained soils in coastal areas. At a few locations it has formed an understorey within mature stands of Swamp Oak and along the edges of mangrove forest. In and around Brisbane it has become quite widespread, populations having greatly increased in the last 5 years. In northern NSW isolated plants are found in the Tweed shire…The most significant infestation occurs at Mullumbimby, where trees are scattered along the roadside and riverbank. Numerous seedlings can also be found, indicating a potential for rapid increase in its population. It has been reported as spreading in National Parks and Nature Reserves in the Tweed region and in Nature Reserves in Lismore. Isolated pockets of the tree are also suspected to be present further south in coastal NSW. Broad lead pepper tree occurs on Council land, parks, reserves, roadsides and private property. Most infestations found can be traced back to mature cultivated trees.	Ensbey (2002)

Weed Risk Assessment - Evidence Used

C2 How many broad vegetation types in the NT will the plant potentially naturalise in (up to 5) ?

The broad vegetation types in the Northern Territory that Brazilian pepper will potential naturalise in are: Management Committee • Tropical riparian areas (only coastal) NT Weed Risk (2007)
• Rainforets Rossiter-Rachor et al.
• Mangroves (2012)
Of these, the favoured vegetation type is tropical riparian areas.

C3 What is the potential of the plant to occur throughout its favoured habitat in the NT (identified in question 2)?

Schinus terebinthifolius has the potential to occur through some of its favoured habitat.	NT Weed Risk Management Committee (2007)

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