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SYNONYMS

Christmas berry, Florida holly, pink pepper

CLASSIFICATION

RANKING	SCIENTIFIC NAME	COMMON NAME
Kingdom	Plantae	Plants
Subkingdom	Tracheobionta	Vascular plants
Superdivision	Spermatophyta	Seed plants
Division	Magnoliophyta	Flowering plants
Class	Magnoliopsida	Dicotyledons
Subclass	Rosidae	
Order	Sapindales	
Family	Anacardiaceae	Sumac family
Genus	<i>Schinus</i>	
Species	<i>Schinus terebinthifolia</i> Raddi	Brazilian peppertree

HISTORY AND DISTRIBUTION

Brazilian peppertree is native to South America and was intentionally introduced to Florida, USA in the 1800s as an ornamental plant. It became naturalized there in the 1950s. It was also introduced to Hawai'i as an ornamental

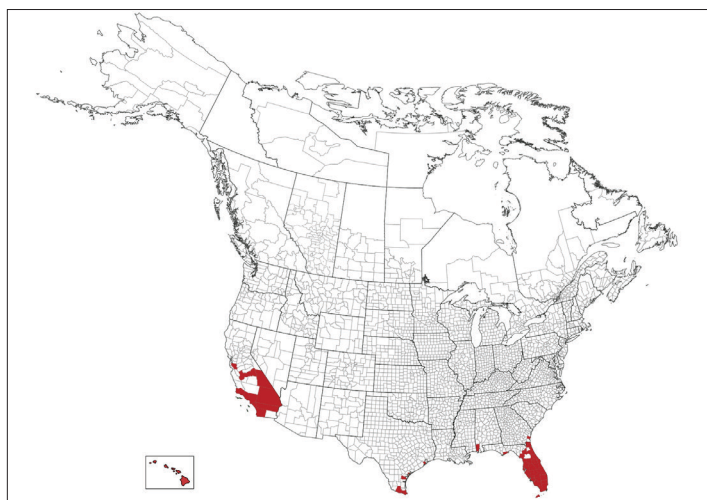


Figure 1. Brazilian peppertree distribution in North America (Credit: EDDMapS, www.eddmaps.org; USDA PLANTS Database, plants.usda.gov; both accessed 9 June 2022)

plant in the early 1900s and was used in reforestation, but it was observed spreading naturally and becoming invasive by 1940. In addition to Florida and Hawai'i, this species has been recorded in Georgia, Alabama, Texas, and California (Fig. 1).

IMPACT

Brazilian peppertree displaces native plant species, reduces density and species diversity of native bird populations, reduces nesting sites for native tortoises, and alters fire regimes. Its sap can cause contact dermatitis and inflammation in sensitive individuals, and its fruits reportedly sometimes have paralyzing effects on birds, humans, and grazing animals upon ingestion.

IDENTIFICATION

AT A GLANCE

Brazilian peppertree is an evergreen shrub or small tree typically growing 10–23 ft (3–7 m) tall (Fig. 2). The sprawling branches and typically short trunk have gray bark. The leaves are pinnately compound and give off a strong turpentine odor when crushed. Male and female flowers usually appear on separate plants. Both flowers are tiny and white and appear in large, clustered inflorescences. Each female flower produces a single dark red, berry-like fruit.



Figure 2. Brazilian peppertree plant (Annelieseakup, iNaturalist.org CC BY-NC 4.0)

Roots

The Brazilian peppertree root system is shallow and suckering (Fig. 3a). The plant resprouts profusely from above-ground stems and root crowns following damage, but root suckering occurs even without damage.

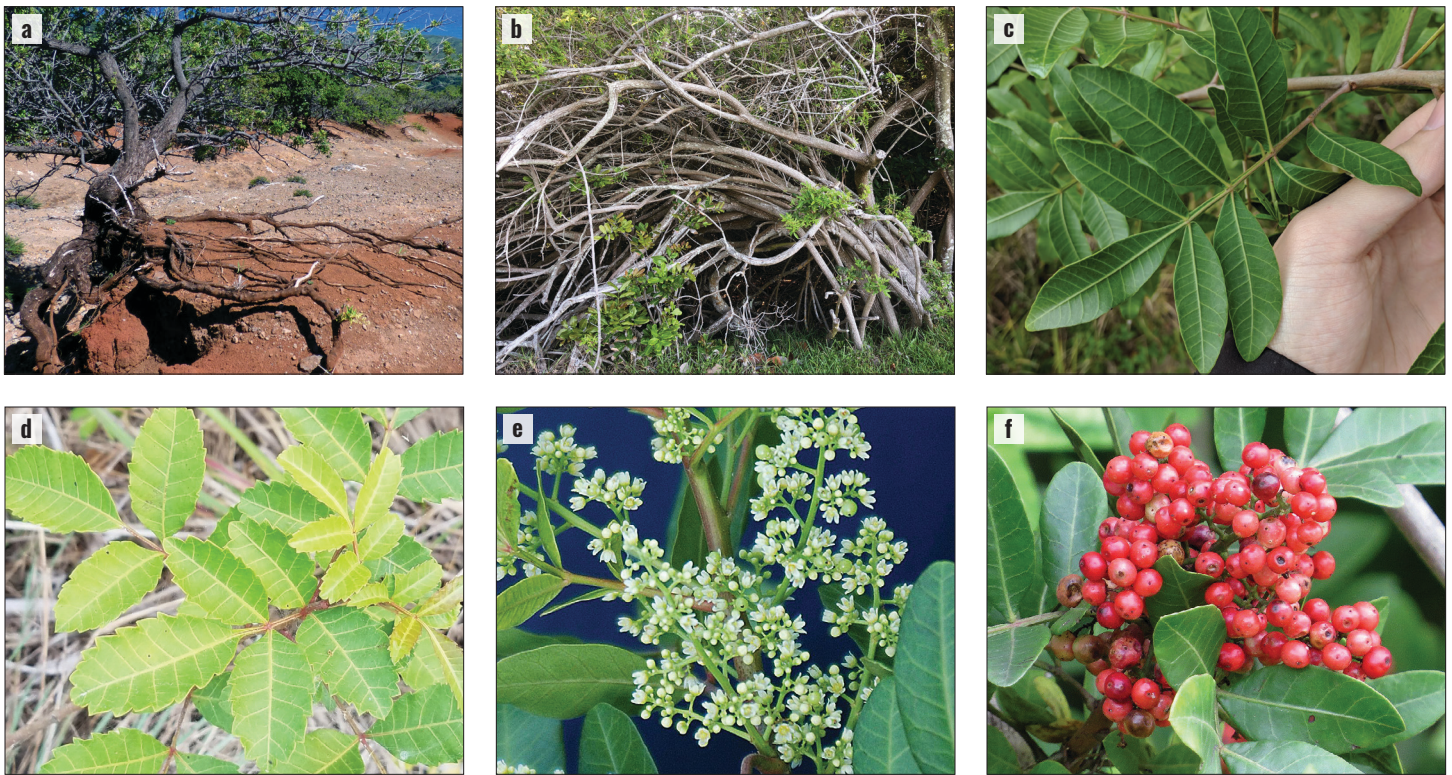


Figure 3. Brazilian peppertree produces (a) a shallow, suckering root system, (b) typically numerous sprawling stems, and (c) compound alternate leaves with 7–9 leaflets. Leaflets may have smooth or (d) toothed margins. Flowers (e) are tiny with 5 white petals and occur in large clusters. Fruits (f) are berry-like and turn red at maturity (a: Forest and Kim Starr, Starr Environmental CC BY-4.0; b: Clarentzen, iNaturalist.org CC BY-NC 4.0; c: Conor McMahon, iNaturalist.org CC BY-NC 4.0; d: Joe MDO, iNaturalist.org CC BY-NC 4.0; e: James H. Miller, USDA FS, Bugwood.org CC BY-3.0 US; f: Obrock, iNaturalist.org CC BY-NC 4.0)

STEMS AND LEAVES

Brazilian peppertree may grow as a shrub or small tree generally 10–23 ft (3–7 m) tall, but some may grow taller than 40 ft (12 m). Most plants have a short trunk hidden in a sprawling thicket of branches (**Fig. 2**, **Fig. 3b**). Branches and stems have gray bark and are usually less than 4 in (10 cm) in diameter (**Fig. 3b**), but some may grow much larger in diameter depending on site conditions. The pinnately compound leaves are alternate, 3–7 in (8–18 cm) long, and usually have 7–9 leaflets (**Fig. 3c**). Leaflets are arranged opposite to each other with a terminal leaflet. Leaflets are 1–2¾ in (2½–7 cm) long by 0.4–1.2 in (1–3 cm) wide, oval to elliptical with smooth to toothed margins (**Fig. 3d**), and have obvious veins. They give off a strong turpentine odor when crushed.

FLOWERS

With rare exceptions, this species is dioecious, meaning male and female flowers appear on separate plants. Both types of flowers are similar in appearance; they are tiny with five white petals and appear in large, clustered inflorescences (**Fig. 3e**) up to 5 in (13 cm) long from leaf axils near branch ends. The male reproductive parts of female flowers are sterile, and the female reproductive parts of male flowers are non-functional.

FRUITS AND SEEDS

Each female flower produces a drupe, a single berry-like fruit with a single seed. Fruits are green at first but turn red at maturity (**Fig. 3f**) and are ~¼ in (5–6 mm) in diameter.

ECOLOGY

Brazilian peppertree generates new plants by seeds and by suckering roots. Seeds germinate throughout winter and spring. Seedlings can survive (but grow slowly) in shade; they can grow 12–20 in (30–50 cm) per year in full sun. Plants can become reproductive in 3 years. Flowering occurs primarily in fall with a small amount of flowering in spring/early summer. A single female plant can retain thousands of ripe fruits in its canopy for up to 8 months, and fruits are readily eaten/spread by birds and mammals. Seeds are typically only viable for up to 5 months after dispersal as they are particularly sensitive to heat. The shallow root system readily produces suckers with or without being damaged and creates very dense clumps of Brazilian peppertree infestations (**Fig. 4**). Some trees can live up to 35 years.

HABITAT

Brazilian peppertree grows in tropical to subtropical regions and is a pioneer plant of disturbed sites, such as highway

rights-of-way, fallow fields, and drained cypress stands, but can move outwards into undisturbed pinelands, mangrove forests, coastal shorelines, and marshes (Fig. 4). It does well in mesic to wet locations below 650 ft (200 m) in elevation and can tolerate high salinity, full sun, and shade. Cold intolerance prevents its expansion into more temperate regions.

SIMILAR SPECIES

The combination of its sprawling shrub form, compound alternate leaves with opposite leaflets, tiny white flowers, and clusters of red berry-like fruits help differentiate Brazilian peppertree from most potential look-alikes. The species most likely to be confused for Brazilian peppertree in North America are *Rhus* and other *Schinus* species in the same family (Anacardiaceae). The most similar-looking species that occur in similar locations or habitats are described in greater detail in Table 1, along with key characteristics that can be used for differentiating them from Brazilian peppertree and from each other.

NOTES

The dried fruits of Brazilian peppertree are occasionally used as a spice and are sold in gourmet shops in the USA as “pink peppercorn.”

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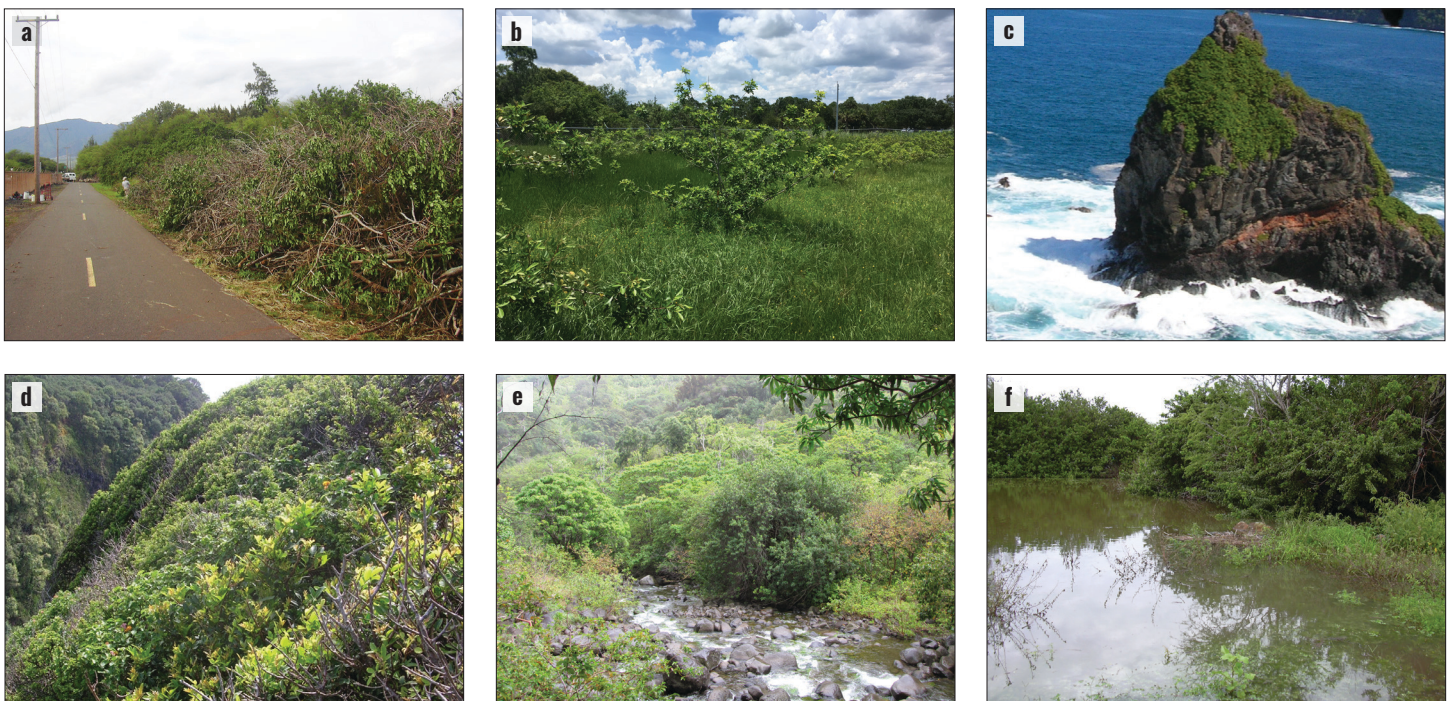






















Figure 4. Brazilian peppertree rapidly colonizes disturbed sites such as (a) roadsides, (b) fallow fields, and (c) wave-eroded islets and coasts, but can also spread to undisturbed (d) hillsides (e) moist forests, and (f) wetlands. (a,c–f: Forest and Kim Starr, Starr Environmental CC BY-4.0; b: Dale Halbritter, USDA-ARS)

Table 1. Key traits for differentiating Brazilian peppertree from similar species established in North America (all Anacardiaceae unless noted otherwise).

SPECIES	SIMILARITIES	DIFFERENCES	PLANT	LEAF	FLOWER	FRUIT
Peruvian peppertree <i>Schinus molle</i> Exotic perennial	Habitat: evergreen; shrub or tree; may be similar height; aromatic; compound leaves; clusters of tiny white flowers; fruit red, berry-like	Tolerates drier conditions; most often grows as tree; taller; upper branches droop; leaflets narrower, 19–41, alternate; fewer flowers/fruit per cluster				
Hardee peppertree <i>Schinus polygama</i> Exotic perennial	Habitat: evergreen; shrub or tree; may be similar height; aromatic; clusters of tiny flowers; fruit berry-like	Tolerates drier conditions; only naturalized in California in USA; spiny; leaves not compound or toothed, wider at tip, may be gray-green; flowers greenish-white; fruits nearly black at maturity				
Winged sumac <i>Rhus copallinum</i> Native perennial	Sometimes habitat; shrub or tree; may be similar height; aromatic; often multiple stems; compound leaves; leaflets opposite; clusters of tiny flowers; fruit berry-like	Tolerates colder, drier conditions; deciduous; leaf stalk winged; 9–23 leaflets; leaflets lighter on underside, with fine hairs; flowers earlier, appear greenish-yellow; fruits dull deep red at maturity, with small hairs				
Smooth sumac <i>Rhus glabra</i> Native perennial	Sometimes habitat; shrub or small tree; may be similar height; aromatic; compound leaves; leaflets opposite; clusters of tiny flowers; fruit berry-like, red	Tolerates colder, drier conditions; deciduous; 9–31 leaflets; leaflets longer, more jaggedly toothed; flowers earlier, appear greenish-yellow; fruits bumpy; flower/fruit clusters erect				
Coral ardisia <i>Ardisia crenata</i> Exotic perennial Myrsinaceae	Sometimes habitat; shrub; clusters of small flowers; fruit small, berry-like, red	Restricted to forest understories; up to 6 ft (1.8 m) tall; simple leaves; monoecious; fruits present all year				

Photos: Peruvian peppertree tree (Sunshine), leaves (Logankaram), flowers (Ruth Ripley), fruit (Chris Nelson); Hardee peppertree tree (Nicolas Olejnik), leaves (Joey Santore), flowers (Drsch), fruit (Edson Gasperin); winged sumac plant (Abigail Miller), leaf, flowers (J. Richard Abbott), fruit (Lightning_whelek); smooth sumac plant (Ktpete2003), leaf (Lynn Michael), flowers (Tbcl), fruit (Liz Ricci); coral ardisia plant (Lauren McLaurin), leaves (Jay Pruett), flowers (Mike Wood), fruit (Kathryn) (all iNaturalist.org CC BY-NC 4.0)

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SUGGESTED CITATION

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