

# ANNEX G

## INVASIVE PLANTS – CATEGORY I & OTHER \*

### Common name

### Botanical Name

#### Annual

Bitterweed, Yellowdicks  
Wall Fumitory

*Helanimum amarum*  
*Fumaria muralis*

#### Aquatic

Water Hyacinth  
Water Lettuce

*Eichhornia crassipes*  
*Pistia stratiotes*

#### Cacti and Succulents

Barbados Gooseberry  
Mother-in-Law's Tongue, Snake  
Plant

*Pereskia aculeata*  
*Sansevieria trifasciata*

#### Grass & Grass-Like Plants

Cow Cane  
Fountain Grass  
Foxtail Grass, Bristly Fox Tail  
Napier Grass, Elephant Grass  
Para Grass, Buffalo Grass  
\* Cane Grass

*Arundo donax*  
*Cenchrus setaceus*  
*Setaria verticillata*  
*Cenchrus purpureus*  
*Urochloa mutica*  
*Panicum dichotomiflorum*

#### Herbaceous Perennial

Asparagus Fern

Wireweed

*Asparagus densiflorus*  
'Sprengeri'  
*Sida acuta*

#### Palm

Chinese Fan Palm

*Livistonia chinensis*

#### Shrub

Apple of Peru  
Beach Naupaka  
Castor Oil Plant  
Jumbie Bean, Wild Mimosa  
Madagascar Buddleia, Snuff Plant  
Marlberry, Shoebutton Ardisia  
Russian Berry, Russian Olive  
Shrubby Clerodendron

*Nicandra physaloides*  
*Scaevola sericea*  
*Ricinus communis*  
*Leucaena leucocephala*  
*Buddleia madagascariensis*  
*Ardisia elliptica*  
*Elaeagnus angustifolia*  
*Clerodendron sp.*

#### Tree

Brazilian Pepper, Mexican Pepper  
Casuarina  
Indian Laurel  
Madagascar Olive  
Queensland Umbrella Tree  
Walking Casuarina

*Schinus terebinthifolius*  
*Casuarina equisetifolia*  
*Ficus microcarpa*  
*Noronhia emarginata*  
*Schefflera actinophylla*  
*Casuarina glauca*

#### Vine

Asparagus Wedding Fern  
Balloon Vine (Large Fruited)  
Black bean, Hyacinth bean, Lablab  
Kudzu  
Long Leafed Asparagus Fern  
Morning Glory  
Pothos Vine  
Wedelia, Seaside Creeping Daisy

*Asparagus setaceus*  
*Cardiospermum halicacabum*  
*Dolichos lablab*  
*Pueraria montana*  
*Asparagus falcatus*  
*Ipomoea indica*  
*Epipremnum pinnatum*  
*Sphagnetocola trilobata*

# Brazilian Pepper, Mexican Pepper

*Schinus terebinthifolius*



D.Pettit

<b>Family</b>	ANACARDIACEAE	
<b>Type</b>	Tree	
<b>Height</b>	To 20ft (6m)	
<b>Growth</b>	Fast	
<b>Nature</b>	Naturalised -weed	
<b>Invasive</b>	Category 1 -High	
<b>Caution</b>	Allergen	
<b>Tolerance</b>	<b>Wind:</b> Medium	<b>Salt:</b> Medium
	<b>Sun:</b> Sunny, Partial Sun or Shade	
	<b>Location:</b> Partial Exposure	



A.Copeland

## HABITAT

Inland Valley Woodland  
Upland Hillside  
Wetland  
Coastal Forest

## MAIN USES

Do not encourage- pest  
Remove or substitute

## DOMINANT COLOURS

Red

## SEASON

Winter

A vigorous evergreen tree the Brazilian Pepper has pinnate green leaves on reddish green leaf stems. When crushed its leaves smell like pepper or turpentine. It produces clusters of tiny white flowers that attract honey bees. The female tree produces clusters of red berries in late autumn, early winter.

This plant is on the IUCN's list of the world's top 100 most invasive species and ranked as a Category I invasive by the Florida Exotic Plant Pest Council. It is quick and thick growing. Its seeds are easily spread by birds, and it is resilient to most eradication measures. It has become invasive in all of Bermuda's habitats, producing dense impenetrable thickets which overtake all other vegetation in that area. The pollen is a major allergen and the sap can cause poison ivy like skin irritations. It should be eradicated as a priority and never actively planted. **Substitute:** Bermuda Cedar and Pittosporum. Fruit trees are also good substitutes in gardens, as these provide nectar for bees.

# Cane Grass, Fall Panicum

*Panicum dichotomiflorum*




<b>Scientific classification</b>
Kingdom: <i>Plantae</i>
(unranked): <i>Angiosperms</i>
(unranked): <i>Monocots</i>
(unranked): <i>Commelinids</i>
Order: <i>Poales</i>
Family: <i>Poaceae</i>
Subfamily: <i>Panicoideae</i>
Genus: <i>Panicum</i>
Species: <i><b>P. dichotomiflorum</b></i>
<b>Binomial name</b>
<i><b>Panicum dichotomiflorum</b></i>
Michx.



## *Panicum dichotomiflorum*

From Wikipedia, the free encyclopedia

*Panicum dichotomiflorum*, known by the common names **fall panicgrass**, **autumn millet** (Britain and Ireland),<sup>[1]</sup> and **fall panicum**<sup>[2]</sup> is a species of **Poaceae** "true grass". It is native to much of the eastern United States and parts of Canada, and it can be found in the **Western United States** through **California**. It may be an **introduced species** in some western climates.<sup>[3]</sup> It grows in many types of habitat, including disturbed areas and **chaparral habitats**.

### Description [[edit](#)]

*Panicum dichotomiflorum* is an annual **grass** growing decumbent or erect to a maximum height near one meter-3 feet. It can be distinguished from its relative, *Panicum capillare* - **Witchgrass** by its hairless leaves.<sup>[4]</sup> The **inflorescence** is a large open **panicle** up to 20 centimeters long and fanning out to a width of 16 centimeters.



A.Copeland

<b>Family</b>	CASUARINACEAE	
<b>Type</b>	Tree	
<b>Height</b>	To 80 ft (24m)	
<b>Growth</b>	Fast	
<b>Nature</b>	Naturalised -weed	
<b>Invasive</b>	Category 1 -High	
<b>Caution</b>	Burrs and Allergen	
<b>Tolerance</b>	<b>Wind:</b> Low	<b>Salt:</b> High
	<b>Sun:</b> Full Sun or Partial Sun	
	<b>Location:</b> Exposed	



L.Hollis

## HABITAT

Rocky Coastal/Exposed  
Upland Hillside  
Disturbed sites  
Beach/Dune

## MAIN USES

Do not encourage- pest  
Remove or substitute

## DOMINANT COLOURS

Green

## SEASON

Year round

Introduced to Bermuda in the 1940's as a salt tolerant windbreak to replace the scale-ravaged Bermuda Cedar, this fast growing tree has small scalelike leaves on long needle-like twigs. It has brittle reddish-brown bark. Inconspicuous male and female flowers are present on the same plant. The round cone-like fruit ripen from green to brown and open to release wind-dispersed winged seeds. Casuarina grows well in all of Bermuda's habitats -up to 6 feet (1.8m) a year. It is very drought and salt tolerant. It is wind resistant at an early age but unless managed it is very susceptible to wind blow down due to its shallow root system - a main cause of coastal erosion and damage to structures. Profuse needle drop creates dense mats which sterilize the soil and minimize biodiversity competition. Today the main benefit of Casuarina is as firewood. Due to its fast growth, profuse seed development, needle mats and shallow root systems the Casuarina is one of the most invasive tree species in Bermuda and should not be planted. It is ranked as a Category I invasive by the Florida Exotic Plant Pest Council. Even careful management will result in seed production and eventual spread from its intended location. **Alternative coastal windbreaks:**Bermuda Cedar, Baygrape, Buttonwood, Pittosporum and Tassel Plant.

# Chinese Fan Palm

*Livistonia chinensis*



D.Pettit

<b>Family</b>	ARECACEAE	
<b>Type</b>	Palm	
<b>Height</b>	To 30 ft (9m)	
<b>Growth</b>	Fast	
<b>Nature</b>	Naturalised -weed	
<b>Invasive</b>	Category 1 -High	
<b>Caution</b>	Spines	
<b>Tolerance</b>	<b>Wind:</b> High	<b>Salt:</b> High
	<b>Sun:</b> Full Sun or Partial Sun	
	<b>Location:</b> Exposed	



A.Copeland

## HABITAT

Inland Valley Woodland  
Upland Hillside  
Garden  
Urban- Street/Car park

## MAIN USES

Do not encourage- pest  
Remove or substitute

## DOMINANT COLOURS

Green

## SEASON

Year round

The Chinese Fan Palm is a fast growing palm with a loose spreading habit. It has palmate leaves, with edges that are split into segments and hang downward like a fringe. The leaf stalk has spines and is 'c' shaped at the base of the fan when viewed from above. Olive-sized berries are bright turquoise with orange flesh. Rats are known to prefer the crown thatch and berries.

A very aggressive and fast growing palm that has naturalised throughout many of Bermuda's habitats. It can form dense, mono-specific stands. The Chinese Fan Palm should not be encouraged due to its fast growth, prolific seeding, drought resistance and attractiveness for rats. It has become a weed in many tropical and subtropical ecosystems and is designated as a Category II invasive by the Florida Exotic Pest Plant Council. It is one of Bermuda's most aggressive invasive plants. It should not actively be planted or transplanted and should be removed at every opportunity, unless in a heavily maintained area. **Caution.** It should not be mistaken for the Bermuda Palmetto, which is also a superb substitute for the Fan Palm in every situation.

# Cow Cane

*Arundo donax*



D.Pettit

<b>Family</b>	POACEAE	
<b>Type</b>	Grass & Grass-Like Plants	
<b>Height</b>	To 20ft (6m)	
<b>Growth</b>	Fast	
<b>Nature</b>	Naturalised -weed	
<b>Invasive</b>	Category 1 -High	
<b>Caution</b>	None known	
<b>Tolerance</b>	<b>Wind:</b> Medium	<b>Salt:</b> Medium
	<b>Sun:</b> Sunny or Partial Sun	
	<b>Location:</b> Partial Exposure	



D.Pettit

## HABITAT

Wetland  
Roadside  
Disturbed sites

## MAIN USES

Do not encourage- pest  
Remove or substitute

## DOMINANT COLOURS

White  
Green

## SEASON

Summer

A giant perennial grass that was originally introduced as forage for cattle. The tall woody stems, form dense, messy clumps which crowd out all other plants. The leaves that grow from cane-like stems are about 2 feet (60cm) long and 3 inches (7.5cm) wide . The flower is a large cream coloured dense panicle up to 2 feet (60cm) long that appears in late summer and autumn. It closely resembles invasive Napier Grass.

Cow Cane can be found in waste spaces and around the edge of marshes. It is very fast growing and spreads by rhizomes which make it very difficult to eradicate other than through persistent mechanical removal. The use of cows and/or goats is a viable method of eradication. It is one of the IUCN's top 100 invasive species in the world and Florida Exotic Pest Plant Council's top invasive plants. Cow Cane has become very invasive in many of Bermuda's habitats. It can completely suppress and displace native vegetation. Additionally it increases fire risks and interferes with flood controls. This plant should never be planted, even as forage, as other alternatives are available.

# Indian Laurel

*Ficus microcarpa*



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<b>Family</b>	MORACEAE	
<b>Type</b>	Tree	
<b>Height</b>	To 70 ft (21m)	
<b>Growth</b>	Fast	
<b>Nature</b>	Naturalised -weed	
<b>Invasive</b>	Category 1 -High	
<b>Caution</b>	None known	
<b>Tolerance</b>	<b>Wind:</b> High	<b>Salt:</b> Medium
	<b>Sun:</b> Sunny	
	<b>Location:</b> Exposed	



A.Copeland

## HABITAT

Upland Hillside  
Urban- Street/Carpark  
Cave/Rock Wall/Quarry  
Inland Valley Woodland

## MAIN USES

Do not encourage- pest  
Remove or substitute

## DOMINANT COLOURS

Green

## SEASON

Year round

A very fast growing evergreen tree with aerial roots and a spreading nature. It produces small, 2 to 5 inch (5-13 cm) long shiny dark green leaves. The flowers are tiny and numerous hidden inside immature figs which ripen to a dark red. The seed is spread island-wide by birds.

The Indian Laurel is one of Bermuda's pervasive invasive plants. It tolerates full sun, lack of soil, severe pruning and is proving resistant to many herbicides. The seeds and roots from this tree find their way into rocky crevices or nooks in trees. It has a very aggressive root system which can cause considerable damage to building foundations, roofs, tanks and walls. It often grows as an epiphyte on other trees and is self seeding pervasively in many habitats.

It should never be planted and should be culled immediately as a seedling. **Alternative shade trees:** Royal Ponciana, Black Ebony, West Indian Almond, Mahogany or Spanish Cedar.

# Jumbie Bean, Wild Mimosa

*Leucaena leucocephala*



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**Family** FABACEAE

**Type** Shrub  
-Medium

**Height** To 10 ft (3m)

**Growth** Fast

**Nature** Naturalised  
-weed

**Invasive** Category 1  
-High

**Caution** None known



L.Hollis

**Tolerance** **Wind:** Medium

**Salt:** Medium

**Sun:** Full Sun or Partial Sun

**Location:** Exposed

## HABITAT

Upland Hillside  
Coastal Forest  
Roadside

## MAIN USES

Remove or substitute  
Do not encourage- pest

## DOMINANT COLOURS

Brown  
Yellow

## SEASON

Spring

An aggressive medium sized shrub, sometimes small tree, that has 10 to 20 pairs of leaflets on its grey-green bi-pinnate leaves. Terminal flower spikes produce whitish powder puff-like flowers. The seed pods are 3 to 5 inch ( 7.5-13cm) in length, green turning brown and eventually black.

Jumbie Bean tolerates full sun to partial shade. It is drought tolerant and somewhat wind and salt resistant. It recovers quickly after a storm.

Locally one of the most aggressive and fast growing invasive plants in all but the most exposed or managed areas. It will invade and create large areas of thicket, completely displacing all other plants in the areas. This plant should never be intentionally planted and should be removed at every opportunity. The best time for eradication is during the winter months after leaf drop. **Substitutes:** Jamaica Dogwood, Buttonwood, White Stopper or Olive wood.



# Morning Glory

*Ipomoea indica*



D.Pettit

**Family** CONVULVULACEAE

**Type** Vine

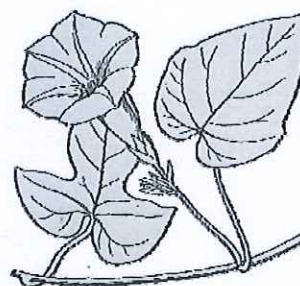
**Height** To 30 ft

**Growth** Fast

**Nature** Naturalised  
-weed

**Invasive** Category 1  
-High

**Caution** None known



**Tolerance**

**Wind:** Low

**Salt:** Low

**Sun:** Full Sun or Partial Sun

**Location:** Partial Exposure



D.Pettit

## HABITAT

Garden  
Upland Hillside

## MAIN USES

Do not encourage- pest  
Remove or substitute

## DOMINANT COLOURS

Blue  
Green

## SEASON

Year round

Locally known as Morning Glory or Blue Bell this very aggressive vine is a pest to gardeners, twines round other vegetation with strong tendrils and can grow up to 1 foot (30 cm) per day. It has pretty purple-blue flowers which last one day and are closed by evening. Leaves are heart-shaped or three-lobed and are slightly velvety.

Morning Glory is fast growing plant that can smother canopies. Drought tolerant it prefers full sun to partial shade. It is found mainly in sheltered locations away from wind and salt.

**Substitute flowering vines:** Allamanda, Sky Flower, Rangoon Creeper and Passion Flowers (and many more).

# Mother-in-Law's Tongue, Snake Plant

*Sansevieria trifasciata*



D.Pettit

<b>Family</b>	LILIACEAE
<b>Type</b>	Cacti and Succulents
<b>Height</b>	To 4 ft (1.2m)
<b>Growth</b>	Fast
<b>Nature</b>	Naturalised -weed
<b>Invasive</b>	Category 1 -High
<b>Caution</b>	Poisonous

<b>Tolerance</b>	<b>Wind:</b> Medium	<b>Salt:</b> High
	<b>Sun:</b> Partial Sun	
	<b>Location:</b> Partial Exposure	



D.Pettit

## HABITAT

Garden  
Inland Valley Woodland

## MAIN USES

Do not encourage- pest  
Remove or substitute

## DOMINANT COLOURS

Green

## SEASON

Year round

The Mother-in-Law's Tongue has very erect, stiff, leathery or succulent leaves. These leaves are variegated with deep green to grey and silver-yellow markings. It produces short spikes of pale green flowers from the base of the plant during summer.

A common houseplant, Mother-In-Law's Tongue is very tolerant of a wide range of conditions. Locally has invaded woodland understorey, marsh and pond edges and roadsides. Given sufficient time, a few dumped specimens can spread and take over huge areas. A broken piece will root easily to form a new plant - as such it should not be dumped with horticultural waste. It is mildly toxic causing tongue numbness and indigestion if eaten.

**Alternatives:** Native Turnera, Snowberry, Virginia Creeper, Peperomia, Gingers, Aspidistra or Croton.

# Pothos Vine

*Epipremnum pinnatum*



D.Pettit

<b>Family</b>	ARACEAE	
<b>Type</b>	Vine	
<b>Height</b>	N/A	
<b>Growth</b>	Fast	
<b>Nature</b>	Naturalised -weed	
<b>Invasive</b>	Category 1 -High	
<b>Caution</b>	Poisonous	
<b>Tolerance</b>	<b>Wind:</b> Medium	<b>Salt:</b> Medium
	<b>Sun:</b> Partial Sun or Shade	
	<b>Location:</b> Partial Exposure	



A.Copeland

## HABITAT

Inland Valley Woodland  
Cave/Rock Wall/Quarry

## MAIN USES

Do not encourage- pest  
Remove or substitute

A multi-stemmed vine with large, rubbery heart shaped green leaves often with yellow variegated sections. The leaves often have smooth edges which are often torn.

Pothos Vine can tolerate shady to sunny exposure but must have shelter from salt and wind. It is an aggressive climber but can also grow horizontally as a ground cover. It is an epiphytic plant that if left unchecked will completely smother its host plant(s). Traditionally kept as a house plant Pothos Vine should never be planted outside and never dumped in horticultural waste.

## DOMINANT COLOURS

Green

## SEASON

Year round

It is recommended that this plant always be removed and never purposefully planted. Caution all parts of the plant are poisonous causing mouth/throat irritation, dermatitis and gastric irritation. It can be toxic to dogs, cats and children if ingested. Substitutes: Virginia Creeper, Wild Locust and Honey Plant.

# Pothos Vine, Devil's Ivy, Centipede Tongavine

*Epipremnum aureum*



<i>Epipremnum aureum</i> (Cultivar: Golden Queen)	
Scientific classification	
Kingdom:	Plantae
(unranked):	Angiosperms
(unranked):	Monocots
Order:	Alismatales
Family:	Araceae
Subfamily:	Monsteroideae
Tribe:	Monstereae
Genus:	<i>Epipremnum</i>
Species:	<i>E. aureum</i>
Binomial name	
<i>Epipremnum aureum</i>	
(Linden & André) G.S.Bunting, 1964	
Synonyms <sup>[1]</sup>	
<ul style="list-style-type: none"><li>• <i>Epipremnum mooreense</i> Nadeaud, 1899</li><li>• <i>Pothos aureus</i> Linden &amp; André, 1980</li><li>• <i>Rhaphidophora aurea</i> (Linden &amp; André) Birdsey, 1963</li><li>• <i>Scindapsus aureus</i> (Linden &amp; André) Engl, 1908</li></ul>	



## *Epipremnum aureum*

From Wikipedia, the free encyclopedia

*Epipremnum aureum* is a species of flowering plant in the family of Araceae, native in Mo'orea, French Polynesia. The species is a popular houseplant in temperate regions, but has also become naturalised in tropical and sub-tropical forests worldwide, including northern Australia, Southeast Asia, India, Pakistan, Nepal, Bangladesh, Hawaii and the West Indies,<sup>[2][3]</sup> where it has caused severe ecological damage in some cases.

The plant has a multitude of common names including golden pothos, hunter's robe, ivy arum, money plant, silver vine, Solomon Islands ivy and taro vine. It is also called devil's vine or devil's ivy because it is almost impossible to kill. It is sometimes mistakenly labeled as a *Philodendron* in plant stores.

# Walking Casuarina

*Casuarina glauca*



D.Pettit

<b>Family</b>	CASUARINACEAE
<b>Type</b>	Tree
<b>Height</b>	To 30ft (9m)
<b>Growth</b>	Fast
<b>Nature</b>	Naturalised -weed
<b>Invasive</b>	Category 1 -High
<b>Caution</b>	Burrs and Allergen

<b>Tolerance</b>	<b>Wind:</b> Medium	<b>Salt:</b> High
	<b>Sun:</b> Sunny	
	<b>Location:</b> Exposed	



D.Pettit

## HABITAT

Inland Valley Woodland  
Upland Hillside  
Disturbed sites  
Rocky Coastal/Exposed

## MAIN USES

Do not encourage- pest

## DOMINANT COLOURS

Green

## SEASON

Year round


Commonly known as Walking Casuarina it differs from its better known relative *Casuarina equisetifolia* with a grey-green bark, longer needles and smaller cones - usually less than 1/2 inch (1.3 cm) wide. Insignificant flowers appear during September to October, however the cones persist year around. It produces a thick leaf litter layer which suppresses the germination of other species.

It is very drought tolerant and prefers full sun. This type has a well-developed lateral root system which often produces vigorous root suckers that form dense thickets. As a result Walking Casuarina does not seem so prone to hurricane 'blow down'. It is perhaps for this reason that it is not as prolific as *Casuarina equisetifolia* since its cousin is found rooting individually in cliffs and walls. However this type still poses a great threat in more sheltered inland areas with deeper soil profiles. It is ranked as a Category I invasive by the Florida Exotic Plant Pest Council as it has infested the Florida Everglades and become a weed. It should never be planted and should be removed at every opportunity.



D.Pettit

<b>Family</b>	MALVACEAE	
<b>Type</b>	Herbaceous Perennial	
<b>Height</b>	To 2ft (60cm)	
<b>Growth</b>	Fast	
<b>Nature</b>	Naturalised -weed	
<b>Invasive</b>	Category 1 -High	
<b>Caution</b>	Poisonous	
<b>Tolerance</b>	<b>Wind:</b> Medium	<b>Salt:</b> Medium
	<b>Sun:</b> Full Sun or Partial Sun	
	<b>Location:</b> Exposed	




A.Copeland

## HABITAT

Roadside  
Disturbed sites  
Inland Valley Woodland

## MAIN USES

Do not encourage- pest  
Remove or substitute

## DOMINANT COLOURS

Yellow  
Green

## SEASON

Summer

Common Wire Weed is a small flowering shrub in the Mallow family that grows to 2 feet (60cm) in height. Its leaves are bright green 1-4 inch (2.5-10cm) long, oblong with serrated edges on reddish stems. The flowers grow from leaf axils, are yellow in colour, solitary or in pairs. The flowers are buttercup like in shape, with overlapping petals and brighter centres.

Common Wire Weed tolerates full sun to partial shade. It can tolerate dry as well as high rainfall conditions. This weed is common on roadsides, field edges, grassy areas and waste ground. It is poisonous to goats and livestock. Once the plant becomes established, it is very competitive, holding and denying the site to other plants. Spread by seed in which catch on wool, fur, cloth, mud attached to boots and/or vehicles. Lefroy notes this weed was mentioned as early as 1669. Not normally planted it should be culled whenever possible especially from conservation areas. It should not be mistaken for Native Turnera.