

# The Barachois Project – A Baseline Study – Native and Endemic Species – Terrestrial Plants

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Study Area: Coastal forest adjacent to the barachois of Residences la Chaux, Mahébourg



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## **Foreword:**

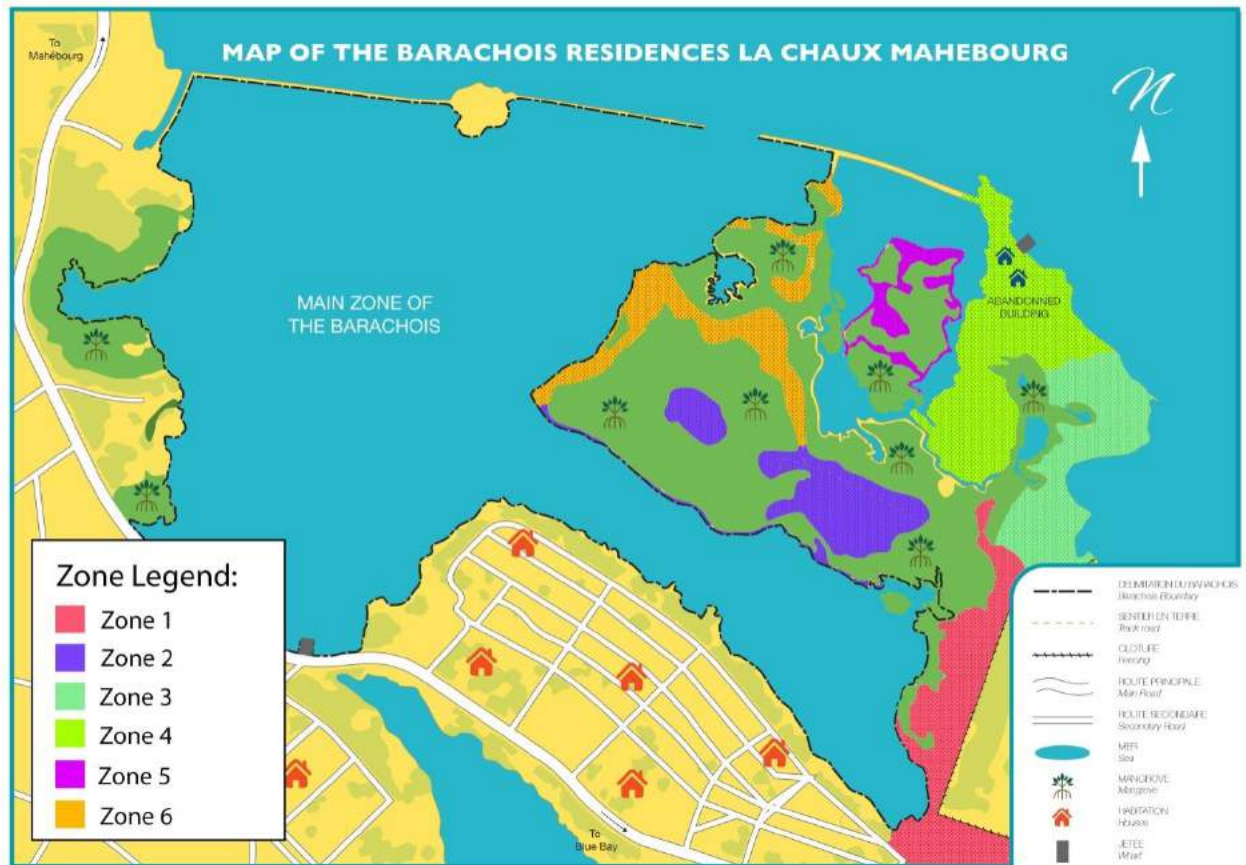
This document forms part of a baseline study carried out for the Barachois Project (EPCO) in Residences la Chaux, Mauritius and contains a catalogue of terrestrial plants (embryophytes) which are currently present in the site or will be introduced in subsequent project phases. The document is split into two parts: alien and native/endemic species.

A map of the project site has been provided alongside the report to divide it into zones (1-6). These are intended to break up the study area into sections to which the distributions of plants included in the study are assigned for ease of locating them in the field. These are referenced in the descriptions for each species. Zones are not intended to document complete distributions but show areas where individual species are most likely to be found based on the authors personal experience at the time of the study.

For endemic and native species, where possible, descriptions have been provided containing morphological, ecological and ethnobotanical information. This information will be used for the creation of interpretative panels which are to be constructed in the project site for educational purposes. For the second catalogue, of all exotic plants it was not possible to create full descriptions for each species given the length of time available and number of exotic species within the study area. Furthermore, it was not deemed necessary as interpretative panels will not be erected for these species. For exotic plants the study instead focuses on documenting local usage to inform future management of the project area and to bolster understanding on the connection between the community and the local environment.

Pre-existing information in scientific literature has been referenced, however any unreferenced information on local usage has been gathered firsthand through interviews with the local people of Residences la Chaux. Information other than ethnobotanical usage, for example scientific studies based on medicinal properties or other trivial information is provided for interest and educational purposes. Scientific information is also included where applicable to support ethnomedicinal usage.

# Site map



A larger version of the map can be found on a separate PDF file.



## *Acrostichum aureum*



## **Acrostichum aureum**

**Distribution:** Widespread across tropics/subtropics

**Abundance in study area:** Uncommon

**Distribution in study area:** Clustered – especially Zone 1- off main track

**English Name:** Golden Leather Fern

**Local Name:** Unknown

**IUCN conservation status:** Least Concern

**Description:** *A. aureum* is a large fern that grows near mangroves or other wetland areas. In some areas of the world however they are seen as detrimental to mangrove forests as they can interfere with mangrove growth if the habitat is disturbed (Medina et al. 1990). The plant contains a number of bioactive compounds which support its medicinal usage in certain countries (Uddin et al. 2012). In Bangladesh it is known as 'tiger fern' since it provides good cover Royal Bengal Tigers hiding in the vegetation (Zafrul 2000). In Cite la Chaux the foliage is used for decoration.



## *Caesalpinia bonduc*



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"*Caesalpinia bonduc* (L.)  
Roxb." by Howard R.A. /  
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## **Caesalpinia bonduc**

**Distribution:** Pantropical – Native to Mauritius

**Abundance in study area:** Uncommon

**Distribution in study area:** Clustered in Zone 4

**Habitat:** Coastal areas

**English Name:** Grey nicker

**Local Name:** Cadoque

**IUCN conservation status:** N.A

**Description:** *C. bonduc* is a scrambling thorny shrub that grows up to five metres tall. It has pinnate leaves, yellow flowers and produces pods that contain hard grey seeds (nicker nuts). It belongs to the family Caesalpiniaceae (Harden 2002). It is overexploited for its medicinal usage which has made it endangered in certain areas of the world, for example parts of India (Balasubramaniam et al. 2016) and Africa (Padonou et al. 2015). It is frequently used to treat malaria, a property supported in studies such as by Pudhom et al. (2007). In Mauritius it is additionally used to treat indigestion, gonorrhoea, hernia, tooth decay, fish sting, intestinal worms and tambave (Gurib-Fakim & Gueho 1995-7).



## *Cassine orientalis*



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"*Cassine orientalis* (Jacq.)  
Kuntze" by Champ J. /  
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## **Cassine orientalis**

**Distribution:** Endemic to Mascarenes

**Abundance in study area:** Not found

**Habitat:** Lowland, intermediate and upland forest

**English name:** False olive

**Local name:** Bois d'olive

**IUCN Conservation status:** N.A

**Description:** *C. orientalis* is a canopy tree growing up to 12 metres tall. It has simple opposite leaves which are heterophyllous – the juvenile leaves are long, bright green and have a red midrib whilst the adult leaves are dark green and oval with a toothed edge. The flowers have light green petals. Fruits are shaped like olives (hence the common name) (Atkinson & Sevathian 2017). In traditional Medicine the plant has been used to treat hypertension (Soobrattee et al. 2008), dysentery, gonorrhoea, tãmbave, fish allergy and high blood pressure (Gurib-Fakim & Gueho 1995-7).

***Cassytha filiformis***



## **Cassytha filiformis**

**Distribution:** Panropical – Native to Mauritius

**Abundance in study area:** Very common

**Distribution in study area:** All zones

**Habitat:** Coastal vegetation, particularly dunes or mangrove areas (Nelson 2008).

**English Name:** Love-vine

**Local Name:** Liane sans fin

**IUCN status:** N.A

**Description:** *C. filiformis* is a parasitic sprawling vine which grows over and weakens other plants. It belongs to the family Lauraceae (laurels), which includes the Bois d'Oiseau (*Litsea glutinosa*) and commercially important plants such as cinnamon, bay and avocado (Chanderbali et al. 2001). Although it is considered as an aggressive weed it is a highly useful medicinal plant. In Mauritius it is boiled and, once cool, applied to skin wounds. In Indian medicine, the whole plant is administered for sexually transmitted diseases and dysentery and a decoction is given for urethritis (Jain & Srivastava 2005). It is also used in Mauritius to treat gonorrhea, skin eruptions and hair loss (Gurib-Fakim & Gueho 1995-7). Studies have shown that the plant contains a number of bioactive compounds which support its usage in Africa for treatment of cancers and trypanosomiasis (sleeping sickness) (Stévigny et al. 2002).



## *Cossinia pinnata*



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## **Cossinia pinnata**

**Distribution:** Endemic to Mascarenes

**Abundance in study area:** Not found

**Habitat:** Dry to upland wet forest

**English name:** N/A

**Local name:** Bois de Judas

**IUCN Conservation status:** N.A

**Description:** *C. pinnata* is a small tree, around six metres tall, with compound leaves – composed of five leaflets. Leaflets are dark green and shiny on the tops but covered in brown hairs underneath. The midrib and leaf stalks are orange. The white flowers occur in groups and the fruit is brown and furry (Atkinson & Sevathian 2005). In traditional medicine the leaves and stems are used to treat asthma and influenza (Poullain et al. 2004).

*Cyperus compressus*



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## **Cyperus compressus**

**Distribution:** Native to Mauritius

**Abundance in study area:** Common

**Distribution in study area:** Zone 1

**Habitat:** Wet places – agricultural weed

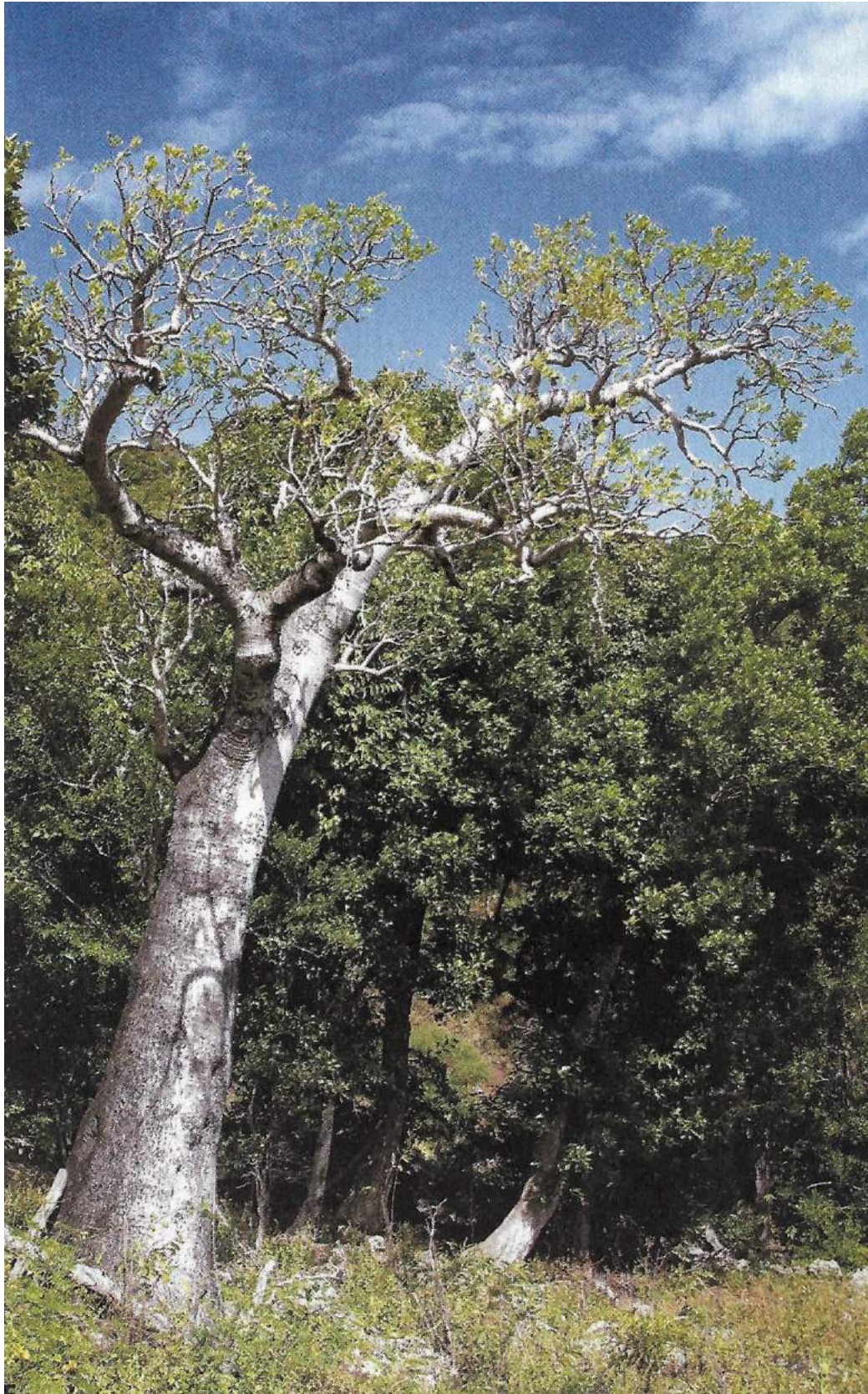
**English name:** Poorland flatsedge

**Local name:** N/A

**IUCN Conservation status:** Least Concern

**Description:** *C. compressus* is a grass commonly found in wet habitats across the tropics and subtropics and considered as a weed in cultivated areas such as rice fields. In India the leaves are used to make a poultice which is applied to skin infections (Beentje 2017).

*Cyphostemma mappia*



(Atkinson & Sevathian 2005)

## **Cyphostemma mappia**

**Distribution:** Endemic to Mauritius

**Abundance in study area:** Not found

**Habitat:** Dry and semi-dry forest

**English name:** Mauritian Baobab

**Local name:** Bois mapou

**IUCN Conservation status:** N.A

**Description:** *C. mappia* is a small tree, around six metres tall, with a swollen trunk. The braches are few but sturdy. It has compound leaves: leaflets occur in odd numbers and are thin, light green and have pointed tips. The tree is heterophyllous in some places – in these cases juvenile leaflets are long, thin and red. It is deciduous. It belongs to the family Vitaceae, including the grapevine – indeed, the fruits of the Mauritian Baobab resemble small and furry red grapes (Atkinson & Sevathian 2005). It has been used in traditional medicine to treat poison fish stings and tambave – childhood eczema (Gurib-Fakim & Gueho 1993).



***Dendrolobium umbellatum***



## **Dendrolobium umbellatum**

**Distribution:** Tropics – Native to Mauritius

**Abundance in study area:** Common

**Distribution in study area:** Zones 3 & 4 – coastal facing Ile aux Aigrettes

**Habitat:** Coastal areas – just above high tide

**English name:** N/A

**Local name:** Bois malgache

**IUCN Conservation status:** N.A

**Description:** *D. umbellatum* is a spreading shrub growing to three metres tall. The leaves branch in groups of three. It has white flowers and produces green pods (Gillett et al. 1971). It is used as fodder for horses in India and young leaves are occasionally eaten as a vegetable (Aguilar 2001).





## *Diospyros egrettarum*



(Atkinson & Sevathian 2005)



(Atkinson & Sevathian 2005)



"*Diospyros egrettarum*  
I. Richardson" by Comte L. /  
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## **Diospyros egrettarum**

**Distribution:** Endemic to Mauritius

**Abundance in study area:** Not found

**Habitat:** Coastal and dry forest

**English name:** N/A

**Local name:** Bois d'ebène

**IUCN Conservation status:** Critically endangered

**Description:** *D. egrettarum* is a tree growing up to 12 metres tall with simple alternate leaves. The leaf veins and margin are translucent. Leaves are dark green and rectangular and the bark is white. Flowers are white and highly scented. The fruits resemble fleshy acorns. It belongs to the family Ebenaceae – including other ebonies and persimmons (Atkinson & Sevathian 2005). Species in the genus *Diospyros* are used in traditional medicine in Mauritius to treat bacterial, fungal, viral, helminthic, protozoan, and malarial infections (Gurib-Fakim et al. 1996).

## *Dodonaea viscosa*



"*Dodonaea viscosa* (L.) Jacq." By White E. / licensed under CC BY-S



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## **Dodonaea viscosa**

**Distribution:** Pantropical, native to Mauritius

**Abundance in study area:** 2 small plants and 2 individuals present

**Distribution in study area:** Zone 4 – near shore, Zone 3 & 5

**Habitat:** Coastal, dry and intermediate forest

**English name:** Sticky hopbush

**Local name:** Bois de reinette

**IUCN Conservation status:** N.A

**Description:** The Sticky hopbush is a perennial shrub growing up to two metres tall. The leaves are simple, alternate, thin, narrow and light green in colour. When crushed they smell of apples. The fruit is dry and winged for wind dispersal. It belongs to the family Sapindaceae (soapberry) which includes species of maple as well as the horse chestnut and lychee trees (Atkinson & Sevathian 2005). The plant contains biologically active compounds which can have medicinal effects. In the Indian Ocean, a decoction made from the bark is used to treat rheumatism and bruises. It is also used for vertigo, asthma, haemorrhoids, and throat soreness: particularly leaves and stems (Jain & Srivastava 2005) (Poullain et al. 2004). On Reunion Island it is used as an anti-hypertensive and diuretic (Adsersen & Adsersen 1997). The plant contains flavonoids which, in studies, inhibit an enzyme implicated in inflammatory disorders, such as emphysema (Uddin et al. 2017). It also harbours endophytic bacteria which can be extracted and used to promote growth of other plants (Afzal et al. 2017). Other extracts from the plant have demonstrated anti-viral effects (Zhang et al. 2016). In Mauritius it has also been used to treat gout, ulcers, syphilis, angina, fish poisoning and abscesses (Gurib-Fakim & Gueho 1995-7).



## *Dombeya acutangula*



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## **Dombeya acutangula**

**Distribution:** Endemic to Mauritius

**Abundance in study area:** Not found

**Habitat:** Dry and semi-dry forest

**English name:** Bois Bete

**Local name:** Dombeya

**IUCN Conservation status:** Critically Endangered

**Description:** *D. acutangula* is a small tree, growing up to six metres tall. The leaves are simple, alternate, large and palmate in shape. The flowers are pink or white and occur in groups. It disperses small encapsulated seeds. It has similar leaves to *Hibiscus* species. It belongs to the family Malvaceae (mallows), which includes other species endemic to the Mascarenes such as *Hibiscus spp.* and *T. populnea* (Atkinson & Sevathian 2005). The plant has astringent qualities and in Mauritius it has been used to control bleeding (Daruty 1886). The stems have shown moderate free radical scavenging ability – which suggests potential as a source for anti-inflammatory treatment (Poullain et al. 2004).



## *Dracaena concinna*



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## **Dracaena concinna**

**Distribution:** Endemic to Mauritius

**Abundance in study area:** Not found

**Habitat:** Coastal and dry forest

**English name:** N/A

**Local name:** Bois de chandelle

**IUCN Conservation status:** Endangered

**Description:** *D. concinna* is a small tree, growing up to six metres tall with multiple trunks. The leaves occur in spiky whorls and are large, rigid, pointed and succulent. Flowers are very small and found on spiky extensions. When ripe, the fruit is orange or red. The branches are useful for making flares, hence its local name (Atkinson & Sevathian 2005). It belongs to the family Asparagaceae along with hyacinths and species of *Asparagus* and *Agave* (Chase et al. 2009).

***Erica brachyphylla***



(Atkinson & Sevathian 2005)

## **Erica brachyphylla**

**Distribution:** Endemic to Mauritius

**Abundance in study area:** Not found

**Habitat:** Heath

**English name:** N/A

**Local name:** Bruyère

**IUCN Conservation status:** N.A

**Description:** *E. brachyphylla* is a small, densely branched tree growing up to 1.5 metres. Its leaves are very small and take the form of thick needles arranged on short branches. The flowers are red and yellow and can be found at branch tips. The genus *Erica* contains plants collectively known as heather. In large enough numbers, heathers can grow with other plants to form a low-lying shrubby landscape (heath), usually forming on acidic soils. (Atkinson & Sevathian 2005).



***Erythroxylum* sp.**



(Atkinson & Sevathian 2005)



(Atkinson & Sevathian 2005)

## **Erythroxyllum sp.**

**Distribution:** Endemic to Mascarenes

**Abundance in study area:** Not found

**Habitat:** Sub-humid and upland wet forest (*E. macrocarpum*), dry and semi-dry forest (*E. sideroxyloides*, *E. hypericifolium*).

**English name:** N/A

**Local name:** Bois de ronde

**IUCN Conservation status:** N.A

**Description:** Trees in the genus *Erythroxyllum* are small, growing up to six metres tall. The bark has a mosaic pattern. The leaves are simple, alternate and covered in 'scars'. The flowers are white and star-shaped. The fruits are red and grow upright – resembling chillies. They grow in dry and semi-dry forest (Atkinson & Sevathian 2005).

*Erythroxyllum spp.* belong to the family Erythroxylaceae, best known for the coca plants and *E. coca* the source for the drug cocaine (Catalayud & Gonzalez 2003). Of the *Erythroxyllum* species endemic to the Mascarenes, there are three species in Mauritius: *E. macrocarpum*, *E. hypericifolium* and *E. sideroxyloides*. (Atkinson & Sevathian 2005).

*E. sideroxyloides* is used in the treatment of throat infections, fever and renal stones (Gurib-Fakim et al., 1996). *E. macrocarpum* is used in traditional medicine as a diuretic and is effective at reducing glucose absorption in studies – therefore a potential source for treating diabetes (Gurib-Fakim 2006). *E. hypericifolium* has shown moderate free radical scavenging activity (Poullain et al. 2004). According to a study by Suroowan and Mahomoodally (2013) *E. hypericifolium* is also one of the most commonly used plants for complementary and alternative medicines among Mauritian women, where it is used to treat anaemia. It has also used in Mauritius to treat gall stones, fever and colic (Gurib-Fakim & Gueho 1995-7).



*Eugenia sp.*



(Atkinson & Sevathian 2005)



(Atkinson & Sevathian 2005)



(Atkinson & Sevathian 2005)



## **Eugenia sp.**

**Distribution:** Endemic to Mauritius

**Abundance in study area:** Not found

**Habitat:** Dry to upland wet forest

**English name:** N/A

**Local name:** Bois clou

**IUCN Conservation status:** N.A

**Description:** There are three species of *Eugenia* in Mauritius: *E. lucida*, *E. orbiculata*, and *E. pollicina*. They are all small trees, growing up to five metres tall. The leaves are simple and opposite, with weak venation. The edges of leaves curl under and tops are shiny, whilst the underside is a matt whitish green. The flowers are small, white and resemble pom-poms. Young fruits resemble small nails that have been hammered into the branches, giving it its local name. When mature, the fruits look like small guavas (Atkinson & Sevathian 2005). *Eugenia spp.* belong to the family Myrtaceae (myrtles)– this includes the well-known plants guava, clove, allspice and eucalyptus (Lucas & Jennings 2009). Both *E. orbiculata* and *E. pollicina* have demonstrated antioxidant activities in studies (Neergheen et al. 2006) (Ramful et al. 2011).

## *Ficus reflexa*



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"*Ficus reflexa* Thunb." by Dufour-Kowalski S. / licensed under CC BY-SA 2.0

## **Ficus reflexa**

**Distribution:** Native to Mauritius, Seychelles and Madagascar

**Habitat:** Intermediate and upland forest

**Abundance in study area:** Not found

**English name:** N/A

**Local name:** La foughe bâtard

**IUCN Conservation status:** N.A

**Description:** *F. reflexa* is a strangler tree with small leathery leaves that are simple and alternate with netted venation. It contains latex – like the Rubber tree. The fruit (figs) grow attached to the branches (sessile) and are bright orange/yellow when ripe (Atkinson & Sevathian 2005). Extracts from the leaves and stems have shown moderate free radical scavenging and antioxidant activity in a study by Poullain et al. (2004) which suggests it may have pharmacological applications, for example in treating inflammatory conditions and/or cancers. It has been traditionally used in Mauritius to treat 'tambave' – childhood eczema (Gurib-Fakim & Gueho 1995-7).



## *Ficus rubra*



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## **Ficus rubra**

**Distribution:** Native to Mauritius and Seychelles

**Abundance in study area:** Not found

**Habitat:** Intermediate and upland forest – particularly near rivers

**English name:** N/A

**Local name:** Afouche rouge

**IUCN Conservation status:** N.A

**Description:** *F. rubra* is a large tree, growing up to eight metres tall. The leaves are large and thin with white veins. They are also simple, alternate and have finely netted venation. It contains latex. The fruits are orange/yellow when ripe. The genus *Ficus* is characterised by their fruit (figs) and belongs to the family Moraceae (mulberry) (Atkinson & Sevathian 2005). It has been traditionally used in Mauritius to treat 'tambave' – childhood eczema (Gurib-Fakim & Gueho 1995-7). On Rodrigues, it is used to treat warts and convulsions in infants (Gurib-Fakim & Gueho 1993).



## *Foetidia mauritiana*



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## **Foetidia mauritiana**

**Distribution:** Endemic to Mascarenes

**Abundance in study area:** Not found

**Habitat:** Dry forest

**English name:** Stinkwood

**Local name:** Bois puant

**IUCN Conservation status:** N.A

**Description:** *F mauritiana* is a canopy tree growing up to 12 metres tall. It has a greyish trunk and thick branches. The leaves are whorled and have a red midrib. They are also heterophyllous, since the juvenile leaves are narrower than those of adult plants. Flowers are white, small and shaped like a brush. The wood is resistant to rotting due to its high oil content – this also gives it a distinctive foetid smell, hence its Latin name (Atkinson & Sevathian 2005). Stinkwood belongs to the family Lecythidaceae, including the Brazil nut tree (Mori et al. 2016). The leaves and stems are used in ethnomedicine on Reunion Island to treat influenza, fever, asthma, verruca and bronchitis (Poullain et al. 2004). Leaf extracts have also demonstrated antioxidant activity (Poullain et al. 2004).

***Gagnebina pterocarpa***



(Atkinson & Sevathian 2005)

## **Gagnebina pterocarpa**

**Distribution:** Native to Mauritius, Madagascar and Comores

**Abundance in study area:** Not found

**Habitat:** Coastal, dry and palm forest

**English name:** N/A

**Local name:** Acacia indigène

**IUCN Conservation status:** N.A

**Description:** *G. pterocarpa* is a small tree growing up to four metres tall. It has a grey trunk and dark green foliage with small compound leaves. The flowers are white and grouped into brush-like inflorescences. The fruits are contained within pods (Atkinson & Sevathian 2005). It looks very similar in appearance to *Leucaena leucocephala* – known locally as 'Petit acacia' and considered as highly invasive. It belongs to the legume family, Fabaceae – the third largest family of terrestrial plants with 19,500 individual species (Christenhusz & Byng 2016).





## *Hibiscus fragilis/genevii*



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"Hibiscus genevii - critically endangered endemic plant growing at Monvert Nature Park" by Moltano S. / licensed under CC0 1.0

## **Hibiscus fragilis/genevii**

**Distribution:** Endemic to Mauritius

**Abundance in study area:** Not found

**Habitat:** Sub-humid forest

**English name:** Mandrinette

**Local name:** Hibiscus

**IUCN Conservation status:** Critically endangered

**Description:** Of the five species of *Hibiscus* present in Mauritius these are the two that are endemic. They are shrubs, growing to four metres tall. They have simple, alternate leaves that are light green and slightly serrated at around the apical margin. The flowers are large and ostentatious with brightly coloured petals and a long, thin stamen that protrudes out of the flower. *H. genevii* has large pink flowers with a deep red centre whilst *H. fragilis* has smaller, blood red flowers with some orange coloring sometimes present (Atkinson & Sevathian 2005). The name *fragilis* refers to the plant's brittle branches (Cafferty & Cheek 1996). Like other species of *Hibiscus* these plants belong to the family Malvaceae (mallows).

## *Hibiscus filiaceus*



"Kapiolani Park Hibiscus filiaceus" by Cutler W. / licensed under CC BY 2.0



*Hibiscus filiaceus* (hau) by Starr F. & Starr K. / licensed under CC BY 2.0



## **Hibiscus tiliaceus**

**Distribution:** Pantropical, native to Mauritius

**Abundance in study area:** Very common

**Distribution in study area:** Zones 1,2,3,4 & 6

**Habitat:** Coastal forest – especially in proximity to mangrove

**English name:** Sea hibiscus

**Local name:** Var

**IUCN Conservation status:** N.A

**Description:** The Sea hibiscus is a small tree, growing up to six metres, which is very similar in appearance to the Portia tree (*Thespesia populnea*). Both trees belong to the same family of mallows (Malvaceae) which also includes the cocoa and baobab tree. It is native to the coasts of the Indian and Pacific oceans and is naturalised across the tropics and subtropics. Like *T. populnea* it has large, heart-shaped leaves that are simple and alternate on long stalks, however leaves tend to be broader and more flexible. The bark is dark in colour and it has yellow bell flowers which bloom for a single day, turning progressively redder over time until they wither and die. The fruits are contained within brown dehiscent cups that split open after drying to release the seeds that resemble small kidney beans. (Atkinson & Sevathian 2005). Locally around Mahebourg it is used as an ornamental garden plant however it has many uses in other parts of the world. In Hawaii the plant is known as *hau*. Here the plant has been used historically to make fibre, nets and the spars (beams) used in constructing outrigger canoes (Motooka et al. 2003). In southern Brazil it is used to make a tea which is then consumed (Vanzella et al. 2012). The medicinal properties of the plant have been examined in numerous studies and it is reportedly effective in the treatment of bronchitis, fevers, coughs, ear infections, skin diseases and postpartum disorders (Vanzella et al. 2012). Extracts have also been shown to have anti-mutagenic properties to protect against oxidative DNA damage (Rosa et al. 2006).

*Hilsenbergia petiolaris*



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## **Hilsenbergia petiolaris**

**Distribution:** Native to Mauritius and Africa

**Abundance in study area:** Common

**Distribution in study area:** Zones 3,4,5 & 6

**Habitat:** Coastal and palm forest

**English name:** N/A

**Local name:** Bois pipe

**IUCN Conservation status:** N.A

**Description:** *H. petiolaris* is a small tree, growing up to five metres tall. It has thin branches which, when dried, are hollow – giving it its local name. The leaves are simple, alternate and thin with a drip tip. The flowers are small and white. The fruits form red-orange berries (Atkinson & Sevathian 2005). The plant belongs to the family Boraginaceae (borage or forget-me-nots), including medicinal herbs such as borage and comfrey (Wilson 1992). The plant is used in Mauritius to treat eczema in children (tambave) (Schmelzer & Gurib-Fakim 2008) and migraine (Gurib-Fakim & Gueho 1995-7).





## *Hyophorbe lagenicaulis*



"*Hyophorbe lagenicaulis* (L.H.Bailey) H.E.Moore." by Santacreu H. / licensed under CC BY-SA 2.0

## **Hyophorbe lagenicaulis**

**Distribution:** Endemic to Mauritius

**Abundance in study area:** Not found

**Habitat:** Palm forest

**English name:** Bottle palm

**Local name:** Palmiste bouteille

**IUCN Conservation status:** Critically Endangered

**Description:** The Bottle palm is a small tree growing up to four metres. It has a swollen, bottle-shaped trunk giving it its common name. Normally, the plant has five palms bearing leaves. The cream-coloured flowers are very small and grow on spikes and the fruit is small, round and orange. It belongs to the family Arecaceae (palm trees) (Atkinson & Sevathian 2005). It is endemic only to Round Island, an islet offshore of Mauritius, but is cultivated extensively elsewhere on Mauritius in gardens and by roadsides. Due to intensive management its wild population has survived a serious population bottleneck, previously reduced to just 8 individuals (Dransfield 1996). The genus as a whole, containing five species, is extremely threatened, *H. amaricaulis* surviving as only one individual in the Curepipe Botanic Garden (Maunder et al.2002).



*Ipomea pes-caprae* subsp. **Brasiliensis**



"Ipomoea pes-caprae (L.) R. Br." by Wagner W.L. / Licensed under CC BY-NC-SA 2.0



## **Ipomoea pes-caprae subsp. brasiliensis**

**Distribution:** Panropical, Native to Mauritius

**Abundance in study area:** Uncommon

**Distribution in study area:** Zone 4 - clustered

**Habitat:** Coastal beaches

**English name:** Beach morning glory

**Local name:** Liane batatran

**Conservation status:** N.A

**Description:** *I. pes-caprae* is a creeping plant found across tropical shores. *Ipomoea* and *Pes-caprae* mean 'worm-like' and 'goat's foot', referring to its creeping growth and folded leaves (Richmond 2011). The flowers have large nectaries to attract pollinators and the petals have ultra-violet patterns which act as runway markings for landing insects, such as bees. It is well adapted to coasts, tolerating severe exposure and saline/sandy soils (halophytic) (Hill 2001). It disperses saltwater-resistant seeds via the ocean where they can travel long distances. This has contributed greatly to its pantropical distribution (Miryeganeh et al. 2014). It has an important role on coastal ecosystems for stabilising sand due to its deep taproot system which acts like a central anchor in the sand. Locally around the Barachois the plant is administered medicinally to treat haemorrhoids. It is also used to relieve jellyfish stings (Silva Barth da et al. 2017). Halophytes are often used in traditional medicines – due to being exposed to extreme conditions they tend to produce stress-associated bioactive compounds which, as some studies have found, can have medicinal effects. For example in a study by Qasim et al. (2017) the beach morning glory was shown to have stronger antioxidant capacity than synthetic antioxidants.

# *Latania loddigesii*



"Blue lattan (*Latania loddigesii*)" by Avery D. / licensed under CC BY 2.0



"*Latania loddigesii* fruit lao Tropical Gardens of Maui-Maui" by Starr F. & Starr K. / Licensed under CC BY 2.0

## **Latania loddigesii**

**Distribution:** Endemic to Mauritius

**Abundance in study area:** One unconfirmed plant

**Distribution in study area:** Zone 3 – behind thickets of *P. dulce*

**Habitat:** Coastal and palm forest

**English name:** Blue Latan palm

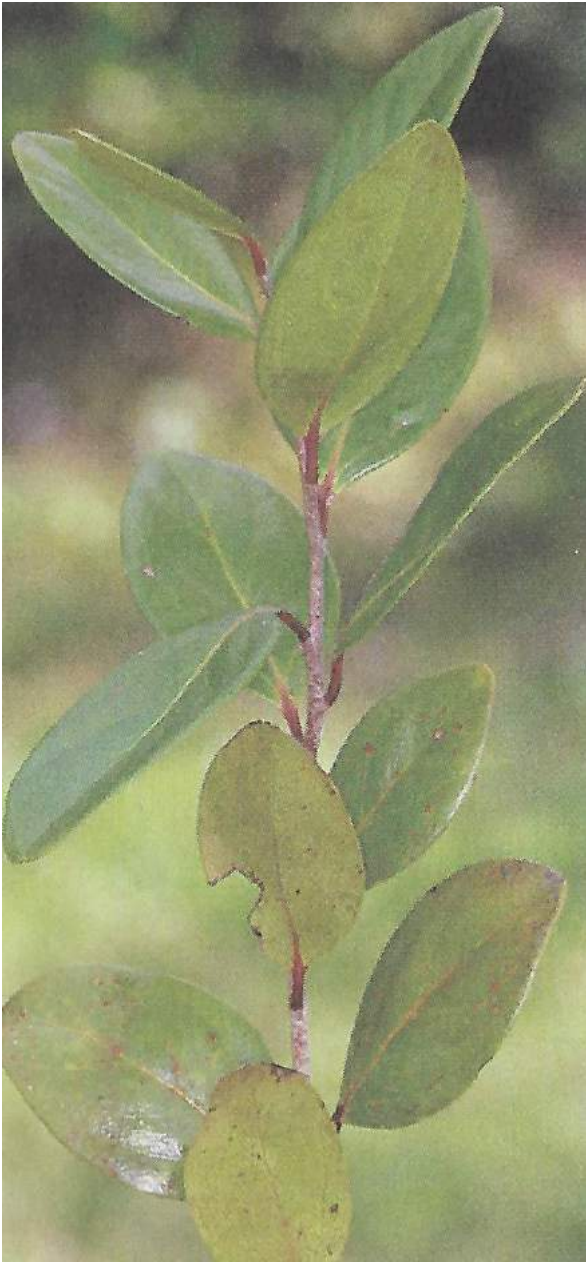
**Local name:** Latanier bleu

**IUCN Conservation status:** Endangered

**Description:** *L. loddigesii* is a tall tree growing up to six metres tall. It has large, blue-grey fanned leaves. The flowers are very small, yellow and congregated into spiked inflorescences. The fruit is large and brown when ripe. The seeds have a beautifully sculpted appearance. It belongs to the family Arecaceae (palm trees) (Atkinson & Sevathian 2005).



***Ludia mauritiana***



(Atkinson & Sevathian 2005)



(Atkinson & Sevathian 2005)

## **Ludia mauritiana**

**Distribution:** Native to Mauritius, Madagascar and Africa

**Abundance in study area:** Not found

**Habitat:** Dry, intermediate and upland wet forest

**English name:** N/A

**Local name:** Bois mozambique

**IUCN Conservation status:** N.A

**Description:** *L. mauritiana* is a small tree growing up to six metres in height. It has simple, alternate leaves that are small and leathery to the touch. The branches are covered in small, white spots. There is distinctive netted venation on the underside of leaves. Flowers are small, white and are located at the foot of leaf stalks. The fruits are small, red berries. It belongs to the family Salicaceae (willows) (Atkinson & Sevathian 2005).

***Ludwigia octovalvus* subsp. *sessifolia***



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## **Ludwigia octovalvus subsp. sessifolia**

**Distribution:** Native to Mauritius

**Abundance in study area:** Uncommon

**Distribution in study area:** Zone 1 & 2

**Habitat:** Disused, weedy areas

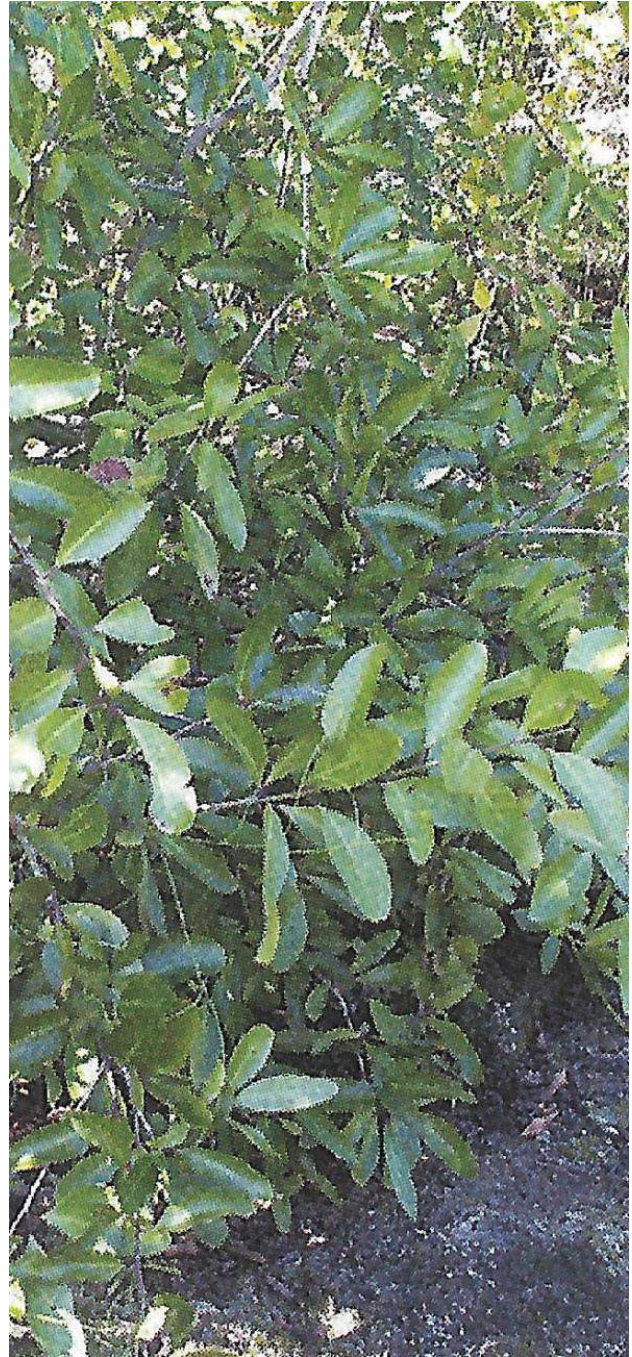
**English name:** Mexican Primrose Willow

**Local name:** Unknown

**IUCN Conservation status:** N.A

**Description:** *L. octovalvus* is a herb growing up to 3 metres tall. It has yellow flowers. The subspecies *sessiflora* is distinct to those growing in South America (subsp. *octovalvis*) as the leaves are ovate and have hairs (CABI 2015).

***Maytenus pyria***



(Atkinson & Sevathian 2005)

(Atkinson & Sevathian2005)

## **Maytenus pyria**

**Distribution:** Endemic to Mauritius

**Abundance in study area:** Not found

**Habitat:** Dry and sub-humid forest

**English name:** N/A

**Local name:** Bois à poudre

**IUCN Conservation status:** N.A

**Description:** *M. pyria* is a bushy shrub growing up to two metres tall. The leaves are arranged in whorls along the branches and are serrated, sometimes with a reddish tinge. The flowers are small and release pollen in an explosive manner from the flower head. The fruit is bright orange. It belongs to the family Celastraceae (staff vines). (Atkinson & Sevathian 2005). It is used in traditional medicine in Mauritius against dysentery and tuberculosis (Gurib-Fakim & Gueho 1995-7) and exhibits anti-tumoral, anti-inflammatory and anti-leukemic activities (Gurib-Fakim et al. 1996).



***Pandanus sp.***



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## **Pandanus sp.**

**Distribution:** Endemic to Mauritius/Mascarenes

**Abundance in study area:** Not found

**Habitat:** Palm forest, upland marsh and heath

**English name:** Screw pine

**Local name:** Vacoas

**IUCN Conservation status:** N.A

**Description:** The Screw pine is a common name for a genus of monocotyledonous plants. They are also called screw palms, although are not closely related to palm trees, who belong to a different Order. Screw pines are small trees, growing up to six metres in height. They have long, pointed leaves covered in spines that are often grouped in whorls at the end of branches. They are dioecious: individuals are either male or female with respective flowers. Male flowers are very small and grow in groups, resembling a lamb's tail. Female flowers are large and cream-coloured. The fruits are fragrant and have a surface mosaic pattern – they are made up of segments that fit together like a jigsaw. These segments are coloured red, orange or yellow on the inside. Screw pines that grow in Mauritius include the following species: *P. barklyi*, *P. eydouxia*, *P. rigidifolius*, *P. wiehei*, *P. utilis* and *P. vandermeeschii*. All are endemic to Mauritius except *P. utilis* which is endemic to the Mascarenes. The genus belongs to the ancient family Pandanaceae, which dates back to the Cretaceous period (Callmander et al. 2003).



***Paspalum vaginatum***



"Paspalum vaginatum plant10" by Rose H. / Licensed under CC BY 2.0



## **Paspalum vaginatum:**

**Distribution:** Native to Mauritius

**Abundance in study area:** Common

**Distribution in study are:** Zone 1

**Habitat:** Wet, saline areas

**English Name:** Seashore paspalum

**Local Name:** Unknown

**IUCN status:** Least Concern

**Description:** *P. vaginatum* is a perennial grass growing across Africa, Asia and America. It is often used for turf, particularly in coastal areas since it is saltwater-tolerant and is food for a variety of animal species across the world, including green sea turtles, hippopotamus, geese and manatees (CABI 2017).

## *Pemphis acidula*



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"Pemphis acidula J.R. Forst. & G. Forst" by Comte L. / Licensed by CC BY-SA 2.0

## **Pemphis acidula**

**Distribution:** Indopacific region – Native to Mauritius

**Abundance in study area:** Common – often growing very close to shore

**Distribution in study area:** Zone 1,3 & 4

**Habitat:** Coastal areas

**English Name:** Pemphis

**Local Name:** Bois matelot

**IUCN status:** Least Concern

**Description:** *P. acidula* is a bushy shrub growing up to five metres tall. It has hard-wooded stems and slender branches and many small leaves. The flowers are white and small and blossom throughout the year. The fruit is a dark red/brown. It grows on littoral fringes, commonly on the inland side of mangrove forests. It belongs to the family Lythraceae which also include henna and pomegranate. (Richmond 2011). Extracts from the plant have demonstrated anti-bacterial effects in studies (Samidurai & Saravanakumar 2009).



***Polyscias maraisiana***



(Atkinson & Sevathian 2005)

## **Polyscias maraisiana**

**Distribution:** Endemic to Mauritius

**Abundance in study area:** Small seedlings are rare

**Distribution in study area:** Zone 3

**Habitat:** Coastal and dry forest

**English name:** N/A

**Local name:** Bois boeuf

**IUCN Conservation status:** N.A

**Description:** *P. maraisiana* is a canopy tree growing up to six metres tall. It has a spongy trunk and thick branches. It has compound leaves with an odd number of shiny, thick leaflets. It is heterophyllous – the juvenile leaves are narrow and have a bright red midrib whereas the adult leaves are broader, curved and entirely green in colour. The flowers are white and green, occurring in clusters. The fruit is brown and enclosed within a cage-like structure (Atkinson & Sevathian 2005). It belongs to the family Araliaceae which includes ivies and herbs such as ginseng (Wen et al. 2001). This species was previously classified as *Gastonia mauritiana* but has since changed (Lowry & Plunkett 2010).



***Portulaca oleracea***



*Portulaca oleracea* L. by Fazer C. / Licensed under CC BY-SA 2.0



## **Portulaca oleracea:**

**Distribution:** Native to Asia and Africa

**Abundance in study area:** Uncommon

**Distribution in study area:** Zone 4 – close to shore

**Habitat:** Coralline or rocky coasts (Gurib-Fakim & Gueho 1997)

**English Name:** Common Purslane

**Local Name:** Poupier

**IUCN conservation status:** N.A

**Description:** *P. oleracea* is an annual or perennial succulent plant. The flowers are yellow and terminal. Fruits are capsular and obovoid.. The leaves and stems are edible both raw and cooked and can be used in salads. The leaves also have a sticky quality, like okra, when cooked and so can thicken soups. The plant has medicinal uses in Mauritius: it acts as a vermifuge (Wong Ting Fook 1980), astringent and antiscorbutic (treating scurvy). For example the roots and leaves can be combined with Papaya root to make an anthelmintic infusion for treating internal parasites (e.g. worms) (Gurib-Fakim & Gueho 1997).

## *Premna serratifolia*



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"Premna serratifolia" by Gutierrez L. / licensed under CC BY-ND 2.0

## **Premna serratifolia**

**Distribution:** Native to tropics

**Abundance in study area:** Not found

**Habitat:** Dry, semi-dry and upland forest

**English name:** Agnimantha

**Local name:** Bois sureau sauvage

**IUCN Conservation status:** N.A

**Description:** *P. serratifolia* is a small tree or creeper growing up to five metres tall. It has a trunk that is striped yellow and brown. The leaves are large, simple and opposite. They are often covered in galls. These are caused by a family of insects (Cecidomyiidae) that feed within plant tissue. The inflorescences are composed of tiny, white, fragrant flowers. The fruits are dark blue when ripe (Atkinson & Sevathian 2005). It belongs to the mint family (Lamiaceae) which includes many species of aromatic and medicinal plants such as mint, basil, rosemary, thyme and lavender (Mamadaliyeva et al. 2017). In studies it has shown anti-microbial (Rajendran & Basha 2010) and anti-arthritic activity (Rajendran & Krishnakumar 2010). In Mauritius the leaves are used to treat cough and influenza (Wong Ting Fook 1980).



***Protium obtusifolium***



(Atkinson & Sevathian 2005)

## **Protium obtusifolium**

**Distribution:** Endemic to Mauritius

**Abundance in study area:** Not found

**Habitat:** Dry, intermediate and upland forest

**English name:** N/A

**Local name:** Colophane bâtard

**IUCN Conservation status:** N.A

**Description:** *P. obtusifolium* is a canopy tree growing up to 15 metres tall. It has bark that is a pale-pinkish colour and flakes easily. It has compound leaves, composed of an odd number of glossy leaflets. The resin and leaves smell distinctly of turpentine. The leaves have a yellow midrib and red-purple petiole (Atkinson & Sevathian 2005). The genus belongs to the family Burseraceae, known as torchwood, containing a number of plants like frankincense and myrrh which contain aromatic resin which can be used as a scent or to make incense. Whilst these are pleasant smelling to humans it is a deterrent of many other species, for example it is used as insect repellent in Cameroon (Youmsi et al. 2017). In Mauritius it has been traditionally used to treat urinary infections (Gurib-Fakim & Gueho 1995-7).

## *Psiadia arguta*



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## **Psiadia arguta**

**Distribution:** Endemic to Mauritius

**Abundance in study area:** Not found

**Habitat:** Coastal forest

**English name:** Baume bush

**Local name:** Baume de L'île Plate

**IUCN Conservation status:** N.A

**Description:** The Baume bush is a small shrub growing up to 1.5 metres in height. It has simple, opposite leaves that are small, shiny, round and sticky. The white flowers are concentrated into heads. The fruits form brown and dry capsules (Atkinson & Sevathian 2005). It belongs to the daisy or sunflower family, Asteraceae – one of the largest families of angiosperms (flowering plants) (Christenhusz & Byng 2016). It has shown antibacterial properties when studied in conjunction with the Gram negative and Gram positive bacteria *E.coli* and *S. aureus*. In this study, by Z.Aumeeruddy-Elalfi et al. (2015), it displayed stronger inhibitory effects than conventional antibiotics such as ampicillin/tetracyclines. This is due to presence of phenolic compounds. It has also been shown to be effective in inhibiting tyrosinase activity: an enzyme involved in skin pigmentation but also implicated in certain skin cancers such as melanoma (Aumeeruddy-Elalfi et al. 2016). It is traditionally used to treat anthrax, wounds, ulcers and bronchitis (Gurib-Fakim & Gueho 1995-7).

***Rhizophora mucronata*:**



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## **Rhizophora mucronata:**

**Distribution:** Pantropical

**Abundance in study area:** Common

**Distribution in study area:** Surrounding zones

**Habitat:** Mangrove forest (mangals)

**English Name:** Loop-root mangrove

**Local name:** Manglier

**IUCN Conservation status:** Least concern

**Description:** *R. mucronata* is a salt-tolerant evergreen tree that can grow to above 20 metres tall. The leaves are dark green and oval, with pointed ends. It has stilt roots which extend up to three metres. It flowers all year, but peaks in the wet season. Its propagules have a rough, wart-like surface and, after dropping from the tree, are able to take root in the mud where they fall from the tree. It grows in the tropics and subtropics in areas between average sea level and high tides to create mangrove forests (mangals) which provide habitat for many other species of crustaceans, molluscs and fish. It belongs to the family Rhizophoraceae which includes other species of mangrove. In Mauritius the roots can be made into a decoction which is used to treat diabetes and hypertension (Gurib-Fakim & Gueho 1997). This medicine is also used to treat fever (Fakim 1990) and a poultice of the leaves is used topically to treat oedema (Baumer 1979).



***Scaevola taccada*:**



## **Scaevola taccada**

**Distribution:** Pantropical, Native to Mauritius

**Abundance in study area:** Approx. 6 individuals

**Distribution in study area:** Zone 3

**Habitat:** Coastal beaches

**English name:** Beach cabbage

**Local name:** Veloutier vert

**IUCN Conservation status:** N.A

**Description:** The Beach cabbage is a dense shrub that is found on beaches along tropical and subtropical coasts. It grows to a typical maximum of 3 metres in height. It prefers beaches with coral-based sands and can be regarded as a pioneer plant. Because of its exposure to sea-spray it is very salt tolerant (halophytic). The leaves are waxy, light green, succulent and have rounded tips (Rojas-Sandoval & Acevedo-Rodriguez 2013). It belongs to the family Goodeniaceae. Scaevus means 'left-handed' or 'awkward' which describes the shape of the flowers: all five petals can be found on one side of the flower (Atkinson & Sevathian 2005). The fruits are white berries and can float for up to one year. Due to its specific habitat it is a good preventer of coastal erosion. In Polynesian tradition it is used to build fishing nets and baskets (Aalbersberg et al. 1993). Extracts show anti-viral effects (Locher et al. 1995). In Mauritius it is used to treat lionfish stings (Gurib-Fakim & Gueho 1995-7).



## *Sophora tomentosa*



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## **Sophora tomentosa**

**Distribution:** Endemic to Mascarene

**Abundance in study area:** Not found

**Habitat:** Coastal forest

**English name:** Yellow necklace pod

**Local name:** Griffre du diable

**IUCN Conservation status:** N.A

**Description:** Yellow necklace pod or Silver Bush is a shrub growing 1-4 metres in height. It has green to white-grey, pinnate, hairy compound leaves, arranged in an odd number of leaflets. The yellow flowers are found at the apical parts of branches and its seed pods are twisted, containing 4-8 seeds. It is a pioneer species, growing on sandy shores. The bark can be used as fish poison (Richmond 2011). It belongs to the pea family Fabaceae (Atkinson & Sevathian 2005).

## *Stenotaphrum dimidiatum*



Roubaudi L. *Stenotaphrum dimidiatum* (L.) Brongn. / Licensed under CC BY-SA 2.0

**Stenotaphrum dimidiatum:**

**Abundance in study area:** Common

**Distribution in study area:** Open areas with little vegetation

**English Name:** Maidencane

**Local Name:** L'herb Bourik

**IUCN status:** N.A

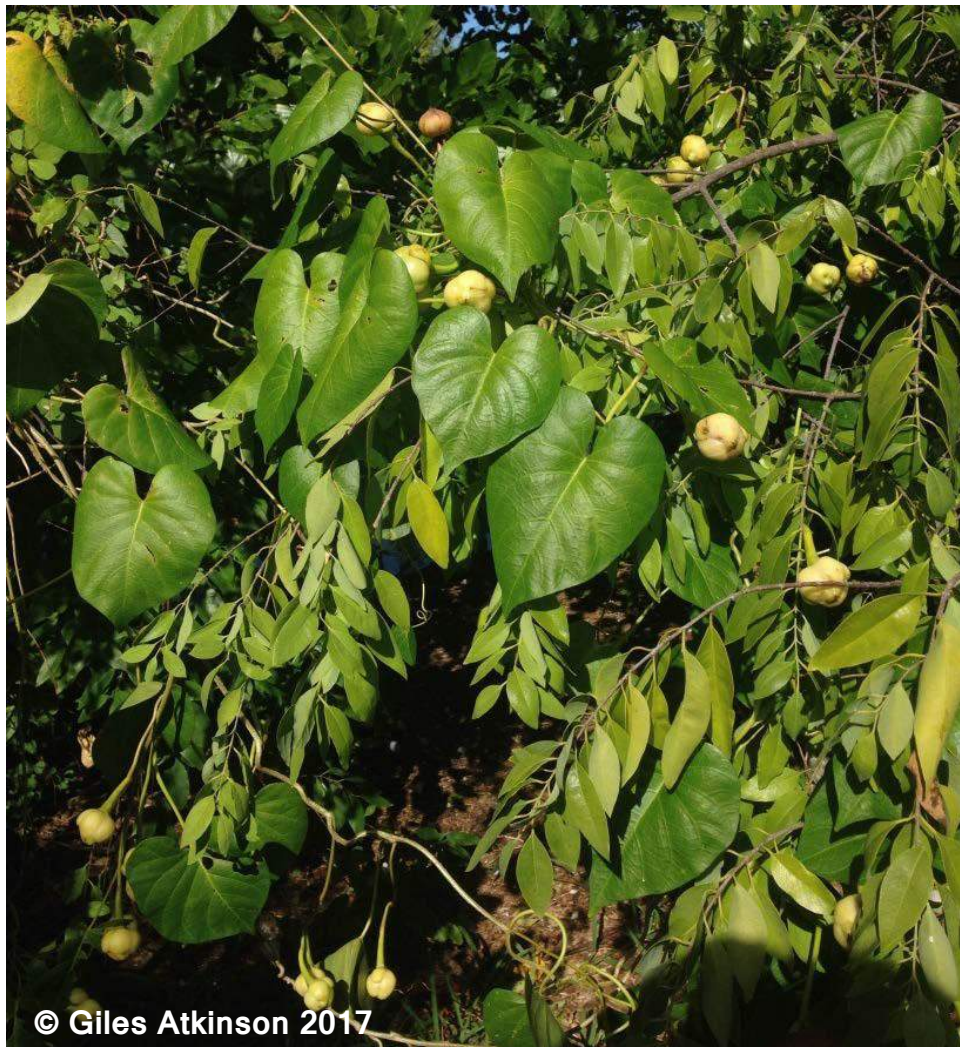
**Description:** *S. dimidiatum* is a perennial mat-forming grass across tropical Africa, Asia and the Pacific and Indian oceans (Clayton et al. 2017).



## *Stictocardia tilifolia*



*Stictocardia tilifolia* by 翁明毅 / Licensed under CC BY 2.0



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**Strictocardia tilifolia:**

**Abundance in study area:** Rare

**Distribution in study area:** Zone 5

**English Name:** Spottedheart

**Local Name:** Unknown

**IUCN status:** N.A

**Description:** *S. tilifolia* is a strong, woody, climbing plant. It has brown seeds that are enclosed in a fleshy, globose capsule and heart-shaped leaves (Verdcourt 1963). It resembles *Ipomoea* species.



## *Suriana maritima*



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## **Suriana maritima**

**Distribution:** Native to tropics

**Abundance in study area:** Uncommon – found adjacent to shores

**Distribution in study area:** Zone 4

**Habitat:** Coastal forest often on limestone rock and sandy shores in proximity to mangrove forest.

**English name:** Bay cedar

**Local name:** Bois matelot

**IUCN Conservation status:** N.A

**Description:** Bay cedar is a branched shrub growing up to four metres in height. The branches have a light hairy surface. Leaves are simple and alternate also with hairs, on both upper and lower surfaces. The flowers are yellow. Fruits are black and polygonal - 3 mm in diameter with small hairs (Richmond 2011). The plant is astringent, and it is used to control dysentery. It is also used as a poultice to treat stings from the poisonous 'Laffe' fish. It belongs to the family Surianaceae, which is very small, containing only 8 species (Christenhusz & Byng 2016).

*Tarennia borbonica*



## **Tarennia borbonica**

**Distribution:** Endemic to Mascarenes

**Abundance in study area:** Seedlings are rare

**Distribution in study area:** Zones 2 & 3

**Habitat:** Dry and semi-dry forest

**English name:** N/A

**Local name:** Bois de rat

**IUCN Conservation status:** N.A

**Description:** *T. borbonica* is a small tree growing up to 4 metres in height. It has a light grey trunk. The leaves are simple, alternate and heterophyllous: young leaves are narrow, mottled and have a bright red midrib whereas the adult leaves are small and matt green. The flowers are white and fragrant with long petals. The fruits are dark green. It belongs to the coffee family (Rubiaceae), which also contains the source of the antimalarial quinine (*Cinchona* spp.) (Warhurst et al. 2003) (Atkinson & Sevathian 2005). It is traditionally used in Mauritius to treat typhoid fever (Baumer 1979).



## *Terminalia bentzoë* ssp. *bentzoë*



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"Terminalia bentzoë (L.) L. f." by Jacquot M. / Licensed under CC BY-SA 2.0



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## **Terminalia bentzoë ssp. bentzoë**

**Distribution:** Endemic to Mascarenes

**Abundance in study area:** Not found

**Habitat:** Dry and semi-dry forest

**English name:** N/A

**Local name:** Benjoin

**IUCN Conservation status:** N.A

**Description:** *T. bentzoë* is a tall canopy tree growing up to 12 metres in height. The leaves are whorled, simple and covered in red hair. It is heterophyllous – young leaves are long and narrow with brown stripes whereas adult leaves are oval-shaped and green. The fruits resemble winged almonds. It belongs to the family Combretaceae (Atkinson & Sevathian 2005). On Mauritius the plant has traditionally been used to treat gonorrhoea and dysentery and has astringent, depurative and sudorific properties (Gurib-Fakim & Gueho 1995-7). In studies extracts from the leaves and shoots have shown moderate free radical scavenging and antioxidant activities (Poullain et al. 2004). Furthermore, it has demonstrated anti-hypertensive and diuretic properties (Adsersen & Adsersen 1997).



*Thespesia populnea*





## **Thespesia populnea**

**Distribution:** Pantropical, Native to Mauritius

**Abundance in study area:** Very common

**Distribution in study area:** All zones

**Habitat:** Coastal forest

**English name:** Portia tree

**Local name:** Sainte Marie

**Conservation status:** Least Concern

**Description:** The Portia tree is a small tree, growing up to 8 metres, with large, heart-shaped leaves on long stalks that are simple and alternate. Like the Sea hibiscus (*H. tiliaceus*) the yellow flowers will open and close on the same day, changing colour to red over time before dying. The fruits are enclosed in capsules in the shape of green bulbs. When young and cut these fruits exude a yellow fluid (Atkinson & Sevathian 2005). In Mauritius it grows frequently in other areas such as by roadsides. *Thespesia* is derived from ancient Greek, meaning divine - a name given by Daniel Solander, a member of Captain Cook's ship who saw this plant in Tahiti where it was planted around local temples (Neal 1965). Its adaptability to coastal conditions, tolerating saline and sandy soils, and growth of thick foliage makes it an excellent windbreak and barrier to erosion. In the Indian Ocean a decoction is used to treat dysentery and the leaves to treat haemorrhoids. The bark is also used to treat eczema (Jain & Srivastava 2005). In studies it has been shown to be effective in treating ulcerative colitis (Nirmal et al. 2015) and it has anti-cancerous and anti-diabetic properties (Lindamulage & Soysa 2016) (Phanse et al. 2016).

## *Tournefortia argentea*



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(Atkinson & Sevathian 2005)



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## **Tournefortia argentea**

**Distribution:** Native to tropics

**Abundance in study area:** Not found

**Habitat:** Coastal forest – close to shore

**English name:** Velvetleaf soldier bush

**Local name:** Veloutier blanc

**IUCN Conservation status:** N.A

**Description:** The Velvetleaf soldier bush is a small tree, growing up to four metres in height. It has a knotted trunk that is dark in colour and branches that run horizontally to give rise to a flat canopy. The leaves are simple and whorled. They are large and greyish, due to being covered in fine silvery hairs. The flowers are small and held in dense silver to white heads. It belongs to the borage family (Boraginaceae) (Atkinson & Sevathian 2005). In Mauritius it is used to treat lionfish stings (Gurib-Fakim & Gueho 1995-7). In the Pacific Islands the leaves are eaten as a vegetable and used in traditional medicine to treat rashes, diarrhoea and fish poisoning (Manner & Elevitch 2006). Extracts from the plant also inhibited haemorrhage resulting from pit viper venom in a study by Aung et al. (2010).



*Turraea thouarsiana*



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## **Turraea thouarsiana**

**Distribution:** Endemic to Mascarenes

**Abundance in study area:** Not found

**Habitat:** Dry, semi-dry and coastal forest

**English name:** N/A

**Local name:** Bois quivi

**IUCN Conservation status:** N.A

**Description:** *T. thouarsiana* is a small tree growing up to 2 metres in height. It has simple, alternate leaves that are small and shiny. It is heterophyllous – young leaves have a toothed margin whereas adult leaves are uniformly oval. The flowers are a pale cream colour and located at leaf bases. The fruits are berry-like and covered in fine hairs. It belongs to the mahogany family (Meliaceae) (Atkinson & Sevathian 2005) which includes the highly sought-after wood of the same name.



***Zoysia tenuifolia*:**



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## **Zoysia tenuifolia**

**Distribution:** Native to Mauritius

**Abundance in study area:** Very Common

**Distribution in study area:** All zones

**Habitat:** Coastal areas

**English name:** Mascarene grass

**Local name:** Gazon pik fesse

**IUCN Conservation status:** N.A

**Description:** *Z. tenuifolia* is a salt-water resistant mat-forming coastal grass. It grows on beaches, particularly landward of *I. pes-caprae* but is also cultivated inland as a turf grass as it will grow to form an attractive undulating mat which requires little maintenance (Goudswaard 1980). Little information available on this species.

## References:

### Bibliography:

Adsersen A. Adsersen H. 1997. Plants from Réunion Island with alleged antihypertensive and diuretic effects: an experimental and ethnobotanical evaluation. *Journal of Ethnopharmacology*. 58. pp.189-206

Afzal I. Iqar I. Shinwari Z.K. Yasmin A. 2017. Plant growth-promoting potential of endophytic bacteria isolated from roots of wild *Dodonaea viscosa* L. *Plant Growth Regulation*. 81(3). pp. 399-408

Aguilar N.O. 2001. *Dendrolobium umbellatum* (L.) Benth. Record from Proseabase. van Valkenburg, J.L.C.H. and Bunyapraphatsara, N. (Editors). PROSEA (Plant Resources of South-East Asia) Foundation, Bogor, Indonesia. <http://www.proseanet.org>. Accessed 12/08/17

Atkinson R. Sevathian J.C. 2005. *A guide to the plants in Mauritius*. Mauritian Wildlife Foundation.

Aumeeruddy-Elalfi Z .Gurib-Fakim A. Mahomoodaly F. 2015. Antimicrobial, antibiotic potentiating activity and phytochemical profile of essential oils from exotic and endemic medicinal plants of Mauritius. *Industrial Crops and Products*. 71. pp. 197-204

Aumeeruddy-Elalfi Z .Gurib-Fakim A. Mahomoodaly F. 2016. Kinetic studies of tyrosinase inhibitory activity of 19 essential oils extracted from endemic and exotic medicinal plants. *South African Journal of Botany*. 103. pp. 89-94

Aung H.T. Nikai T. Niwa M. Takaya Y. 2010. Rosmarinic acid in *Argusia argentea* inhibits snake venom-induced haemorrhage. *Journal of Natural Medicine*. 64(4). pp. 482-486

Balasubramaniam D. Arunachalam K. Arunachalam A. 2016. Dioecious *Caesalpinia bonduc* (L.) Roxb. calls for conservation in Burachapori Wildlife Sanctuary, Assam. *Tropical Ecology*. 57(1). pp. 119-124

Baumer M. 1979. *Compendium des plantes medicinales des Comores, des Seychells et de l'île Maurice*. A.C.C.T. Paris, France

Beentje H.J. 2017. *Cyperus compressus*. The IUCN Red List of Threatened Species 2017. <http://dx.doi.org/10.2305/IUCN.UK.2017-1.RLTS.T164257A84281031.en>. Accessed 25/08/17

CABI. 2015. *Ludwigia octovalvis* (primrose willow). <http://www.cabi.org/isc/datasheet/31671>. Accessed 25/08/17

CABI. 2017. *Paspalum vaginatum* (seashore paspalum).

<http://www.cabi.org/isc/datasheet/110291> Accessed 25/08/17

Cafferty S. Cheek M. 1996. *Hibiscus Fragilis* Malvaceae. *Curtis's Botanical Magazine*. 13(4). pp. 210-214

Callmander M.W. Chassot P. Küpfer P. Lowry P.P. 2003. Recognition of *Martellidendron*, a new genus of Pandanaceae, and its biogeographic implications. *Taxon*. 52(4). pp. 747-762

Catalayud J. Gonzalez A. 2003. History of the Development and Evolution of Local Anesthesia Since the Coca Leaf. *Anesthesiology* 6. 98. pp. 1503-1508

Chanderbali A.S. Werff H. van der. Renner S.S. Phylogeny and Historical Biogeography of Lauraceae: Evidence from the Chloroplast and Nuclear Genomes. *Annals of the Missouri Botanical Garden*. 88(1). pp. 104-134

Chase M.W. Reveal J.L. Fay M.F. 2009. A subfamilial classification for the expanded asparagalean families Amaryllidaceae, Asparagaceae and Xanthorrhoeaceae. *Botanical Journal of the Linnaean Society*. 161(2). pp. 132-136

Christenhusz M.J.M. Byng J.W. 2016. The number of known plants species in the world and its annual increase. *Phytotaxa*. 261(3). pp. 201-2

Clayton W.D. Vorontsova M. Harma K.T. Williamson H. 2017. *Stenotaphrum dimidiatum* – GrassBase – The Online World Grass Flora. The Board of Trustees, Royal Botanic Gardens, Kew. <https://www.kew.org/data/grasses-db/www/imp09775.htm> Accessed 25/08/17

Daruty D.C. 1886. *Plantes Medicinales de Maurice*. Port Louis, Mauritius

Dransfield J. 1996. *Hyophorbe lagenicaulis* *Palmae*. *Curtis's Botanical Magazine*. 13(4). pp. 186-190

Fakim A.G. 1990. *International Journal of Crude Drug Research*. 28. pp. 297-308

Gillett J.B. Polhill R.M. Verdcourt B. 1971. *Flora of Tropical East Africa*. p.1

Goudswaard P.C. 1980. The genus *Zoysia* (Gramineae) in Malesia. *Blumea*. 26. pp. 169-175

Gurib-Fakim, A. Guého, J. 1993. *Plantes medicinales de L'île Rodrigues*. Editions de l'Océan Indien and University of Mauritius.

Gurib-Fakim, A., Gueho, J. 1995-7. *Plantes médicinales de L'île Maurice*. Tomes 1, 2, 3. Editions de L'Océan Indien. University of Mauritius and Mauritius Sugar Industry Research Institute.

Harden G.J. (ed.). 2002. *Flora of NSW Vol. 2*. Sydney : New South Wales University Press

Hill K. 2001. *Indian River Lagoon Species Inventory*. *Smithsonian Marine Station*. Accessed 02/08/17. Available at:



[http://www.sms.si.edu/irlspec/ipomoea\\_pesca.htm](http://www.sms.si.edu/irlspec/ipomoea_pesca.htm)

Jain S.K. Srivastava S, 2005. Traditional uses of some Indian plants among islanders of the Indian Ocean. *Indian Journal of Traditional Knowledge*. 4(4). pp. 345-347

Qasim M. Abideen Z. Adnan M.Y. Gulzar S. Gul B. Rasheed M. Khan M.A. 2017. Antioxidant properties, phenolic composition, bioactive compounds and nutritive value of medicinal halophytes commonly used as herbal teas. *South African Journal of Botany*. 110. pp. 240-250

Lindamulage I.K.S. Soysa P. 2016. Evaluation of anticancer properties of a decoction containing *Adenanthera pavonina* L. and *Thespesia populnea* L. *BMC Complementary and Alternative Medicine* 16(70).

Lowry P.P. Plunkett G.M. 2010. Recircumscription of *Polyscias* (Araliaceae) to include six related genera, with a new infrageneric classification and a synopsis of species. *Plant Diversity and Evolution*. 128(1-2). pp. 55-84

Lucas E. Jennings L. 2009. Neotropical Myrtaceae. *Neotropikey - Interactive key and information resources for flowering plants of the Neotropics*. Accessed 02/08/17. Available at: <https://www.kew.org/science/tropamerica/neotropikey/families/Myrtaceae.htm>

Mamadalieva N.Z. Akramov D.K. Ovidi E. Tiezzi A. Nahar L. Azimova S.S. Sarker S.D. 2017. Aromatic Medicinal Plants of the Lamiaceae Family from Uzbekistan: Ethnopharmacology, Essential Oils Composition, and Biological Activities. *Medicines*. 4(8)

Manner H.I. Elevitch C.R. 2006. *Tournefortia argentea* (Tree Heliotrope) – Species profiles for Pacific Island agroforestry. Permanent Agriculture Resources (PAR). Honolulu, Hawaii

Maunder M. Page W. Mauremootoo J. Payendee R. Mungroo Y. Maljkovic A. Vericel C. Lyte B. 2002. The decline and conservation management of the highly threatened endemic plants of the Mascarene Islands. *Oryx*. 36. pp. 56-65

Medina E. Cuevas E. Popp M. Lugo A. 1990. Soil salinity, sun exposure, and growth of *Acrostichum aureum*, the mangrove fern. *Botanical Gazette* 151(1). pp. 41-49.

Mori, S.A. Kiernan E.A. Smith N.P. Kelley L.M. Huang Y-Y. Prance G.T. Thiers B. 2016. Observations on the phytogeography of the Lecythidaceae clade (Brazil nut family). *Phytoneuron*. 30. pp. 1–85

Motooka P. Castro L. Nelson D. Nagai G. Ching L. 2003. Weeds of Hawaii's Pastures and Natural Areas; an identification and management guide. *College of Tropical Agriculture and Human Resources, University of Hawaii*.

Miryeganeh M. Takayama K. Tateishi Y. Kajita T. 2014. Long-Distance Dispersal by Sea-Drifted Seeds Has Maintained the Global Distribution of *Ipomoea pes-caprae* subsp. *brasiliensis* (Convolvulaceae). *PLOS ONE*. 9(4).

Neal M.C. 1965. In Gardens of Hawaii. *Bishop Museum Press*, Honolulu

Nelson S.C. 2008. *Cassytha filiformis*. Plant Disease Leaflet PD 42. Hawaii: Cooperative Extension Service. 10.

Neergheen V.S. Soobrattee M.A. Bahorun T. Aruoma O.I. Characterization of the phenolic constituents in Mauritian endemic plants as determinants of their antioxidant activities in vitro. *Journal of Plant Physiology* .163(8). pp. 787-799

Nirmal S.A. Dhikale R.S. Girme A.S. Pal S.C. Mandal S.C. 2015. Potential of the plant *Thespesia populnea* in the treatment of ulcerative colitis. *Pharmaceutical Biology*. 53 (9). pp. 1379-1385

Padonou E.A. Ahossou O.D. Okou F.O.Y. Assogbadjo A.E. Kakaï R.G. Lykke A.M. Sinsin B. 2015. Impact of climate on seed morphology and plant growth of *Caesalpinia bonduc* L. in West Africa. *International Journal of Agronomy and Agricultural Research*. 6(3). pp. 86-96

Phanse M.A. Patil M.J. Abbulu K. 2016. Synthesis, characterization and evaluation of the suppression of insulin resistance in Type-II diabetes mellitus animals by treatment with metal complex. *Saudi Journal of Biological Sciences*. 23(3). pp. 420-425

Poullain C. Girard-Valenciennes E. Smadja J. 2004. Plants from Reunion Island: evaluation of their free radical scavenging and antioxidant activities. *Journal of Ethnopharmacology*. 95(1). pp. 19-26

Pudhom K. Sommit D. Suwankiti N. Petsom A. 2007. Cassane furanoditerpenoids from the seed kernels of *Caesalpinia bonduc* from Thailand. *Journal of Natural Products*. 70(9). pp. 1542-1544

Rajendran R. Basha N.S. 2010. Antimicrobial activity of crude extracts and fractions of *Premna serratifolia* Lin. Root. *Medicinal Plants*. 2(1).

Rajendran R. Krishnakumar E. 2010. Anti-Arthritic Activity of *Premna serratifolia* Linn., Wood against Adjuvant Induced Arthritis. *Avicenna Journal of Medical Biotechnology*. 2(2). pp. 101-106

Ramful D. Aumjoud B. Neergheen V.S. Soobrattee M.A. Googoolye K. Aruoma O.I. Bahorun T. 2011. Polyphenolic content and antioxidant activity of *Eugenia pollicina* leaf extract in vitro and in model emulsion systems. *Food Research International*. 44(5). pp. 1190-1196

Richmond M.D. (ed.) 2011. A Field Guide to the Seashores of Eastern Africa and the Western Indian Ocean Islands. *Sida/WIOMSA*.

Rojas-Sandoval J. Acevedo-Rodriguez P. 2013. *Scaevola taccada* (beach naupaka). CABI. Accessed 02/08/17. Available at: <http://www.cabi.org/isc/datasheet/48817>

Rosa R.M. Melecchi da Costa M.I. Halmenschlager R. Abad F.C. Simoni C.R. Caramão E.B. Henriques J.A.P. de Paula Ramos A.L.L. 2006. Antioxidant and antimutagenic properties of *Hibiscus tiliaceus* L. methanolic extract. *J Agric Food Chem.* 54. pp. 7324-7330

Rosoanaivo P. Petitjean A. Ratsimamango-Urverg S. Rakoto-Ratsimamanga A. 1992. Mediinal plants used to treat malaria in Madagascar. *Journal of Ethnopharmacology.* 37. pp. 117-127

Samidurai K. Saravanakumar A. 2009. Antibacterial activity of *Pemphis acidula* Forst. *Global Journal of Pharmaology.* 3(2). pp. 113-115

Schmelzer G.H. Gurib-Fakim A. 2008. Medicinal Plants – Volume 1. PROTA

Silva Barth da C. Souza de H.G.T. Rocha L.W. Silva da G.F. Anjos dos M.F. D'Avila Pastor V. Bresolin T.M.B. *Ipomoea pes-caprae* (L.) R. Br (Convolvulaceae) relieved nociception and inflammation in mice – A topical herbal medicine against effects due to cnidarian venom-skin contact. *Journal of Ethnopharmacology.* 200. pp. 156-164

Soobrattee M.A. Bahorun T. Neergheen V.S. Googoolye K. Aruoma O.I. 2008. Assessment of the content of phenolics and antioxidant actions of the Rubiaceae, Ebenaceae, Celastraceae, Erythroxylaceae and Sterculaceae families of Mauritian endemic plants. *Toxicology in Vitro,* 22(1). pp. 45-56

Stévigny C. Block S. De Pauw-Gillet M.C. de Hoffmann E. Llabrès G. Adjakidjé V. Quetin-Leclercq J. 2002. Cytotoxic Aporphine Alkaloids from *Cassytha filiformis*. *Planta Med.* 68(11). pp. 1042-1044

Suroowan S. Mahommodally F. 2013. Complementary and alternative medicine use among Mauritian women. *Complementary Therapies in Clinical Practice.* 19(1). pp. 36-43

Takayama K. Tamura M. Tateishi Y. Webb E.L. Kajita T. 2013. Strong genetic structure over the American continents and transoceanic dispersal in the mangrove genus *Rhizophora* (Rhizophoraceae) revealed by broad-scale nuclear and chloroplast DNA analysis, *American Journal of Botany.* 100(6). pp. 1191-1201

Turnbull J. 1986. *D. umbellatum* (L.) Benth. pp 246-247

Uddin S.J. Grice D. Tiralongo E. 2012. Evaluation of the cytotoxic activity of patriscabratine, tetracosane and various flavonoids isolated from the Bangladeshi medicinal plant *Acrostichum aureum*. *Pharmaceutical Biology.* 50(10). pp. 1276-1280

Uddin Z. Li Z. Song Y.H. Kim J.Y. Park K.H. 2017. Visconata: A rare flavonol having long chain fatty acid from *Dodonaea viscosa* which inhibits Human neutrophil elastase (HNE). *Tetrahedron Letters.* 58(25). pp. 2507-2511



Vanzella C. Bianchetti P. Sbaraini S. Vanzin S.I. Melecchi M.I.S. Caramão E.B. Siqueira I.R. 2012. Antidepressant-like effects of methanol extract of *Hibiscus tiliaceus* flowers in mice. *BMC Complementary and Alternative Medicine*

Verdcourt B. 1963. Flora of Tropical East Africa p. 1

Warhurst D.C. Craig J.C. Adagu I.S. Meyer D.J. Lee S.Y. 2003. The relationship of physico-chemical properties and structure to the differential antiplasmodial activity of the cinchona alkaloids. *Malaria Journal*. 2(26)

Wen J. Plunkett G.M. Mitchell A.D. Wagstaff S.J. The Evolution of Araliaceae: A Phylogenetic Analysis Based on ITS Sequences of Nuclear Ribosomal DNA. *Systematic Botany*. 26(1). pp. 144-167

Wilson P.G. 1992. Boraginaceae. *Flora of New South Wales*. 3.

Wong Ting Fook W.T.H. 1980. The Medicinal Plants of Mauritius. *ENDA*. Dakar, Senegal  
Youmsi R.D.F. Fokou P.V.T. Menkem E.Z. Keumoe I.B-V.R. Nana V. Boyom F.F. 2017. Ethnobotanical survey of medicinal plants used as insects repellents in six malaria endemic localities of Cameroon. *Journal of Ethnobiology and Ethnomedicine*. 13(33)

Zafrul D.H. 2000. Some Plants of the Sundarbans. *Tectona Publisher*. Chittagong, Bangladesh.

Zhang L.B. Liao H.B. Zhu H.Y. Yu M.H. Lei C. Hou A.J. 2016. Antiviral clerodane diterpenoids from *Dodonaea viscosa*. *Tetrahedron*. 72(49). pp. 8036-8041

## Photography:

Acevedo P. *Suriana maritima* L. (Photo). *PI@ntNet*. <https://identify.plantnet-project.org/species/maurice/Suriana%20maritima%20L>. Accessed 07/08/17. Licensed under C BY-NC-SA 2.0 <https://creativecommons.org/licenses/by-nc-sa/2.0/>

Ahmed Abdou A. *Ficus rubra* Vahl. (Photo) *PI@ntNet*. <https://identify.plantnet-project.org/species/maurice/Ficus%20rubra%20Vahl> Accessed 26/07/17. Licensed under CC BY-SA 2.0, <https://creativecommons.org/licenses/by-sa/2.0/>

Barthelemy D. *Pandanus utilis* Bory. (Photo). *PI@ntNet*. [https://identify.plantnet-project.org/species/maurice/Pandanus utilis Bory](https://identify.plantnet-project.org/species/maurice/Pandanus%20utilis%20Bory) Accessed 28/07/17. Licensed under CC BY-SA 2.0. <https://creativecommons.org/licenses/by/2.0/>

Comte L. *Diospyros egrettarum* I. Richardson. (Photo). *PI@ntNet*. <https://identify.plantnet-project.org/species/maurice/Diospyros%20egrettarum%20I.Richardson>. Accessed 26/07/17. Licensed under CC BY-SA 2.0, <https://creativecommons.org/licenses/by-sa/2.0/>

Comte L. *Pemphis acidula* J.R. Forst. & G. Forst. (Photo). *PI@ntNet*. <https://identify.plantnet-project.org/species/maurice/Pemphis%20acidula%20J.R.%20Forst.%20&%20G.%20Forst>. Accessed 07/08/17. Licensed under CC BY-SA 2.0 <https://creativecommons.org/licenses/by-sa/2.0/>

Champ J. *Foetidia mauritiana* Lam. (Photo). *PI@ntNet*. <https://identify.plantnet-project.org/species/maurice/Foetidia%20mauritiana%20Lam>. Accessed 26/07/17. Licensed under CC BY-SA 2.0, <https://creativecommons.org/licenses/by-sa/2.0/>

Cutler W. Kapiolani Park Hibiscus tiliaceus. (Photo). *flickr*. <https://www.flickr.com/photos/wlcutler/6463196779/in/photolist-aR8zee-8MMRH6-8iYzC-8iVmrt-8MN1cv-8jG5z9-8MR1nq-8MN1Wa-8MN2LZ-DFmV7o-DFmWRL-CHikMR-DnNWLz-De3nhp-CVGcmG-DZZSRE-DRY3Gy-DU9uwp-DU9wPc-DHw3P6-E5vkPi-rLHQDU-CGe45g-CVGbyj-DC4rxA-DYN6Rh-DpEyuj-Df1ejY-D5EVdw-TUy6rU-Eaecnv-DQv2b6-DZMF75-8efW47-6Lx2Pn-5zUKA6-8MR5bu-dJpKVT-dAsTff-8MN1wx-655Rqm-8iYyQS-651zdx-8ecFcv-aeQiNe-5USPYM-8MQZ8S-AwPycB-i1KLic-vj5WPb> Accessed 03/08/17. Licensed under CC BY-2.0 <https://creativecommons.org/licenses/by/2.0/>.

Dimba L. *Psiadia arguta* (Pers.) Voigt. (Photo). *PI@ntNet*. [https://identify.plantnet-project.org/species/maurice/Psiadia%20arguta%20\(Pers.\)%20Voigt](https://identify.plantnet-project.org/species/maurice/Psiadia%20arguta%20(Pers.)%20Voigt). Accessed 07/08/17. Licensed under CC BY-2.0. <https://creativecommons.org/licenses/by/2.0/>

Dufour-Kowalski S. *Ficus reflexa* Thunb. (Photo), *PI@ntNet*, <https://identify.plantnet-project.org/species/maurice/Ficus%20reflexa%20Thunb>. Accessed 26/07/17. Licensed under CC BY-SA 2.0. <https://creativecommons.org/licenses/by-sa/2.0/>

Fazer C. *Portulaca oleracea* L. (Photo). *Pl@ntNet*. <https://identify.plantnet-project.org/species/useful/Portulaca%20oleracea%20L>. Accessed 25/08/17. Licensed under CC BY-SA 2.0. <https://creativecommons.org/licenses/by-sa/2.0/>

Goëau H. *Cossinia pinnata* Comm. ex Lam. (Photo). *Pl@ntNet*. <https://identify.plantnet-project.org/species/maurice/Cossinia%20pinnata%20Comm.%20ex%20Lam>. Accessed 03/08/17. Licensed under CC BY-SA 2.0 <https://creativecommons.org/licenses/by-sa/2.0/>

Gutierrez L. *Premna serratifolia*. (Photo). *flickr*. <https://www.flickr.com/photos/guam-flora-fauna/5965932181/in/photolist-a6bXMF-ad52HS-eedWsg-a6eQc9-ad53j3-a6eMGL-9MAKwy-a6bWxx-y1jQur-yY1dQD-kPoYYf-ad52kS-a6ePCb-aaXERb-aaUQDB-9MB99u-9MBcDo-a6bXaP-aaXDrC-9MAJtG-9MAN8f-a6eM8Q-9MyjQP-nrgBmo-9MxUVK-nTF9qq-9MBdAA-aaUTQr-9MAM8S-a6eMtb-kPmGyX-GvaV2u-FZTK5z-nTFyRs-GSi4aQ-DF7fg5-GM1KsU-CU8y8M-a2XLhW-GPjxur-eSFgu3-xdjJ5y-DHggRP-DF77xu-CU1Juy-9EvYSy-FTGaBm-qNw1W9-8fCbGB-eagZkk>. Accessed 28/07/17. Licensed under CC BY-ND 2.0. <https://creativecommons.org/licenses/by-nd/2.0/>

Gutierrez L. *Premna serratifolia*. (Photo). *flickr*. <https://www.flickr.com/photos/guam-flora-fauna/5766967758/in/album-72157626821911262/>. Accessed 28/07/17. Licensed under CC BY-ND 2.0 <https://creativecommons.org/licenses/by-nd/2.0/>

Howard R.A. *Caesalpinia bonduc* (L.) Roxb. (Photo). *Pl@ntNet*. [https://identify.plantnet-project.org/species/maurice/Caesalpinia%20bonduc%20\(L.\)%20Roxb](https://identify.plantnet-project.org/species/maurice/Caesalpinia%20bonduc%20(L.)%20Roxb). Accessed 07/08/17. Licensed under CC BY-NC-SA 2.0 <https://creativecommons.org/licenses/by-nc-sa/2.0/>

Hyrenbach D. *Tournefortia argentea* L. f. (Photo). *PlantNet*. <https://identify.plantnet-project.org/species/maurice/Tournefortia%20argentea%20L.%20f>. Accessed 07/08/17. Licensed under CC BY-NC 2.0 <https://creativecommons.org/licenses/by-nc/2.0/>

翁明毅. *Strictocardia tilifolia*. (Photo). *flickr*. <https://www.flickr.com/photos/mingiweng/2234714608>. Accessed 25/08/17. Licensed under CC BY 2.0. <https://creativecommons.org/licenses/by/2.0/>

Molteno S. *Hibiscus genevii* – critically endangered endemic plant growing at Monvert Nature Park. (Photo). [https://commons.wikimedia.org/wiki/File:Hibiscus\\_genevii\\_-\\_critically\\_endangered\\_flower\\_at\\_Monvert\\_Nature\\_Park.jpg](https://commons.wikimedia.org/wiki/File:Hibiscus_genevii_-_critically_endangered_flower_at_Monvert_Nature_Park.jpg). Accessed 03/08/17. Licensed under CC0 1.0 <https://creativecommons.org/publicdomain/zero/1.0/deed.en>



Mouysset E. *Cossinia pinnata* Comm. ex Lam. (Photo). *PI@ntNet*.  
<https://identify.plantnet-project.org/species/maurice/Cossinia%20pinnata%20Comm.%20ex%20Lam>  
. Accessed 03/08/17. Licensed under CC BY-SA 2.0  
<https://creativecommons.org/licenses/by-sa/2.0/>

Jacquot M. . *Terminalia bentzoë* (L.) L. f. (Photo). *PI@ntNet*. [https://identify.plantnet-project.org/species/maurice/Terminalia%20bentzo%C3%AB%20\(L.\)%20L.%20f](https://identify.plantnet-project.org/species/maurice/Terminalia%20bentzo%C3%AB%20(L.)%20L.%20f).  
Accessed 07/08/17. Licensed under CC BY-SA 2.0  
<https://creativecommons.org/licenses/by-sa/2.0/>

Johansson C.T. *Hibiscus fragilis*. (Photo). *Wikimedia*.  
[https://commons.wikimedia.org/wiki/File:Hibiscus\\_fragilis-IMG\\_5863.jpg](https://commons.wikimedia.org/wiki/File:Hibiscus_fragilis-IMG_5863.jpg) Accessed  
28/07/17. Licensed under CC BY-SA 3.0. <https://creativecommons.org/licenses/by-sa/3.0/>

Rose H. *Paspalum virginatum* plant10. (Photo). *flickr*.  
<https://www.flickr.com/photos/macleaygrassman/8252823843/in/photolist-Ee9dfL-DkJfYE-Eg7LU9-dzndF7-EngxM3-Dsc5tP-E7ZESY-DSepuW-dznkEL-dzgK9H-dznkno-dzncQL-Ee795W-dzn8Vf-dzndaE-dzgRkK-Ee7afw-dzgTse-dznbSW-dzgUPK-DsaFZ2-dzgGQt-dznnq5-dzgDAH-dzgBUX-dzgVgT-dzgE3H-dzgF7e-dznnPb-dzgT1g-dzgRCF-dzgFzM-dzn9wj-dzna1S-dznaAs-dzgPkH-dznmZf-dznoyd-dznh73-dzgEri-dzngif-dzgUua-dznjYU-dzgNxa-dzn8uW-dznau1-c9KkmE-c9KhY3-c9KcN3-wjfKU3> Accessed 25/08/17.  
Licensed under CC BY 2.0. <https://creativecommons.org/licenses/by/2.0/>

Roubaudi L. *Pandanus utilis* Bory. (Photo). *PI@ntNet*. [https://identify.plantnet-project.org/species/maurice/Pandanus\\_utilis\\_Bory](https://identify.plantnet-project.org/species/maurice/Pandanus_utilis_Bory). Accessed 28/07/17. Licensed  
under CC BY-SA 2.0. <https://creativecommons.org/licenses/by-sa/2.0/>

Rulkens T. *Tournefortia argentea* L. f. (Photo). *PlantNet*. <https://identify.plantnet-project.org/species/maurice/Tournefortia%20argentea%20L.%20f>. Accessed  
07/08/17. Licensed under CC BY-NC 2.0 <https://creativecommons.org/licenses/by-nc/2.0/>

Santacreu H. *Cossinia pinnata* Comm. ex Lam. (Photo). *PI@ntNet*.  
<https://identify.plantnet-project.org/species/maurice/Cossinia%20pinnata%20Comm.%20ex%20Lam>.  
Accessed 03/08/17. Licensed under CC BY-SA 2.0  
<https://creativecommons.org/licenses/by-sa/2.0/>

Santacreu H. *Foetidia mauritiana* Lam. (Photo). *PI@ntNet*. <https://identify.plantnet-project.org/species/maurice/Foetidia%20mauritiana%20Lam>. Accessed 26/07/17.  
Licensed under CC BY-SA 2.0, <https://creativecommons.org/licenses/by-sa/2.0/>

Santacreu H. *Ficus rubra* Thunb. (Photo), *PI@ntNet*,  
<https://identify.plantnet-project.org/species/maurice/Ficus%20rubra%20Vahl> Accessed 26/07/17.  
Licensed under CC BY-SA 2.0, <https://creativecommons.org/licenses/by-sa/2.0/>

Santacreu H. *Hyophorbe lagenicaulis* (L.H.Bailey) H.E.Moore. (Photo). *PI@ntNet*. [https://identify.plantnet-project.org/species/maurice/Hyophorbe%20lagenicaulis%20\(L.H.Bailey\)%20H.E.Moore](https://identify.plantnet-project.org/species/maurice/Hyophorbe%20lagenicaulis%20(L.H.Bailey)%20H.E.Moore). Accessed 26/07/17. Licensed under CC BY-SA 2.0, <https://creativecommons.org/licenses/by-sa/2.0/>

Santacreu H. *Pandanus utilis* Bory. (Photo). *PI@ntNet*. [https://identify.plantnet-project.org/species/maurice/Pandanus utilis Bory](https://identify.plantnet-project.org/species/maurice/Pandanus%20utilis%20Bory). Accessed 28/07/17. Licensed under CC BY-SA 2.0. [https://creativecommons.org/licenses/by-sa/2.0](https://creativecommons.org/licenses/by-sa/2.0/)

Santacreu H. *Psiadia arguta* (Pers.) Voigt. (Photo). *PI@ntNet*. [https://identify.plantnet-project.org/species/maurice/Psiadia%20arguta%20\(Pers.\)%20Voigt](https://identify.plantnet-project.org/species/maurice/Psiadia%20arguta%20(Pers.)%20Voigt). Accessed 07/08/17. Licensed under CC BY-SA 2.0 <https://creativecommons.org/licenses/by-sa/2.0/>

Santacreu H. *Sophora tomentosa* L. (Photo). *PI@ntNet*. <https://identify.plantnet-project.org/species/maurice/Sophora%20tomentosa%20L>. Accessed 07/08/17. Licensed under CC BY-SA 2.0 <https://creativecommons.org/licenses/by-sa/2.0/>

Santacreu H. *Terminalia bentzoë* (L.) L. f. (Photo). *PI@ntNet*. [https://identify.plantnet-project.org/species/maurice/Terminalia%20bentzo%C3%AB%20\(L.\)%20L.%20f](https://identify.plantnet-project.org/species/maurice/Terminalia%20bentzo%C3%AB%20(L.)%20L.f). Accessed 07/08/17. Licensed under CC BY-SA 2.0 <https://creativecommons.org/licenses/by-sa/2.0/>

Starr F. Starr K. *Hibiscus tiliaceus* (hau). (Photo). *flickr*. <https://www.flickr.com/photos/starr-environmental/24220335014/>. Accessed 03/08/17/. Licensed under CC BY-2.0 <https://creativecommons.org/licenses/by/2.0/>.

Starr F. Starr K. *Latania loddigesii* fruit Iao Tropical Gardens of Maui-Maui. (Photo). *flickr*. <https://www.flickr.com/photos/starr-environmental/24516910743/in/photolist-DsHEWU-Dknhxm-DmtzpD-DJBbeP-DeLkZD-E3xnmK-Du4b5Z-DMytgp-Du4cAp-DSvivo-DRK1Ao-DmtyoF-D5Poys-E43i6x-DUMZ8a-EaCh9e-DzAccG-PsfQpL-S4vVME-6tjcio-6tj7vC-Pk2HXv-P7tFxy-RWaW6n-B9zJgm-B9zPTJ-AdTQUk> Accessed 03/08/17/. Licensed under CC BY-2.0 <https://creativecommons.org/licenses/by/2.0/>.

Taputuari R. *Suriana maritima* L. (Photo). *PI@ntNet*. <https://identify.plantnet-project.org/species/maurice/Suriana%20maritima%20L>. Accessed 07/08/17. Licensed under C BY-NC-SA 2.0 <https://creativecommons.org/licenses/by-nc-sa/2.0/>

Wagner W.L. *Ipomoea pes-caprae* (L.) R. Br. (Photo). *PI@ntNet*. [https://identify.plantnet-project.org/species/maurice/Ipomoea%20pes-caprae%20\(L.\)%20R.%20Br](https://identify.plantnet-project.org/species/maurice/Ipomoea%20pes-caprae%20(L.)%20R.Br). Accessed 03/08/17. Licensed under CC-BY-NC-SA 2.0. <https://creativecommons.org/licenses/by-nc-sa/2.0/>

Wood K.R. *Caesalpinia bonduc* (L.) Roxb. (Photo). *Pl@ntNet*.

[https://identify.plantnet-](https://identify.plantnet-project.org/species/maurice/Caesalpinia%20bonduc%20(L.)%20Roxb)

[project.org/species/maurice/Caesalpinia%20bonduc%20\(L.\)%20Roxb](https://identify.plantnet-project.org/species/maurice/Caesalpinia%20bonduc%20(L.)%20Roxb). Accessed 07/08/17. Licensed under CC BY-NC-SA 2.0

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