



**Survey of  
Ornamental Plants in Resorts and Hotels  
Saint Lucia, 2012**

carried out under the project

***Mitigating the Threats of Invasive Alien Species in the Insular Caribbean***

Project No. GFL / 2328 – 2713-4A86, GF-1030-09-03

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## Abstract

The consultant Roger Graveson had been concerned for some time about the potential impact on the environment of ornamental species grown in hotels and resorts in Saint Lucia. Workshops had been arranged by Dr. Ulrike Krauss, National Coordinator, Invasive Alien Species Projects, for hotels and resorts to learn about the dangers of invasive animal and plant species. The consultant had given a presentation at each of these meetings. Using contacts made at these meetings, he visited several resorts as part of this project. He also contacted other resorts, particularly those in environmentally sensitive areas. Plant lists were made and sent to resorts when requested so that, using the consultants website ([www.saintlucianplants.com](http://www.saintlucianplants.com)), the property could identify their species, thus helping in the training of gardeners and facilitating guest tours and in identifying ornamentals with a tendency to grow in the wild.

A list of all ornamental species cultivated in resort gardens was made and those plants with the potential to escape, become naturalized or invasive were identified.

It was recommended that a few species, already invasive or with the potential to become so, be removed from resort gardens, particularly those in and around the Pitons Management Area. These are listed in the table below.

Botanical Name	Common Name	Origin
<i>Bryophyllum pinnatum</i>	Leaf of Life	Madagascar
<i>Caesalpinia pulcherrima</i>	Dwarf Flamboyant	Unknown
<i>Callisia fragrans</i>		Mexico
<i>Cryptostegia madagascariensis</i>	Madagascar Rubber Vine	Madagascar
<i>Eichhornia crassipes</i>	Water hyacinth	South America
<i>Epipremnum pinnatum</i>	Pothos	South-east Asia
<i>Sansevieria species</i>	Mother-in-law's Tongue	Africa
<i>Scaevola taccada</i>	Beach Cabbage. Sea Lettuce.	Asia
<i>Spathodea campanulata</i>	African Tulip tree	West Africa
<i>Syngonium podophyllum</i>	Arrowhead Vine	Tropical America
<i>Tradescantia spathacea</i>	Moses-in-the-cradle	Central America
<i>Tradescantia zebrina</i>	Wandering Jew	Mexico

It was recommended that a few species, already invasive or with the potential to become so, be removed from resort gardens, particularly those in and around the Pitons Management Area.

*Scaevola taccada* was identified as a potentially very serious invasive of the shoreline and it was recommended that urgent action be taken to eradicate it island-wide. The image below shows *Scaevola taccada*'s invasion of Cas en Bas Beach, Gros Islet.



Given the great number and variety of ornamental plant species already present in Saint Lucia, it was recommended that resorts not be permitted to import further exotic ornamental plants.

## 1. Introduction

A recent study of Gros Piton by the consultant revealed that the two most serious invasive plants species were common garden ornamentals. Resort and hotels (referred hereafter to as *resorts*) spend large sums of money on creating and maintaining attractive gardens. There is always the risk that some of these species will escape into surrounding areas, becoming naturalized and occasionally invasive.

The purpose of this small project was to visit selected resorts willing to participate in the survey and list the ornamental plants present in their gardens. The list of all resort ornamentals would be compared to a list of species known to grow in the wild in Saint Lucia and elsewhere and a further list drawn up of resort ornamental plants that are invasive or potentially invasive.

## 2. Property Visits and Follow-ups

A letter of introduction from the Chief Forestry Officer (Ag.), Mr Bobb, along with a supporting letter from the consultant, was sent by email or delivered to selected resorts. Resorts in sensitive areas and /or with extensive gardens were targeted. Some useful contacts had already been made through the island-wide workshops on invasive species organized for the tourist industry by Dr. Ulrike Krauss.

Visits were made to Ladera Resort, the Jalousie Plantation, Rendezvous, Sandals Halcyon, and Sandals Regency at La Toc. The consultant visited the site on appointment and in each visit made useful contacts for follow-ups. Permission was granted for images to be taken, a fast way of recording the cultivated ornamental species present. [Previous plant lists from Beljou Hotel and Morgan Bay were also included.](#) [Coconut Bay Resort was observed from the beach.](#)

Informal visual appraisals were also made of resorts in the Marisule, Rodney Bay, Cas en Bas, and Pigeon Island areas.

A web page link was sent to each resort visited. This page listed the ornamentals observed, each with a link to an illustrated species page on the consultant's web site. In some instances, information was sent to the resorts on the wild plant species. This enabled resorts to train staff in plant identification, and also to help them to answer guests' questions. Where there were specific recommendations, a brief report was submitted to the resort. General recommendation will be discussed in the recommendations section.

## 3. Results

Visual appraisals of and previous visits to resorts in Marisule, Rodney Bay, Cas en Bas, and Pigeon Island areas did not reveal any species not already seen in the other site visits. These resorts were in dry and developed areas. Gardens were irrigated and there was no evidence of plants escaping into the wild. The possible exception was *Scaevola taccada* a beach shrub, which will be discussed later.

The complete list of ornamental plant species recorded in the property visits was compared to a list of species that the consultant has observed growing wild during his twenty years of fieldwork in Saint Lucia. This provided a list of ornamental plant species grown in resorts that had a tendency to move into

the wild. In addition, information was sought on the known invasiveness globally of those species showing invasive tendencies locally. (Invasive Species Compendium, 2012). (PIER, 2012).

This list was divided into three categories,

- Plants that escaped into the wild around where they were cultivated
- Plants that grew in areas far from where they were cultivated (naturalized species).
- Plants that were invasive or potentially invasive.

Images and information on each species can be found on the consultants website at [www.saintlucianplants.com](http://www.saintlucianplants.com)

**Table 1. Escaped Resort Ornamentals**

Botanical Name	Common Name	Origin
<i>Allamanda cathartica</i>	Yellow Allamanda	South America
<i>Alpinia zerumbet</i>	Shell Ginger	Asia
<i>Azadirachta indica</i>	Neem	Asia
<i>Capsicum frutescens</i>	Bird Pepper	Tropical America
<i>Caryota mitis</i>	Fishtail Palm	South-east Asia
<i>Clerodendrum × speciosum</i>		Africa
<i>Cordia sebestena</i>	Geiger Tree	Bahamas
<i>Cosmos sulphureus</i>	Cosmos	Central America
<i>Costus speciosus</i>	Costus	South-east Asia
<i>Crinum asiaticum</i>	Poison Bulb	South-east Asia
<i>Erythrina corallodendron</i>	Immortel	Caribbean
<i>Gmelina philippensis</i>	Parrot's beak	Philippines
<i>Heliconia psittacorum</i>	Bird-of-paradise	South America
<i>Hemigraphis alternata</i>	Red flame ivy	Tropical Asia
<i>Impatiens walleriana</i>	Bizzy Lizzie	Tropical Africa
<i>Jatropha integerrima</i>		Cuba
<i>Malvaviscus penduliflorus</i>	Sleepy Mallow	Unknown
<i>Nerium oleander</i>	Oleander	Old World
<i>Odontonema cuspidatum</i>	Firespike	Mexico
<i>Pandanus utilis</i>	Screw palm.	Madagascar
<i>Pandanus veitchii</i>	Screw palm.	Polynesia
<i>Ptychosperma macarthurii</i>	Macarthur palm	Australia
<i>Ruellia tweediana</i>	Mexican petunia	Mexico
<i>Tradescantia pallida</i>	Purple Heart	Mexico
<i>Turnera subulata</i>	Politician Plant	Brazil
<i>Turnera ulmifolia</i>	Yellow alder	Brazil
<i>Yucca aloifolia</i>	Spanish Bayonet	The Americas

**Table 2. Naturalized Resort Ornamentals.**

Botanical Name	Common Name	Origin
<i>Alocasia cucullata</i>	Pot plant	Bangladesh
<i>Asystasia gangetica</i>	Chinese Violet	Africa, India
<i>Bambusa vulgaris</i>	Bamboo	South-east Asia
<i>Bauhinia monandra</i>	Orchid Tree	Madagascar
<i>Caladium bicolor</i>	Koko shak	South America
<i>Cascabela thevetia</i>	Yellow oleander	Mexico
<i>Catharanthus roseus</i>	Periwinkle.	Madagascar
<i>Clerodendrum paniculatum</i>	Pagoda flower	Tropical Asia, China
<i>Cyperus involucratus</i>	Umbrella sedge	Africa, Yemen
<i>Delonix regia</i>	Poinciana. Flamboyant.	Madagascar
<i>Dieffenbachia species</i>	Dumbcane	South America
<i>Heterotis rotundifolia</i>	Spanish shawl	Tropical Africa
<i>Jasminum fluminense</i>	Jasmin	Africa, Yemen
<i>Philodendron sagittifolium</i>		Central America
<i>Quisqualis indica</i>	Rangoon Creeper	Africa, Asia
<i>Roystonea regia</i>	Royal Palm	Caribbean Basin
<i>Thunbergia grandiflora</i>	Trumpet vine	India

Some common naturalized tree species such as *Thespesia populnea*, (Sea-side Maho), *Terminalia catappa* (West Indian Almond), and *Samanea saman* (Saman) were probably already present on resorts before development and were not included.

**Table 3. Invasive or Potentially Invasive Resort Ornamentals**

Botanical Name	Common Name	Origin
<i>Bryophyllum pinnatum</i>	Leaf of Life	Madagascar
<i>Caesalpinia pulcherrima</i>	Dwarf Flamboyant	Unknown
<i>Callisia fragrans</i>		Mexico
<i>Cryptostegia madagascariensis</i>	Madagascar Rubber Vine	Madagascar
<i>Eichhornia crassipes</i>	Water hyacinth	South America
<i>Epipremnum pinnatum</i>	Pothos	South-east Asia
<i>Sansevieria species</i>	Mother-in-law's Tongue	Africa
<i>Scaevola taccada</i>	Beach Cabbage. Sea Lettuce.	Asia
<i>Spathodea campanulata</i>	African Tulip tree	West Africa
<i>Syngonium podophyllum</i>	Arrowhead Vine	Tropical America
<i>Tradescantia spathacea</i>	Moses-in-the-cradle	Central America
<i>Tradescantia zebrina</i>	Wandering Jew	Mexico

#### 4. Discussion of Results

Ornamentals that escape and naturalize (Table 1 and Table 2) are not considered to be a threat to indigenous flora at present. However the situation could change in the future. In general it is undesirable to cultivate plants that have a tendency to escape.

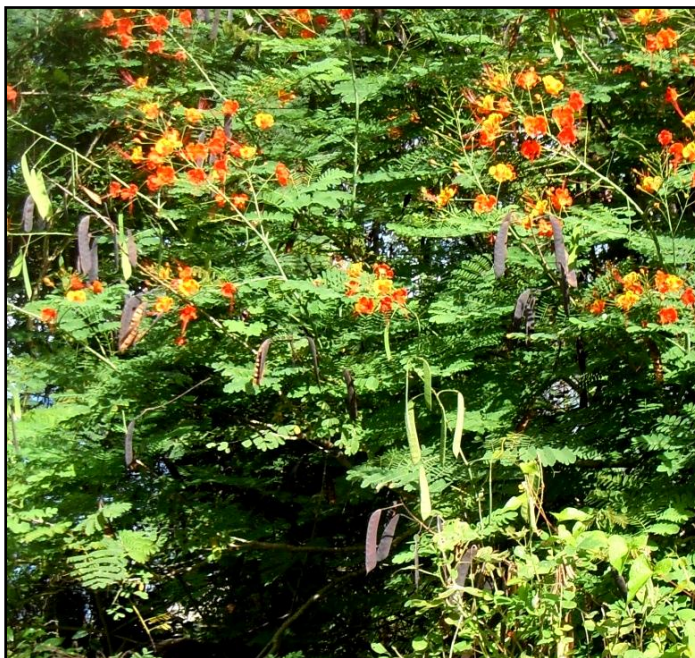
The invasive and potentially invasive species (Table 3) need to be considered on an individual basis.

**Figure 1. *Bryophyllum pinnatum***



Kawakté lézòm or leaf-of-Life (Figure 1) is a succulent which is cultivated and naturalized in Saint Lucia, and is globally widely naturalized and sometimes invasive, for example in Queensland, Australia (Batianoff and Butler, 2002). It has herbal medicinal uses. It is invasive on Gros Piton and found elsewhere on semi-open rocky, dry hills. (Graveson & Smith, 2012).

**Figure 2. *Caesalpinia pulcherrima***



Dwarf flamboyant (Figure 2) is a popular garden ornamental often naturalized in the Caribbean (Howard, 1974-1989). In Saint Lucia it escapes from cultivation into adjacent dry wasteland and roadsides. It is naturalized and very common in the mouth of the L'lvrogne River from where there is a risk it will invade Gros Piton. (Graveson & Smith, 2012).



**Figure 3. *Callisia fragrans***



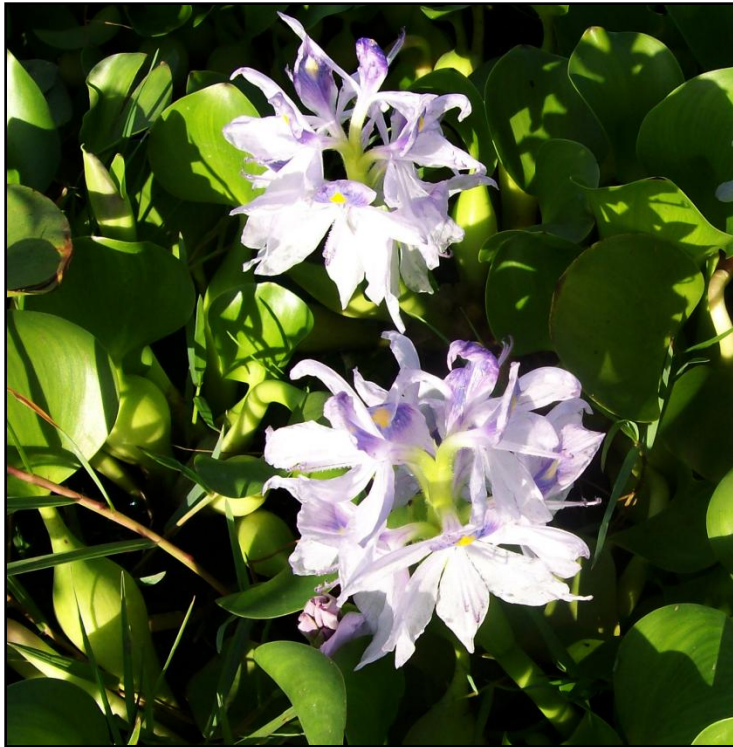
A hardy ground cover (Figure 3) this species escapes around houses into wasteland in Saint Lucia. It is common on some islands of the Grenadines and invasive in some Pacific Islands such as Hawaii (Wagner et al, 1999. p. 1378). It is now growing invasively around the trail on Gros Piton. (Graveson & Smith, 2012). (Invasive species compendium, 2012).

**Figure 4. *Cryptostegia madagascariensis***



Indian Rubber Vine (Figure 4) is a shrub with attractive purple flowers and caustic white latex. It is naturalized in degraded dry coastal areas, particularly between Vieux Fort and Laborie where it forms impenetrable thickets. Invasive in Hawaii (PIER, 2012).

Figure 5. *Eichornia crassipes*



Water hyacinth (Figure 5) covers some drainage canals in the Vieux Fort area. Globally it is a serious invasive of waterways. (Invasive Species Compendium, 2012)

Figure 6. *Epipremnum pinnatum*



Pothos (Figure 6) is a high-climbing vine naturalized in moist forest, especially lowland river valleys. Here it is threatening to replace the native *Monstera adansonii*. Invasive on Pacific islands (PIER, 2012).

**Figure 7. *Sansevieria* species**



Two species of mother-in-law's tongue (Figure 7) frequently escape into dry open and semi-open areas. (Plants of Saint Lucia, 2012).

**Figure 8. *Scaevola taccada***



Beach Cabbage or Sea Lettuce is a well-known invasive of sandy beaches and dunes. It was observed spreading fast from Cotton Bay resort along the Cas en Bas beach and by the beach next to Cap Maison, Cap Estate.

Invasive in Florida (Treasure Coast 2012) and the Caribbean.

(caymanwildlife.org, 2012).

(kewgardens.org, 2012).

**Figure 9. *Spathodea campanulata***



African tulip tree (Figure 9) is a globally well-known invasive of moist forest. (Invasive species compendium, 2012). In Saint Lucia It is found along rivers and ravines at lower and middle elevations.

**Figure 10. *Syngonium podophyllum***



Arrowhead vine (Figure 10) grows in banana fields and in moist and wet forest. It is seen on the edge of the rainforest reserve and may spread more into the interior. Invasive in the Pacific (PIER, 2012).

**Figure 11. *Tradescantia spathacea***



Moses-in-the cradle (Figure 11) grows wild on rocky dry hills mainly in the north of the island where it has escaped from cultivation. Listed in the Global Invasive Species Database (2012).

**Figure 12. *Tradescantia zebrina***



Wandering Jew (Figure 12), native to Mexico, has a tendency to naturalize. It is invasive in some Pacific islands (PIER, 2012). It is invasive on Gros Piton and forms carpets replacing indigenous flora. (Graveson & Smith, 2012). (Invasive species compendium, 2012).

## 5. Conclusions and Recommendations

Over 280 cultivated plant species were recorded on the resort visits. One of the aims of the project was to see if resorts should exchange plant species with each other rather than looking to import new cultivars but in fact it seemed that resorts have no trouble in sourcing materials themselves locally and then propagating them in their own nurseries. Such is the variety of attractive species and cultivars available locally, and the beautiful resorts' gardens produced from them, it would seem unnecessary to permit the potentially dangerous importation of new ornamentals.

These ornamental plants were nearly all exotics although some native species such as Sea Grape *Coccoloba uvifera* and our indigenous Heliconias were planted. Some resorts had wilderness areas as well. The exotic species recorded were from many different plant families and from many areas of the world. For the most part they were the same ornamentals that would be found in resorts throughout the tropics and subtropics.

A few cultivated species, described in the previous section, need to be looked at in more detail.

*Bryophyllum pinnatum*, leaf of Life, is already very common on Gros Piton and widely naturalized in Saint Lucia. There seems little reason therefore to discourage its cultivation as an ornamental.

*Caesalpinia pulcherrima*, dwarf flamboyant, escapes from cultivation in Saint Lucia. It is included in the list because it is very common in the L'Ivrogne delta just south of Gros Piton and some specimens were observed on the lower slopes of Gros Piton. (Graveson & Smith, 2012). Its growth in and around the Piton Management area should be discouraged in case it spreads onto the steep wooded slopes of the Pitons.

*Callisia fragrans*, *Tradescantia spathacea*, moses-in-the-cradle and *Tradescantia pallida*, wandering jew, are three species in the *Commelinaceae* family that can escape from cultivation and form a dense ground cover on rocky dry hills. *Callisia fragrans* and *Tradescantia pallida* are already invasive on Gros Piton. (Graveson & Smith, 2012). *Tradescantia spathacea* is quite commonly found on hills in the north of Saint Lucia and could threaten the Pitons in the future. *Sansevieria* species are widely naturalized in Saint Lucia. Although not yet growing on the steep rocky slopes of the Pitons, they could become naturalized there. Similarly *Cryptostegia madagascariensis*, Madagascar rubber vine could spread onto more open areas on the lower slopes of the Pitons and into the open area between the Pitons close to the sea. The cultivation of these ornamentals should be discouraged in all resorts and removed entirely from resorts in and around the Pitons Management Area.

*Spathodea campanulata*, African Tulip tree, *Syngonium podophyllum*, arrowvine and *Epipremnum pinnatum*, pothos, have become naturalized in Saint Lucia in moist, often disturbed woodlands, and in agricultural areas. They are particularly common in shady ravines and river valleys. In general these species should be avoided in resort gardens. The Pitons have some shady ravines, for example on the north side of Gros Piton and in Jalousie Plantation. The two vines should be removed from resort gardens in and around the PMA and no new specimen of the African tulip tree should be planted and saplings cut down.

*Eichhornia crassipes*, water hyacinth, should never be planted anywhere close to the Roseau dam as it could cover the reservoir.

*Scaevola taccada*, beach cabbage, may become a serious invasive of the Saint Lucian shoreline over the next few years. It is already replacing native flora on Cas en Bas Beach, having spread from Cotton Bay resort. Seeds spread in sea water so it is possible that colonies will appear on beaches well away from gardens. Several other resorts are also growing this species. This fast-growing, salt-tolerant species spreads very fast vegetatively and it should be removed from all resorts gardens with follow-ups to remove plants growing from pieces of roots left behind.

It is critical that this species be removed from all beach areas and adjacent gardens as soon as possible. It will probably be necessary to involve the Crown Lands Department and The National Conservation Authority (NCA) which both have some jurisdiction according to the Parks and Beaches Act.

**Figure 13. *Scaevola taccada* on Cas en Bas Beach**



## 6. Recommendations Summary.

**Table 4. Specific plant Species Recommendations**

Species	General Recommendations	Specific Recommendations for PMA and Environs
<i>Bryophyllum pinnatum</i>	Permissable	Permissable
<i>Caesalpinia pulcherrima</i>	Permissable	Do not plant
<i>Callisia fragrans</i>	Undesirable	Remove all plants
<i>Cryptostegia madagascariensis</i>	Undesirable	Remove all plants
<i>Eichhornia crassipes</i>	Permissable	Permissable
<i>Epipremnum pinnatum</i>	Undesirable	Remove all plants
<i>Sansevieria species</i>	Permissable	Undesirable
<i>Scaevola taccada</i>	Remove all plants	Remove all plants
<i>Spathodea campanulata</i>	Undesirable	Do not plant. Remove saplings.
<i>Syngonium podophyllum</i>	Undesirable	Remove all plants
<i>Tradescantia spathacea</i>	Undesirable	Remove all plants
<i>Tradescantia zebrina</i>	Undesirable	Remove all plants

In particular it is necessary to stress the importance of action on the the *Scaevola taccada* issue.

A further important recommendation is that no import permits for exotic cultivated ornamentals are granted to resorts, unless a risk assessment according to international procedures (e.g. IABIN/I3N procedure) indicates a “LOW” risk of invasiveness of the plant cultivar concerned.

It is important that this report be physically delivered to all resorts along with a covering letter from the Forestry Department encouraging compliance.

## 7. Acknowledgements

The consultants would like to thank:

Dr Ulrike Krauss, the Invasive Species Coordinator at the Forestry Department, for all her support and expertise and for her efforts in finding funding for the survey.

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Shearvan Devinish of The Jalousie Plantation

Shemael Charles and Ralph W. Hooper of the Ladera Resort

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## Appendix 1. Full List of Resort Ornamentals

Plant Species	La Toc	Jalousie	Halcyon	Beljou	Rendezvous	Ladera	Coconut Bay	Morgan Bay
<i>Acalypha chamaedrifolia</i>		y						y
<i>Acalypha godseffiana</i>		y	y		y	y		y
<i>Acalypha hispida</i>	y	y	y	y	y	y		y
<i>Acalypha wilkesiana</i>	y	y	y	y	y	Y	y	y
<i>Adenantha pavonina</i>				y				
<i>Agave franzosini</i>								y
<i>Aglaonema species</i>	y	y	y	y	y	Y		y
<i>Allamanda cathartica</i>	y	y	y	y	y	Y	y	y
<i>Allamanda violacea</i>	y	y		y	y	Y		
<i>Alocasia cucullata</i>	y	y		y				
<i>Alocasia macrorrhizos</i>	y	y			y	Y		
<i>Alocasia plumbea</i>	y	y			y			
<i>Aloe vera</i>	y	y				Y		
<i>Alpinia purpurata</i>	y	y	y	y	y	Y		y
<i>Alpinia sanderae</i>	y	y				Y		
<i>Alpinia zerumbet</i>				y				
<i>Alternanthera bettzickiana</i>		y			y	Y		y
<i>Anacardium occidentale</i>								y
<i>Ananas comosus</i>						Y		
<i>Annona muricata</i>	y	y				Y		
<i>Annona reticulata</i>		y				Y		
<i>Annona squamosa</i>						Y		
<i>Anthurium andraeanum</i>					y	Y		y
<i>Araucaria cunninghamii</i>					y			
<i>Araucaria heterophylla</i>				y				

Plant Species	La Toc	Jalousie	Halcyon	Beljou	Rendezvous	Ladera	Coconut Bay	Morgan Bay
<i>Artocarpus altilis</i>			y			Y		
<i>Asparagus densiflorus</i>		y				Y		y
<i>Asystasia gangetica</i>	y		y		y			
<i>Averrhoa carambola</i>						Y		
<i>Ayapana triplinervis</i>						Y		
<i>Azadirachta indica</i>				y			y	
<i>Bambusa multiplex</i>	y					Y		
<i>Bambusa vulgaris</i>						Y		
<i>Barleria cristata</i>	y		y					
<i>Barleria repens</i>		y						
<i>Bauhinia monandra</i>						Y		y
<i>Bauhinia x blakeana</i>	y	y	y	y			y	
<i>Beaucarnea recurvata</i>								y
<i>Begonia obliqua</i>	y	y		y	y	Y		
<i>Begonia species</i>						Y		y
<i>Beloperone guttata</i>		y	y					y
<i>Bismarckia nobilis</i>		y						
<i>Bletia purpurea</i>		y				Y	y	y
<i>Bougainvillea x buttiana</i>	y	y	y	y	y	Y	y	y
<i>Breynia disticha</i>		y	y		y	Y		
<i>Bromeliaceae</i>		y						
<i>Bryophyllum pinnatum</i>		y				Y		
<i>Caesalpinia pulcherrima</i>	y	y			y			
<i>Caladium bicolor</i>		y	y		y	Y		
<i>Calathea loesneri</i>					y			
<i>Calathea species</i>		y			y			
<i>Calliandra surinamensis</i>		y						
<i>Callisia fragrans</i>		y			y		y	
<i>Cananga odorata</i>	y	y		y				y

Plant Species	La Toc	Jalousie	Halcyon	Beljou	Rendezvous	Ladera	Coconut Bay	Morgan Bay
<i>Canna species</i>				y				
<i>Capsicum frutescens</i>						Y		
<i>Carica papaya</i>	y	y		y		Y		
<i>Carissa macrocarpa</i>	y	y	y		y	Y	y	y
<i>Caryota mitis</i>	y	y		y	y	Y	y	y
<i>Cascabela thevetia</i>		y	y		y			y
<i>Cassia fistula</i>	y	y			y			y
<i>Cassia javanica</i>								y
<i>Casuarina equisetifolia</i>			y				y	
<i>Catharanthus roseus</i>		y			y	Y	y	y
<i>Cestrum nocturnum</i>	y		y					
<i>Chamaedora elegans</i>								y
<i>Chlorophytum cosmosum</i>	y	y			y			y
<i>Chrysalidocarpus lutescens</i>	y	y	y	y	y	Y	y	y
<i>Cinnamomum verum</i>						Y		
<i>Citrus species</i>	y			y				
<i>Clerodendrum × speciosum</i>						Y		
<i>Clerodendrum paniculatum</i>		y	y					
<i>Clerodendrum quadriloculare</i>	y		y		y			
<i>Clerodendrum speciosissimum</i>			y					
<i>Coccothrinax barbadensis</i>						Y		y
<i>Cocos nucifera</i>	y	y	y	y	y	Y	y	y
<i>Codiaeum variegatum</i>	y	y	y	y	y	Y	y	y
<i>Cordia sebestena</i>		y					y	y
<i>Cordyline fruticosa</i>	y	y	y	y	y	Y	y	y
<i>Cosmos sulphureus</i>		y						
<i>Costus speciosus</i>	y	y		y	y	Y		
<i>Costus woodsonii</i>	y				y	Y		y
<i>Couroupita guianensis</i>								y

Plant Species	La Toc	Jalousie	Halcyon	Beljou	Rendezvous	Ladera	Coconut Bay	Morgan Bay
<i>Crescentia cujete</i>		y	y			Y		y
<i>Crinum asiaticum</i>	y		y		y	Y	y	
<i>Crossandra infundibuliformis</i>			y					
<i>Cryptostegia madagascariensis</i>		y						
<i>Ctenanthe oppenheimiana</i>	y					Y		
<i>Cuphea hyssopifolia</i>		y	y	y	y	Y		y
<i>Cuphea species "glomerata"</i>		y	y		y			y
<i>Cycas circinalis</i>	y					Y		y
<i>Cycas revoluta</i>	y					Y		
<i>Cyperus involucratus</i>						Y		
<i>Cyrtostachys lakka</i>			y					y
<i>Delonix regia</i>	y	y	y	y	y	Y	y	y
<i>Derris indica</i>								y
<i>Dieffenbachia</i>			y			Y		
<i>Dracaena deremensis</i>		y			y			
<i>Dracaena fragrans</i>		y	y		y			y
<i>Dracaena marginata</i>	y	y	y	y	y	Y		y
<i>Dracaena sanderiana</i>	y	y	y		y	Y		y
<i>Duranta erecta</i>	y	y	y	y		Y		y
<i>Dyopsis decaryi</i>		y						
<i>Eichhornia crassipes</i>						Y		
<i>Elaeis guineensis</i>	y							y
<i>Epipremnum pinnatum</i>			y		y	Y		
<i>Episcea cupreata</i>								y
<i>Eranthemum pulchellum</i>			y					
<i>Erythrina corallodendron</i>	y							
<i>Erythrina variegata</i>		y						
<i>Euphorbia lactea</i>							y	
<i>Euphorbia leucocephala</i>								y

Plant Species	La Toc	Jalousie	Halcyon	Beljou	Rendezvous	Ladera	Coconut Bay	Morgan Bay
<i>Euphorbia milii</i>						Y		
<i>Euphorbia pulcherrima</i>	y	y				Y		
<i>Euphorbia tithymaloides</i>	y	y		y	y	Y	y	y
<i>Evolvulus glomeratus</i>						Y		y
<i>Excoecaria bicolor</i>		y						
<i>Ficus benjamina</i>	y	y	y	y	y	Y		
<i>Ficus elastica</i>						Y		
<i>Ficus microcarpa</i>	y	y		y		Y		
<i>Galphimia gracilis</i>	y		y			Y		
<i>Gerbera jamesonii</i>						Y		
<i>Gmelina philippensis</i>	y	y			y			y
<i>Graptophyllum pictum</i>		y	y	y	y	Y		y
<i>Guaiacum officinale</i>	y							
<i>Haemanthus multiflorus</i>		y						
<i>Hamelia patens</i>				y	y			
<i>Heliconia caribaea/bihia</i>	y	y		y	y			
<i>Heliconia psittacorum</i>					y	Y		
<i>Heliconia rostrata</i>					y			
<i>Heliconias</i>	y	y	y	y	y	Y		y
<i>Hemigraphis alternata</i>		y			y	Y		
<i>Heptapleurum arboricola</i>	y	y	y	y	y	Y		
<i>Heterotis rotundifolia</i>		y				Y		
<i>Hibiscus rosa-sinensis v. rosa</i>	y	y	y	y	y	Y	y	y
<i>Hibiscus rosa-sinensis v. schiz</i>			y		y			
<i>Holmskioldia sanguinea</i>				y				
<i>Hoya carnosa</i>						Y		
<i>Hydrangea macrophylla</i>		y						
<i>Hymenocallis caribaea</i>	y	y			y	Y	y	y
<i>Hyophorbe verchaffeltii</i>		y						y

Plant Species	La Toc	Jalousie	Halcyon	Beljou	Rendezvous	Ladera	Coconut Bay	Morgan Bay
<i>Impatiens walleriana</i>						Y		y
<i>Ixora chinensis</i>	y	y	y	y	y	Y	y	y
<i>Ixora coccinea</i>	y	y	y	y	y	Y	y	y
<i>Ixora dwarf</i>	y	y	y	y	y	Y		y
<i>Ixora javanica</i>		y	y		y	Y		
<i>Jasminum fluminense</i>	y							
<i>Jasminum multiflorum</i>	y	y						y
<i>Jasminum laurifolium</i>		y						
<i>Jatropha integerrima</i>		y	y	y	y	Y	y	y
<i>Jatropha multifida</i>						Y		
<i>Kalanchoe</i>	y	y						
<i>Lagerstroemia indica</i>	y	y			y			
<i>Lagerstroemia speciosa</i>	y				y			y
<i>Lantana camara</i>	y	y	y	y	y	Y	y	y
<i>Lantana montevidensis</i>	y	y	y	y	y	Y		y
<i>Leea coccinea</i>	y	y	y		y	Y		
<i>Licuala grandis</i>		y						
<i>Ligustrum sinense</i>		y						
<i>Lippia micromera</i>						Y		
<i>Livistona chinensis</i>	y	y	y		y	Y		y
<i>Majidea zanguebarica</i>	y	y						y
<i>Malvaviscus penduliflorus</i>					y	Y		
<i>Mandevilla splendens</i>		y						
<i>Mangifera indica</i>	y	y	y	y		Y		
<i>Manihot esculenta</i>	y							
<i>Monstera deliciosa</i>	y				y			
<i>Moringa oleifera</i>		y						y
<i>Murraya paniculata</i>	y	y			y			
<i>Musa × paradisiaca</i>						Y		

Plant Species	La Toc	Jalousie	Halcyon	Beljou	Rendezvous	Ladera	Coconut Bay	Morgan Bay
Musa ornata		y			y			
Musa velutina								y
Musa zebrina		y						
Musella lasiocarpa		y						
Mussaenda erythrophylla		y	y					
Mussaenda frondosa	y	y	y					
Mussaenda philippica		y	y					y
Mussaenda x rosea	y	y	y	y	y	Y		
Neomarica caerulea						Y		
Neomarica longifolia					y	Y		
Nephrolepis ferns		y		y				
Nerium oleander	y	y			y	Y	y	y
Nolina recurvata		y		y	y			
Nymphaea caerulea		y						
Nymphaea species		y				Y		
Ocimum basilicum						Y		
Odontonema cuspidatum						Y		
Ophiopogon species		y	y		y	Y		
Opuntia tuna						Y		
Orthosiphon aristatus		y						
Pachystachys lutea	y	y	y		y	Y		y
Pachystachys spicata			y					
Pandanus utilis	y	y	y		y	Y		y
Pandanus veitchii	y	y			y	Y	y	y
Peltophorum pterocarpum	y							
Pennisetum setaceum				y		Y		
Pentas lanceolata	y	y	y		y	Y		y
Persea americana						Y		
Philodendron bipinnatifidum	y?	y						



Plant Species	La Toc	Jalousie	Halcyon	Beljou	Rendezvous	Ladera	Coconut Bay	Morgan Bay
<i>Philodendron erubescens</i>			y	y	y			
<i>Philodendron lacerum</i>	y?	y				Y		
<i>Philodendron sagittifolium</i>	y	y	y	y	y	Y		
<i>Philodendron species</i>	y		y		y			
<i>Philodendron xanadu</i>	y							
<i>Phoenix roebelenii</i>	y	y	y		y	Y		y
<i>Phryganocydia corymbosa</i>	y	y	y	y	y			y
<i>Phyllanthus acidus</i>						Y		y
<i>Pilea depressa</i>						Y		
<i>Pilea microphylla</i>			y			Y		
<i>Pinus caribaea</i>						Y		
<i>Pittosporum tobira</i>	y	y	y		y	Y		y
<i>Plectranthus verticillatus</i>		y						
<i>Pleomele angustifolia</i>	y	y	y		y	Y		y
<i>Pleomele reflexa</i>	y	y	y		y	Y		y
<i>Plumbago auriculata</i>	y	y	y	y	y	Y		y
<i>Plumeria pudica</i>	y	y			y			
<i>Plumeria rubra</i>	y	y			y	Y		y
<i>Podocarpus species</i>		y			y			
<i>Podranea ricasoliana</i>	y	y			y			
<i>Polyalthia longifolia</i>					y			
<i>Polyscias filicifolia</i>	y	y	y	y	y	Y		y
<i>Polyscias fruticosa</i>	y	y	y	y	y	Y		y
<i>Polyscias grandifolia</i>		y	y		y	Y		y
<i>Polyscias guilfoylei</i>	y	y	y	y	y	Y		y
<i>Polyscias obtusa</i>		y	y		y	Y		
<i>Polyscias pinnata</i>			y		y	Y		
<i>Polyscias scutellaria</i>			y		y			
<i>Pritchardia pacifica</i>	y	y	y		y	Y		y

Plant Species	La Toc	Jalousie	Halcyon	Beljou	Rendezvous	Ladera	Coconut Bay	Morgan Bay
<i>Pseuderanthemum carruthersii</i>	y	y	y	y	y	Y	y	
<i>Psidium guajava</i>				y		Y		
<i>Ptychosperma macarthurii</i>					y	Y		
<i>Punica granatum</i>	y	y				Y		
<i>Quisqualis indica</i>	y	y	y		y	Y		y
<i>Ravenala madagascariensis</i>			y					
<i>Rhapis excelsa</i>		y						y
<i>Rosmarinus officinalis</i>						Y		
<i>Roystonea oleracea</i>				y		Y		
<i>Roystonea regia</i>	y		y					
<i>Ruellia malacosperma</i>		y	y	y				
<i>Ruellia tweediana</i>	y	y	y	y	y	Y		
<i>Russelia equisetiformis</i>	y	y	y	y	y	Y		y
<i>Ruttya species</i>		y						
<i>Samanea saman</i>	y	y	y	y	y			y
<i>Sanchezia parvibracteata</i>	y	y	y	y				
<i>Sansevieria cylindrica</i>			y			Y		
<i>Sansevieria hyacinthoides</i>		y	y		y	Y		
<i>Sansevieria trifasciata</i>		y	y		y	Y		
<i>Scaevola species</i>		y			y			
<i>Schefflera actinophylla</i>	y	y	y		y			y
<i>Senna siamea</i>	y							
<i>Solandra longiflora</i>	y				y			y
<i>Spathiphyllum</i>					y			y
<i>Spathodea campanulata</i>	y	y				Y		y
<i>Spondias dulcis</i>		y	y					
<i>Spondias purpurea</i>		y						
<i>Stachytarpheta urticifolia</i>						Y		
<i>Swietenia macrophylla</i>						Y		

Plant Species	La Toc	Jalousie	Halcyon	Beljou	Rendezvous	Ladera	Coconut Bay	Morgan Bay
Swietenia mahagoni				y				y
Syngonium podophyllum	y		y	y	y	Y		y
Tabebuia argentea	y							
Tabernaemontana divaricata	y		y		y			y
Tamarindus indica	y	y						y
Tecoma stans	y	y			y			
Terminalia catappa	y	y	y		y	Y	y	y
Thespesia populnea	y	y			y			y
Thrinax species	y							
Thunbergia erecta				y		Y		
Thunbergia grandiflora	y	y	y		y			y
Tradescantia pallida			y			Y		
Tradescantia spathacea		y	y	y	y	Y		y
Tradescantia zebrina					y	Y		
Triplaris species	y							
Turnera subulata		y	y		y			y
Turnera ulmifolia			y		y			y
Urechtites lutea								
Vanda (Papilionanthe) teres		y						
Veitchia merrillii							y	y
Vitex agnus castus								y
Wedelia calycina		y						
Wodyetia bifurcata					y			
Xiphidium caeruleum		y						
Yucca aloifolia	y		y			Y		
Zamia furfuracea	y	y	y			Y		y
Zamia species						Y		
Zoysia species		y						

## Appendix 2. List and Locations of Resorts Visited

<b>Resort</b>	<b>GPS Latitude</b>	<b>GPS Longitude</b>	<b>Response</b>
Sandals Regency at La Toc	14.01200	-60.98730	Visit made
Sandals Halcyon	14.02993	-60.97662	Visit made
Rendezvous	14.02485	-60.98416	Visit made
Beljou	14.01369	-60.97678	Previous list
Ladera Resort	13.83458	-61.06639	Visit made
The Jalousie Plantation	13.82908	-61.05884	Visit made
Coconut Bay Resort	13.74263	-60.93857	Visual Appraisal
Morgan Bay	14.01200	-60.98730	Previous list