

Appendix V

Table 1: Species list of vegetation identified on the Rose Hall property

Common name	Scientific name
Red birch	<i>Bursera simaruba</i>
Guango	<i>Samanea saman</i>
Logwood	<i>Haematoxylum campechianum</i>
John crow bead	<i>Adenantha pavonina</i>
Poinciana	<i>Delonix regia</i>
African tulip tree	<i>Spathodea campanulata</i>
Ackee	<i>Blighia sapida</i>
Guava	<i>Psidium guajava</i>
Banana	<i>Musa sp.</i>
Breadfruit	<i>Artocarpus incisus</i>
Mango	<i>Mangifera indica</i>
Tamarind	<i>Tamarindus indica</i>
Almond	<i>Terminalia catappa</i>
Coconut	<i>Cocos nucifera</i>
Wild tamarind	<i>Leucaena glauca</i>
Traveller's Palm	<i>Ravenala madagascariensis</i>
Thatch palm	<i>Thrinax sp.</i>
Royal palm	<i>Roystonea elata</i>
Banyan	<i>Ficus sp.</i>
Poui	<i>Cybistax donnell-smithii</i>
Sea grape	<i>Coccoloba uvifera</i>
Willow	<i>Casuarina equisetifolia</i>
Norfolk Island Pine	<i>Araucaria excelsa</i>
Yellow elder	<i>Tecoma stans</i>
Poor man's orchid	<i>Bauhinia variegata</i>
Waterlily	<i>Nymphaea sp.</i>
Acacia	<i>Acacia sp.</i>
	<i>Tillandsia sp.</i>
	<i>Ranunculus sp.</i>
	<i>Cycas sp.</i>
Cassia	<i>Cassia sp.</i>
Bougainvillea	<i>Bougainvillea sp.</i>
Pimento	<i>Pimenta jamaicensis</i>
Spanish Elm	<i>Cordia gerascanthus</i>
Naseberry	<i>Manilkara zapota</i>
Trumpet tree	<i>Cecropia peltata</i>
Black olive	<i>Bucida buceras</i>
Bamboo	<i>Bambusa vulgaris</i>
Cockroach Poison	<i>Solanum ciliatum</i>

Devil's Horsewhip	<i>Achyranthes indica</i>
Susumba	<i>Solanum torvum</i>
Cow-itch	<i>Mucuna pruriens</i>
Seymour grass	<i>Andropogon pertusus</i>
Guinea grass	<i>Panicum maximum</i>
Crab grass	<i>Stenotaphrum secundatum</i>
Pussclaw Macka	--
Hops bush	--
Bottlebrush	--
Oleander	--
Molina	--
Total	46 species

Table 2: Avifauna identified on the Rose Hall property

Species	Common name	Site	Range and Habitat
<i>Columba leucocephala</i>	White-crowned pigeon	1, 3, 5	Threatened
<i>Zenaida aurita</i>	Zenaida dove	1, 5, 6	Common resident from sea level to the mountains in wooded cultivations and gardens
<i>Columbina passerina</i>	Common ground-dove	1, 4	Very common and widespread resident
<i>Leptotila jamaicensis</i>	Caribbean dove	3	Locally common resident
<i>Zenaida asiatica</i>	White-winged dove	4	Common resident from sea level to the mountains in wooded cultivations
<i>Cathartes aura</i>	Turkey vulture	1, 4, 6	Common resident
<i>Turdus aurantius</i>	White-chinned thrush	1	Endemic
<i>Tyrannus caudifasciatus</i>	Loggerhead kingbird	1, 2, 5	Common and widespread
<i>Mimus polyglottos</i>	Northern mockingbird	1, 3, 4, 6	Locally common resident
<i>Vireo modestus</i>	Jamaican vireo	2, 4, 5, 6	Endemic
<i>Coereba flaveola</i>	Bananaquit	1, 4, 5	Abundant and widespread resident
<i>Tiaris bicolor</i>	Black-faced grassquit	4, 5	Common resident, in gardens and open situations
<i>Tachornis phoenicobia</i>	Antillean palm swift	2, 4, 6	Very common resident
<i>Aratinga nana</i>	Olive-throated parakeet	3	Endemic subspecies, common and widespread resident
<i>Forpus passerinus</i>	Green-rumped parrotlet	2	Common and widespread resident
<i>Crotophaga ani</i>	Smooth-billed ani	3	Common resident in cultivated land, pastures and wet meadows
<i>Melanerpes radiolatus</i>	Jamaican woodpecker	3, 6	Endemic
<i>Saurothera</i>	Jamaican	5	Endemic, resident, less common than the Chestnut

<i>vetula</i>	lizard-cuckoo		- bellied Cuckoo
<i>Casmerodius albus</i>	Great egret	3	Common resident seen in wetlands
<i>Bubulcus ibis</i>	Cattle egret	5, 6	Very common resident in pastures and open areas
<i>Egretta tricolor</i>	Tricolored heron	6	Fairly common resident in wetlands and ponds islandwide
<i>Nyctanassa violacea</i>	Yellow-crowned night-heron	6	Common resident on beached and in wetlands
<i>Egretta caerulea</i>	Little blue heron	6	Common resident
<i>Himantopus mexicanus</i>	Common stilt	2	Common resident in fresh and saline ponds
<i>Gallinula chloropus</i>	Common moorhen	2, 3, 5	Very common resident on fresh and brackish water
<i>Fregata magnificens</i>	Magnificent frigatebird	5	Common resident, often seen over fishing beaches
<i>Pelecanus occidentalis</i>	Brown pelican	7	Common resident, in coastal waters, on reservoirs, fish farms and in marshy areas
Total			27 species

NB The survey was conducted in April outside the over wintering season.

Table 3: Species list for Fore Reef Sites

Common name	Scientific name	DAFOR
Fish		35 species
Stoplight parrotfish	<i>Sparisoma viride</i>	F
Striped parrotfish	<i>Scarus iserti</i>	F
Redtail parrotfish	<i>Sparisoma chrysopteron</i>	F
Doctorfish	<i>Acanthurus chirurgus</i>	F
Ocean surgeonfish	<i>Acanthurus bahianus</i>	F
Blue tang	<i>Acanthurus coeruleus</i>	F
Bluestriped grunt	<i>Haemulon sciurus</i>	F
French grunt	<i>Haemulon flavolineatum</i>	F
Yellow tail snapper	<i>Ocyurus chrysurus</i>	O
Spanish hogfish	<i>Bodianus rufus</i>	O
Hogfish	<i>Lachnolaimus maximus</i>	R
Graysby	<i>Cephalopholis cruentatus</i>	R
Spotted goatfish	<i>Pseudupeneus maculatus</i>	R
Bar jack	<i>Caranx ruber</i>	O
Yellow tail damselfish	<i>Microspathodon chrysurus</i>	O
Beaugregory	<i>Stegastes leucostictus</i>	O
Bicolor damselfish	<i>Stegastes partitus</i>	F
Dusky damselfish	<i>Stegastes adustus</i>	F
Blue chromis	<i>Chromis cyanea</i>	F
Sergeant major	<i>Abudefduf saxatilis</i>	O
Fairy basslet	<i>Gramma loreto</i>	O
Harlequin bass	<i>Serranus tigrinus</i>	O
Butter hamlet	<i>Hypoplectrus unicolor</i>	O
Barred hamlet	<i>Hypoplectrus puella</i>	O
Black hamlet	<i>Hypoplectrus nigricans</i>	R
Smooth trunkfish	<i>Lactophrys triqueter</i>	O
Squirrelfish	<i>Holocentrus adscensionis</i>	O
Black durgon	<i>Melichthys niger</i>	O
Cleaning goby	<i>Gobiosoma genie</i>	O
Bluehead wrasse	<i>Thalassoma bifasciatum</i>	F
Yellowhead wrasse	<i>Halichoeres garnoti</i>	F
Rock beauty	<i>Holacanthus tricolor</i>	R
Sand diver	<i>Synodus intermedius</i>	R
Lesser electric ray	<i>Narcine brasiliensis</i>	R
Sand tilefish	<i>Malacanthus plumieri</i>	R
Hard Coral		21 species
Blade fire coral	<i>Millepora complanata</i>	F
Branching fire coral	<i>Millepora alcicornis</i>	F
Lettuce coral	<i>Agaricia agaricites</i>	F
Scaled lettuce coral	<i>Agaricia agaricites f. danai</i>	O

Lobed star coral	<i>Montastraea annularis</i>	F
Great star coral	<i>Montastraea cavernosa</i>	O
Massive starlet coral	<i>Siderastrea siderea</i>	O
Lesser starlet coral	<i>Siderastrea radians</i>	F
Elliptical star coral	<i>Dichocoenia stokesi</i>	R
Blushing star coral	<i>Stephanocoenia intersepta</i>	R
Pillar coral	<i>Dendrogyra cylindrus</i>	R
Grooved brain coral	<i>Diploria labyrinthiformis</i>	O
Symmetrical brain coral	<i>Diploria strigosa</i>	O
Boulder brain coral	<i>Colpophyllia natans</i>	R
Maze coral	<i>Meandrina meandrites</i>	R
Ridged cactus coral	<i>Mycetophyllia lamarckiana</i>	R
Mustard hill coral	<i>Porites astreoides</i>	F
Finger coral	<i>Porites porites</i>	O
Yellow pencil coral	<i>Madracis mirabilis</i>	R
Elkhorn coral	<i>Acropora palmata</i>	R
Staghorn coral	<i>Acropora cervicornis</i>	O
Soft coral		7 species
Common sea fan	<i>Gorgonia ventalina</i>	F
Sea plumes	<i>Pseudopterogorgia sp.</i>	F
Corky sea finger	<i>Briareum asbestinum</i>	F
Grooved-blade sea whip	<i>Pterogorgia guadalupensis</i>	F
Porous sea rods	<i>Pseudoplexaura spp.</i>	O
Black sea rod	<i>Plexaura homomalla</i>	O
Bent sea rod	<i>Plexaura flexuosa</i>	O
Algae		16 species
Sargassum algae	<i>Sargassum sp.</i>	A
Saucer leaf alga	<i>Turbinaria tricostata</i>	A
Y branched algae	<i>Dictyota bartayresii</i>	O
Y branched alga	<i>Dictyota linearis</i>	F
Leafy flat-blade alga	<i>Styopodium zonale</i>	F
Encrusting fan-leaf alga	<i>Lobophora variegata</i>	F
Watercress alga	<i>Halimeda opuntia</i>	F
Sea pearl	<i>Ventricaria ventricosa</i>	F
Mermaid's fans	<i>Udotea sp.</i>	O
Large leaf watercress alga	<i>Halimeda discoidea</i>	O
Green grape alga	<i>Caulerpa racemosa</i>	O
Mermaid's tea cup	<i>Udotea cyathiformis</i>	O
Chaetomorpha	<i>Chaetomorpha aerea</i>	O
Lavender crust algae	<i>Titanoderma sp.</i>	O
Pink segmented alga	<i>Jania adherens</i>	O
Reef cement	<i>Porolithon pachydermum</i>	F

Sponge		5 species
Brown variable sponge	<i>Anthosigmella varians</i>	F
Branching tube sponge	<i>Pseudoceratina crassa</i>	O
Scattered pore rope sponge	<i>Aplysina fulva</i>	O
Orange elephant ear sponge	<i>Agelas clathrodes</i>	O
Red boring sponge	<i>Cliona delithrix</i>	O
Echinoderms		2 species
Long-spined urchin	<i>Diadema antillarum</i>	F
Mottled red sea star	<i>Copidaster lymani</i>	R
Molluscs		2 species
Spiny fileclam	<i>Lima lima</i>	R
Queen conch	<i>Strombus gigas</i>	R
Worms		2 species
Southern lugworm	<i>Arenicola cristata</i>	F
Spaghetti worm	<i>Eupolymnia crassicornis</i>	O
Other species		2 species
White encrusting zoanthid	<i>Palythoa caribaeorum</i>	O
Batwing coral crab	<i>Carpilius corallinus</i>	R
Total number of species		92 species

Table 4: Species list for back reef sites

Common name	Scientific name	DAFOR
Fish		15 species
Stoplight parrotfish	<i>Sparisoma viride</i>	F
Striped parrotfish	<i>Scarus iserti</i>	F
Doctorfish	<i>Acanthurus chirurgus</i>	F
Ocean surgeonfish	<i>Acanthurus bahianus</i>	F
Blue tang	<i>Acanthurus coeruleus</i>	O
Blue chromis	<i>Chromis cyanea</i>	F
Dusky damselfish	<i>Stegastes adustus</i>	F
Beaugregory	<i>Stegastes leucostictus</i>	O
Sergeant major	<i>Abudefduf saxatilis</i>	O
Fairy basslet	<i>Gramma loreto</i>	O
Harlequin bass	<i>Serranus tigrinus</i>	O
Butter hamlet	<i>Hypoplectrus unicolor</i>	R
Squirrelfish	<i>Holocentrus adscensionis</i>	O
Bluehead wrasse	<i>Thalassoma bifasciatum</i>	F
Yellowhead wrasse	<i>Halichoeres garnoti</i>	F
Hard Coral		10 species
Finger coral	<i>Porites porites</i>	O
Mustard hill coral	<i>Porites astreoides</i>	F
Lobed star coral	<i>Montastraea annularis</i>	F
Great star coral	<i>Montastraea cavernosa</i>	O
Lesser starlet coral	<i>Siderastrea radians</i>	F
Massive starlet coral	<i>Siderastrea siderea</i>	O
Symmetrical brain coral	<i>Diploria strigosa</i>	O
Lettuce coral	<i>Agaricia agaricites</i>	O
Blade fire coral	<i>Millepora complanata</i>	O
Branching fire coral	<i>Millepora alcicornis</i>	O
Soft coral		4 species
Sea plumes	<i>Pseudopterogorgia sp.</i>	F
Swollen-knob candelabrum	<i>Eunicea mammosa</i>	F
Grooved-blade sea whip	<i>Pterogorgia guadalupensis</i>	F
Common sea fan	<i>Gorgonia ventalina</i>	O
Algae		8 species
Sargassum algae	<i>Sargassum sp.</i>	D
Saucer leaf alga	<i>Turbinaria tricostata</i>	A
Encrusting fan-leaf alga	<i>Lobophora variegata</i>	F
Y branched alga	<i>Dictyota linearis</i>	F

Watercress alga	<i>Halimeda opuntia</i>	F
Bristle ball brush	<i>Penicillus dumetosus</i>	F
Mermaid's fans	<i>Udotea sp.</i>	O
Reef cement	<i>Porolithon pachydermum</i>	O
Sponge		2 species
Brown variable sponge	<i>Anthosigmella varians</i>	O
Orange elephant ear sponge	<i>Agelas clathrodes</i>	O
Echinoderms		2 species
Long-spined urchin	<i>Diadema antillarum</i>	O
West Indian sea egg	<i>Tripneustes ventricosus</i>	R
Other species		2 species
Southern lugworm	<i>Arenicola cristata</i>	F
Turtle grass	<i>Thalassia testudinum</i>	O
Total number of species		43 species

Table 5: Transect data taken at site 1, showing typical species and sizes of corals present in the fore reef zone.

Species	Maximum Height/cm	Maximum Diameter/cm
<i>P. astreoides</i>	10	50
<i>A. agaricites</i>	10	15
<i>M. annularis</i>	20	25
<i>M. alcornis</i>	5	10
<i>P. porites</i>	5	10
<i>A. agaricites</i>	5	25
<i>S. siderastrea</i>	3	10
<i>P. astreoides</i>	5	25
<i>A. agaricites</i>	10	40
Average size	8	23