

RESCUE & COLLECTION OF ENDEMIC & ENDANGERED
PLANT SPECIES
FOR BIODIVERSITY CONSERVATION (II)

END OF PROJECT REPORT
PHOTO SUPPLEMENT

December 2012



Turks & Caicos Environmental Club members Shaniequa Campbell & Sonya Grant with DEMA's Kenol Joseph participate in a plant rescue, here showing endangered (CITES II) and Caribbean endemic cactus *Pilosocereus royenii* and tall Encyclia orchids *Encyclia altissima* at the Providenciales International Airport Amanyara FBO site.

PLANT RESCUES

Plant rescues are carried out by DEMA staff members and by members of the TCI Environmental Club, which was established by DEMA for voluntary environmental work.



DEMA's Kenol Joseph carries large, ancient specimens of tall orchid *Encyclia altissima* to a DEMA truck at the Providenciales International Airport Amanyara FBO site.



DEMA's Kenol Joseph arranges large, ancient specimens of tall orchid *Encyclia altissima* to a DEMA truck.



TCI Environmental Club member Denise Elmerich arranges specimens of tall orchid *Encyclia altissima* to a DEMA truck.



Some of the over 100 rescued *Encyclia altissima* being potted at DEMA's National Environmental Centre.



DEMA's Jasmine Parker managed the transfer of air plants such as flexuous wild pine *Tillandsia flexuosa* into the nursery.



TCI Environmental Club member Camille Slattery and DEMA's Kenol Joseph prepare a tall orchid *Encyclia altissima* for healing-in while DEMA's Jasmine Parker brings another of the over 100 rescued orchids.



This pile of tubers of regional endemic (and rare plant) Christmas hog potato *Exogonium microdactylum* was rescued from an ancient vine. It was propagated to several plants for the DEMA nursery and members' gardens.



Some of the many specimens of flexuous wild pine *Tillandsia flexuosa* rescued by TCI Environmental Club.



Orchids and air plants awaiting sorting and trimming after rescuing from airport expansion site

ORCHID MICROPROPAGATION

Orchid pollination: Orchids in the genus *Encyclia* hybridise readily, and so for seed collections for the Millennium Seed Bank and for sterile agar flask micropropagation, flowers are hand-pollinated. Here is the pollination process for the slender rock orchid *Encyclia gracilis*.



A healthy, virgin flower is located. Wild-pollinated flowers are removed from the plant to eliminate risk of hybrid seeds.



Petals and sepals are folded back with forceps for easy access to anther cap.



Anther cap is removed with needle tool.



Anther cap is set aside for extraction of pollinia.



Pollinia are extracted from needle tool.



Pollinia are planted in the stigma of another plant's flower.

Orchid flasking: Orchid seeds are flasked using the green pod method.



Newly grown protocorms of TCI endemic Caicos Encyclia *Encyclia caicensis*

Newly grown protocorms of TCI endemic Caicos Encyclia *Encyclia caicensis*



Yearling plants of TCI endemic Caicos Encyclia orchid *Encyclia caicensis* planted in sterile agar flasks during first funded project.

Yearling plants of TCI endemic Caicos Encyclia orchid *Encyclia caicensis* growing in perlite after de-flasking from first funded project.

NATIVE PLANT BIODIVERSITY CONSERVATION NURSERIES

Rescued endangered and endemic plants are planted and propagated in DEMA's Native Plant Biodiversity Conservation Nurseries until they are ready for planting out.



Monkey-fiddle *Pedilanthuss bahamensis* (Euphorbiaceae), TCI & Bahamas endemic; CITES App II (Depending on taxonomy followed!)



Lucayan silverbush *Argythamnia lucayana* (Euphorbiaceae). TCI & Bahamas endemic.



Box-briar *Oplonia spinosa* (Acanthaceae); Caribbean endemic



Hatpin sedge *Eleocharis bahamensis* (Cyperaceae); TCI & Bahamas endemic



Inagua orchids *Encyclia inaguensis* (Orchidaceae). TCI & Bahamas endemic, CITES App II.



Bahama Boxbush *Buxus bahamensis* (Buxaceae), TCI & Bahamas endemic.



Nakedback *Euphorbia gymnonota* (Euphorbiaceae); TCI & Bahamas endemic



Inagua Encyclia orchid *Encyclia inaguensis* (Orchidaceae); TCI & Bahamas endemic



North Caicos Native Plant Biodiversity Conservation Nursery



North Caicos Native Plant Biodiversity Conservation Nursery



Native plant seedlings prepared for Turks & Caicos National Museum Botanical & Cultural Garden



Egger's shamrock *Oxalis eggertii* (Oxalidaceae); TCI & Cuba endemic



Christmas hog potato *Exogonium microdactylum* (Convolvulaceae); Caribbean endemic



Nash's pepperwort *Marsilea nashii* (Marseliaceae); TCI & Bahamas endemic



Swamp bush *Pavonia bahamensis* (Malvaceae); TCI & Bahamas endemic



Bahama love-grass *Eragrostis bahamensis* (Poaceae); TCI & Bahamas endemic



Silvery silverbush *Argythamnia argentea* (Euphorbiaceae); TCI endemic



Smooth pear cactus *Opuntia bahamana* (Cactaceae); TCI & Bahamas endemic

NATIVE PLANT GARDENING: PERMANENT HOMES FOR RESCUED PLANTS



Raymond Gardiner High School Science Club members plant project plants at the Whitby Flamingo Pond Outlook on North Caicos.



Raymond Gardiner High School Science Club members plant project plants at the Whitby Flamingo Pond Outlook on North Caicos.



Native plant garden bed planted by Raymond Gardiner High School Science Club members at the Whitby Flamingo Pond Outlook on North Caicos.



Native plant garden bed planted by Raymond Gardiner High School Science Club members at the Whitby Flamingo Pond Outlook on North Caicos.



DEMA Junior Park Wardens participate in installing project plants into the National Museum's Botanical & Cultural Garden on Grand Turk.



DEMA Junior Park Wardens participate in installing project plants into the National Museum's Botanical & Cultural Garden on Grand Turk.



A new set of project plants is mulched into the National Museum's Botanical & Cultural Garden.



Caribbean endemic box briar *Oplonia spinosa* in the Museum's Botanical & Cultural Garden.



An arrangement of project plants comprising pine rockland species in the Museum's Botanical & Cultural Garden.



Bloody powderpuff *Zapoteca haematomma* in the Museum's Botanical & Cultural Garden. This plant is especially appreciated because of an early watercolour painting of it by Grace Hutchings (c. 19), which is reprinted as note cards by the Museum.



Monkey fiddle *Pedilanthus bahamensis*, a TCI & Bahamas endemic, in the Museum's Botanical & Cultural Garden.



Caribbean endemic species from the project planted in the Museum's Botanical & Cultural Garden.



Frenning's gum elemi *Bursera frenningae* (TCI & Bahamas endemic) planted in the Museum's Botanical & Cultural Garden.



Swamp bush *Pavonia bahamensis* (TCI & Bahamas endemic) planted in the Museum's Botanical & Cultural Garden.



Stinking pea root *Ateleia gummifera* (TCI & Cuba endemic) planted in the Museum's Botanical & Cultural Garden.



Inagua silvertop palm *Coccothrinax inaguensis* (TCI & Bahamas endemic) planted in the Museum's Botanical & Cultural Garden.



Lucayan pear cactus *Opuntia x lucayana* (TCI endemic) planted in the Museum's Botanical & Cultural Garden.



Rong bush *Wedelia bahamensis* (TCI & Bahamas endemic) planted in the Museum's Botanical & Cultural Garden.