



DARWIN ANEGADA



The Newsletter of the Darwin Initiative Assessment of the Coastal Biodiversity of Anegada, BVI.

<http://www.seaturtle.org/mtrg/projects/anegada/>

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Botanical Highs and a Tragic Loss

The Darwin project has significantly extended our knowledge and understanding of the habitats and plants of Anegada. The Anegada checklist now comprises 332 plant taxa of which 288 (87%) are native to Anegada and 44 (13%) are non-native, having been introduced from elsewhere at some stage since the last Ice Age. Many of these are relatively recent introductions for food, as ornamentals or as shade trees. Some of these introductions are invading natural habitats and pose a real threat to Anegada's native biodiversity. Of immediate threat are *Scaevola sericea* and *Casuarina equisetifolia* (whistling pine) along Anegada's beaches. A good representation of the plants of Anegada have been collected and dried herbarium specimens made as a permanent record forming a valuable resource for reference and research. All species have been collected in duplicate for the new Herbarium that has been established at the J.R. O'Neal Botanic Garden and the international herbarium at the Royal Botanic Gardens Kew.

We have identified several species of global conservation importance because they are found only on Anegada (*Acacia anegadensis* [poke me boy], *Metastelma anegadense* [wire wist],

Senna polyphylla var. *neglecta*). Others are endemic to the Puerto Rican Bank with Anegada supporting the most significant populations (*Cordia rupicola* [black sage], *Leptocereus quadricostatus* [prickly web], *Malpighia woodburyana* [bulldog]). All of these species have been collected and are now in cultivation at the J.R. O'Neal Botanic Garden as a resource for display, education and conservation. Seeds of several of these species have been collected and are in secure long term refrigerated storage in the Millennium Seed Bank at Kew's Wakehurst Place and in the deep freeze at the J.R. O'Neal Botanic Garden.

The anchorman for all this botanical activity was Raymond Walker and now he is no longer with us. Ray tragically died after a very short illness and has left a huge hole in BVI's botanical capacity and the hearts of his family and his very many colleagues in BVI and internationally. Ray was a natural plantsman with a deep fascination and enthusiasm for all things botanical, indeed all elements of nature and natural history. There were always questions – why, how, but how can you tell the difference? As a Darwin project manager he brought his accumulated experience of co-running BVI's

first Darwin project into the Anegada project and ensured that the project hit the ground running, especially on the plant side. He was a great organiser, always reliable and everything completed with that wonderful smile and slight twinkle in his eye. Nothing was a problem, especially if some reggae music was nearby. We're all going to miss a wonderful colleague, but his legacy will live on in the biodiversity conservation work already completed and the seeds sown for the future. Rest easy Ray.



Raymond Walker plant collecting on Anegada.

Exciting New Discovery of a Second Population of Threatened Cactus

A new discovery is always exciting, but when the new population is of a plant that we knew from less than 50 individuals in the World then it really is special! The plant in question is the large scrambling cactus *Leptocereus quadricostatus*. Prior to this fieldwork we knew of only one population on Anegada of approximately 41 individuals. Because of the scrambling nature of this incredibly dense and prickly cactus it is difficult to estimate precise numbers of individuals. Outside Anegada we know of only a few plants in a small area of southwest Puerto Rico.

The younger and smaller new population comprises 17 individuals and we discovered this during fieldwork in the eastern part of the island – to our great delight. We estimate that nearly 90% of the known world population of this critically endangered cactus occurs on Anegada.

We revisited the original population in the west of the island to find it had flowers and a single mature fruit. The mature fruit had fallen to the ground and looked as

though this had happened naturally. The fruit was opened and 460 tiny ripe seeds were collected. A batch of these seeds was sown in the nursery at the J.R. O’Neal Botanic Garden, but unfortunately none germinated. The rest of the seeds are safely stored in the refrigerated seed bank in the Garden. It is intriguing to speculate whether Anegada Rock Iguana’s eat the fruit and whether the seeds need some sort of treatment before germination will occur, possibly within the iguanas gut?

The J.R. O’Neal Botanic Garden has a specimen of this cactus on display in the Garden through previous collecting. We have also been working with the garden staff to propagate the cactus from cuttings. The result is several young cacti growing in the conservation nursery at the garden. These plants can be used for display, education, and re-introduction in the future.

The cactus has no common name on Anegada and as everyone deserves a name we held a plant naming competition with the school children of Anegada Primary School.



Winners of the naming competition, from Anegada Primary School collect their prizes.



The new population of Prickly Web cactus, *Leptocereus quadricostatus*. Inset: a ripe fruit cut in half showing the tiny black seeds.



Martin Hamilton of RBG Kew collecting cuttings of Prickly Web.

All the names the children came up with were excellent and are displayed on the project website. However, Brandon Jno Marie, age 8, topped everybody to win first prize with his name of "Prickly Web" which really encompasses all the attributes of this scrambling cactus. Shad Smith age 8 (Running Up and Down Cactus) and Nikaida Wheatley, age 10, (Spiny Spider Cactus) were the runners up. As with the previous naming competition for wire wist (*Metastelma anegadense*) we have produced a conservation poster describing the plant and the part played by the school children in giving it an Aneganian name. The poster can also be seen at the School or in the airport.



Anegada Primary School children, teachers and project partners at the end of another successful plant naming competition.

The Bigger Picture: Biodiversity Action Planning Meeting

In September 2005, the Darwin Initiative Biodiversity Action Planning meeting was held in the Community Centre, Anegada, BVI. Members of the Anegada Community joined with representatives of all of the project partners from BVI and UK. It was essential that the community's perspective be included in suggested actions for the biodiversity of their island.

Facilitated by Martin Davies of the RSPB, the workshop focused on identifying the issues faced by Anegada's biodiversity and solutions to any problems.

First workshop participants put the biodiversity of Anegada into some perspective at a global, regional and local level and provide an assessment of its current condition. The majority

of Anegada's biodiversity was considered to be in a mixed or poor state at all levels although it was agreed that for several areas i.e. coral reef, endemic butterflies, information is still lacking.

The meeting then focused on the creation of a problem tree, which represented all the issues/threats facing Anegada's biodiversity. Participants then turned all the problems into objectives, which represented the solutions to dealing with problems. Participants were allocated five votes each and asked to vote on which objectives they regarded as being highest priority.

The objectives that received the highest number of votes fell out into two major groupings:

A. Related to Governance/Land Use/Community Involvement:

- All decision making takes into consideration biodiversity needs in Anegada
- Land rights issues resolved so there is no constraint to natural resource management
- Biodiversity conservation has high ownership and commitment from local persons



Workshop participants discuss the 'Problem Tree'.

- Awareness and understanding about the destruction/misuse of natural resources on Anegada is increased
- Decisions relating to natural resource management on Anegada are taken in collaboration with the community

B. Related to Specific Conservation Action:

- A Protected Area network is established that has sufficient representation of key habitats & species
- Land is zoned for appropriate uses, ensuring that critical habitats are protected
- A healthy population of endemic plants is maintained
- Habitat (nesting/feeding areas) for the iguanas and turtles is secured
- Populations of iguanas, birds and other species threatened by predation are increased
- Natural resources are sustainably managed

- Impacts of global climate change are monitored and areas of resilience (e.g. adaptability to coral reef bleaching) are identified

Workshop participants also identified that in order to deliver the actions there is the need for additional input from key stakeholders that did not attend the workshop including BVI teachers, District Representatives, Ministry of Natural Resources, Survey Department, Public Works and Land Registry.

Following the workshop meetings, a series of fieldtrips were mounted in order to showcase some of the important biodiversity of Anegada, highlighting those aspects that had been the focus of activity during the project.

A detailed report of the workshop and an electronic version of the problem tree are available at the Darwin Project Website at: <http://www.seaturtle.org/mtrg/projects/anegada/outputs.shtml>



Damon Wheatley and Jim White train local students to capture and mark juvenile turtles.

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Can You Help?

As part of the project, local Anegadians are employed and assist in monitoring and research. Already the willingness to be involved has outstripped available resources and we are appealing for more support. There is unlimited work to be done and your help is most appreciated.

For more information or to become a supporter of the project please visit our web site or see contact details below. All donations will be acknowledged on our web site and in future issues of the newsletter. Through our partnership with US Based 501c(3) registered non-profit conservation organisation SEATURTLE.ORG we are able to accept donations online. 100% of all monies donated will be spent directly on the biodiversity of Anegada.

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