

## **PRESENTATION FOR MONDAY AUGUST 25, 2008 FOR WILD ARUBA**

### **CONCERNS ON ACTUAL STATUS OF FLORA**

I present you my paper in the capacity of a concerned native and resident of this island.

1. Most people will refer to an island in the Caribbean as an island abundant of lush greens. Well you will be disappointed, as Aruba will not be complying with that picture.

The island receives an average of 300 mm rain on a yearly basis in approximately 56 days. Some years this average of rainfall is not met at all. Some years there really is an abundance of rainfall to keep the flora green for most of the year.

The constant trade wind provides some cooling for both man and wildlife by maintaining daytime temperature at about 28 C. Disturbances associated with hurricanes influence our weather badly, making life unbearable and suffocating due to the absent breeze and consequently high temperatures with escapades into the thirty degrees Celsius. It is about time to experience this sensation.

2. The plants that withstand these conditions have developed distinctive features. The kwihi (*Prosopis juliflora*), the watapana (*Caesalpinia coriaria*) and the hubada (*Acacia tortuosa*) carry very fine and small leaves to create a bigger surface for cooling and to minimize loss of liquid. The adaption to the climate conditions makes these and other plants typical of a very dry and arid environment. Besides these plants have rambling roots that stretch far out to collect water/humidity as much as possible. Others have developed into cacti of all sorts, types and shapes. Cacti and succulents are adapted to store energy to endure the Aruban climate.

The vegetation of Aruba is specific in the sense that it is adapted to and is an integral part of the island. Only these plants have been able to live and grow with the conditions in Aruba.

This island has developed its own floral identity, which is tolerant of heat, even in its extremities and is relatively drought resistant. These conditions however have an impact on the growth and survival rate of the local flora.

Some of the cacti have already been cleared from certain neighbourhoods and areas where they once flourished. In other areas the cacti and its diversity are becoming scarce. Some spots on the island where once cacti were abundant are now forgiven of the presence of even one. We will assume that probably their prickly appearance has led to their vanishing of certain areas.

One may get the impression that the natural growth of the local flora does not look befitting of beauty. Look around and you will see that trees are being robbed of limbs that are there to sustain the plant. Cutting these limbs robs the plants of cooling energy and absorption of nitrogen. Besides the plants will consequently be more prone to dehydration by lack of cooling energy and humidity, additionally prone for wind and sunburn.

So, what is the beauty of the plant? It would be correct and nice to know the definition why the flora should be mutilated to satisfy the need for embellishment and or for a clear view, a see-through and in other occasions under the pretext of a clean-up.

3. Shrubs and trees are sometimes reduced to single limbs carrying a couple of leaves on top. Trimming of the trees and shaving the ground of its covers puts additional strain on the plant to protect itself against overheating and dehydration. Embellishment and or clean-up go into extremes. In some cases you will not encounter a single stone or rock. In other situations the soil looks as if it has been swept by a giant broom.

With little leaves left and man made clearings between the foliage allowing the hot wind to blow undisturbed adds to a soon demise of a heat tolerant and drought resistant plant. Add an intended or unintended bush fire and the result is total

destruction. The clearings in the foliage will allow the hot blowing wind free passage of force and damage.

The undisturbed flow of wind will add to erosion of the topsoil and lead to foliage wilt. And if by fortune we get some rain, the rain will wash away the little soil protection left, exposing underlying roots. Instead of a blessing, we contribute more to erosion.

But with these beautification actions we have produced a new variety of many genera of plants.

**4.** So from now on we can add the varietal name “skinheadus” to many genera of plants. So we have among others **Prosopsis juliflora “skinheadus”**, **Caesalpinia coriaria “skinheadus”**, **Acacia tortuosa “skinheadus”** and **Conocarpus erecta “skinheadus”**.

**5.** The clean shaven areas will soon be known as: **Sabanus koyakii**.

6. Trimming of trees reducing them to mere reeds with some leaves on top, clearing the area of natural occurring vegetation, particularly alongside “tourist” routes is intended to serve the purpose of embellishing the surroundings.

On the contrary it leads to windswept erosion, sun and windburn of vegetation and the loss of again scarce and valuable topsoil. Besides it opens the door to loss of vegetation and loss of habitat.

In areas where the vegetation serves the purpose of protection of the soil and where the vegetation acts as barriers, the embellishment and clean-up actions are contra productive. Along the beaches where the fofoti/mangel blanco (*Conocarpus erecta*) serves to keep the sandy beaches together, the trimming of the plant will be debilitating the plant and consequently the purpose it serves.

If these actions are drawn to an extreme the result may lead to destruction of an ecosystem.

Do not get me wrong. Clean-up actions are in place when man made and man caused pollution is a thorn in the eye of the beholder. As long as such actions serve that purpose, it is an initiative to applaud. Otherwise,

**7. Embellishment and clean-up actions should not be considered as tools for environmental conservation.**

**8. Whenever embellishment and clean-up actions are used, they should be well and clearly defined and executed.**

9. There is a land based natural park, instituted as Parke Nacional Arikok. This park is the right step towards awareness and conservation. However it should not be interpreted that the Parke Nacional Arikok will function as the substitute for the destruction of greens and habitats outside the boundaries of the national park or serve as the carte blanche to forget about the flora environment outside of the park. If we look at the rate of destruction of vegetation and habitat it would seem that all vegetation outside the park can be destroyed, supposing that the example or copy of it is in the national park.

**10. The local flora should not become a Green commodity only available during office hours and after paying a fee.**

11. We should be proud of our local plants. One has been used as synonym of Aruba. Here I refer to the watapana, for the visitors the dividivi. The dividivi has been used as trade names for enterprises and is definitely associated with Aruba. (hotel chain Divi) However we should also be proud to correct misuse of names to identify plants. The tree standing on the Eagle beach and called the dividivi tree is a misconception and misuse of name. Just because it has a hunch back does not make it a watapana. The fofoti grows alongside water, preferably brackish and contrary to the mangrove

does not like to have wet feet. In front of the high-rise hotels alongside the salt pond they are abundant, hopefully for a longtime to come.

That tree is actually a fofoti/mangel blanco and considered a natural treasure. It is up to us to redirect misuse of local names of plants and areas and expose the real names and consciousness of the cultural richness.

Along the western, northern and eastern side of the island destruction of the habitats is done under the pretext of making a spiritual connection as a legacy of the island culture. Visitors are invited to collect rocks and stones to build stone towers figuring as object of rock art. This activity is destroying the scarcely growing greens and the fragile ecosystems on the rocky shores.

Besides, the sales pitch of the operators is not linked to any part of the cultural heritage of the island; is a flagrant misconception and introduction of alien perceptions.

## **12. The flora is an integral part of the cultural identity, it should be alive.**

13. In other occasions the local plants are substituted by alien plants for beautification alongside “scenic” routes. These introduced plants generally do not possess the qualities of the local flora and will be in need of more care and are very cost consuming in maintenance. The local flora can with the proper consideration be a valuable and precious tool for embellishment, conservation and identity. The catuna di seda (*Calotropis procera*), kawara blanco (*Cordia alba*), kawara spaño (*Cordia sebestiana*), the wayaca (*Guaiacum officinale*) and the druif (*Coccoloba uvifera*) are examples that come to mind.

## **14. The floral identity should be safeguarded and protected as a legacy, part of our cultural heritage.**

15. Beautification goes further than the trimming of bushes and trees.

What purpose or supposed needs do we fulfill by putting the existing flora under additional stress when public sidewalks are cleaned of everything, i.e. all vegetation is cleared including grasses. These actions will lead to a further loss of vegetation, erosion of little available soil by the elimination of little groundcovers and eventually to loss of habitat.

For several groundcovers the eulogy has been written a longtime ago. For others not even a memorial slab has been erected. Many are still running a manifest risk of disappearing from the floral inventory list of Aruba if no measures for conscious conservation and management are taken and implemented.

Many plants have been sacrificed for the benefit of economic progress. Along the beaches from the Westin up to the Marriott, the first sacrificial plant was the endemic beishi (*Lantana arubensis*). On this stretch this plant is gone, ayooooo. Some small pockets can still be found on Eagle beach, but for how long. In the meantime we should have learned the lesson that when the plant is gone, it has been lost forever. We have lost the orchid *Schomburgkia humboldtii* for posterity. The orchid society has reintroduced the *Schomburgkia humboldtii* in the Parke Nacional Arikok.

The cocorobana (*Tournefortia gnaphalodes*), growing on the beaches where it is exposed to saltwater spray, is awaiting the executioner. A master of holding the soil together, the groundcover, wanglo (*Tribulus cistoides*) is on the verge of disappearance. Other plants are listed as few or limited in presence on the list of flora. There is neither policy nor management, so consequently nothing has been done about the actual status of the flora either.

If I'm not mistaken, it is prohibited by law to cut trees growing on public property land. Nothing is or will be done when who ever cuts down trees on public property. Who manages the flora on public lands?

16. Look for yourself how reckless employees of tour operators tour visitors along the eastside on the beaches with quad racers. When I kindly said that he could not drive the visitors through the dunes, he said nothing but took the side track. This behaviour

should be sanctioned. How do we expect to maintain the fragile habitats if there is no control.

**17. It should be clear which department is in charge of policy and management of the local flora to take the steps for action.**

**18. It is a must to have an inventory list of the local flora and make the public conscious and aware that most of the local plants are walking the tightrope.**

19. Plants that shed leaves to produce fruits or flowers are indiscriminately cut under the pretext of polluting the environment, yard or garden. Shedding of the leaves or dropping of fruits is considered pollution. These plants are in a disadvantage for cultivation due to the temporarily shedding of leaves or the dropping of ripened fruits. Many fruit trees that were common in the gardens during the earlier years are everyday becoming less common. Just to mention some amandel (*Terminalia catappa*), kenepa (*Melicocca bijuga*), cashew ( ), tamarijn (*Tamarindus indica*) and mango (*Mangifera indica*).

Some people also shed hair, but you don't see us going around eliminating the source of that pollution. Imagine that we would have to decapitate a great amount of people. Even my person could have been one of the victims and would not be standing in front of you.

20. A rooi is a natural stream that collects rainwater and leads it to a tanki (dam) or guides it to sea. For most of the year the rooi is a dry stream, but during the rainy season it collects the excessive rainwater.

Bulldozers are used to clear runoffs (rooi) of obstacles, which are described as collected debris. This debris generally consists of growing vegetation and otherwise dead organic material. The use of heavy equipment is timesaving, less expensive than manual labour. This method will surely collect everything in the runoff when the

blade of the equipment shaves, a better phrasing is scraping the rooi of all existing vegetation not only on the floor, but also on the slopes. Not only the supposed debris will be collected, also the rich topsoil will be transported to the landfill.

The use of heavy equipment compresses the earth in the bottom of the rooi, thus not allowing collected rainwater to drain to the groundwater.

The flow of the collected rainwater will be stronger as it will accelerate in speed whereas otherwise it would have been slowed down by the existing vegetation growing in the rooi and on the slopes of the runoff. Existing growing vegetation in the rooi will allow the water to seep down as the vegetation will slow the flow of the water and the water consequently will linger longer in the rooi.

The decision to use heavy equipment to clear a rooi is a decision to create the perfect climate and conditions for an environmental or ecological disaster.

That decision will consequently lead to:

faster running water as the consequence of clearance of all natural obstacles that slow down the speed of the rushing water;

less or no withholding of water by the roots of the vegetation that would otherwise strongly bond with the soil;

erosion of the bottom of the rooi and of the slopes;

weakening of the slopes of the rooi;

less drainage to the groundwater;

more spill off of scarce and valuable topsoil to the sea.

This unobstructed and accelerated flow of channeled rainwater can eventually cause material damage to bridges, roadsides, pavements and real estate alongside the runoffs.

## **21. Heavy equipment should be banned for use in the rooi.**

22. Cleaning actions of beaches take place on a regular basis. The north and east side of the island collects a great amount of debris consisting of organic and inorganic waste. The inorganic and man made waste should be collected and destroyed.

However the organic waste (driftwood) consisting of tree trunks and branches should

be left on the beach or drawn farther in land. The deposited trunks and branches will collect the sand as it is blown on land. They act as barriers and break the track of the windblown sand preventing it to be dispersed at will. By collecting and accumulating the coral sand the trunks and branches act as dummies or stickers for sand dunes and create natural barriers against surges. The sand dunes will continuously grow in size. If these positive actions are considered with the next beach clean-up actions there will be more dunes. Eventually on these sides of the island hopefully vegetation will grow and further secure the dunes, if irresponsible drivers in 4x4s and other terrain vehicles consider staying of the sand dunes their mayor challenge.

### **23. This is a natural tool used by former generations to secure coastal lines and protection.**

24. On the southern side of the island the sea was lined with more coral reefs than known nowadays. All these coral reefs were grown with green mangroves. Unfortunately in the beginning of the sixties a public officer with the Department of Public Works had the bright idea to burn the mangroves on these reef islands to eliminate the roosting and breeding sites of the sea birds. This step was justified as a precautionary action in the light of the arriving jets on Aruba. Since then all these reefs are gone and are reflected as sandbanks in front of the harbour in Oranjestad.

25. I would like to appeal to our water company that uses the Caribbean Sea as the source for our potable water to consider this proposal. The next replacement of water conduit pipes should be set aside. These galvanized pipes should be placed on the bare sandbanks as they are excellent and suitable dwellings. Placed on the sandbanks the pipes will collect sediments between themselves. They will welcome the colonizers of objects in the sea; the grunts and invertebrates and thus create habitats. At the same time begin with the replanting of mangroves between the pipes to regenerate mangrove reefs. The mangrove will help in the protection of the southern

border line and will be the host for a new habitat for a great variety of marine invertebrates and vertebrates.

**26. The regeneration of the reefs should be considered as a step in awareness, conservation, innovation and protection.**

27. I would like to close with the following consideration:

**28. When will we regret the loss of the floral identity of this island?  
When will we realize that we have set a chain reaction in motion and  
abandon ignorance?**