

## Editorial

Welcome to the second issue of *Mediz* newsletter, a quarterly publication produced by the Seychelles National Parks Authority (SNPA). As you will notice, there is a change in the format of the publication. The change is a result of feedbacks received from our readers. The Editorial team wishes to thank everyone for their positive contribution.

This second issue consists of articles related to the various activities implemented by the Authority in the last few months. It also includes activities by Board members, as well as those of the Ministry of Environment.

If you would like to contribute an article or suggest ways to improve the publication, please do so as your support is welcome. Please contact Ms. Sylvanna Antha (s.antat@scmr-mpa.sc) for more details.

Happy Reading.

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## Strengthening the management of SNPA: Team building training

*It is amazing how much people get done if they do not worry about who gets the credit. -*

**Swahili proverb**

The importance of team work is essential for the success of an organization. SNPA in collaboration with SIM ran a one day training in team building. The training was held at Beau Vallon beach and was attended by all senior and middle management staffs from La Digue, Praslin, Curieuse and Mahé. It was facilitated by Mrs Patricia Francourt and Mr. Nichol Lesperance.

The training was well delivered and staffs worked together using effective strategies to solve various problems set forth by the organisers. It was also a good opportunity to build trust, interpersonal relationships and camaraderie among our peers. At the end of the day, it enabled us to keep the morale and also value the importance of team work.



*Middle and senior management*

This training is expected to improve the output of the Authority.

As quoted by Henry Ford: '**Coming together is a beginning. Keeping together is progress. Working together is success.**'

## A beautiful day in the Curieuse and Ile Coco Marine National Parks

**A visit to the Marine National Park is for discovery and learning about the diversity of marine life that make up the complex marine ecosystems. The SNPA Board members visited the Ile Coco and Curieuse Marine National Parks to learn more about the history and potential of these areas.**

Saturday the 6<sup>th</sup> of August 2012 was a clear and sunny day, when four Board members managed to make it to Praslin onboard the Cat Cocos ferry. It was an exciting moment given that they've heard so much about Ile Coco and Curieuse but never had the opportunity to actually visit and experience those places.



Dr. Hoareau enjoying the hot sun

The members accompanied by the CEO boarded Linux, an SNPA boat, at Baie Ste Anne Jetty and headed to Ile

Coco.

The sea was relatively calm, barely showing any signs of movement. Twenty minutes into the trip, cameras were taken from bags to capture snapshots of *Felicité*, *Marianne*, *Grand Soeur*, *Ile Coco* and *Petit Soeur*, as the boat made its way to Cocos. With the clear sky, the scenery was simply breathtaking.

Curieuse Marine National Park is 14.7km<sup>2</sup> and was designated in 1979. The designation of Ile Coco occurred in 1997 and it is only 0.01 km<sup>2</sup>. Both Marine Parks are managed by the Seychelles National Parks Authority.



Ile Cocos

Dozens of pictures were taken to bear witness of this unique trip. It was unfortunate that it was low tide and a visit by foot could not be undertaken. However, the beauty of Ile coco took their breath away and after almost two hours, the boat headed to Curieuse.

The trip was interrupted by a short stopover at La Digue to hide from the rain that had started. The trip to Curieuse was resumed shortly after. The members were welcomed by the white dazzling sand and blue, crystal clear water of Curieuse. It was love at first sight!

After a short visit around the island and discussions on how to add value to the island, it was time to head back to Praslin. There was not enough time to discover what nature had to offer on Curieuse and members promised to go back to the island for a night or two, to experience life away from the hustle and bustle of Mahe island.

Watch this space for more news of Curieuse visits.



Major Atala and the CEO on the lookout for pirates!



## Greening Seychelles! The 10,000 Tree for Life national campaign

**We have never been more conscious about the state of the earth and our reliance on the biodiversity for our survival. Biodiversity provides us with all of our daily needs - from the air that we breathe, the food we eat and the clothes we wear. We cannot live without them. We need to protect our environment for it is vital to our survival.**

In response to the 'Green Wave Initiative' and the recognition of the importance of plants for our survival, the Minister responsible for Environment and Energy, Professor Rolph Payet launched the 'Trees for Life' Campaign at the Mont Fleuri Primary School earlier this year. The purpose of the campaign was to plant as many as 10,000 trees by the end of 2012.

Government, Non Government Organisations and businesses have embraced this national initiative. Activities have been organized by various stakeholders to contribute to this call. Different species of trees have been

planted by the end of November over 9000 trees had already been planted.

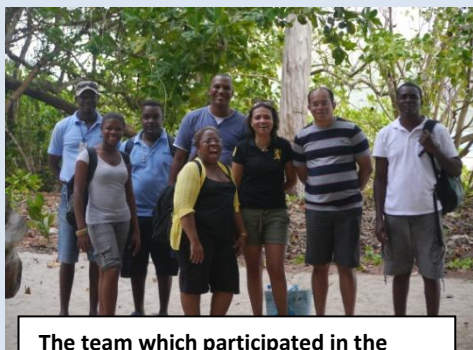
Following a visit to Curieuse Island, by the Minister, on Saturday the 18<sup>th</sup> of August 2012, he contributed to the initiative by planting 10 coastal species, in collaboration with the Chairperson and the CEO of SNPA.

*Bonnen Kare, Bwa Blan and Porse* are among the coastal species that were planted at Anse Jose on that day to replace the dead *Casuarina* trees and, *Takamaka* trees infected by the wilt disease. The trees will help to restore some of the important functions (e.g. coastal protection and also in cementing the sand together) that the dead trees used to provide.

The National Committee for the campaign is urging everyone to contribute to this national Initiative and to make a difference to Nature. For more details, please contact the National Committee for the 10,000 tree national campaign on [s.renaud@env.gov.sc](mailto:s.renaud@env.gov.sc).



Mr. Joubert planting at Anse Jose



The team which participated in the planting activities on Curieuse



Minister Payet planting at Anse Jose

## **SNPA enlarges its coast: New partners in the making**

Limited capacity, lack of financial resources and lack of technical capacity are some of the words widely spoken by organisations in Small Island Development States. Capacities and resources are usually the limiting factors and organisations such as the Seychelles National Parks Authority have to rely on local and external partnerships to implement many of its programmes.

### **SNPA ties Partnership with Chinese Institution**

The Authority is partner to many local (e.g. Nature Seychelles, MCSS) and International Organisations (e.g. Global Vision International, Aarhus University). The partnerships have been formalised under specific agreements commonly referred to as Memorandum of Understanding (MOU). Under these MOUs, the partners collaborate with SNPA to help implement national projects. Recently, the Authority was approached by the Second Institute of Oceanography; State Oceanic Administration, or SIOSOA China to collaborate in the area of Marine Research.

On Tuesday the 28<sup>th</sup> of August 2012, SNPA signed an MOU with SIOSOA which provide a framework of co-operation between the two institutions. The agreement will provide avenue for the development and implementation of collaborative research project(s), establish a Sino-Seychelles Center for marine research, encouraging and facilitating exchange of scientists, scholars and specialist teams between the two countries. It will also facilitate and develop cooperation in the area of marine scientific research and survey, integrated coastal zone management and related research and training, including coral reef research and management, climate change and ocean temperature network, satellite and remote sensing amongst many others.



*Official Exchange of the MOU*

This historical event was witnessed by a large delegation including the Administrator of the State Oceanic Administration.

### **SNPA formalizes partnership with the Seychelles Islands' Tourism Board**

The Seychelles National Parks Authority (SNPA) and the Seychelles Tourism Board (STB) have officially consolidated their partnership with the signing of a Memorandum of Understanding (MOU) on Monday 24 September 2012.

The MOU was signed by Denis Matatiken the CEO of the SNPA and Elsia Grandcourt, the CEO of STB. The agreement reinforces the effort of the Seychelles Tourism Board and SNPA to further cooperate and collaborate on important issues, assisting each other in the marketing of the Marine and Terrestrial Protected Areas.



Handing over the signed MOU between the CEOs of SNPA & STB

Mrs Grandcourt expressed her satisfaction with the existing partnership and also opportunities to further develop collaboration between the two organisations. Mr. Matatiken added that such partnership will enable the Seychelles to showcase its natural heritage to the world at large. The signing ceremony took place at the Seychelles Tourism Board head office at Bel Ombre and was the first activity organized to kick-start this year's tourism week. The signed documents officially bind the two parties in their efforts to further develop their existing partnership for the greater good of the island's rich biodiversity and natural attractions.

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## Teaming up for Action

A group of dedicated nature enthusiasts from the Ministry of Environment and Energy joined hands together to provide Mare Aux Cochons trail with a new look.

The event was held in the early morning. Staffs from Landscape & Waste Management Agency, National Botanical Garden Foundation, Energy Commission, and Environment Department assisted the Authority. The event was organized by the Social Committee of the Ministry of Environment. The volunteers met at Le Niole and started early to ensure that maximum could be done in the shortest period of time. Several team leaders were selected to supervise and guide others with the works planned for the day.

After only three and a half hours all teams made it up and back to the starting point. New steps, clean trails and painted kiosks were works completed by the group of 50 or so volunteers. Snacks and refreshment were available at the office to reward all



Painters from the Ministry pose after painting the Kiosk



the volunteers for their hard work. The Minister thanked all those who participated and acknowledged the special efforts made on that Saturday morning.

More activities of similar nature will be organized soon. *'Well coordinated efforts by many can simply make a big difference not only in office but also in the outside environment'.*

The Authority wishes to thank all the organisations that participated in the event as well as the social committee for organising the event.

## Paving the way for the future: SNPA's five year Strategic Plan

Strategic planning is an important process which is used to help organisations take decisions and prioritise areas to allocate resources. These are documented in what we call a strategic document, which provides a clear vision, objectives as well as activities to attain those priorities. SNPA is producing its Second Strategic Plan for 2012 to 2017.



The first National Strategic plan for the Authority was developed in 2008. At that time, the Authority was only responsible for the management of the Marine protected areas -Ste Anne, Curieuse, Ile Cocos, Port Launay and Baie Ternaie Marine National Parks- and conducting marine related research. Being also a financially independent organization then, one of the strategies was to improve the financial stability of the organization. The priorities of SNPA have now changed.

With reforms in the public sector almost a year later, the Authority has taken onboard additional responsibilities which also include the management of the terrestrial protected areas (Morne Seychellois, Praslin, and also the Veuve Reserve on La Digue) as well as the management of the forests on state land. As a result, the resource of the organisation requirement of the Authority has also changed.

Therefore, the Authority has adopted a new vision, with new objectives to effectively implement the strategy. The Strategy is being finalised and will be published soon. You will have the opportunity to learn more after we take you through the strategy in our next issue.

Sport is being practiced either by individuals or groups that are registered with the National Sports Council (NSC) at a competitive level, nationally. However, not everyone likes to compete at such level but do sport to maintain a healthy living. The National Sports Council is also encouraging organizations to team up and to participate in a national league system, as a means of encouraging more sport activities locally.

Given the fact that sports can bring staff within an organization to work together, the Social Committee of the Ministry of Environment and Energy organised a sports day in July 2012. Present were staffs from the Department of Environment, Landscape and Management Agency, Seychelles Energy Commission, National Botanical Garden Foundation and not least the Seychelles National Parks Authority.

To ensure that there was no gender bias; women and men participated in all events with competition between same genders. The events included volleyball, football, basketball, tug of war and athletics. These were organised using a league system and the team that gained the maximum points was declared the winner for that particular event. In addition, the team with the most points for both men and women was declared the overall winner.



**SNPA in action**



The social committee of the National Parks Authority organized several teams to participate in the said events.

With some experienced staff already playing at competitive level or coming out of the retirement to participate, they made a significant impact on the Sports Day. The male teams of SNPA did very well by winning the football, volleyball, tug of war and also various events in athletics. Winning two cups on the first attempt is a big achievement for the organization.

The Authority will now have to work harder for 2013 and aim for gold in all events. As the saying goes, 'Practice makes perfect' and in so doing, we lead a healthier lifestyle.

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## **A cleaner Seychelles: SNPA contributes to the national campaign**

As it is the tradition every year, the Seychelles commemorate the 'Clean up the world' campaign by organising a number of national activities. This year's campaign was

launched by the Minister for Environment and Energy. To clean as many locations as possible, the Authority formed groups to tackle identified hot spots on Mahe, Praslin and La Digue.

The first group tackled the Sans Souci view point. The site had been an eyesore given the amount of litter picnickers leave behind. The rubbish was collected by staffs from the Sans Souci Forestry sub-station together with staffs from the Forestry Secretariat. The area was also cleared of vegetation, and in total 20 bags of litter was collected.

The second group was made up mainly of staffs from the Terrestrial National Park Unit and they cleaned the Copolia trail. Litters are usually dumped by people using the trail. Six bags of were collected and disposed of.



**The Port Launay Group**

A third group consisting of staffs from the Marine Park Section together with some staffs from the Administration and Accounts section had planned to collect rubbish on the main beach at Port Launay. However, on arrival, Ephelia resort staffs together with some school children had already organized themselves to clean the beach. Not to be deterred the group decided to clean the adjoining small beaches (including 'Lans Lamoure') and the road to Cap Ternay. The group collected 12 bags of waste.

The research staffs teamed up with the volunteers from Global Vision International (GVIs) to clean up Cap Ternay (beach and underwater). They collected a truck full of litter.

Staffs from the Grand Anse forestry sub-station formed another group. Following some demolition works and the refurbishment of their offices a lot of waste material had been produced. Staffs used this opportunity to get rid of this waste, removing 4 truck full of waste.

The fifth and biggest group of staffs was involved with the cleaning on Ste Anne Island. Ste Anne Resort contacted SNPA requesting our assistance to help clean the island. Staffs from Research and the Operations Sections provided assistance. Together with some staff from the resort they cleaned the beach and also went inland to clean the trails. The largest amount of waste was



**Collecting litter on the beach front**



collected on Ste Anne. It was reported that 62 bags of wastes were collected.

A group of school children together with 'Friends of the Flycatcher' Club organised a cleaning event in the Veuve Reserve on La Digue. The children collected all the litters and rubbish that people dump in the reserve. A total of 4 bags were collected. They also planted some trees alongside the 'La mare Soupape' wetland to provide habitat for the critically endangered 'Veuve'. The total amount of litter collected was 5 trucks and 104 bags of wastes.

## **Habitat Restoration Effectiveness in Restoring Plant-Seed Disperser Interactions on Inselbergs**

One of the greatest threats to native ecosystems on small tropical islands such as the Seychelles archipelago is Invasive Alien Species (IAS). In Seychelles, several habitat restoration projects have been undertaken over the past decades, mainly on privately owned islands which are cat and rat free. Yet, the effectiveness of these restoration efforts is poorly understood and very often success is measured by the population growth of a reintroduced or translocated endangered, endemic bird. A critical question, which has been little researched to date, is whether habitat restoration restores ecosystem functions such as pollination and seed dispersal, and thus contributes to long-term sustainable conservation of newly created plant communities. Seed dispersal plays an important role in ecosystem functioning, and helps to maintain diversity in many ecological communities. Consequently, frugivore-plant interactions are known to influence the success of habitat recovery.

In 2010, the SNPA and Dr Christopher Kaiser-Bunbury (Seychelles Island Foundation) initiated a 3-year project to investigate how the removal of alien invasive plants affects plant-animal interactions. One focus of our research is animal-mediated seed dispersal on four restored inselbergs (Bernica, Salazie, Tea Plantation—Morne Blanc and Trois Frères) and four non-restored inselbergs (Copolia, Rosebelle, Casse Dent and La Reserve). By assessing the patterns of disperser behavior and seed deposition, we intend to improve our understanding of habitat restoration effects in an ecologically unique habitat (inselberg), and contribute to the growing field of research on the importance of mutualistic interactions in ecological restoration, as well as research on the ecological effects of the presence or absence of IAS. Subsequently, evaluating frugivore abundance and their interactions with fruit-bearing plants will be an important step in assessing whether native mutualistic relationships are restored as a result of habitat restoration.



Seychelles skink (*Lezar mangouya*)  
feeding on the fruits of *Pandanus*

The research on animal-mediated seed dispersal effect is being conducted by two MSc students, Rachel Taylor and Nina Thürlimann, from the University of Zurich, and initial fieldwork was done between February and June 2012. They are studying seed dispersal by two different

groups of vertebrate frugivores: a) very mobile, landscape-scale dispersers - birds: Seychelles bulbul (Merl) and Seychelles blue pigeon (Pizon olande) versus b) more sedentary, local dispersers - lizard: Seychelles skink (Lezar mangouya). They are also looking at how weed removal affects their interactions. The hypothesis is that birds will be important for bringing in seeds from outside the individual inselbergs and this may have both positive and negative implications for restoration: positive because they can bring in seeds of native species that are currently not present in each inselberg's flora, and negative if they bring in too many seeds of invasive species and thus potentially negate the restoration efforts.

In their fieldwork, the students used direct observations and non-invasive collection of faecal samples to collect qualitative and quantitative data on frugivory and seed dispersal by these species. Unfortunately, they could not do the feeding experiments on wild and short-term captive animals as planned because of time limitation and logistical difficulties. They are currently analysing the data and the preliminary results are showing that the Seychelles skink is an important local seed-disperser but there seems to be no concrete correlation between frugivory levels and restoration efforts. Interestingly enough, initial results are showing more foraging activities at native plants in restored sites and more fruits being eaten than in unrestored sites. However, in the seed rain experiment they observed less native seeds in the restored sites compared to the unrestored sites, but the addition of bird perches in restored sites increased the number of animal-dispersed seed. Adding bird perches for frugivores has the potential to be a great restoration tool.

### A botanical relict: the Jellyfish plant

Islands are considered to be biological hotspots with diverse flora and fauna, rich in endemism. The populations of these endemic species are usually small, isolated and localized, after developing adaptations to specific environment conditions for thousands of years. Any abrupt and significant changes to abiotic factors such as temperature and precipitation patterns can thus have a direct and/or indirect effect on the species, and thus threaten their survival. The jellyfish plant is one such species that may be affected.



Flowers of Bois Mediz

*Medusagyne oppositifolia* which is locally known as *Bois Meduse* or Jellyfish plant is one of the 75 endemic plants in Seychelles. The plant gets its common name from the shape of the seed capsule which resembles an inverted medusa. It was first discovered by Horne in 1874 but considered

extinct for 30 years until its rediscovery in 1970. The species is found in four isolated populations on Mahé, amongst the glacia vegetation between 150 to 500 metres above sea level.

The Jellyfish plant is therefore considered a palaeoendemic, an endemic of ancient Gondwanaland. Despite being isolated for many millions of years, the jelly fish plant has retained some ancient primitive morphological features. Such features include the reproductive organ which resembles those of ancient angiosperms. The species has also retained an inverted umbrella-like structure, a primeval structure in nature, in which the seeds of the Jellyfish plant are found. It splits when dry and releases the seeds which are then dispersed by the wind. Such method of seed dispersal is unusual for island species, but could have been an important feature for colonization when Seychelles was still part of Gondwanaland. Such features are no longer found in most of the angiosperms.

The morphological features have confused taxonomists, with the classification of the species being uncertain until the introduction and molecular studies. The Jellyfish tree was considered to belong to an endemic family of Mudusagynaceae but the species is now considered an Ochnaceae.



*Interesting nodule structures found at the root tip (Courtesy Plymouth University)*

The Jellyfish plant has developed certain adaptations to tolerate the poor soil conditions and extreme environment conditions on the inselbergs which it inhabits. Moreover, it has a nodule-like structure whose function is still not known. More in-depth research is required on this species.

According to a survey carried out by Matatiken (2006), the numbers of reproductive individuals differ in the four different populations, with regeneration being apparent in the population found in the lower altitudes. It was first thought that inbreeding was responsible for the failure of recruitment. However, a study by Finger et al (2012) shows that the population are genetically different, with genetic similarity being more apparent in the smaller populations.

It is therefore important to save this species from the threat of climate change. This should be the role of all individuals working to conserve our environment.

## References

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Matatiken, E.D. 2006. Using demography to set conservation priorities: A case study using the critically endangered *Medusagyne oppositifolia* (Medusagynaceae). Master thesis, University of Plymouth, UK.



## Meet the minds behind SNPA

### Profile of Board Members

The Seychelles National Parks Authority is a parastatal organization under the Ministry of Environment and Energy. The organization is spearheaded by a dynamic Board of Directors. The Board Members were appointed in September 2010 and they have a mandate of 2 years. They come from various backgrounds ranging from environment and resource management to tourism, education and security and defence.



*Mr. Flavien  
Joubert*



*Dr. Frauke  
Dogley*



*Roy Clarrise*



*Marie-Reine  
Hoareau*



*Major Jean  
Attala*



*Philomena  
Holanda*

**Mr. Flavien Joubert** is the Director General for Wildlife Trade and Permits Division in the Environment Department. He is responsible for the implementation and also enforcement of the Environmental Protection Act, a very powerful legislation that gives power to the Environment Department. He is also a keen conservationist, the first to work on the critically endangered Sheath-Tailed Bat.

**Dr. Frauke Fleischer Dogley** is presently the CEO of the Seychelles Island Foundation (SIF). She is responsible for the management of the Seychelles world heritage sites – the Vallee de Mai and the Aldabra Atoll. She has a passion for coco de mer conservation. The Authority work closely with SIF to implement a project to control and eradicate alien invasive species in the Praslin National Parks.

**Major Jean Attala** is responsible for the management of our EEZ from Piracy as well as illegal fisheries. He is a keen soldier who likes the environment, enjoys hiking and is at home on rough seas. He currently works with the coastguard.

**Ms. Philomena Hollanda** is working as a Manager at the Seychelles Tourism Department. She is responsible for risk management. Ms. Hollanda is also an environment enthusiast.

**Mr. Roy Clarisse** is the Deputy CEO of the Seychelles Fishing Authority (SFA). SFA is responsible for managing traditional, commercial and Industrial fisheries. He has a passion for the conservation of all marine creatures, big and small.

**Dr. Marie Reine Houareau** is the Technical Adviser for International Relations at the Ministry of Education and Secretary-General of the National Commission for UNESCO. She has a passion for the French language and is also very enthusiastic about environment conservation.

## ‘Mediz’

*Mediz* is the name for the Seychelles National Park Authority newsletter. The name was given after a very long cross list of names. In short, it was chosen because it encompasses both conservation aspects of the National Parks Authority, which are marine and terrestrial.

*Mediz* is the common name of a marine jellyfish that can be observed in the Seychelles waters. The word jellyfish is a common term used to describe animals that are gelatinous or made up of ‘jelly-like’ materials. They are food for a number of marine animals including large fish and turtles. Jellyfish also increase habitat for many juvenile fish in areas where there are not many places to hide. They protect the small fish, from being eaten by predators, with their stinging cells.



A jellyfish



Fruit of the Jelly fish plants

‘Bwa Mediz’ is the local name for *Medusagyne oppositifolia*, an endemic plant that grows only on the granitic island of Mahé. The plant gets its name from the shape of the fruit which resemble a jellyfish. Each fruit contains around 40 small winged seeds which are dispersed by wind. The plant has both male and female flowers on the same plant which flower synchronously.

In this context, *Mediz* is used to reflect not only organisms but also activities implemented by SNPA and its partners. We want to keep you updated with the latest development and also activities implemented by the organisation.

### WHO ARE WE?

The Seychelles National Parks Authority (SNPA) is an organization established in 2009 and is responsible for the protection and management of protected areas, biodiversity conservation, and implementation of education and awareness projects.

#### SNPA Mission

To effectively protect and manage designated marine and terrestrial protected areas, including forested areas, for future generation, with the intention to use them for conservation, research and educational purposes.

#### SNPA Vision

SNPA is striving to become an international model for the sustainable management of a national parks system and sustainable forest areas, by conserving biodiversity in designated protected areas with exemplary professionalism, innovation and efficiency.

If you want to know more about us please feel free to contact us on [info@scmrt-mpa.sc](mailto:info@scmrt-mpa.sc)

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