Mediz
Seychelles National Park Authority Newsletter

Seychelles National Parks Authority Special Edition, February 2013

Editorial

Welcome to this Special Edition of *Mediz* newsletter, a publication by the Seychelles National Parks Authority (SNPA).

This issue contains articles related to the EDGE project. The project is being implemented by the Durrell Institute of Conservation and Ecology (DICE) with the participation of numerous local partners- the Research and Monitoring Unit – Seychelles National Parks Authority, Ministry of Environment and Energy, The Natural History Museum, Seychelles Islands Foundation, National Museum of Seychelles, Wildlife Club of Seychelles, Nature Protection Trust of Seychelles and also international partners - Zoological Society of London - EDGE of Existence Programme, and the University of Exeter, UK.

If you would like to contribute an article to the next issue, please contact Ms. Sylvanna Antha (s.antat@scmrt-mpa.sc) for details.

Content ***Page***

Evolutionarily Distinct and Globally Endangered (EDGE) Programme

The Zoological Society of London (ZSL), EDGE of Existence Programme is centred on threatened species with an evolutionary unique history. It aims to draw attention to and protect these distinctive species from extinction.

EDGE species are different from all other species in the way they look, live and behave, and in their genetic material

They are immediate priorities for conservation attention, because if they disappear there will be nothing like them left on earth. Worryingly, research has identified a major gap in global conservation efforts: 66% of the world's top 100 EDGE mammals, 85% of the top 100 EDGE amphibians and 100% of the top 10 corals are currently receiving little or no conservation attention.

To help address this knowledge gap and secure a future for EDGE species, EDGE Fellows, who are young scientists receiving logistical, financial and institutional support from ZSL's EDGE of Existence programme, implement conservation projects focusing on priority EDGE species. Through this work, in-country scientists and local stakeholders (including government agencies, supporting organisations and local communities) are encouraged to take ownership for the protection and conservation of these species, and their sustainable use.

A cutting-EDGE approach to save Seychelles' evolutionarily distinct species

EDGE species are spread around the globe but the Seychelles islands have an unusually high concentration of 12 EDGE species. These include the sheath-tailed bat, Seychelles black parrot, 4 species of sooglossid frogs, Cooper's black caecilian, and 5 corals species, which are all threatened.

Recognising the Seychelles' importance for projecting EDGE species, DICE is implementing a 3 year project with the aim of building the capacity of Seychellois (EDGE Fellows) in the management, research and conservation of these species. Five fellows will receive support and guidance from various internationally known experts. Support will also be provided by a project officer. The works of the Fellows will increase knowledge on the Seychelles' 12 EDGE species as well as the conservation status and management of these species.

The project will contribute to the implementation of the objectives of several multi-lateral agreements such as the Convention on Biological Diversity (CBD), the Convention on International Trade in Endangered Species (CITES) and the Convention on the Conservation of Migratory Species (CMS) and related in-country targets and objectives for the conservation of the Seychelles environment.

Investigating the role of Marine Protected Areas in the conservation of three EDGE Coral Species

This study, which will form part of DICE's project, is being carried out over two years, within the Mahé, Ste Anne, Praslin, Curieuse and La Digue coastal areas. Given that there has been limited or no study carried out on the rarity, uniqueness and habitat requirements of EDGE corals, this project will investigate whether MPAs are efficient at conserving these three coral species. The species under investigation includes the pearl bubble coral *(Physogyra lichtensteini)*, the elegance coral *(Catalaphyllia jardenei)* and the pineapple coral *(Parasimplastrea sheppardi)*. Information collected on the distribution of these species will inform policy makers and other local stakeholders on the effectiveness of MPAs in the conservation of Evolutionarily Distinct and Globally Endangered corals. A report will be presented to the Ministry of Environment, setting out the observations and making recommendations for conserving these species, and encouraging conservation and management efforts to bring more focus on them.

The project will also build capacity in coral reef monitoring, enabling rangers from SNPA and researchers to learn new techniques to supplement existing knowledge. Data collected will be analysed and scientific reports will be published to equip local and international scientists with information on these species, while establishing baseline for the Seychelles and the region, given the limited information existing on the species.

Increasing knowledge on EDGE coral distribution, through citizen science

There is limited knowledge and awareness of EDGE coral species within the Seychelles islands. The Seychelles National Parks Authority is working in close collaboration with dive centres across Mahe and Praslin islands, to map the distribution of *Physogyra lichtensteini*, *Catalaphyllia jardenei* and *Parasimplastrea sheppardi* in the vicinity of the two islands

This will be done through short workshops organised at Dive Centres, to teach staff on the biology and identification of corals, threats such as diseases, impacts of climate change and anthropogenic impacts on reefs. Dive staff and clients will then be asked to record sightings, and provide photo evidence of these three species. In this way, SNPA aims to improve public participation and incorporate citizen science into their scientific research. This will improve public knowledge whilst collecting crucial data for the project.

As a result of the project, it will be possible to map the distribution of the three coral species within the inner islands group. The project will also help strengthen research partnership between the involved parties.

Physogyra lichtensteini (Family Euphyllidae)

Photo credit: David Obura

Bubble coral, as it is commonly known, is the sole species within its genus and is easily identified by its bubble like appearance. It is vulnerable and has been given no conservation attention.

Each polyp of this coral is either all male or all female. Colonies are massive or form thick plates, with widely separated valleys. During the day a mass of vesicles (the size of small grapes) cover the colony surface.
It is found in turbid reef environments and common in protected areas, such as crevices. It is usually found at 9-15m depth. Some species associated with this coral include bubble coral shrimp, orang-utan crab and the hawksbill turtle.

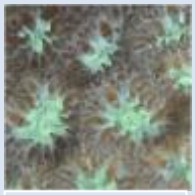

Photo credit: David Obura

Parasimplastrea sheppardi (Family Faviidae)

This species is distinct from other species in its family and is the sole species within its genus, with encrusting to sub massive colonies. It is a colonial species and is found down to 20m.
The polyps are brown with greenish calices. It is found in different reef habitats including marginal reefs, sub-tidal reefs and rocky reefs.
It is mainly found around the Indian Ocean islands and in the region of Oman.

Catalaphyllia jardenei (Family Euphyllidae)

Photo credit: Tim Wijgerde

Pineapple coral (Catalaphyllia jardenei) is the only species within its genus. These corals can grow down to a depth of 30m and on sandy bottoms in areas of turbid water movement.

These corals are a distinctive green colour with pink tentacle tips and striped oral disc. They occur in sheltered areas, preferably in turbid water.

They are rare but conspicuous. These are distributed in the Indian Ocean and Pacific Ocean and are a vulnerable species.

Partners and Supporters

BIG BLUE DIVERS SEYCHELLES PADI 5 STAR DIVE RESORT	The **Big Blue Divers** is a five start dive centre located next to the Divers Lodge in Beau Vallon.
DICE University of Kent	The **Durrell Institute of Conservation and Ecology (DICE)** mission is to break down the barriers between the natural and social sciences in conservation, to build capacity and to focus on scientific research which informs practical implementation
DIVE Seychelles www.diveseychelles.com.sc PADI Gold Palm 5 Star Dive Centre located next to the Pizzeria at Berjaya Beau Vallon Beach Resort & Casino	The **Underwater Centre** is Seychelles' longest established diving centre and the only PADI Five Star Instructor Development Centre in Seychelles
EDGE ZSL LIVING CONSERVATION	The Zoological Society of London's **EDGE of Existence Programme** is a global conservation initiative, focusing on threatened species that have a unique evolutionary history, with the aim of making these species known and encouraging conservation action to prevent their loss.
Eco-School Seychelles	**Eco – school** aims at promoting sustainable development through Environmental Education in schools.
	Global Vision International works in partnership with the SNPA, to host two expeditions based on the granitic inner islands of the Seychelles
Seychelles Praslin octopusdiver.com	**Octopus Diver** is a unique place for its warmth and friendliness; a gathering point for worldwide scuba divers. The dive centre is located at Cote D'or on Praslin.
save our seas FOUNDATION	The **Save our Seas Foundation** is committed to protecting our oceans by funding research, education, awareness and conservation projects focusing on major threats to the marine environment
Wildlife Clubs of Seychelles	**Wildlife Clubs of Seychelles** (WCS) is a non-governmental organisation established in 1994 to engage children and youth in conservation action. WCS currently has clubs in almost all schools in Seychelles and some 800+ members.
WiseOceans	**Wise Oceans** is a specialist marine education and conservation company, striving to spread awareness for our wonderful yet fragile oceans and the fantastic creatures that live within them.

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