



SIF CEO attends COP12 of the Convention on Migratory Species



CMS COP 12 © UNEP/CMS

At the end of October, SIF CEO Dr Frauke Fleischer-Dogley attended the Twelfth Meeting of the Conference of the Parties to the Convention on Migratory Species of Wild Animals (CMS COP12) in Manila, Philippines. Dr Fleischer-Dogley is the national focal point for the Convention of Migratory Species in Seychelles.

The convention is an international treaty which was signed in 1979 and entered into force in 1983; it now has over 120 member states and is recognised as one of the most important international conservation agreements.



A green turtle and a dugong © SIF

Recognising that there are particular threats to species that range over more than one country or the open oceans, the convention aims to conserve terrestrial, marine and avian migratory species throughout their range. Protecting migratory species requires the cooperation of all of the countries through which they range.

The convention is extremely relevant for Seychelles and especially Aldabra, as many species found on the atoll migrate far from our protection during the year including dugongs, humpback whales, many bird species and the green turtles for which the atoll is so well known. COP 12 was the largest wildlife conference of 2017 with over 1000 participants, it was an action packed week that brought together many concerned parties; it's great to be working together on such an important challenge!

Aldabra's marine protected area and the blue economy presented at UniSey's interdisciplinary research conference



Interdisciplinary research conference © SIF

SIF recently presented a research poster at the University of Seychelles' (UniSey) second interdisciplinary research conference: *Seychelles and beyond; connections and*

comparisons. The poster describes Aldabra Atoll's marine protected area and its role under the blue economy concept which has been championed by the Seychelles government. The blue economy concept is built on, and entirely reliant upon the health of the Seychelles exclusive economic zone. Aldabra, being the largest marine hotspot in the region and a flagship for Seychelles marine ecosystems, contributes to that by safeguarding ecosystem health and food security in the region.



Annabelle Constance presenting the poster © SIF

The poster was delivered to a crowd of more than 30 people, from a range of academic backgrounds, who all showed great interest in the protection efforts in place on the atoll and welcomed the governments' planned extension of the marine protected area.

SIF is pleased to have contributed to the conference, and would like to thank UniSey for such an initiative.

New staff join the Vallée de Mai

Over the last several months the SIF newsletters have included articles about the newly started Inva'Ziles project. The project is being financed by the European Union and implemented by the International Union for Conservation of Nature (IUCN), to further manage and mitigate the impacts of invasive alien species in the Vallée de Mai. Four new staff members have been recruited to the Vallée de Mai team as part of the Inva'Ziles project.



From left to right: Sascha, Júlia, Véronique and Sarah © SIF

Sarah Atkinson has joined us as the project coordinator, bringing extensive experience in invasive species eradication to the team. Prior to joining SIF she worked on the common myna eradication on North Island, as well as on a variety of invasive species projects in Scotland and New Zealand. Her academic background is in conservation biology. Véronique Couttee is the new Inva'Ziles project officer, who joins us from Mauritius Wildlife Foundation where she worked with Mauritius paradise flycatchers, olive-white eyes and Mauritius fodies. Her academic background is in biology. With the Seychelles black parrot breeding season starting, two of the new members have also been recruited to the black parrot team. Júlia Kovács has joined us as the black parrot data officer. She has an academic background in conservation biology and management and has worked with birds in Hungary, Hawai'i (USA) and Australia. Sascha Dueker will be working on the black parrot team as black parrot volunteer. Sascha completed his MSc in biodiversity, ecology and evolution with a thesis on grey parrot densities in Cameroon. Our new recruits are already hard at work and we look forward to seeing all that they achieve over the next few months!

Unfortunately we did not receive any applications from Seychellois last month, and we still have some vacancies open to Seychellois. Contact HR on 432 17 35 if you are interested in any of the following positions:

Vallée de Mai:

- Sales Clerk
- Visitor Attendant
- Housekeeper
- Security Officer
- Property Maintenance Supervisor
- Field Worker
- Ranger
- Field Research Assistant

Aldabra:

- Cook/Gardener
- Field Research Assistant
- Ranger

Mahé Head Office:

- Housekeeper



Research reveals new Seychelles caecilian

New research published in the journal Zootaxa has revealed a newly discovered caecilian, taking the number of described caecilian species in Seychelles from six to seven! The newly described species is called *Hypogeophis pti* (petite Praslin caecilian) and is thus far known only from a small area approximately in the centre of the island (including in habitat adjacent to the Vallée de Mai). It has been given the scientific name *Hypogeophis pti*, with the species name (*pti*) given in reference to the Seychellois Creole spelling of the French petit(e) for small.



Petite Praslin caecilian (Hypogeophis pti)
© Simon Maddock

The new species is not known to exceed 120 mm in total length, and so is one of the world's smallest caecilians, a title for which it competes with its close relative *Hypogeophis brevis*, known only from the hills of Mahé island in the Seychelles. The new species has fewer vertebrae than any other caecilian known (less than 70 vertebrae). The discovery of a new species in an area that is relatively well known highlights how easily caecilians can be overlooked; it is great news that we have more of these unique amphibians than previously thought.

The full citation for paper is:

Maddock, Simon & Wilkinson, Mark & Nussbaum, Ronald & Gower, David. (2017). A new species of small and highly abbreviated caecilian (Gymnophiona: Indotyphlidae) from the Seychelles island of Praslin, and a recharacterization of *Hypogeophis brevis*

Boulenger, 1911. Zootaxa. 4329. 301 - 326. 10.11646/zootaxa.4329.4.1.



Habitat in which type specimens of *Hypogeophis pti* sp. nov. were found between 2014 and 2015 on Praslin. (a) Glacis Noir, (b–e) Fond Peper © Maddock et al, 2017

Seychelles black parrot to feature in British Ornithologists' Union twitter conference

As social media continues to play an ever increasing role in conservation, Twitter has taken this to a new level with 'twitter conferences'. Twitter has long been used as a forum for discussion at traditional conferences, but now entire conferences are being held on Twitter itself, with no physical location at all. The British Ornithologists' Union is holding the first ever general ornithology conference which was inspired by the success of three seabird twitter conferences.

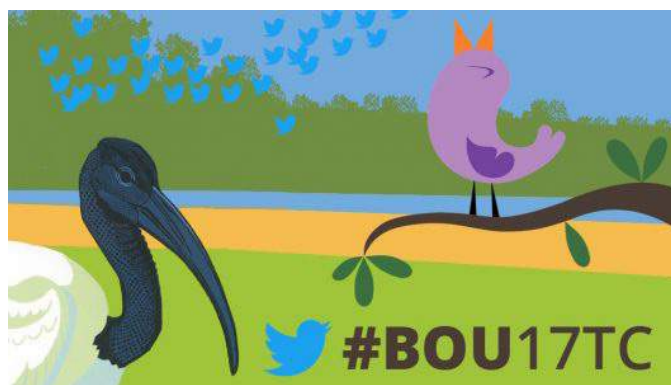


Dr Hazel Jackson
© BOU

The Seychelles black parrot will feature in the conference in a presentation by Dr Hazel Jackson, a postdoctoral research associate at the Durrell Institute of Conservation

and Ecology (DICE). Hazel will be tweeting as @WildParakeetsUK on: *Conservation of an endangered island parrot; evolutionary and morphological distinctiveness of the Seychelles Black Parrot.*

The conference will be using the tag #BOU17TC and is taking place over two days, 28th and 29th November; the black parrot will feature on the 29th in session 6. The programme for the conference is available at: <https://www.bou.org.uk/bou17tc/programme/> and detailed schedules of the talks for each session are also provided: <https://www.bou.org.uk/bou17tc/session-6/>.



The conference will use the tag #BOU17TC © BOU

During each 'talk' the scheduled presenter will be tweeting on their topic, so audiences all over the world can follow along. When they finish presenting, anyone can tweet to join the conversation about that talk and just before the next talk everyone stops tweeting so that the next presenter has 'the floor'. Twitter conferences are meant to be quite interactive and participation by 'the audience' is encouraged.

To follow the conference search for the tag #BOU17TC at the appropriate time and select 'latest' at the top of the search results (it defaults to showing the most popular posts, not the most recent). You will be able to ask world ornithology experts direct questions immediately after their presentations, so it really will be very exciting for bird enthusiasts!

Start of the Seychelles black parrot breeding season

The breeding season of the Seychelles black parrot has started once again, and the Vallée de Mai research team is very excited to be starting their annual breeding season monitoring of the parrots for the ninth consecutive year.



Seychelles black parrot © SIF

The breeding season usually starts in October and ends around April. At the start of the season the team is busy checking all potential nest sites in the known core breeding areas of the Vallée de Mai, Praslin National Park and Fond Ferdinand. A total of 73 cavities have been checked so far.



Terance and Cheyenne-Mae observing black parrots © SIF

One breeding call was heard in Fond Pepper and later at the same location the team spotted a female parrot inside a cavity in an albizia tree, observing her going in and out of the cavity, which suggests that she is prospecting the nest. Two mist-netting sessions have also been conducted and one new black parrot has been caught and ringed. The team will continue with nest checks and hope to find eggs soon. The team are hoping that this will be a productive and successful breeding season.

As in previous seasons there are invasive species threats to the parrot chicks and eggs, including rats and yellow crazy ants. Fortunately the new Inva'Ziles project will be taking place in tandem with the black parrot breeding season, and it is hoped that this work will give the team a greater understanding of the threats to black parrots, and will also explore new methods to mitigate them.



It has been a busy period for black parrot interactions, the white black parrot has also been spotted again and the team were able to observe the bird close-up perched on a cable and then in a papaya tree. We still hope to catch the white black parrot for genetic analysis. An unusual black parrot was also spotted on Praslin that appeared to have some brown feathers, the team are on the lookout for the bird, nicknamed *Caramel*, so if anyone sees it please let us know!

The white black parrot and brown black parrot © SIF

Creole festival: Creole culture celebrated at the Vallée de Mai

Each year SIF organises activities at the Vallée de Mai to celebrate the Creole festival. The Creole festival is one of the most important events on the calendar of activities for SIF as it gives visitors the opportunity to experience Creole culture and taste the local food and drinks that they may not otherwise experience. This year Creole festival activities took place from the 23rd to 30th October. These activities included traditional dance and song performances, sales of local snacks and drinks, exhibition of antique items, traditional games and a photo exhibition.



School students participating in the dancing © SIF

Amongst the dances performed was the moutya. The moutya is the root of Seychelles music. In the past the slaves improvised the moutya songs as a way to express themselves. The moutya has since become one of the Seychelles' most appreciated traditional dances. In the Vallée de Mai a variety of moutya songs were performed by members of the "Manglier Group". While SIF staff danced and sang along with the moutya

band, visitors gathered to observe and take photos, and the more courageous of them joined in! During the week visitors could also watch performances of another popular traditional song, the kanmtole, performed by Vallée de Mai staff.



Traditional household items on display © SIF

Local snacks and beverages were on sale for visitors to taste, including moukat, nougat and banana cakes. On the last day of Creole festival at the Vallée de Mai visitors could also taste Creole traditional dishes. Vallée de Mai staff contributed dishes to be sold to visitors who wished to have a taste of the Creole cuisine.

There was also an exhibition of antique household items on display at the visitor centre, the guides accompanying visitors gave explanations and did demonstrations on how the items were used in the past. Senior citizens from Baie Ste Anne were present during the festival to demonstrate to visitors how they used coconut leaves to make "kapatya" bags and hats, amongst many other items that were created from the leaves. They also assisted in giving explanations to visitors on how the antique objects were used in the past.



aldabra atoll

20 years of in-water turtle monitoring reveal interesting findings



Measuring a turtle © SIF

The Aldabra lagoon has long been recognised as an important developmental and foraging habitat for large numbers of juvenile and immature green and hawksbill turtles and the team on Aldabra has been regularly monitoring these turtles since 1996. This type of monitoring is known as ‘turtle rodeo’ owing to the technique used to capture swimming turtles, staff are required to leap out of moving boats. Captured turtles are tagged on both flippers, measured, weighed and released. A recent in-

house analysis of data from 20 years of in-water monitoring of juvenile turtles in the Aldabra lagoon revealed some interesting trends and information.



Turtles prior to release © SIF

After 20 years an impressive total of 937 green and 392 hawksbill juvenile turtle individuals have been captured in the lagoon with 155 greens and 144 hawksbills being recaptured on one or more occasions. Interestingly, green and hawksbill turtles use the lagoon differently with the majority of hawksbills found in the eastern lagoon and most greens in the western lagoon. This may be a response to the large areas of coral and sponges in eastern Passe Houareau which hawksbills preferentially consume; while greens, which prefer macroalgae, are more restricted to suitable habitat in the western lagoon. Turtles also showed extremely high site fidelity with most recaptured turtles being caught in the same or a neighbouring location to where they were first captured. Size data suggests that juvenile turtles enter the lagoon from their pelagic hatchling stage when they are 25-30cm in length and a large number appear to leave when they reach around 60cm in length.

The analysis of historical turtle rodeo data also provided the opportunity to revise the turtle monitoring protocol in order to ensure that monitoring is efficient and the results are useful. The revised turtle monitoring protocol has consequently omitted some measurements that were seen to be redundant, and ensured that the results are relevant for the questions that need to be answered by the monitoring.

Green turtles and hawksbills are listed by the IUCN as globally endangered and critically endangered, respectively. As 20 years of monitoring has shown, Aldabra continues to be an important site for the conservation of these species.

Aldabra samples contribute to recently published *Ligia* isopod research - possible new Aldabra endemic



Ligia isopod © Carlos Santamaria

A new paper has been published on the *Ligia* isopods of Seychelles, with samples from Aldabra included in the analysis. *Ligia* isopods, known as rock lice or sea slaters, usually live in rocky intertidal habitats, although they can survive on both sea and land for a short time if necessary. Their biological traits mean that their ability to

disperse to new environments is limited, which combined with the patchy nature of their habitat, may lead to long term isolation and *cryptic speciation*. Species that have evolved through cryptic speciation look virtually identical, but are unable to interbreed and are different enough that they are biologically defined as different species.

Cryptic diversity among the *Ligia* isopods in the Pacific and Atlantic has been found in previous research, and there have been reports of cryptic diversity in terrestrial organisms of Seychelles. Santamaria *et al.* therefore set out to investigate whether Seychelles' coastal invertebrates also harbour any cryptic diversity. To do this they studied the genetic diversity of *Ligia* isopods using mitochondrial and nuclear markers, characterising individuals found on the inner and outer islands. The research suggests that there may be two to three new species of *Ligia* in Seychelles, one of which is potentially endemic to the Aldabra group.

The lead author, Dr Carlos Santamaria, is affiliated with the University of South Florida Sarasota-Manatee and Sam Houston State University, and the paper was co-authored by SIF, ICS and MCSS representatives.

The full citation for paper is:

Santamaria CA, Bluemel JK, Bunbury N, & Curran M. (2017) Cryptic biodiversity and phylogeographic patterns of Seychellois *Ligia* isopods. PeerJ 5:e3894 <https://doi.org/10.7717/peerj.3894>

Marine debris on Aldabra Atoll



Buoys are common marine debris © SIF

Marine debris is a global environmental problem affecting us all. Even the most remote and pristine areas on the planet such as Aldabra

Atoll are not immune to this global issue. SIF is taking steps to raise awareness on the impact of marine debris on Aldabra and is in the process of developing a project to address the problem.

Marine debris consists of a variety of items, such as discarded water bottles, plastic items, polystyrene, wood or abandoned fishing nets,



Flip flops are another common marine debris item © SIF

lines and traps, that ends up in ocean or seas. Once in the ocean, this man-made debris is carried via currents and atmospheric winds. Debris can be carried far from its origin, which makes it difficult to determine exactly where an item came from and makes preventing it from reaching the sea challenging. These items may sit on the seafloor, get caught on rocky or coral reefs, or float on the ocean surface and end up on beaches. While debris can be worn away and broken down into smaller fragments, they generally do not biodegrade entirely. The majority of marine litter does not decompose in seawater and can remain in the marine environment for many years affecting marine life and habitats. Washed up on beaches, marine debris also harms terrestrial wildlife through ingestion and entanglement.

Marine debris is found on most of the beaches of Aldabra but predominantly on the southern

and eastern coast. Washed up buoys, flip flops, plastic bottles, glass and other miscellaneous items can be found in champignon holes, on the beach and in the coastal vegetation. The majority of these items have been brought from afar by the South Equatorial Current and it affects all wildlife including nesting turtles, giant tortoises, crabs and seabirds. The staff on the atoll engage in regular beach cleaning and are able to keep the areas near the settlement clean, but with a small team it is not feasible to clean up the entire 80km coastline, which is difficult to access in many areas and contains many years of accumulated rubbish. To tackle the problem SIF is in the process of developing a project to clean all of the atoll's beaches, and to ensure that their maintenance in a rubbish free state is possible. Watch this space for more news on this exciting project!

In the meantime, you can join us in making a change! Each of us can do our part by reducing the amount of plastic we use, avoiding single use plastic bags and products with excessive packaging, undertaking local beach clean-ups or raising awareness on the issue within our community. With so much trash and litter entering our ocean every year, the task of preventing and reducing marine debris is an urgent challenge that we must all meet to preserve the health of our planet.



Debris collects in rocks along the coastline © SIF

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