

As quietly as humanly possible, we clamber over fallen logs and under tangles of vines. Our Malagasy colleagues seem to have a sixth sense when it comes to our target and very soon they have relocated it. This time luck is on our side. Our binoculars are trained on one of the rarest raptors in the world: the Madagascar Serpent Eagle. Cameras fire off shots in rapid succession. Just as quickly, the young bird lifts off and disappears into the dense montane rainforest. But now we're satisfied.

How were we able to find and photograph one of the rarest and most secretive raptors in the world? Well, perhaps we cheated just a little. The young bird we followed was a recent fledgling and as part of a Peregrine Fund research project it had been fitted with a radiotelemetry tracking device. Each day the field technicians head out to log the bird's position as they amass critical information about its distribution, range size and ecology.

raising Lazarus

On a mission to conserve Madagascar's rarest birds

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n the instant that we catch sight of

its silhouette, the raptor launches

I from its perch and drifts effort-

lessly through the tangled canopy.

Moise and Eugene Laodany exchange

glances, then look quickly at our group

of scientists, realising that we hadn't

quite locked our binoculars onto this

elusive bird. Fortunately for us, these

two Malagasy field technicians have



been working on this particular species for most of their lives. The pursuit

above A Peregrine Fund field technician, Moise Laodany, uses a radio-telemetry device to locate the position of the young Madagascar Serpent Eagle.

left As good a view as you'll get... A young Madagascar Serpent Eagle peers back at our group of scientists before drifting silently away through the dense forest.

o understand how we found ourselves in such an extraordinary position we must step back in this story and meet the master of Madagascar's rarest birds: Dr Lily Arison René de Roland, or Lily as he prefers to be known. Lily has been the national director for The Peregrine Fund's Madagascar Project for the past 25 years. He began as the fund's only local employee and now manages a staff of 38 across multiple projects in Madagascar.

In 1993, a youthful Lily set out on a mission that seemed impossible: to study the Madagascar Serpent Eagle. Together with the very young Moise and Eugene - whose incredible treeclimbing abilities had caught Lily's >



above Dr Lily Arison René de Roland, or Lily, holds a Madagascar Red Owl, briefly removed from its daytime roost for the collection of essential biometric data.

opposite The Madagascan Marsh Harrier is one of the many threatened species reliant on the wetlands of Madagascar.

eye – he embarked on a massive survey effort. It was one that led to him being regarded as among the most determined of ornithologists.

The eagle was first described in 1875 and over the next 55 years 10 specimens were collected. Then, in 1930, the species inexplicably disappeared. The Madagascar Serpent Eagle had become 'the rarest eagle in the world'. And so it remained for nearly seven decades. When Lily arrived on the scene to find out what had happened to this enigmatic creature, he began by setting up 150 mist-nets, each between six and 12 metres long, throughout the lowland rainforest of the Masoala Peninsula in north-western Madagascar. He also erected canopy perch posts and

would sit on them for hours, scanning the tree-tops and hoping for a brief glimpse of the rare raptor. After three long years, in 1996, the gods finally smiled on Lily and his team, as one morning a Madagascar Serpent Eagle was caught on the ground in a mist-net.

A bird that had been lost to science for more than 60 years was suddenly back on the map. The team fitted a tracking device and soon afterwards were able to begin researching the biology of this species. While monitoring, Lily was able to record the bird's call, which until then had been unknown to science. This proved to be a significant breakthrough, as the call has since been used to document the species' presence in other rainforests where a view of this highly secretive bird is seldom possible.

The serpent eagle had one more trick up its wing: Lily and his team found an individual hunting on the ground, chasing chameleons through the lower branches of the tangled rainforest. The bird was indeed as extraordinary as they had suspected. But Lily is no stranger to mythical birds. When most ornithologists might retreat to the comfort of studying species that can actually be found and followed, Lily seems to prefer the challenge of the unknown.

By the early 2000s Lily had turned his attention to yet another of Madagascar's rare raptors and was doing research on the subspecies of Reunion Harrier endemic to Madagascar, classified by some as the Madagascan Marsh Harrier. The Malagasy people live on rice and, as our team found out during a recent expedition, usually very large quantities of it. Although the country is one of the largest producers of rice in the world, very little is exported as it makes up the staple diet locally. As a consequence, many of the wetlands and floodplains throughout the country have been converted into rice paddies. This has obviously had an impact on wetland biodiversity, resulting in a 'threatened' classification for many Madagascan wetland bird species.

Being accustomed to doing very thorough field work, Lily was conducting a countrywide census of this endemic harrier and was travelling extensively, documenting the nests and breeding pairs that he found. While preparing for the trip, he had made a note of a series of high-altitude wetlands that seemed so remote they had evaded transformation into rice paddies. Following up on this observation, one day in 2006 he found himself heading north-west from the town of Bealanana, traversing roads that broaden the definition of what may qualify to be called a 'road' as he searched for the isolated wetlands.

JUST AS THE TWO WERE ABOUT TO CALL IT A DAY AND HEAD BACK TO THE MAIN TOWN, A HARRIER SOARED PAST, **PERHAPS** KNOWING THAT THEIR MISSION WAS WORTH GRACING WITH A FLY-BY

As the journey wore on, Lily found himself increasingly disheartened by the lack of harrier sightings, although the surroundings seemed to be prime habitat for the species. His driver Andry, who like the majority of Lily's staff has been with him for most of his adult life, became increasingly worried about the road conditions. Just as the two were about to call it a day and head back to the main town, a harrier soared past, perhaps knowing that their mission was worth gracing with a fly-by.

Spurred on by this sighting, Lily and Andry continued to the tiny village of Bemanevika (population 25), where they found not only large sections of pristine high-altitude wetland, but also large patches of montane rainforest – the latter perhaps surviving as a result of the remoteness of the area. Lily was



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able to do little more than survey the harriers on that first trip, but he promised himself that he would return again soon to explore the forest patches for the Madagascar Serpent Eagle and other species.

Sadly, 2006 was the same year that the IUCN officially declared the Madagascar Pochard Extinct, after the last individual from the species' only known breeding site passed out of existence and into the annals of human impact. The pochard was one of the species that apparently had not escaped the unrelenting transformation of natural wetlands for rice production.

Three months after the harrier surveys, as promised, Lily and his team made the long drive back to Bemanevika. They immediately focused their sights on a small patch of forest around an ancient volcanic lake and set off down the steep slopes to establish their base. A suitable spot was found and the technicians got to work setting up the camp.

Lily decided to take a stroll through the forest to the edge of Lac >



Matsobrimena - and was promptly heard crashing back through the undergrowth to the camp. Almost one year after the Madagascar Pochard had been declared Extinct, he had found a tiny flock of nine adults with four ducklings feeding happily on this isolated lake. The team immediately departed for Antananarivo to spread news that was far too important to sit on: a so-called 'Lazarus species' - the Madagascar Pochard – had returned from the dead and was alive and well!

Collaborative conservation efforts Durrell Conservation Agency and the more than 150 individuals.

Wildfowl & Wetlands Trust partnering with the Malagasy government and The Peregrine Fund, among others, to ensure that this species did not again find itself on the 'Extinct' list. Some of the nine survivors were captured and relocated to a captive breeding facility in the town of Antsohihy, where they are breeding successfully. The small population remaining in the wild on Lac Matsobrimena continues to grow, perhaps benefiting from the extra protection afforded to the site since its discovery. All in all, the global population ensued, with organisations such as the of Madagascar Pochard now stands at

Not long after re-discovering the Madagascar Pochard, Lily and his team found evidence of Madagascar Red Owl, Madagascar Serpent Eagle and an equally elusive bird, the Slender-billed Flufftail, all in the untouched wetlands and forests surrounding Bemanevika. The Peregrine Fund established a permanent research station at the site and has been working there ever since. The efforts of Lilv and his team subsequently led to the region being declared a new protected area, with management duties allocated to The Peregrine Fund.

But Lily and his remarkable colleagues were not done yet; while searching for additional forest habitat and sightings of these threatened species, they were able to map an even more remote montane rainforest. Known as Mahimborondro - which translates to 'the place to feel the clouds' – this area covers approximately 75000 hectares and so far has not been surveyed extensively by scientists (see the September/ October 2019 issue of African Birdlife).

The official designation of both the Bemanevika and the Mahimborondro protected areas in 2015 followed painstaking negotiations with the local communities to ensure their buy-in from the outset. In addition, The Peregrine Fund's approach includes a critical community development component that helps villagers to access fruit and vegetable seeds and replant trees to reduce the terrible soil erosion that seems to plague the entire country. As a result, there is widespread support for the



protected areas and the conservation work in the region, providing benefits not only to birds, but also to the communities of Malagasy people who call this region home.

It is hard to imagine, let alone describe, the extremely tough working conditions that Lily and his team have endured for the past 27 years. Trying to negotiate washed-out roads, spending months at a time away from home and family and coping with the continuous onslaught from leeches are only the start. At just over 50 years of age, Lily joined our recent survey expedition to Mahimborondro and at the end of it hiked out with us along slippery slopes and through thick forest and torrential rain, traversing nearly 50 kilometres to the nearest vehicle access. His field technician Moise stayed by his side throughout this arduous hike, ensuring the safety of his mentor and friend. The respect and friendship between Lily and his field staff is clear to see and has matured over a quarter of a century of

working together. There are not many above A Common Sunbird-Asity, one of the managers who can say that their staff have remained happily by their side for forests of Madagascar. their entire working lives.

Were it not for the immense efforts of this team and their unwavering commitment to these few enigmatic species of birds, entire swathes of wetland and forest may have been lost forever – and with them the near-mythical birds and other biodiversity that they harbour. In a world beset with conservation challenges and species' declines, it is stories such as this that keep us motivated. As young conservation biologists, we can only marvel at the commitment and achievements of these wholly understated and unassuming people.

The next time you head off on a birdwatching adventure to see a secretive species - perhaps even one rescued from the brink of extinction - give a thought to people such as Lily, Eugene and Moise, working tirelessly in remote locations and giving their lives to the conservation of birds.



many stunning birds found in the montane

opposite, above Beautiful volcanic crater lakes and a mosaic of grassland and forest characterise the Bemanevika protected area.

opposite, below A Madagascar Pochard paddling around Lac Matsobrimena, at home in its natural habitat.