CONNECTING WORLDS THE POWER OF CONSERVATION

صندوق محمد بن زايد كن أليد كن المحافظة على الكائنات الحية The Mohamed bin Zayed SPECIES CONSERVATION FUND

ANNUAL REPORT 2015





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The Mohamed bin Zayed Species Conservation Fund provides financial support to species conservation projects worldwide.

In 2015 the Fund supported 182 projects in 73 different countries with US \$1,579,631.

Since its inception in 2008, the Fund has distributed US \$13,470,795 to 1,386 projects across the globe.

FOREVORD

Nepal © Janak Raj Khatiwada

While compiling this year's Annual Report, we had an interesting discussion concerning its title. There were numerous — and some excellent — suggestions; but eventually I opted for *Connecting Worlds: The Power of Conservation*, and my reasons were threefold.

Firstly, conservation efforts connect people and countries, and help to create greater awareness of the threats to biodiversity and our environment. Secondly, I believe in the connection we have with nature and that all of us are connected through our shared responsibility to conserve it. And finally, I want to celebrate the efforts of the Fund and the work of its recipients — and their many team members — who this year undertook conservation work in more than 70 countries.

During 2015 some 182 projects received grants totalling almost US \$1,580,000. This means that in the six years since the Fund's inception it has disbursed \$13,470,795 to support 1,386 projects across 150 countries, representing more than three quarters of the world's nations. These projects of various sizes have assisted 960 species and/or subspecies, as well as associated rural and urban communities. They have also helped to develop global-minded citizens who now better understand the importance of restoring and protecting our planet's biodiversity, and who are willing to address one of the greatest challenges of our time.

It's no coincidence that this drive for connectivity should emanate from a Fund headquartered in Abu Dhabi, the capital of the United Arab Emirates. Our cosmopolitan capital is renowned for its commitment to environmental and cultural sustainability. Blessed with a geographic location at the crossroads of three continents – Africa, Asia and Europe – Abu Dhabi and the UAE have welcomed visitors and traders for centuries. The Emirate's rich history as a conduit connecting the continents and their people

is reflected today in its ability to attract international business leaders and tourists from around the world, fostering connections between individuals and nations. The Fund has also embraced Abu Dhabi's role as a major global intersection, specifically in the world of conservation. We support a wide range of conservation projects targeting all species types, be they amphibian, bird, fish, fungus, invertebrate, mammal, plant or reptile.

WE ALSO PROVIDE GRANTS ... TO ASSIST THE LESS CHARISMATIC CREATURES THAT SELDOM WIN HEARTS AND MINDS BUT ARE NO LESS DESERVING.

We provide grants to support those well-known species whose appeal is near-universal, but also to assist the less charismatic creatures that seldom win hearts and minds but which are no less deserving. The dedicated conservationists whose work we fund are as diverse as the projects we support; they hail from different continents, cultures and backgrounds, and speak different

languages, but they all have something in common — an abiding passion for biodiversity, species and people. They also share a desire to disseminate the findings and outcomes of their projects to help build broader knowledge of the species and habitats they support.

This commonality brings us together—conservation acts as a bridge which connects our worlds, linking people under a shared vision, advancing our knowledge and winning a mounting grassroots following which fills us with hope for the future. This is indeed a story of worlds connected, and the true power of conservation.

We hope that by reading about the projects presented in this report you will develop a sense of that power. We believe these stories of discovery, hope, perseverance and science, and of the people and communities they affect, will serve to inspire others to get firmly behind global conservation efforts.

Razan Khalifa Al Mubarak Managing Director

DEAR OF THE STATE OF THE STATE

During 2015 the Fund built on the financial support given to dedicated species conservation projects worldwide, increasing the total amount disbursed in small grants to nearly \$13.5m.

The allocations were made against a backdrop of increasing grant applications. In short, more requests are being received than can be supported. During 2015, we received requests totalling around \$20.7m and were only able to distribute close to \$1,580,000.

Consequently, the Fund adapted to this supply and demand equation by applying more stringent review criteria, with only 14% of applications making the grade and with most successful applications receiving only partial funding. Nevertheless, we hope part funding is better than none and that the Fund's support adds sufficient credibility to projects to ensure additional financing is more forthcoming from other sources. This has certainly been the case with many initiatives.

In 2015 the Fund focused its support on less high profile projects while still targeting threatened species — particularly those listed by the IUCN Red List as Critically Endangered or Endangered. The Fund also continued its strong financial support for species listed as Data Deficient or Not Evaluated, with over \$273,000 disbursed to 34 projects. Importantly, the Fund continues to support the conservationists who dedicate their lives to saving the world's most threatened and least known species, and making this planet a better place for all.

Looking to the future, the Fund will continue to adapt to the challenges facing species conservation, seeking additional capital, striving to maximise its investments and working to refine qualifying criteria for grant applications. Our efforts will continue to be global and grant eligibility will extend to all plant and animal species conservation efforts, without bias of geography or selected species.

The Fund intends to deliver small, targeted grants to local and grassroots projects. To cover the widest possible spectrum of species conservation efforts, two grant types are available: up to \$5,000 or those between \$5,000 and \$25,000.

To help offset some of the challenges, the Fund has endeavoured to make the grant application process as user-friendly as possible, especially for smaller projects where onerous administration can negate the benefits of financial contributions. All grants are subject to independent review and are awarded following advisory board meetings which are held at least three times a year.

We also employ an online system which makes it more convenient for conservationists worldwide to submit applications and brings greater efficiency to the advisory board's review and award process. Grant submissions can be made via the Fund's website (www.speciesconservation.org); board members can log in and evaluate projects; and grant recipients can upload their project reports twice a year for board review and access author case studies at any time to highlight their work.

We want to thank all applicants; the recipients who help implement the Fund's ideals of assisting individual species conservation initiatives, recognising leaders in the field and elevating the importance of species in the broader conservation debate; and all those who support the Fund by generously giving their valuable time and experience.

In closing, we wish everyone success in their conservation efforts.

Board of Advisors

COINSEIVALION?

The sense of loss resulting from extinction is a relatively modern phenomenon. In many ways it is the result of a new understanding of the impact of our activities, and a greater sense of responsibility for that impact.

This sense of responsibility for endangered species has complex origins. It has developed out of academic studies, concern for lost resources, the love of a species engendered through hunting, and importantly, from the sense of loss all of us have experienced as landscapes have been emptied of majestic trees, bison or passenger pigeons.

There is an urgent need now to reinvigorate the broad discussion on the subject of species conservation and biodiversity, and to better integrate environmental initiatives addressing individual issues such as species conservation, climate change, habitat destruction and unsustainable development. The conservation community must ultimately put an end to the era of promoting one environmental

Darevsky's viper, Turkey © Konrad Mebert

cause at the expense of another, because if one of these causes (or any of the others competing for attention) fails, all of them are far less likely to succeed. Just like the species of a complex ecosystem, our individual conservation efforts are more interdependent than we tend to acknowledge, and we will all only be as strong as our weakest links.

Recognising the crisis facing species conservation, His Highness Sheikh Mohamed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces. established this dedicated fund for the provision of support to individual and coordinated species conservation initiatives. To retain the species and habitats we treasure, and indeed need, the Mohamed bin Zaved Species Conservation Fund seeks to support on-the-ground champions of species conservation — the individuals in the villages, field stations, laboratories and homes who are dedicated to conserving their local (and the world's global) threatened species.

The Fund helps their work through focused financial support and is nurturing the next generation of species conservationists by making the best conservation practices available to them using innovative communication methods.

THIS SIGNIFICANT
CONTRIBUTION TO
SPECIES CONSERVATION
IS CONSISTENT WITH
A LONG-STANDING
TRADITION OF
PHILANTHROPY
AND CONSERVATION
ESTABLISHED IN THE
EMIRATE OF ABU DHABI.

Through additional events and activities, the Fund will also seek to recognize individual leaders in the field of species conservation whose passion and commitment often goes unnoticed, and in doing so, to inspire others with an interest in the field of conservation.

This significant contribution to species conservation is consistent with a long-standing tradition of philanthropy and conservation established in the Emirate of Abu Dhabi. Locally, extensive conservation programmes have been introduced to protect nearby species as diverse as the Arabian oryx, gazelle, houbara bustard, dugong and marine turtle, amongst others.

The people of Abu Dhabi have witnessed first-hand the tangible benefits of targeted and well-resourced species conservation initiatives. For example, the population of the Arabian oryx, hunted to near extinction in the early 1970s, is currently on the rise again and the Emirate of Abu Dhabi is leading efforts to reintroduce the species to its traditional desert habitat.

Through the Mohamed bin Zayed Species Conservation Fund this tradition continues in the form of an innovative and genuinely international approach to philanthropy and species conservation.

DISBURSEMENT OF

The Fund is committed to providing grants to high quality projects for all types of species in need of urgent conservation efforts, and does so without geographic bias.

In 2015 the Fund supported 182 projects selected from 1,284 grant applications. The selected projects, located in 73 different countries across six continents, shared \$1,579,631 in funding.

A majority of the support from the Fund was awarded to projects working to protect species classified as Endangered or Critically Endangered. However, the Fund also remains keen to support work with species listed as Data Deficient and those which have not yet been evaluated.

The Fund has been particularly interested in supporting projects in biodiversity rich areas such as East Africa, Southeast Asia and the tropical Americas, as well as in countries where limited funding can go a long way, and in many cases these areas are one and the same — providing solid conversation value.

Queensland, Australia © Geoffrey C. Smith

Available funds were awarded to projects supporting mammals, birds, amphibians, reptiles and plants, while other taxonomic groups continued to receive strong support. 15.23%

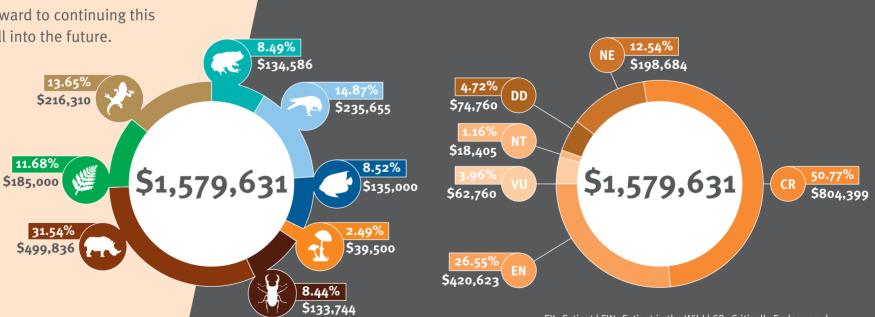
\$241,302

13.49%

\$213,810

All told, since its inception in 2008 the Fund has contributed \$13,470,795 to 1,386 projects worldwide, helping to conserve over 950 species and sub-species.

We look forward to continuing this support well into the future.



\$141,810

23.97% \$379,739

32.11%

\$508,720

5.95%

EX=Extinct | EW=Extinct in the Wild | CR=Critically Endangered EN=Endangered | VU=Vulnerable | NT=Near Threatened LC=Least Concern | DD=Data Deficient | NE = Not Evaluated

\$94,250

The Fund's mission, a objectives and structure

The Mohamed bin Zayed Species
Conservation Fund is a philanthropic
endowment established in October 2008
at the World Conservation Congress in
Barcelona with an initial endowment of
€25m. It aims to provide targeted grants to
individual species conservation initiatives,
and to recognise species conservation
leaders and the importance of species in
the broader conservation debate.

The Fund's reach is truly global and its species interest is non-discriminatory. Conservationists worldwide can apply for funding for projects focused on any and all kinds of plant and animal species — amphibians, birds, fish, fungi, invertebrates, mammals, plants or reptiles. Applications are subject to review by an independent advisory board.

By recognising leaders in species conservation and scientific research, the Fund hopes to ensure their important work and the role of species in global conservation discourse both get the attention they deserve. The Fund hopes to nurture the growth of a thriving global community of well-resourced species conservationists and to stimulate additional, third party donations to ensure the growth of annual contributions to direct species conservation projects.

The Fund's mission is to elevate the importance of species in the conservation debate by: providing timely support for grassroots initiatives which make a real difference to species survival; supporting those whose passion, dedication and knowledge is key to saving species; assisting the conservation of species in their natural habitats; heightening awareness of species conservation; stimulating renewed interest among young people in natural sciences; and attracting further contributions to species conservation from across the globe.

The Fund is a private philanthropic interest whose donor is His Highness Sheikh Mohamed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces, who holds a wide range of policy, legislative and economic responsibilities in Abu Dhabi and the UAE. His Highness is a committed conservationist and philanthropist.

HH Sheikh Mohamed chairs the Abu Dhabi Executive Council which oversees the emirate's development and implementation of all government policy and legislation under the guidance of His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the UAE and Ruler of Abu Dhabi.

The environment is one of Sheikh Mohamed's highest priorities, both from a policy and a personal perspective. He was instrumental in establishing the Environment Agency – Abu Dhabi, and has led significant conservation efforts to protect the falcon, houbara bustard and Arabian oryx both within the UAE and worldwide.

The Fund is managed by an independent board of directors, comprising local and international experts in environmental conservation, policy development and species conservation who allocate financial grants on the basis of detailed applications submitted by potential beneficiaries.

The Fund's independent board oversees all aspects of its operation, including the development of policies and procedures, the recognition of species conservation leaders, the provision of financial grants to successful applicants, and the review of project reports submitted.



The Fund's mission is to elevate the importance of species in the conservation debate by:

Providing timely support for grass-roots initiatives which make a real difference to species survival.

Supporting those whose passion, dedication and knowledge is key to saving species.

Assisting the conservation of species in their natural habitats.

Heightening awareness of species conservation.





Stimulating renewed interest among young people in natural sciences.

Attracting further contributions to species conservation from across the globe.



PASSIONATE PEOPLE PROSEFUL PROJECTS



The Fund's work brings it into contact with many people around the world. They hail from different backgrounds, have followed different career paths and span generations. They all have several things in common, best summarised as a determination to care for their chosen species and environs. In many cases we have unearthed unsung heroes who protect the world around us. Here we meet just a few to whom we all owe so much.

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fanatic; "That's how people see my passion sometimes and I suppose I am fanatic about conservation", says this 56-year-old Peruvian biologist turned conservationist. Constantino's passion is now fully engaged in a race against time as he and his ECOAN (Asociacion Ecosistemas Andinos) NGO endeavour to save the Critically Endangered Junin grebe (*Podiceps taczanowskii*), of which there are only around 300 known individuals.

The flightless Junin grebe is endemic to Peru, where it is confined to Lake Junin in the country's west-central highlands. It's an area of great biodiversity and historic value, being home to ancient archaeological remains. This is not the first time the Fund has supported conservation in Lake Junin; in 2009 the Fund provided support for its endemic and critically endangered amphibian, the Junin frog.

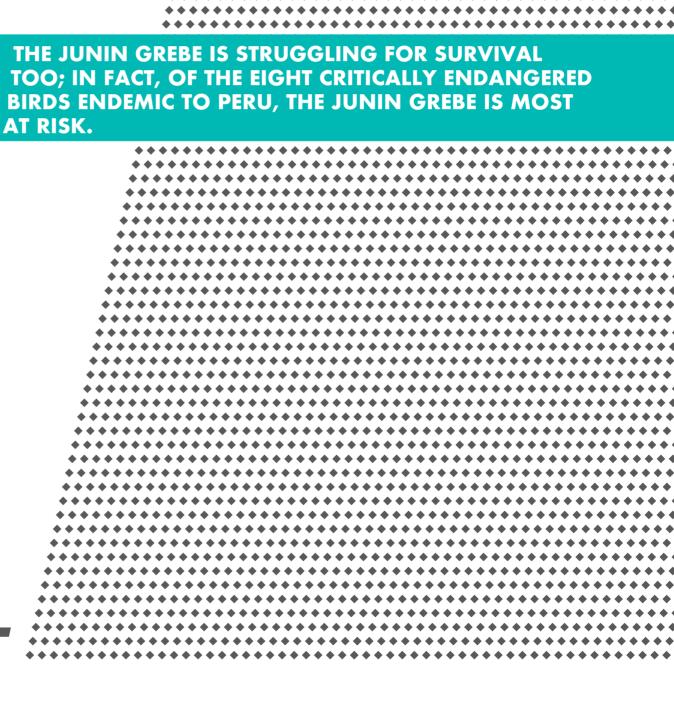
Junin grebe Podiceps taczanowskii **Critically Endangered** Peru \$7,600



TOO; IN FACT, OF THE EIGHT CRITICALLY ENDANGERED BIRDS ENDEMIC TO PERU, THE JUNIN GREBE IS MOST

The area is home to copper and iron ore mines and small, poor villages where populations struggle for survival. In the face of habitat degradation caused by mining debris, the Junin grebe is struggling for survival too; in fact, of the eight Critically Endangered birds endemic to Peru, the Junin grebe is most at risk.

The Fund backed Constantino's project, described by one Fund advisor as a 'tough' one, after being impressed by ECOAN's previous successes and being aware that time is not on the Junin grebe's side.







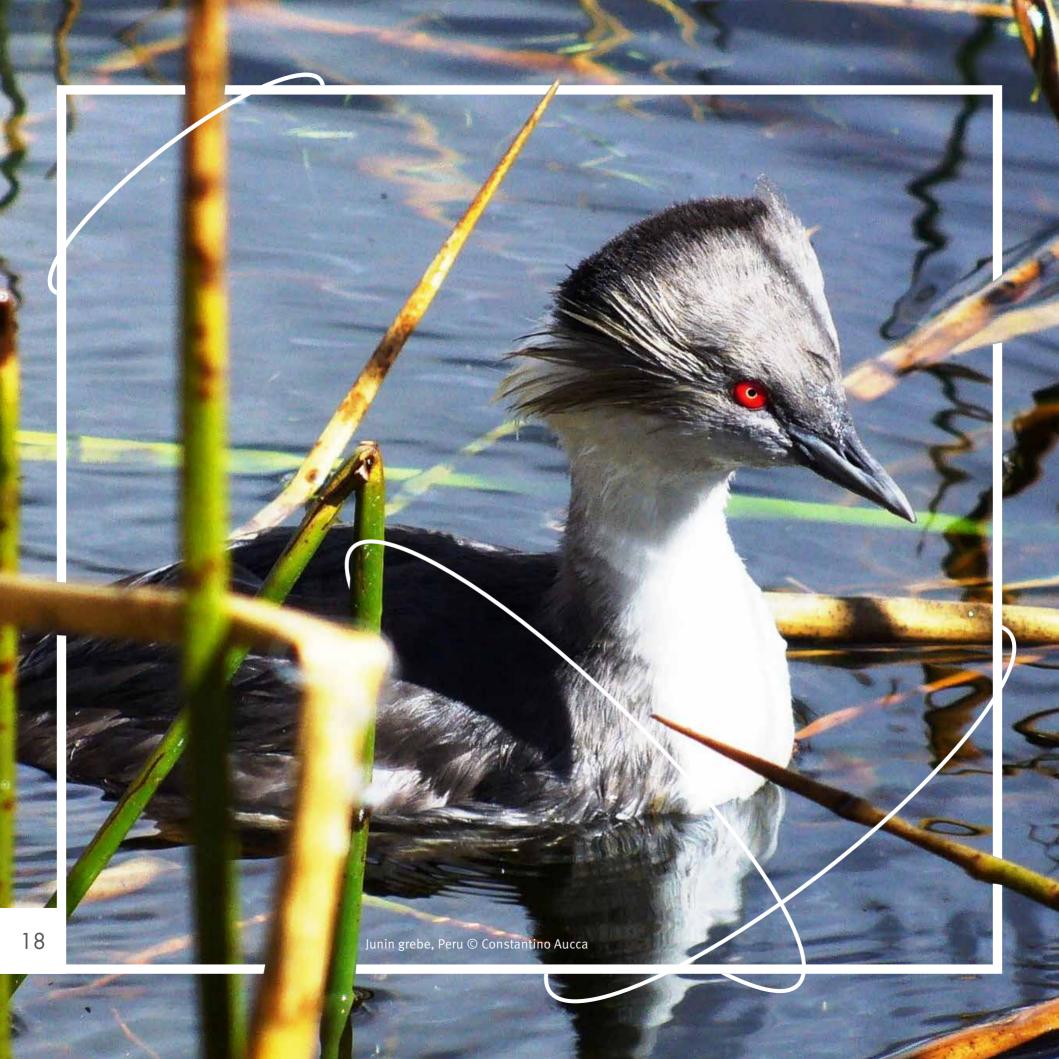
THE JUNIN GREBE'S SAD PLIGHT HAS BUILT UP OVER JUST EIGHT DECADES. EIGHTY YEARS AGO THE BIRD WAS ABUNDANT IN LAKE JUNIN, BUT SINCE THEN IT HAS EXPERIENCED RAPID DECLINE.

Constantino says that although the pressure to save this bird is now extremely high, its plight has been known for some time and has been worsened by inappropriate approaches. "I brought this to the table years ago and the answer was: research, research and research — we don't need this much research, we need some strategic action".

The Junin grebe's sad plight has built up over just eight decades. Eighty years ago the bird was abundant in Lake Junin, but since then it has experienced rapid decline, largely due to deterioration in water quality from mining activities, which have also polluted the lake and caused a scarcity of the small Orestias fishes on which the Junin grebe feeds. Water level regulation for a hydroelectric plant supplying nearby mines also causes nesting and foraging areas to dry out, resulting in breeding failures.

Constantino and ECOAN are now taking matters into their own hands. They are gradually improving the habitat quality for the Junin grebe at key sites around the lake, increasing local awareness of the importance of the lake and its biodiversity and monitoring the effectiveness of its actions through a local community programme.

They've staged beach-shore clean-ups, patrolled zoned areas, implemented environmental education campaigns and are firming up alliances with local government and education authorities.



"We're convinced that only by involving local stakeholders and local communities can we achieve our objectives and have some change in the reality of the conservation of these species", explained Constantino. "However, it's not going to happen overnight. When I talk to people initially about birds struggling for survival, they look at me and tell me how they too are struggling to survive — so this is not an easy thing to get through and it won't happen in one or two years. I believe it takes five years to get people to understand and change attitudes".

Constantino admits that even ECOAN's exhaustive efforts may not be enough, but nothing is going to deter this fanatic conservationist who owes his passion to his Danish mentor Dr. Jon Fjeldsa. "I was on many field trips with him and he taught me the importance of conservation and how we can all make a difference, and since then there's nothing else I've wanted to do".

Next on Constantino's agenda is the drafting of a financial plan aimed at making the project more sustainable. He plans to involve the regional government, look for fundraising opportunities, invite overseas universities and organisations to work together on monitoring efforts and generate more awareness among locals to protect the species.

"These species are at the top of the Critically Endangered species of Peru and it is sad how few conservation institutions want to jump in the arena to work and prevent their possible extinction. We will not, however, sit back and see this species disappear. We must do all that we can to prevent possible extinction but this will only be possible with the co-operation of our partners".



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LOCAL COMMUNITIES CAN WE ACHIEVE
OUR OBJECTIVES AND HAVE SOME CHANGE
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OF THESE SPECIES.

CATE CAR?

In the urban wetlands of Colombo, Sri Lanka, a project is underway to better understand the habits of one of the country's rarest felines — the endangered Fishing cat (*Prionailurus viverrinus*). The wetland territories these endangered cats call home are under continued threat from the rapid urban development of this Indian Ocean island capital.

With the Fund's backing, however, a project is progressing to conserve these wetlands for this unique cat — the only feline species to be named after its lifestyle. The project is being led by 27-year-old Sri Lankan conservationist and enthusiast Anya Ratnayaka, whose affinity with the species began when she strayed upon an orphan Fishing cat.

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All photos © Anya Ratnayaka

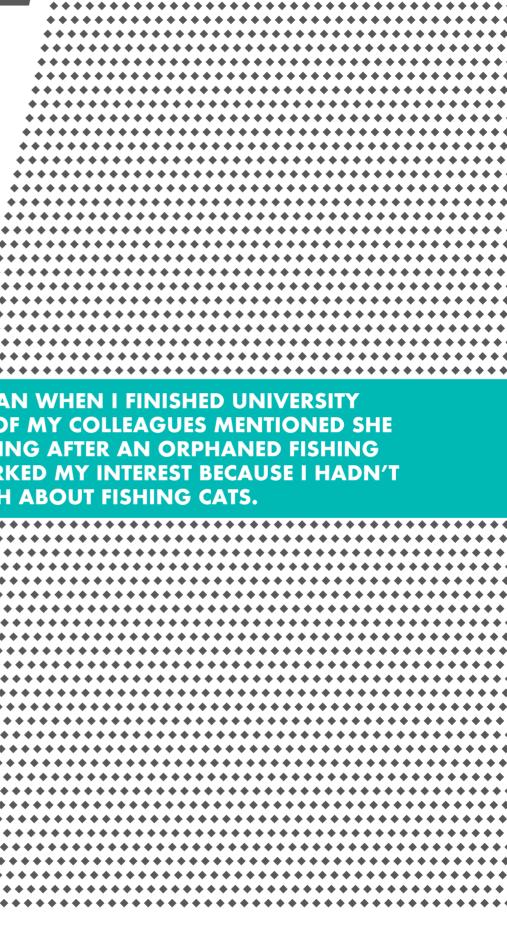
Principal investigator, Anya Ratnayaka (left) with volunteer field assistant Fiona Fern.

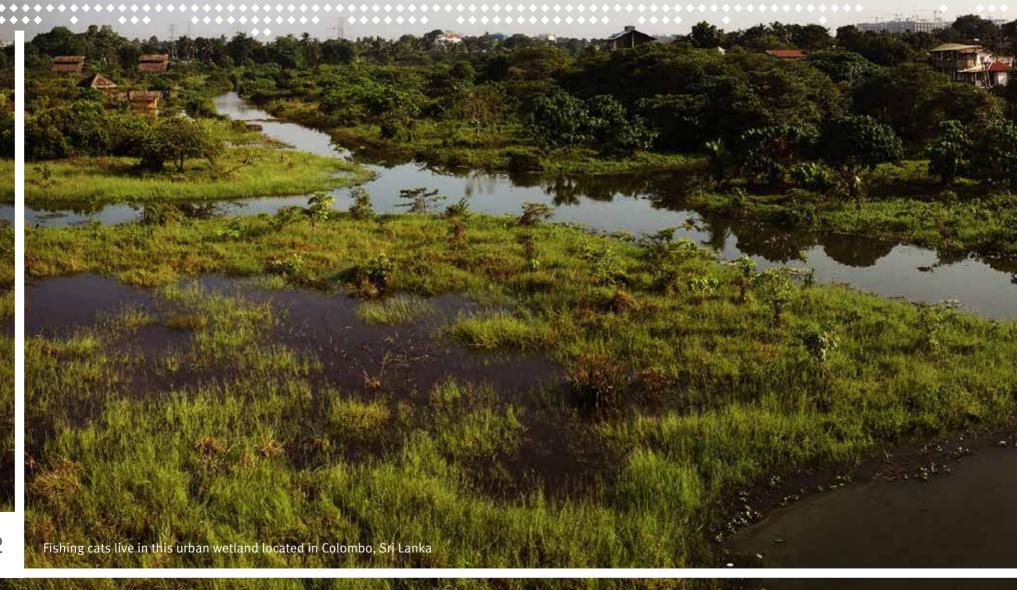
Fishing cat Prionailurus viverrinus **Endangered** Sri Lanka \$4,000



IT ALL BEGAN WHEN I FINISHED UNIVERSITY AND ONE OF MY COLLEAGUES MENTIONED SHE WAS LOOKING AFTER AN ORPHANED FISHING CAT. IT SPARKED MY INTEREST BECAUSE I HADN'T **HEARD MUCH ABOUT FISHING CATS.**

"It all began when I finished university and one of my colleagues mentioned she was looking after an orphaned Fishing cat. It sparked my interest because I hadn't heard much about the fishing cats — all the attention is usually reserved for the big cats", said Anya. With her interest piqued, she visited her colleague's home and experienced "love at first sight" when she met orphan Maalu, which means 'fish' in Sinhala.







"He was full of life, would chase you around and jump up at you, real fun". Maalu remained in captivity for about six months and then had a 'soft' introduction to the wild when a pond was made for him to fish in a safe site before full reintroduction into the wild. Sadly, however, before Maalu could be set free he succumbed to feline flu and passed away. It was heart-breaking for devoted Anya, a member of Sri Lanka's not-for-profit Environmental Foundation Limited (EFL); "He was the one that really sparked my interest and I decided to take up a study on the species my uncle had begun years before and had to abandon because of the war".

Anya and a couple of Foundation colleagues have used camera traps and monitoring collars to attempt to assess the Fishing cat population and the impact of urban development, and to transform this knowledge into a publicly backed conservation campaign for Colombo.

"We are tracking three cats, but really need about 10 in total; yet we have found some really amazing things — including one cat which inhabits the busy downtown now and goes out at night. He travels over roofs and across boundary walls and goes fishing in people's ponds and has found remarkable ways of avoiding human contact and is drawn to a canal which runs through the area".

There's obvious delight and enthusiasm when Anya talks of the cat, which people often mistake for a small leopard. Data from her project will be the basis of her masters degree and, she hopes, will help persuade developers to merge wildlife needs with their own. Belief in this win — win concept simply oozes from Anya, and the intense positivity with which she speaks of the idea is irresistible to her listeners, who quickly become converts.



"I have begun talking to them and they are listening — I've even talked to the World Bank about it and found that people are coming round to the idea of 'let's develop together'. The Fishing cat will be our flagship cause. Once we understand the ecology and behaviour of Fishing cats in these urban wetlands, we can integrate conservation of these wetlands into urban development, as green areas".

The scheme has already won the backing of Sri Lanka's Department of Wildlife Conservation, the Sri Lanka Land Reclamation & Development Corporation and the Leopard Trust, an NGO which deals with the conservation of leopards and other wild cats.

Survival may therefore be at hand for Sri Lanka's Fishing cat, but its story could well have even greater impact if Anya and her EFL colleagues can deliver on their long term goals.

ONCE WE UNDERSTAND THE ECOLOGY AND BEHAVIOUR OF FISHING CATS IN THESE URBAN WETLANDS, WE CAN INTEGRATE CONSERVATION OF THESE WETLANDS INTO URBAN DEVELOPMENT, AS GREEN AREAS.

"We hope to create a green city with green urban development, which in turn will help maintain healthy biodiversity and develop the concept of urban BioParks as a forum for conservation awareness and education", explained Anya. Perhaps one could be named Maalu Park?
"Now wouldn't that be fitting!" she eagerly agrees.

ACIAINIDIOIT IN ACTION

Oft spoken wildlife biologist
Dr Nabajit Das may at first glance
seem an unlikely champion, but that's
what he's become after taking up the
cause of the Critically Endangered
Chinese pangolin, a small armadillo-like
creature whose very existence in India is
at risk because of illegal trade.

"The trade exists largely because people in the rural areas of Assam believe the pangolin has medicinal properties — none of which are proven", explained Dr Das of the Primate Research Centre of North East India. "Some people even believe parts of the pangolin possess magic or charms so they are much sought after and exploited, and nothing has been done to protect it in India. Also what touched me most is that this is a mammal which is friendly and never threatens humans and that's why I began to love it so much and decided to fight for it. Greater awareness, improved law enforcement and stronger regional conservation management plans are urgently needed".

Chinese pangolin

Manis pentadactyla

Critically Endangered
India

\$5,000



WHAT TOUCHED ME MOST IS THAT THIS IS A MAMMAL WHICH IS FRIENDLY AND NEVER THREATENS HUMANS AND THAT'S WHY I BEGAN TO LOVE IT SO MUCH AND DECIDED TO FIGHT FOR IT.

The Fund backed Dr Das in a project to identify the local market for trade in pangolin and the people involved, to study the ethno-biology and conservation threats facing the mammal, and to initiate conservation education and awareness in local schools to protect them while developing recommendations for enhancing their protection.



The project began in Arunachal Pradesh, where details of illegal trade were monitored and attitudes of locals towards the pangolin were recorded.

"It has been hard to convince rural villagers to change their traditional beliefs, particularly when they are sometimes so remote that they are long distances away from conventional healthcare so they turn to traditional methods instead. However, we are gradually changing attitudes and gaining the attention of authorities who are realising that if conventional healthcare facilities are expanded, villagers could turn away from hunting the pangolin for their so-called medicinal properties".

at large with Dr Das noticing a slow, but gradual change. "The young people are quick to understand the problem and they

Although he's battling centuries of traditional beliefs Dr Das remains hopeful for the pangolin's future. "Yes, I am hopeful, and further meetings with authorities leads me to believe that action will be taken to stop the illegal trade — until that happens, I'll keep on fighting for this wonderful creature".

Awareness and education campaigns have impacted local schools and communities help spread the message".



YES, I AM HOPEFUL, AND FURTHER MEETINGS WITH AUTHORITIES LEADS ME TO BELIEVE THAT **ACTION WILL BE TAKEN TO STOP THE ILLEGAL** TRADE — UNTIL THAT HAPPENS, I'LL KEEP ON FIGHTING FOR THIS WONDERFUL CREATURE.



recipients 2015

182 people received grants in 2015. Here are those who submitted portraits in response to our request.



Ganga Ram Regmi



Gopal Khanal



Louise Fletcher



Michael Gichia



Budiono Budiono



Jorge A. Sanchez



Ledis Regalado



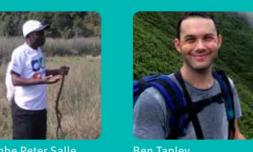
Ashan Thudugala





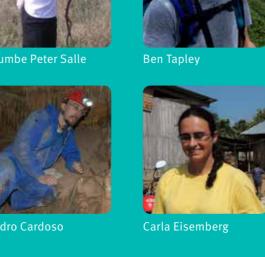


















STORIES OF **DISCOVERY**

COMPELLING EXPLORATIONS



Conservation work never fails to fascinate us. Through this discipline we often uncover tales of the unexpected. There are times when supporting one aim, leads us onto another. The discoveries are as compelling as those who reveal them and they open us up to new horizons and a wealth of knowledge that can serve global conservation. Here we shine a spotlight on cases in point as far apart as the rooftop of Africa to the beauty of an Athenian coast island.

A ROOFTOP BATTLE FOR SULF WITH SULF

In the Ethiopian highlands two distinct wolf subspecies roam thousands of metres above sea level in the wilderness known as the Roof of Africa. The African wolf (*Canis lupus lupaster*), only identified in 2011, and the Ethiopian wolf (*Canis simensis*) – sometimes known as the Abyssinian wolf and Africa's most endangered carnivore – battle for feeding grounds and experts say neither may survive.

African wolf

Canis lupus lupaster

Not Evaluated

Ethiopia

\$5,000

Within the fertile highlands, the African wolf has been depleting local sheep flocks in its search for food. Local farmers have responded by blocking wolf dens during breeding seasons to reduce their numbers. However, the wolves began feeding on rodents that locals had been trapping to protect their precious barley crops and which are the main food source for the Ethiopian wolf. The result is a highly competitive foraging environment which has also affected the wolves' home range.

Working with the support of Addis Ababa University, Ethiopian student Tariku Mekonnen Gutema planned to track the African wolves using VHF collars, and to study the behavioural ecology and resource competition between the two species with a view to assessing their chances of survival.



THE TEAM IS WORKING IN SOME OF AFRICA'S MOST CHALLENGING TERRAIN AND SOMETIMES LOSES TRACK OF THE WOLVES WHEN THEY CROSS INACCESSIBLE MOUNTAINS AND GORGES.



The Fund weighed in with a grant to cover equipment, salaries for field guides and transportation, and the tracking of collared wolves will now continue until 2017.

While data collection will continue, Tariku's study, which has involved collaring 14 African wolves, has already unearthed information on the likelihood of the survival of both subspecies.

"The African wolf dominates the fight and chases away the Ethiopian wolf", he says.



THE FUND WEIGHED IN WITH A GRANT TO COVER EQUIPMENT, SALARIES FOR FIELD GUIDES AND TRANSPORTATION, AND THE TRACKING OF COLLARED WOLVES WILL NOW CONTINUE UNTIL 2017.

Tariku's team is working in some of Africa's most challenging terrain and sometimes loses track of the wolves when they cross inaccessible mountains and gorges.

"Our plan was to have two field assistants; however, due to the day and night activity of African wolves we have been using four assistants", he explained. "The Fund grant has helped me enormously and the project is making good progress".

So less than six years after the African wolf was first identified, vital light will be shed on its survival chances and that of its Ethiopian competitor.



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Monachus monachus, but is more commonly known as the Mediterranean monk seal and was, until recently, thought to be one of the most endangered species on Earth. Indeed, many conservationists had predicted the species wouldn't be around by the turn of the millennium. Yet the Mediterranean monk seal has come back from the brink and with the help of the Fund a new population of this rare marine mammal has been discovered.

As of 2015, conservationists estimated that fewer than 700 Mediterranean monk seals survived in three or four isolated areas of the Aegean Sea, including the archipelago of Madeira and in Cabo Blanco in the north-eastern Atlantic Ocean.

But the monk seal has a superhero on its side in the shape of Greek biologist Dr Dendrinos. This 45-year-old founding member of the Hellenic Society for the Study and Protection of the Monk Seal has long been a devotee of the species and is behind numerous papers on it for the Panhellenic Union of Biologists.

Mediterranean monk seal

Monachus monachus
Endangered
Greece
\$9,000

Dr Dendrinos turned his attention to Evia in Greece, which is a large Greek island, second only in size to Crete. It lies close to the Athenia coast and is a popular holiday destination with Greek nationals and the country's diaspora. Here, he believed, was a new colony of Mediterranean monk seals which were to be the focus of scientific monitoring for conservation promotion.

Dr Dendrinos himself had all the skills necessary to launch the project; he's an experienced photographer, a member of the Greek Union of Photo Journalists, a skilled scuba diver and underwater photographer, and a certified sailor to the level of captaincy of open sea vessels.

The Fund granted Dr Dendrinos and his team a grant at the end of 2014 and they set sail for the beautiful Evian coast.



THE MEDITERRANEAN MONK SEAL HAS COME BACK FROM THE BRINK AND WITH THE HELP OF THE FUND A NEW POPULATION OF THIS RARE MARINE MAMMAL HAS BEEN DISCOVERED.



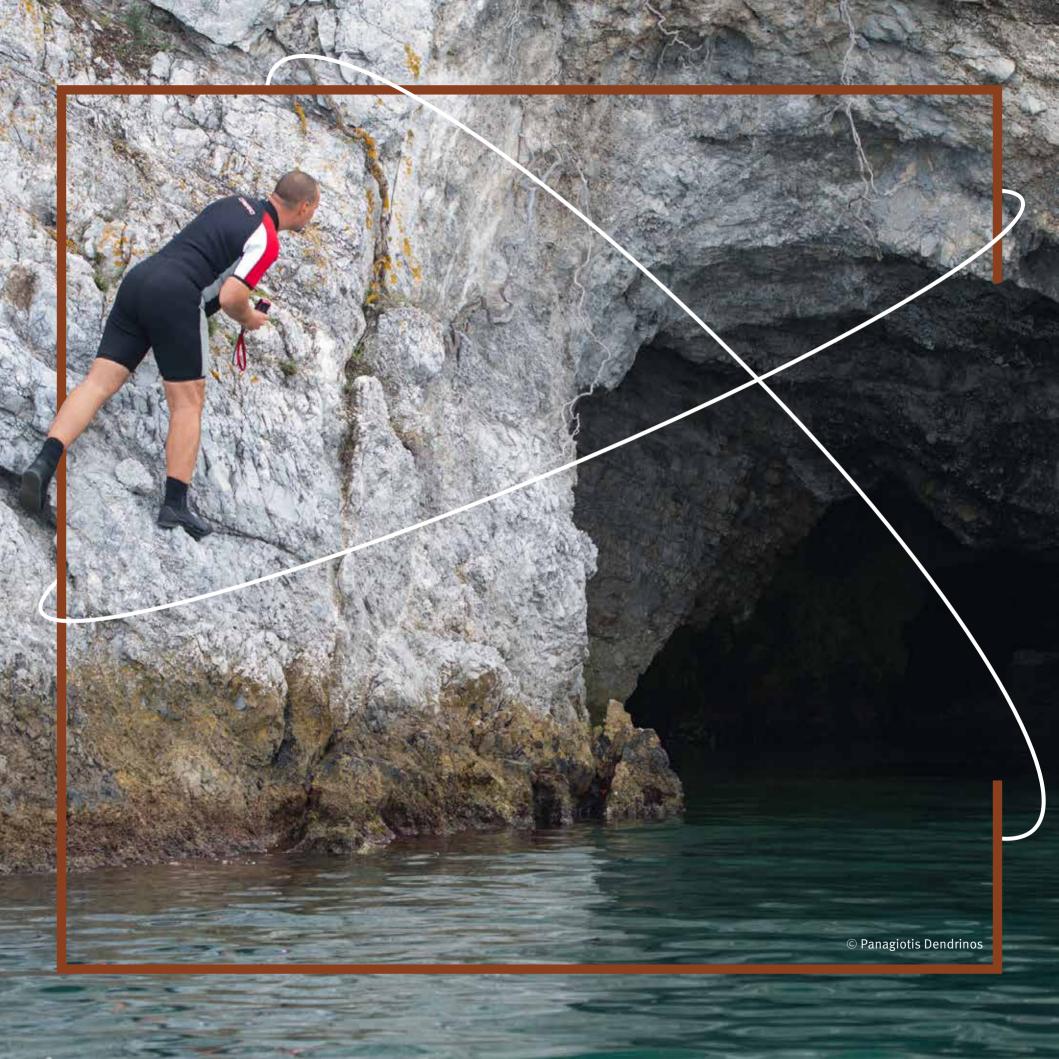
SOME 21 MARINE CAVES WERE RECORDED AND THOROUGHLY INSPECTED. SEVEN WERE CONSIDERED TO BE SUITABLE FOR SEAL BREEDING AND 14 SUITABLE FOR SEAL RESTING. THE SEVEN 'PUPPING CAVES' WERE IDEAL SITES FOR INFRARED CAMERAS, OFFERING UP CLEAR BEACH VIEWS AND YET FREE OF THE DANGER OF BEING SWEPT AWAY BY WAVES.

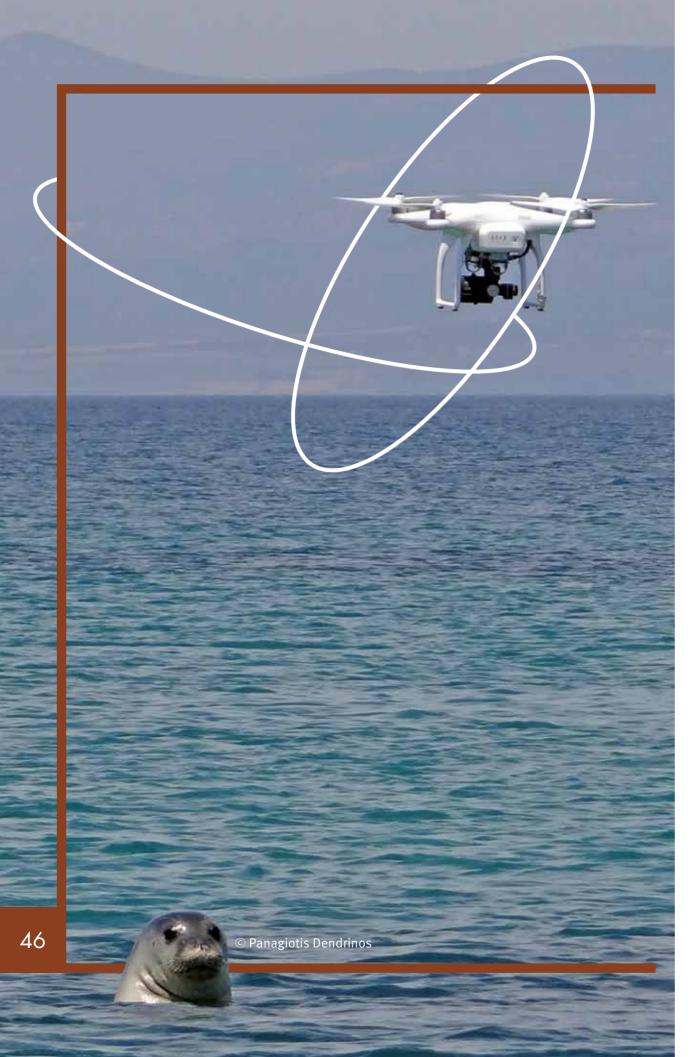
The research team's first priority was to circumnavigate Evia's coast and investigate its wealth of marine caves to establish whether seals were there, or if the habitat was indeed suitable for them. Some 21 marine caves were recorded and thoroughly inspected. Seven were considered to be suitable for seal breeding and 14 suitable for seal resting. The seven 'pupping caves' were ideal sites for infrared cameras, offering up clear beach views and yet free of the danger of being swept away by waves. The cameras were installed in three caves and recording began at the end of August, which is the beginning of the monk seal's breeding season in Greece and the end of the high tourist season.

Field surveys began simultaneously and that's when a startling find – which Dr Dendrinos describes as "very interesting and, at the same time, very challenging" - emerged. "The finding during the first months of the project, was the confirmation of the importance of a specific marine area for monk seals at Evia. More specifically, during our field surveys we observed monk seals spending hours diving at the same spot – near the small Lichadonisian islets in Evia's northwest – a behaviour that was later corroborated by locals. The islets are of volcanic origin and according to local fishermen the channel between them, where this behaviour was observed, has strong currents and is rarely frequented by fishermen. Supposedly the area is full of nutrients due to the currents, but no clear feeding activity of the seals was confirmed, a fact that makes the whole story even more challenging", explained Dr Dendrinos.

At least four different seals were recorded spending hours at the same spot and diving to depths of between four and six metres.

"It should be noted that this is the first time that such a behaviour was recorded for the species, not only in Greece but throughout the Mediterranean. To fully understand the importance of this marine area for the local monk seal population, we also deployed, for the first time, a small drone to investigate this particular behaviour from above". However, an explanation for the unique behaviour eluded the team.





During the year, the heat-triggered infrared cameras in the six caves delivered 5,000 image files. Using photo-identification techniques, the team identified a minimum of 18 individual seals — three adult males. six adult females, three juveniles, five pups and one which remained unclassified. "Field observations carried out at the same time in the area identified another adult female and one pup. Based on this data we estimate that the area monitored in the northern part of Evia has an annual pup production of seven to eight pups. The infrared camera images also enabled the study of the social behaviour of the species: several mother-pup, femalemale and aggressive interactions between individuals were recorded. Such interactions have rarely been recorded before for the species in the eastern Mediterranean Sea and provide unique insights [into] the biology, ecology and behaviour of the Mediterranean monk seal".

Another 'first' for the team was that it captured both images and sound on its cameras. "for the first time, this has allowed the study of the vocal repertoire and the communication of the species in the wild", explained Dr Dendrinos. The team is now co-operating with a specialised research centre at the University of Paris-Sud to analyse the data and report findings.

The project has brought a certain notoriety to this once near-extinct species. "The fact that monk seals can be easily seen at open water, and this is the only place in Greece where this applies with a certain consistency, means they've become a local tourist attraction. Local cruise operators regularly pass

by the feeding site to show the monk seals to visiting tourists". To increase local environmental awareness of the seal's endangered status and its biology and behaviour, the team organised an educational seminar at one of Evia's most popular hotels and similar seminars are planned for local boat operators. Dr Dendrinos and his team say that although Evia gave up long-held secrets. steps are needed to conserve them. "Based on the results of this project, we have proposed to the relevant national authorities the establishment of two new marine protected areas in the region to safeguard the future of the Mediterranean monk seal at Evia", he said.





ANOTHER 'FIRST' FOR THE TEAM WAS THAT IT CAPTURED BOTH IMAGES AND SOUND ON ITS CAMERAS. FOR THE FIRST TIME, THIS HAS ALLOWED THE STUDY OF THE VOCAL REPERTOIRE AND THE COMMUNICATION OF THE SPECIES IN THE WILD.

STORIES OF SCIENCE

ALCIANCE WITH SCIENCE

03

Conservation is a word which suggests a desire to protect and preserve. Yet conversely, conservation often means pushing the envelope in a discipline which is increasingly grounded in science. Innovative, scientific approaches to research and field studies are helping meet the changing needs of the world's nature, species and people.

Through the application of science, the world can now track conservation needs, identify and set priorities for our invaluable habitats and species, ensure the effectiveness of programmes and enable us to measure results. Here we learn more about how Fund-sponsored scientific approaches are laying the foundations for conservation.

In late 2013, noted Swiss biologist Dr Konrad Mebert, who has no less than 80 scientific publications to his name, won Fund support for an unusual project centred in and around north-east Turkey. His mission was to gather samples to assess the habitat, ecological and genetic differences of six species of Critically Endangered, small venomous viper and to help conserve them in the face of change.

"This region is a global hotspot for vipers with at least 10 different species within a 200 km radius, thus rivalling the diversity of most tropical sites in this animal group", explained Dr Mebert. "The diversity is reflected by a great variety of habitats, including subtropical bio zones along the Black Sea coast, alpine meadows, and semi-arid steppes of Central Anatolia. Unfortunately, intensive agriculture practices and their monocultures — for example tea plantations and hazelnut orchards — as well as over-grazing by domestic life stock have reduced the habitat quality for many species, including vipers".

All photos © Konrad Mebert Darevsky's Viper Darevsky's viper Vipera darevskii Critically Endangered Turkey \$4,850

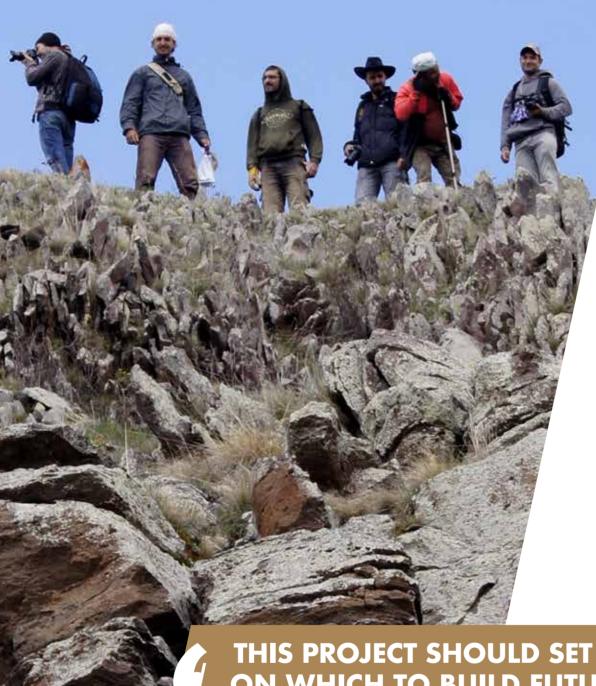


The study subjects would include the rare Darevsky's viper (*Vipera darevskii*), named after the late Russian Professor Ilya Darevsky who was a giant of the zoological world and first discovered the reptile which now bears his name. Turkey was known to have 20 adult Darevsky vipers living in the wild and Armenia the same number. Some of the other study subjects, including the Wagner's rock viper (*Montivipera wagneri*), are threatened by over collection for the pet trade.



THIS REGION IS A GLOBAL HOTSPOT FOR VIPERS WITH AT LEAST 10 DIFFERENT SPECIES WITHIN A 200 KM RADIUS, THUS RIVALLING THE DIVERSITY OF MOST TROPICAL SITES IN THIS ANIMAL GROUP.





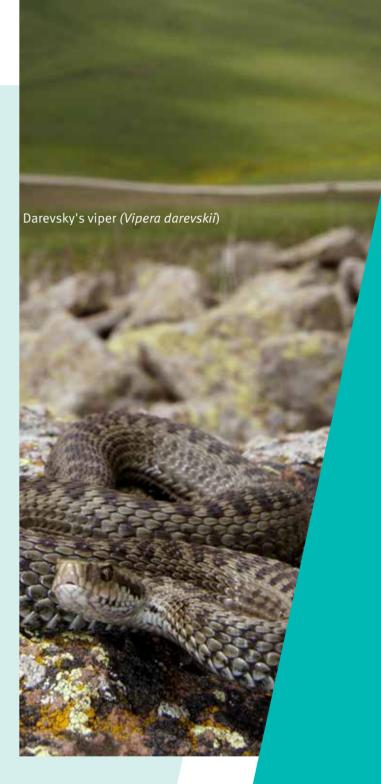
With his first project fulfilled and three zones identified as viper territories, in 2015 Dr Mebert applied for a second Fund grant to enable him and his team of Swiss and Turkish experts to narrow down viper sites so they could enlarge their study's sample size and better understand the reptile's habitat needs. The task included field tours, acquiring tissue samples from 20 to 30 vipers, followed by months of analysis and the eventual publication of pertinent data. Dr Mebert worked with local students on these projects, not only teaching them conservation techniques but also hoping to influence conservation in the future.

THIS PROJECT SHOULD SET THE GROUNDWORK ON WHICH TO BUILD FUTURE PROJECTS FOR CONSERVING NEGLECTED AND THREATENED TAXA IN TURKEY AND THE MIDDLE EAST.

The data is crucial to conservation, allowing the team to evaluate the structural habitat factors for each specimen and analyse far-ranging environmental parameters through GIS—analysis. Molecular work will now help identify which are evolutionary independent species and which are hybrids, with the results being made available to conservation entities including Turkish national park authorities, NGOs and academics.

In turn, conservationists and authorities will be able to gauge the impact of agricultural plantations, forest overgrazing and dam construction on the critically endangered vipers.

Dr Mebert believes the findings will be even more far-reaching, however. "The work will demonstrate the increased efficiency of conservation work by combining a multifaceted approach, methods of genetics, satellite images, GIS data, and linking international experts and national entities. I wish to contribute fundamental data to improve the very limited knowledge about these reptiles in Turkey, raise public awareness and add relevant biological information for the conservation of the Turkish herpetofauna. This project should set the groundwork on which to build future projects for conserving neglected and threatened taxa in Turkey and the Middle East", he said.



SHINING LIGHT ON THE SHINING LIGHT ON THE SHIP OF THE

preserve an endangered, long-horned beetle which locals have dubbed a 'pest'? That was the challenge facing insect ecologist and communication specialist Dr Brodie Bekka Brodie after the Fund supported her project to help preserve the little-loved European maple longicorn (*Ropalopus ungaricus*) of the Romanian forests.

Dr Brodie and a team from her NGO – the Association for Biodiversity Conservation (ABC) which works to preserve Romania's biodiversity and deliver environmental education – embarked on a project which combined biodiversity, pest control and forestry practices.

European maple longicorn

Ropalopus ungaricus

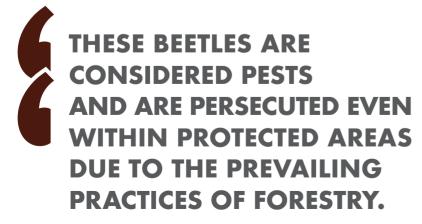
Endangered

Romania

\$10,000

The project centred on the little-known European longicorn beetle that lives in the traditionally-managed forests of Romania. "These beetles are considered pests and are persecuted even within protected areas due to the prevailing practices of forestry", explained Dr Brodie.

The beetle project focused on the Iron Gates Natural Park, a sub-Mediterranean biodiversity hotspot and one of Romania's largest protected areas. The Park's mixed forests are among the last remaining habitats suitable for the survival of Eastern Europe's Longicorn beetles. But the habitat is threatened by intensive agriculture, urbanisation, ineffective forest management and the end of traditional land uses.





"These traditionally-managed landscapes are disappearing due to land abandonment and uncontrolled logging, which makes evaluating the presence and abundance of Longicorn beetles, including *R. ungaricus*, critically important. These metrics are difficult to assess because these beetles often feed high in the trees' canopy, and new monitoring methods are needed to fully understand longicorn beetle ecology and habitat selection", explained Dr Brodie.

The species survey employed state-ofthe-art pheromone technology and flight intercept trapping methods alongside a survey for characteristic tree damage to model abundance, and identified stand characteristics that predict beetle presence and abundance. The data would then inform the evaluation of current forest management practices.

AS NATURE'S RECYCLERS, LONGICORN BEETLES ARE THE IDEAL BIOLOGICAL INDICATOR FOR FOREST HEALTH AND CAN BE USED AS CONSERVATION SURROGATES FOR OTHER FOREST SPECIES OF CONSERVATION CONCERN.

The ABC is also working with the park's management to save the Longicorn beetle and change a long-held mindset caused by the beetle's habit of boring through wood where the larvae develop.

"Many species in this family are considered pests because of the damage they cause to lumber—nobody wants wood with holes when building a house", explained Dr Brodie. "But these beetles are just doing their job, recycling wood, which is an important ecosystem service. As nature's recyclers, longicorn beetles are the ideal biological indicator for forest health and can be used as conservation surrogates for other forest species of conservation concern. It's because they are such good recyclers of trees that the line between 'damage' and 'ecosystem service' can be grey, and this makes the conservation of these beetles difficult".

The team is now working with forest managers to develop new strategies for the management and conservation of longicorn beetles. Workshops are being held with forestry staff to instil best practices for ecological forestry in the park while a public education project is underway to get stakeholders on board.

An interactive website on Longicorn beetles and an educational toolkit with posters and pamphlets are being supplied as educational and outreach tools. More people are now interested, including those at the University of Bucharest who want to know more about how the pheromones technology can help their own work.



was only recognised in 2014, yet the Araguaia River dolphin (*Inia araguaiensis*) is already playing a starring role in the conservation awareness efforts of the NGO Instituto Araguaia.

Until recently, little was known about this dolphin species. It came into the spotlight through the determination of Dr Silvana Campello, one of Brazil's most noted ecologist—biologists who founded the Instituto Araguaia — an NGO that works to protect the biodiversity and ecology of the Araguaia of Brazil, particularly in and around Cantão State Park.

The Cantão Sanctuary is truly unique. It hosts no less than 850 lakes and more fish species than the whole of Europe, and it had kept the secret of the Araguaia River dolphin until its discovery less than two years ago by researchers from Instituto Nacional de Pesquisas da Amazônia (INPA) and the University of Dundee. The institute has a research base with four full-time rangers in the park and its patrols create a sanctuary where threatened species can live and be studied.

Araguaia River dolphin is new to science having only been discovered in 2014.

Araguaia River dolphin Inia araguaiensis Not Evaluated Brazil \$7,000



With the Fund's help, Dr Campello and a small team of field assistants last year embarked on a project to assess and monitor this dolphin. With the co-operation of Naturatins, the state environment agency, and using the most modern of techniques, Dr Campello and her team would determine the status of this newly-discovered species and help develop a conservation action plan for it.

THE CANTÃO SANCTUARY IS TRULY UNIQUE. IT HOSTS NO LESS THAN 850 LAKES AND MORE FISH SPECIES THAN THE WHOLE OF EUROPE AND IT HAD KEPT THE SECRET OF THE ARAGUAIA RIVER DOLPHIN UNTIL ITS DISCOVERY LESS THAN TWO YEARS AGO...



WE PIONEERED THE USE OF A SMALL DRONE TO OBSERVE DOLPHINS, AND FOUND THAT TRADITIONAL CENSUSES USING BOATS SIGNIFICANTLY UNDERCOUNT THE SPECIES.

Time was of the essence, human development was encroaching on the natural habitat; "The species is restricted to the Araguaia-Tocantins basin of Central Brazil, which has undergone rampant development in recent years", explained Dr Campello. "The team that described the new species estimated that its remaining population may be less than 1,000 individuals. This population is fragmented by six hydroelectric dams, and highly threatened by overfishing, which is depleting prey species throughout the region. In addition, fishermen who view dolphins as competitors often shoot or poison them. Dolphins have practically disappeared from areas near fishing towns. Expanding soybean monoculture also threatens to pollute rivers in the region".

But with fishermen banned from the Cantão Park, the study's chances were good; "Protection of this core habitat is the best chance to contain and, even, reverse the decline of the species population", added Dr Campello.

Conservation work in the field

The team embarked on the study using traditional boat surveys, but this time complemented with aerial images obtained by drone and a helium blimp balloon. "We pioneered the use of a small drone to observe dolphins, and found that traditional censuses using boats significantly undercount the species. We surveyed lakes throughout the park and found that in the dry season all of Cantão's dolphins concentrate in a few large lakes whose period of isolation is shorter than most. We also documented unique behaviours such as belly-crawling over sand bars to forage in small pools, which reinforces the distinctiveness of *Inia* araquaiensis from other river dolphins", explained Dr Campello.

But the drone's 20-minute flight time proved too short to count dolphins in the major lakes. Once again innovative thinking came to the rescue. The team towed a helium balloon behind an electric-powered canoe and were, thus, able to accurately count dolphins in the large

lakes. The new technique came to the attention of a German biologist who went on to study and validate the method.

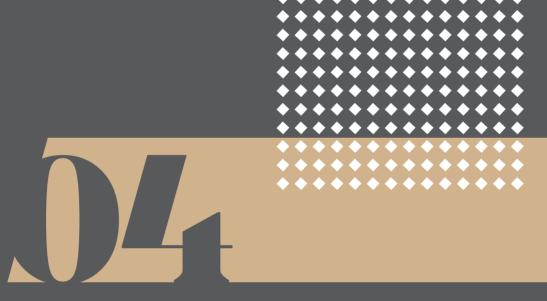
With the first census complete, Instituto Araguaia has big plans for the new-found 'flagship' species, which is now a hot media topic and is generating public interest for the protection of the species and its habitat. The institute is also busy talking to park management and public authorities about a science-based conservation plan for the species.

The Araguaia River dolphin is a welcome newcomer to a long-held cause. "The new species of dolphin appears to be an endangered aquatic top predator. It is also an endemic, charismatic flagship species that can help mobilise support to protect the entire ecosystem. A program to study and protect it is a logical and necessary addition to our mission", said Dr Campello.



STORIES OF **PERSEVERANCE**

SUSTAINED ENDURANCE



Conservationists, some would say, are a species unto themselves.

Passionate, curious, dedicated and above all determined – all hallmarks of this remarkable breed who often overcome multiple setbacks to achieve their aims. It's this essence of sustained endurance that delivers vital breakthroughs and to which many species eventually owe their very existence. So let's celebrate this hardy breed exemplified in three heart-warming examples.

The New York Times, "a place like nowhere else in the world". It's here that "the mountains spectacularly meet the sea, magnificent wildlife is plentiful, and exciting adventures and fascinating history await".

Unbeknown to the writer, 'fantastic adventures' perfectly encapsulated the future of the endangered ocean-going bird, the Hutton's shearwater (Puffinus huttoni).

Hutton's shearwater
Puffinus huttoni
Endangered
New Zealand
\$9,000

With the mountainous backdrop along the South Island's Kowhai River, only two colonies of the shearwater were known to remain. Numbering just over 100, these last survivors faced population threats from predators and introduced mammals as well as natural hazards including avalanches of snow and debris which were damaging their burrows.

According to the Hutton's Shearwater Recovery Group (HSRG) there was only one viable conclusion — the colonies had to move. So the birds embarked on an exciting and historical adventure leaving behind their mountain home for a new "insurance" colony on the safer Kaikoura Peninsula.

It was an operation of heady logistical heights: The chicks were to be moved by helicopter in a project backed by the Fund and another trust and foundation who were encouraged by Abu Dhabi's 'vote of confidence'.

THESE LAST
SURVIVORS FACED
POPULATION THREATS
FROM PREDATORS
AND INTRODUCED
MAMMALS AS WELL
AS NATURAL HAZARDS.





The project team had to band and weigh their precious cargo and then airlift them to the new colony, all within 24 hours of them being caught. Once back on the ground, the birds were checked, given water to help overcome any dehydration and placed in artificial burrows. The next day the chicks were again weighed and their wing spans checked, and they began a diet of sardine smoothies – sardines in soya oil blended with water – before being put back into the burrows. All 103 chicks survived and thrived.

"After about seven days, the burrow retaining blocks were removed and the birds were able to move freely around the colony and leave when ready", explained Mick Bell, HSRG Trustee, who's pioneered five relocations to date.

6

AS OF JANUARY 2016 WE ARE SEEING THAT THE LATER TRANSLOCATIONS HAVE BEEN VERY SUCCESSFUL, WITH 13 OF THE 2012 AND 11 OF THE 2013 CHICKS HAVING RETURNED TO TE RAE O ATIU.

"The chicks spent an average of 18 days at the colony which should have given them adequate time to imprint on this site before leaving for Australian waters, and their weights at departure were high. This gives us great confidence that this should be one of the best translocations and we expect high returns".

However, we'll all have to wait for around five years to get the final outcome of this story – that's when our wandering chicks should return as adults to start breeding – but Mike Bell is confident of a happy ending. "This translocation will provide a greater and genetically more diverse base from which a self-sustaining colony will develop. Consequently, this insurance colony should ensure the continuing presence of Hutton's shearwaters as a species".

"As of January 2016 we are seeing that the later translocations have been very successful, with 13 of the 2012 and 11 of the 2013 chicks having returned to Te Rae o Atiu; we expect to see upwards of 25 more birds returning in the next 3 to 4 years. This year's returning birds have increased the Te Rae o Atiu population to 54 from 30 last year. When the new birds start breeding in the next 2 to 3 years we will see a significant increase from the 7 or 8 fledglings we have at present to 15 or more. This will result in a small but steady increase in the population of Hutton's shearwater at Te Rae o Atiu which should be sustainable in the long term". Future updates will be available on the Hutton's Shearwater Charitable Trust website (www.huttonsshearwater.org.nz).



30-year Homecoming

Islands a small invertebrate, the Polynesian tree snail (*Partulidae*), had flourished for generations; that is, until a 20th century invader arrived. When the carnivorous Rosy wolf snail (*Euglandina rosea*), also known as the Cannibal snail, was introduced to Tahiti in 1977 as a failed biological control attempt, the Polynesian tree snail populations and species, of which there were 20, began to disappear rapidly. The invader was an aggressive predator and by the 1990s not one Polynesian tree snail could be found on Tahiti.

Polynesian tree snail Partula Extinct in the Wild Tahiti \$15,000

But now, thanks to the determination and sheer persistence of biologist and Pacific Islands resident Dr Trevor Coote and to the Fund's support, the species has returned to its idyllic island home.

For two years Dr Coote had battled with bureacracy to secure his game-changing conservation plan of reintroducing the tree snail and protecting it from its predator. His plan was going well; consignments of tree snails found in the French Polynesian Islands and maintained in an international breeding programme were ready to be flown to Tahiti. An enclosure awaited them which was protected by an electric fence to keep out the unwanted *Euglandina rosea*.

But then came the first hurdle. Many of the snails had died enroute and no-one seemed to know why. Two species, *Partula hyalina* and *Partula affinis*, had been hit particularly hard, with the *Partula nodosa* proving the most resilent.

FOR TWO YEARS DR COOTE HAD BATTLED WITH BUREACRACY TO SECURE HIS GAME-CHANGING CONSERVATION PLAN OF REINTRODUCING THE TREE SNAIL AND PROTECTING IT FROM ITS PREDATOR.

© Trevor Coote

With 10 plastic pots lined with moss and each containing 15 individually marked snails, the first release of the survivors took place two days later in the Papehue Valley. Just 15 hours later, when the release team returned, a number of the snails were seen to have moved out of the safety of the pots and were found on branches in the trees.

Another release – this time of 100 snails of mixed species – was made inside the reserve and intensive monitoring began.

"Despite the reduced number of snails released, which was very small for an invertebrate release, the monitoring has been very informative", said Dr Coote.

4

THERE ARE NUMEROUS YOUNG AND THEY ARE GROWING AND LOOKING HEALTHY. AS MORE EXTENSIVE RELEASES ARE PLANNED FOR NEXT YEAR, THE LIMITED RESULTS SO FAR ARE ENCOURAGING.

But then came another setback. Many of the released snails died in the reserve, an event Dr Coote attributed to the hot, dry conditions and lack of shade. "What to do about shade has always been a conundrum because, although the snails do not like sunny conditions, any trees that grow in the reserve could destroy the barrier and fence if they fall (which they often do in bad weather)".

But there was good news. A number of snails had been born and small juveniles were spotted, particularly in the Papehue Valley. "Mortality was relatively low, actually very low for an invertebrate release", explained Dr Coote, "and, though very few of the original release stock are still visible, it can be safely assumed that they have dispersed rather than died. In addition, there are numerous young and they are growing and looking healthy. As more extensive releases are planned for next year, the limited results so far are encouraging".

Even better, despite the failure of the electric and other barriers not a single *Euglandina rosea* has been found within the reserve since the release.

The project has also shown that tree releases fare better than those in a constructed reserve; "That will, by necessity, be the strategy employed in the future", said Dr Coote.

The Fund's support was vital, according to Dr Coote: "There was an extended delay due to difficulty in acquiring government authorisation for the import of live snails and the MBZ Fund administration allowed the project funding to remain on hold".

Best of all, the release project has won wider support, with government and European Union funding for a second initiative now on the horizon.



long Nepal's Karnali River – the longest waterway in the Himalayan Republic – a project supported for the third time by the Fund is helping to save the freshwater Ganges River dolphin (*Platanista gangetica gangetica*).

The river dolphin population has been in significant decline over the past two decades, with its current worldwide population now thought to be half that of 1994. The decline is due to a mix of habitat loss and fragmentation owing to the damming of rivers for hydropower and irrigation, incidental by-catch in fishing gear, deliberate killing for their oil, river pollution and a reduction in the prevalence of their prey.

Ganges River dolphin

Platanista gangetica gangetica

Critically Endangered

Nepal

\$12,976

UNDERSTANDING HOW FISHERMEN RESPOND TO THE DECLINE IN FISH CATCH AND THEIR WILLINGNESS TO ADOPT MORE SUSTAINABLE FISHING PRACTICES IS CRUCIAL FOR THE RIVER DOLPHIN.

This year's project hopes to find space for local fishermen and this endangered mammal to happily co-exist. The effort is headed by Gopal Khanal, who is CEO of the River Dolphin Trust — an NGO that supports the conservation of river dolphins and their habitat by promoting science-based conservation practices. The project relies on Gopal and his team developing relationships with fishermen, who have stepped up their activities to catch more fish, unwittingly increasing the dolphin by-catch.

To increase their catch, local fishermen are turning to modern fishing gear that Gopal says is "often destructive to the ecosystem".

"The use of modern fishing gear has increased the risk of by-catch of river dolphins in Nepal", he explained.
"Understanding how fishermen respond to the decline in fish catch and their willingness to adopt more sustainable fishing practices is crucial for the river dolphin. We must develop management policies that obtain a high degree of compliance and success for both river dolphin conservation and sustainable fishery management".

Until the end of 2016, the team will be busy collecting data on the dolphins, the fishermen and their catch, carrying out site surveys and developing stronger relationships with local park managers.





Once the team obtains and analyses the critical scientific evidence, it will be fed into the development of management strategies for both river dolphin conservation and sustainable fishery management. The evidence is also likely to help change local fishing regulations and practices, which may assist in the restoration of fish stocks and will be used in a campaign to help the fishermen understand the need for change. "This will eventually benefit river dolphin conservation and the livelihood of fishing communities", says Gopal.

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UNDERSTAND THE NEED FOR CHANGE.

Harmony is the hallmark of any successful outcome, according to Gopal. "Our team acknowledges that the future of river dolphins is inextricably linked with the livelihood of river dependent fishing communities that share their habitat, as well as the water development needs of the nation". Gopal believes that by combining applied research with conservation education and local capacity-building to protect the remaining dolphin population, this endangered mammal may well be saved from extinction.





ANCHORING THEFUTURE



Hope is something said to spring eternal and at the Fund we regularly unearth projects which verify and support this claim. Even when a species' future looks bleak, our grant recipients dive deep into that wellspring and find the energy and motivation to help species in need. Many of our grant recipients hold out hope that species still exist; others believe strongly that just a little more effort will help a creature turn the corner. This year we highlight projects that bring hope for all species.

INTO THE CONTROL OF STREET OF STREET

Thirty-six-year-old Egyptian conservationist Usama Ghazali is a man on a singular mission. He wants to head a team to deliver the first full survey of an endangered tree which captured his imagination when he was a young nature reserve ranger. As it turns out, preserving his precious Dragon's blood tree (*Dracaena ombet*) may only represent the beginning of Usama's achievements.

This remarkable tree, instantly recognisable by its 'turned up' branches and so-called because of the red colour of its resin, is now under threat from climate change across the whole of its North African territory. Whereas once the tree was revered, particularly by the ancient Greeks and Romans, for the medicinal and colouring properties of its resin, hard-pressed local communities, largely in outlying rural areas, have ignored its medicinal and cultural values.

Dragon's blood tree
Dracaena ombet
Endangered
Sudan
\$4,000



"This tree is a flagship for the whole Afromontane eco-region", says Usama, "and its decline is three-dimensional. First it is confined to very remote areas; secondly it has been affected by [the] climate change of the past 50 years; and lastly the local communities in the areas it grows live in poor situations [and] are so concentrated on their own survival understandably that they have forgotten the value of this tree".

Usama wants to change all that and has high hopes of building enough awareness to stimulate the creation of a regional conservation consortium to save the tree. Having originally won the Fund's backing for survey work in Djibouti and Somaliland, the project had to quickly change course to Ethiopia and Sudan when unstable security conditions ruled out surveys in the first choice areas. This was to be Phase II of an overall project first launched in 2007 when tree surveys were undertaken in Egypt. Phase III, which will take in challenging territories within Yemen, Somaliland, Djibouti and Saudi Arabia, is hoped to be completed by the end of 2017.



When Phase II began, initial results were not promising. "Once work commenced it was discovered that the target species was more threatened than initially thought", explained Usama. Global positioning systems were used to detect and record each tree, measure their health and structure, and to assess associated trees and habitats. Each tree was numbered and recorded in a database.

"We worked closely with the local communities to document the relevant traditional knowledge of the tree and the area habitats through interviews and group discussions which were recorded on video", explained Usama. The team also staged school environmental days to spread further awareness.

With the field work complete, the surveys for Ethiopia and Sudan are being compiled — a labour of love for Usama and his team. "I regard myself as very lucky to be working on the first survey undertaken on these trees".

Agamas share their habitat with Dragon's blood trees.



THIS TREE, YOU SEE, DOESN'T GET ITS WATER FROM ROOTS BUT FROM THE AIR – SO IT COULD BE THE KEY TO UNLOCKING A GREATER UNDERSTANDING OF WATER GENERATION; IT IS CERTAINLY OFFERING UP CLUES TO CLIMATE CHANGE

A truly optimistic Usama says the Fund's support, and additional backing from the UK's Rufford Foundation, has inspired further interest in the project. A website (dragontreehomeland.weebly.com) produced by the team to raise awareness of the tree and its habitat was awarded runner-up in the IUCN and International Rangers Federation Young Conservationist Award. Subsequent presentations have led to collaboration from Edinburgh University towards the publication of the first research about the endangered status of this North African treasure.

Interest sparked from a Spanish university has led to a study of whether the 'dragon's blood' was a key ingredient in the embalming of ancient Egyptian mummies. "They are also investigating whether the

fungi in the leaves of the tree have medicinal purposes", explained Usama, "and perhaps even more exciting is a belief that the spine structure of the leaves can be used in an engineering context to collect water from the atmosphere. This tree, you see, doesn't get its water from roots but from the air – so it could be the key to unlocking a greater understanding of water generation; it is certainly offering up clues to climate change".

Usama's project has now won grant support from the Ford Motor Company and has been shortlisted for the coveted Rolex Awards for Enterprise, both developments which the ranger-turned-conservationist believes will further his push to establish a regional, if not global consortium for the assessment and conservation of the Dragon's blood tree.



THE SEARCH FOR THE OST amphibian

Hopkins found his passion — he would become a devotee of frogs. Not so unusual for a six-year-old, you might think, but Robert's passion has lasted a lifetime and at 73, he became a Fund recipient.

Robert's remarkable story began in South Africa with a visit to his Aunt Marge, who was the Director of the East London Museum. A lifelong naturalist, Marjery Courtenay-Latimer was the woman who in 1938 introduced the coelacanth to the world — a species of fish which had only ever been seen in fossils millions of years old. She took the fish from local fishermen and had it identified; it was subsequently named *Latimeria chalumnae* in her honour and after the river where it was found. Her love of nature was passed on to her nephew.

Robert had been an aspiring biologist but his university career came to an abrupt end and he entered the Rhodesian civil service, spending his spare time researching amphibians, growing tadpoles and releasing them after morphosis. When he was employed by Bulawayo's Natural History Museum, Robert confined his research to the frogs of Zimbabwe. "It is a fact that the endemics, which are found mainly on the eastern border with Mozambique, are under stress", explained Robert. "In fact I have been trying to locate them for four years, but without success". Robert takes ova samples, which he then hatches in his makeshift home tank farm. His methods have been self-financed and have resulted in some success. His scientific paper describing the tadpole of *Leptopelis* bocagii, which had never been studied before, is now being published.

But one frog – the Critically Endangered Cave squeaker (*Arthroleptis troglodytes*) – had eluded Robert. This is a very poorly understood species, not seen since 1962 when it was officially recognised as a new species. Efforts to learn more about it were abandoned in the mid-1960s when war interrupted field work. The Cave squeaker has since avoided attention until, with support from the Fund, Robert was able to launch a project under the auspices of

4

Cave squeaker

Arthroleptis troglodytes
Critically Endangered
Zimbabwe
\$3,000

Bulawayo's Natural History Museum to look for it, study its habitat, and then take it for ex-situ breeding and later reintroduction.

"Some of the endemics are found in the mountain forested areas on our eastern border", explained Robert. "This area has been subjected to events which may have caused some of these species to go extinct; the climate is changing and there has been an introduction of exotic species, both fish and plants. Due to the discovery of diamonds and panning for gold, river systems are becoming polluted. It is an urgent exercise to come to a conclusion that these frogs still exist or are extinct. If they still exist, they need to be preserved by ex-situ breeding and reintroduction, and this will require indepth knowledge of their environments, all of which is still missing at present".

Robert's hopes were riding high. While working with the National Parks and Wildlife authorities, a pilot project on other species had delivered some positive results. "Working with tribal farmers we are establishing wet areas for crops and

reintroducing species normally found in these areas to control pests and this has been relatively successful".

So for a month Robert, accompanied by trackers and two zoology students acting as researchers, searched for the Cave squeaker staying night and day in the Mount Chimanimani area pursuing their elusive catch. All attempts failed and the Cave squeaker remains as elusive as ever — perhaps it is even extinct. But nothing

has dampened Robert's determination to champion the frogs of Zimbabwe. "It is of utmost importance", he says, "not only to me personally, but to the conservation of our endemics. The rest of the world will be able to compare, and possibly use some of the suggestions, and findings". Robert has since photographed an as yet unidentified species taken from the Bundi River on the summit of Mount Chimanimani. "My work continues, and is constantly springing surprises", he adds.

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QUEENSLAND'S SALLES OF THE STORIC OF THE STO

ueensland is Australia's second largest and third most populous state, yet among its inhabitants is a little-known bird whose sounds and existence have long been a part of the country's rural folklore. The story of the Buff-breasted button quail (*Turnix olivii*) is one shrouded in mystery. Until recently, the bird had never been photographed in the wild and its bird-song had never been recorded. In fact, the easiest way of seeing the Buff-breasted button quail is to visit the H.L. White Collection at the Museum of Victoria, which has seven preserved specimens in its collection. The first written record of the bird was during the early part of the last century. There were then sightings in the 1980s but a decade later they declined due, according to experts, to habitat destruction which has led to its 'Endangered' classification. However, with the Fund's support the race is on to save this distinctive species.

Savanna woodlands of Queensland, Australia

Buff-breasted button quail

Turnix olivii
Endangered
Australia
\$8,375

Historically, the Buff-breasted button quail was found near the small townships of Cooktown, Coen, Musgrave, Mareeba and Mt. Molloy. The first record and specimen was collected by a resident of Cooktown in 1899, but even this gave very little clue as to where the species could be found. Fast forward to 1921–22, when ornithologist William McLennan began a nine-month expedition on horseback around Coen on the Cape York Peninsula. He produced a detailed diary of his observations of a handful of sighted birds, as well as collections of six adult specimens, all but two of which are housed in the H.L. White collection.

"After 1922, few birds were reported", explained Dr Geoffrey Smith, Principal Zoologist at the Queensland Herbarium of Australia's Department of Science, Information Technology and Innovation. "Cape York Peninsula became increasingly

settled, beef grazers developed their leases, road infrastructure kept on rolling out and the Cape was burnt on a regular basis to encourage grass growth for cattle and reduce risk from wildfire and snakes". It wasn't until the 1970s that records of the Buff-breasted button quail began to emerge again. In recent years, despite earnest searching, there have been only 21 credible sightings. Concern for the species' wellbeing has been increasing, with experts estimating that the quail's total population now comprises 500 mature birds.

In 2009 Dr Smith and his Senior Zoologist colleague Dr Michael Mathieson drafted a recovery plan for increasing understanding of the distribution, life history and ecology of the Buff-breasted button quail. "We wanted to look for the bird, assess its population, distribution, habitat use and to record its calls", explained Dr Smith.





but nothing really happened until last year when the two successfully applied to the Fund for a grant to finance necessary travel, transport, accommodation and equipment.

So the expedition set out to the hot, humid tropics to locate this elusive quail. In just over a week of searching the savannah woodlands, they met with success. "We located the species in a few places, including a small enclave of up to four birds", explained Dr Smith. "These are the first of this species to be confirmed and accurately located in more than four years".

The icing on the cake came when the team managed to record suspected quail calls last heard almost a century ago. "These fit the description previously made by William McLennan Monday on 21st November 1921: a deep booming call Oomm-oomm-oomm repeated rapidly for about 20 seconds, it begins very

low and gradually gets louder and of a higher tone, last notes about 5 times higher than first", said Dr Smith. "Such recordings will be an invaluable tool for future surveys of the species".

In December the tropics' humidity turned to rainfall and the two zoologists realised that if the deluge continued it would stimulate spring breeding.

An emergency application for a grant extension from the Fund was made and approved. Dr Smith had been persuasive: "Breeding of this species would be an event to behold!" he wrote.

The follow-up spring survey produced an even greater understanding of the species' ecology. The team obtained conclusive evidence that the recorded calls were those of the Buff-breasted button quail. More recordings were made. "A male was heard giving a 'chuk' sound, typical of most male button-quail species,

and the booming calls of females were heard intermittently and recorded. This female call is associated with the preand early breeding season," explained Dr Smith; "and then another breakthrough – they managed to get the first photographs of the species", he said, overjoyed.

But that's not the end of the story, in many ways it's only the beginning. With the aid of trapping techniques, the team is now planning to develop and apply assessment and monitoring strategies to ensure that any recovery actions are having an effect, to protect key habitat to support populations from identified threats and help the quails' recovery process through networking and ensuring a sustainable succession plan. The two zoologists also plan to write and implement a new recovery plan which will identify essential habitat to be included in the Queensland Vegetation Management Act.

"Using a touch of technology, a little understanding of habitat developed from a scant, rag-taggle of historical records and persistent searching in hot, often uncomfortable conditions, the quest has renewed in earnest to reveal more of the endangered Buff-breasted button quail, *Turnix olivii* of North Queensland", reaffirmed Dr Smith.



SUPPORTED

Projects listed alphabetically by vernacular species name

EW=Extinct in the Wild | CR=Critically Endangered | EN=Endangered | VU=Vulnerable | EX=Extinct | NT=Near Threatened | LC=Least Concern | DD=Data Deficient | NE = Not Evaluated

Vernacular Species Name	Scientific Species Name	Name	Name of Organisation	Country, Continent	Funding
Amboli toad (CR)	Xanthophryne tigerina	Anand Padhye	MES' Abasaheb Garware College	India, Asia	\$6,500
Apennine yellow-bellied toad (EN)	Bombina pachypus	Stefano Canessa	CeSBiN - spin-off of Genoa University	Italy, Europe	\$5,500
Black-eared mantella (CR)	Mantella milotympanum	Karina Klonoski	N/A	Madagascar, Africa	\$5,000
Black-eyed tree frog (CR)	Agalychnis moreletii	Hibraim Perez Mendoza	Universidad Nacional Autonoma de Mexico	Mexico, North America	\$12,500
Brazilian red-belly toad male (CR)	Melanophryniscus admirabilis	Marcileida Maria Dos Santos	University of Otago	Brazil, South America	\$3,500
Cave sqeaker (CR)	Arthroleptis troglodytes	Robert Hopkins	N/A	Zimbabwe, Africa	\$3,000
Cardioglossa manengouba (CR)	Cardioglossa manengouba	Njumbe Peter Salle	Association For Biodiversity Research and Sustainable Development (ABiRSD)	Cameroon, Africa	\$3,000
Edough ribbed newt (EN)	Pleurodeles poireti	Jihene Ben Hassine	N/A	Algeria, Africa	\$3,500
Eleutherodactylus (CR)	Eleutherodactylus albipes	Ariel Rodríguez	N/A	Cuba, North America	\$7,000
El Rincon stream frog (CR)	Pleurodema somuncurense	Federico Kacoliris	Museo de La Plata / Meseta Salvaje	Argentina, South America	\$7,700
Himalayan Newt (NE)	Tylototriton nepalensis	Janak Khatiwada	Chinese Academy of Sciences	Nepal, Asia	\$4,500
Irangi puddle frog (CR)	Phrynobatrachus irangi	Anthony Karani	Green Operations in Leadership and Development	Kenya, Africa	\$4,886
Luida stream toad (EN)	Ansonia platysoma	Eva Catharina Gallacher	National University of Singapore	Malaysia, Asia	\$12,000
Mantidactylus pauliani (CR)	Mantidactylus pauliani	Matthew Fisher	Imperial College London	Madagascar, Africa	\$9,000
Pickersgill's reed frog (CR)	Hyperolius pickersgilli	Jeanne Tarrant	Endangered Wildlife Trust	South Africa, Africa	\$12,500
Rana parvaccola frog (NE)	Rana parvaccola	Putri Yuliatmy	N/A	Indonesia, Asia	\$3,000
Shillong bubble nest frog (CR)	Raorchestes shillongensis	Abhijit Das	Wildlife Institute of India	India, Asia	\$6,000
Supramonte cave salamander (EN)	Speleomantes supramontis	Enrico Lunghi	Univeristy of Trier	Italy, Europe	\$2,500
Taita Hills warty frog (CR)	Callulina dawida	Michael Gichia	Biodiversity Conservation Organization	Kenya, Africa	\$7,000
Wayanad dancing frog (VU)	Micrixalus saxicola	Keerthi Krutha	Wildlife Information Liaison Development Society	India, Asia	\$12,000
Zapata's toad (CR)	Peltophryne florentinoi	Roberto Alonso Bosch	Museum of Natural History / University of Havana	Cuba, North America	\$4,000

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Vernacular Species Name	Scientific Species Name	Name	Name of Organisation	Country, Continent	Funding
Cretan funnel web mygalomorph (DD)	Macrothele cretica	Maria Chatzaki	Democritus University of Thrace	Greece, Europe	\$12,500
Eastern eggar (DD)	Eriogaster catax	Cristian Sitar	Romanian Lepidopterological Society	Romania, Europe	\$3,000
Elkhorn coral (CR)	Acropora palmata	Manuel Merchan	Asociacion Chelonia	Mexico, North America	\$12,500
Epirus grasshopper (CR)	Chorthippus lacustris	Vassiliki Kati	University of Patras	Greece, Europe	\$12,500
Eric's sylvan (DD)	Coeliccia erici	Ng Yong-Foo	National University of Malaysia	Malaysia, Asia	\$4,860
European maple longicorn (EN)	Ropalopus ungaricus	Bekka Brodie	Association for Biodiversity Conservation	Romania, Europe	\$10,000
Frade cave spider (CR)	Anapistula ataecina	Pedro Cardoso	Finnish Museum of Natural History / University of Helsinki	Portugal, Europe	\$5,000
Freshwater mussels (NE)	Unionida	Alexandra Zieritz	University of Nottingham Malaysia Campus	Malaysia, Asia	\$9,262
Harvestman (NE)	Jimeneziella decui	Aylin Alegre	N/A	Cuba, North America	\$6,300
Horrid ground-weaver (CR)	Nothophantes horridus	Joanne Gilvear	Buglife - The Invertebrate Conservation Trust	United Kingdom, Europe	\$5,000
Mahé boulder cricket (CR)	Phalangacris alluaudi	Axel Hochkirch	Trier University	Seychelles, Africa	\$10,000
Margaritifera marocana (CR)	Margaritifera marocana	Manuel Lopes-Lima	The CIIMAR - Interdisciplinary Centre of Marine and Environmental Research	Morocco, Africa	\$12,000
Polyommatus myrrha cinyrea (NE)	Polyommatus myrrha cinyrea	Karen Aghababyan	TSE - Towards Sustainable Development	Armenia, Asia	\$4,822
Sri Lanka emerald spreadwing (CR)	Sinhalestes orientalis	Amila Sumanapala	Amila Sumanapala	Sri Lanka, Asia	\$3,000
Sri Lanka red crab (CR)	Ceylonthelphusa sanguinea	Mohomed Bahir	Biodiversity Education and Exploration Society	Sri Lanka, Asia	\$16,000
Tadpole shrimp (NE)	Lepidurus apus	Serge Sidorovsky	V.N. Karazin Kharkiv National University	Ukraine, Europe	\$4,000
Various invertebrates (DD)	Various species	Huw Roberts	N/A	United Arab Emirates, Asia	\$3,000



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Adriatic sturgeon (CR)	Acipenser naccarii	Leonardo Congiu	University of Padova	Italy, Europe	\$14,000
Black seahorse (VU)	Hippocampus kuda	Amanda Vincent	University of British Columbia	Vietnam, Asia	\$10,000
Blind fish (EN)	Typhleotris pauliani	Sama Zefania	University of Toliara	Madagascar, Africa	\$7,500
European angel shark (CR)	Squatina Squatina	Joanna Barker	Zoological Society of London	Spain, Europe	\$15,000
European sea sturgeon (CR)	Acipenser sturio	Rigers Bakiu	Agricultural University of Tirana	Albania, Europe	\$12,000
Iberian toothcarp (EN)	Aphanius iberus	Juan S.	CIBIO-InBIO	Spain, Europe	\$15,000
		Sanchez-Oliver			
Largetooth sawfish (CR)	Pristis pristis	Ilena Zanella	Asociación Conservacionista	Costa Rica, North America	\$11,000
			Misión Tiburón		
Lisbon arched-mouth	Iberochondrostoma	Filipe Ribeiro	N/A	Portugal, Europe	\$12,000
nase (CR)	olisiponensis				
Persian sturgeon (CR)	Acipenser persicus	Shima Bakhshalizadeh	University of Guilan	Iran, Asia	\$10,000
Sakhalin taimen (CR)	Parahucho perryi	Peter Rand	Limnos	Japan, Asia	\$5,000
Tequila splitfin (CR)	Zoogoneticus tequila	Omar Dominguez	Fish Ark Mexico - Universidad	Mexico, North America	\$13,500
		Dominguez	Michoacana de San Nicolas de Hidalgo		
Victoria tilapia (CR)	Oreochromis Variabilis	Richard Olwa	N/A	Uganda, Africa	\$10,000

reptile

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Vernacular Species Name	Scientific Species Name	Name	Name of Organisation	Country, Continent (s	Funding
Altai pit viper (NE)	Gloydius rickmersi sp. nov.	Glib Mazepa	University of Lausanne	Kyrgyzstan, Asia	\$10,800
Bizarre-nosed chameleon(CR)	Calumma hafahafa	Sando Desmod Mahaviasy	N/A	Madagascar, Africa	\$9,000
Black-headed bushmaster (NE)	Lachesis melanocephala	Stephen Spear	The Orianne Society /Viper Specialist Group	Costa Rica, North America	\$2,500
Bolson tortoise (CR)	Gopherus flavomarginatus	Ross Kiester	Turtle Conservancy	Mexico, North America	\$4,950
Darevsky's viper (CR)	Vipera darevskii	Konrad Mebert	N/A	Turkey, Asia	\$4,850
Floreana Island Galapagos racer (NE)	Pseudalsophis biserialis biserialis	Eli Chrsitian	Massey University	Ecuador, South America	\$11,000
Forest hinged tortoise (CR)	Kinixys erosa	Nathanael Stanek	Fordham University	Congo, Africa	\$7,000
Galapagos tortoise (CR)	Chelonoidis	Ryan Walker	Galapagos Conservancy	Ecuador, South America	\$15,000
Geoffreys side-necked turtle (NE)	Phrynops geoffroanus	Richard Vogt	INPA	Brazil, South America	\$10,000
Geometric tortoise (CR)	Deammobatos acomotricus	James Juvik	Turtle Conservancy	South Africa Africa	¢42.500
Geometric tortoise (CR)	Psammobates geometricus Psammobates geometricus	Raissa Fries Bressan	University of the Western Cape	South Africa, Africa South Africa, Africa	\$12,500 \$12,000
Greek meadow viper (EN)	Vipera graeca	Edvárd Mizsei	Greek Meadow Viper	Albania, Europe	\$3,810
Green turtle (EN)	Chelonia Mydas	Trokon Saykpa	Working Group Sea Turtle Watch	Liberia, Africa	\$5,000
Home's hingeback tortoise (VU)	Kinixys homeana	Andrews	Wildlife Division	Ghana, Africa	\$11,250
nome's milgeback tortoise (vo)	Kiiiixys iioillealia	Agyekumhene	(Forestry Commission)	Gliana, Africa	\$11,250
Indian Narrowheaded softshell turtle (EN)	Chitra indica	Shailendra Singh	Turtle Survival Alliance	India, Asia	\$6,250
Lesser Antillean iguana (EN)	Iguana delicatissima	Farah Mukhida	Anguilla National Trust	Anguilla, North America	\$6,750
Lesser Antillean iguana (EN)	Iguana delicatissima	Hannah Madden	St. Eustatius National Parks	Netherlands Antilles, N. America	\$4,950
Madagascar spider tortoise (CR)	Pyxis arachnoides	Ryan Walker	Nautilus Ecology	Madagascar, Africa	\$5,000
Oaxacan spiny-tailed iguana (CR)	Ctenosaura oaxacana	Jeffrey Corneil	Truman State University	Mexico, North America	\$5,000
Plain mountain adder (EN)	Bitis inornata	Bryan Maritz	University of the Western Cape	South Africa, Africa	\$9,500
Reptiles (NE)	Reptilia	Philip Bowles	IUCN-US	Russia, Asia	\$20,000
Tenerife speckled lizard (CR)	Gallotia intermedia	Jacobo Marrero	Tonina Association	Spain, Europe	\$10,000
Timor-Leste	Chelodina mccordi	Carla Eisemberg	Charles Darwin University	Timor-Leste (East Timor), Asia	
long-necked turtle (CR)		(de Alvarenga)			
Utila spiny-tailed iguana (CR)	Ctenosaura bakeri	Daisy Maryon	University of South Wales	Honduras, North America	\$10,000
William's South American side-necked turtle (NE)	Phrynops williamsi	Raissa Fries Bressan	Caipora Cooperativa para a Conservação da Natureza	Brazil, South America	\$9,000

Flungus

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Hot dots (NE)	Arthonia kermesina	James Lendemer	The New York Botanical Garden	United States, North America	\$3,000
Galapagos spiny	Acantholichen	Frank Bungartz	Charles Darwin Foundation	Ecuador, South America	\$15,000
gladiator lichen (NE)	galapagoensis		for the Galapagos Islands		
Pavelek's false truffle (EN)	Cortinarius pavelekii	Gregory Mueller	Chicago Botanic Garden	United States, North America	\$21,500



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Akikiki (CR)	Oreomystis bairdi	Bryce Masuda	San Diego Zoo	United States, North America	\$7,500
Bahama oriole (CR)	Icterus northropi	Kevin Omland	University of Maryland	Bahamas, North America	\$12,500
Black-capped petrel (EN)	Pterodroma hasitata	Ryan Trachtenberg	American Bird Conservancy	Dominica, North America	\$7,352
Black-fronted piping-guan (EN)	Aburria jacutinga	Alecsandra Tassoni	SAVE BRASIL	Brazil, South America	\$5,200
Blue-throated macaw (CR)	Ara glaucogularis	Holly Robertson	American Bird Conservancy	Bolivia, South America	\$7,000
Blue-throated macaw (CR)	Ara glaucogularis	Tjalle Boorsma	Asociacion Civil Armonia	Bolivia, South America	\$5,000
Buff-breasted	Turnix olivii	Geoffrey Smith	Queensland Herbarium	Australia, Oceania	\$8,375
button-quail (EN)					
Chilean woodstar (CR)	Eulidia yarrellii	Karolina Araya	AvesChile	Chile, South America	\$5,000
Floreana mockingbird (CR)	Mimus trifasciatus	Luis Ortiz-Catedral	Massey University	Ecuador, South America	\$12,500
Forest owlet (CR)	Heteroglaux blewitti	Kaushal Patel	NA	India, Asia	\$3,400
Hooded vulture (EN)	Necrosyrtes monachus	Justus Deikumah	UNIVERSITY OF CAPE COAST	Ghana, Africa	\$12,500
Junin grebe (CR)	Podiceps taczanowskii	Constantino Aucca	Asociacion Ecosistemas Andinos	Peru, South America	\$7,600
Lappet-faced vulture (EN)	Torgos tracheliotos	Robert Thomson	University of Cape Town	Namibia, Africa	\$6,250
Makira moorhen (CR)	Pareudiastes silvestris	John Mittermeier	University of Oxford	Solomon Islands, Oceania	\$16,000
Polynesian	Alopecoenas	Nick Holmes	Island Conservation	French Polynesia, Oceania	\$12,500
ground dove (CR)	erythropterus				
Regent honeyeater (CR)	Xanthomyza phrygia	Diane van de Merwe	Taronga Conservation	Australia, Oceania	\$12,500
Regent honeyeater (CR)	Anthochaera phrygia	Ross Crates	Society Australia	Australia, Oceania	\$12,375
Sharpe's longclaw (EN)	Macronyx sharpei	Samuel Bakari	Australian National University Friends of Kinangop Plateau	Kenya, Africa	\$8,765
Spoonbilled sandpiper (CR)	Calidris pygmaea	Dmitry Dorofeev	All-Russian institute for Nature Protection	Russia, Asia	\$4,000
Stresemann's bristlefront (CR)	Merulaxis stresemanni	Alexandre Enout	Fundação Biodiversitas	Brazil, South America	\$5,000
Taita apalis (CR)	Apalis fuscigularis	Lawrence Wagura	National Museums of Kenya	Kenya, Africa	\$2,088
Townsend's shearwater (CR)	Puffinus auricularis	Alfonso Aguirre-Muñoz	Grupo de Ecología y Conservación de Islas, A.C.	Mexico, North America	\$12,500
White-backed vulture (EN)	Gyps africanus	Glyn Maude	Denver Zoological Foundation Inc./DBA Denver Zoo	Botswana, Africa	\$20,000
White-rumped vulture (CR)	Gyps bengalensis	Bharathidasan Subbiah	Arulagam	India, Asia	\$12,250
Whooping crane (EN)	Grus americana	Becky Abel	International Crane Foundation	United States, North America	\$12,500
Yellow-breasted bunting (EN)	Emberiza aureola	Wieland Heim	Amur Bird Project	Russia, Asia	\$5,000



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African wolf (NE)	Canis lupus lupaster	Tariku Mekonnen Gutema	Jimma University	Ethiopia, Africa	\$5,000
Araguaia River dolphin (NE)	Inia araguaiensis	Silvana Campello	Instituto Araguaia	Brazil, South America	\$7,000
Armenian birch mouse (EN)	Sicista armenica	Mikhail Rusin	Schmalhausen Institute of Zoology	Armenia, Asia	\$4,550
Asian elephant (EN)	Elephas maximus	Samya Basu	N/A	India, Asia	\$4,930
Bay cat (EN)	Catupuma badia	Gabriella Fredriksson	Pro Natura Foundation	Indonesia, Asia	\$10,000
Black lion tamarin (EN)	Leontopithecus chrysopygus	Mariana Landis	Manacá Institute	Brazil, South America	\$10,000
Blue-eyed black lemur (CR)	Eulemur flavifrons	Jack Saunders	University of Bristol	Madagascar, Africa	\$11,000
Bonin flying fox (EN)	Pteropus pselaphon	Christian Vincenot	Kyoto University	Japan, Asia	\$3,500
Cat Ba Langur (CR)	Trachypithecus poliocephalus	Kayla Ruskin	The Australian National University	Vietnam, Asia	\$7,000
Chacoan Peccary (EN)	Catagonus wagneri	Harald Beck	Towson Univeristy and IUCN Peccary Specialist Group	Paraguay, South America	\$7,000
Chinese pangolin (CR)	Manis pentadactyla	Nabajit Das	Primate Research Centre NE India	India, Asia	\$5,000
Chinese pangolin (CR)	Manis pentadactyla	Christina Vallianos	WildAid	China, Asia	\$12,000
Chinese pangolin (CR)	Manis pentadactyla	Samuel Wasser	University of Washington	Myanmar (Burma), Asia	\$12,000
Eastern chimpanzee (EN)	Pan troglodytes schweinfurthii	Vernon Reynolds	Budongo Conservation Field Station	Uganda, Africa	\$5,000
Ethiopian amphibious rat (CR)	Nilopegamys plumbeus	Anagaw Meshesha	University of Oslo	Ethiopia, Africa	\$5,000
Fijian free-tailed bat (EN)	Chaerephon bregullae	Jason Corbett	Bat Conservation International	Fiji, Oceania	\$12,500
Fishing cat (EN)	Prionailurus viverrinus	Anya Ratnayaka	Environmental Foundation Limited	Sri Lanka, Asia	\$4,000
Fishing cat (EN)	Prionailurus viverrinus	Sagar Dahal	Small Mammals Conservation and Research Foundation	Nepal, Asia	\$7,200
Fishing cat (EN)	Prionailurus viverrinus	Ashwin Naidu	Fishing Cat Conservancy	India, Asia	\$5,000
Fishing cat (EN)	Prionailurus viverrinus	Tiasa Adhya	N/A	India, Asia	\$9,975
Fishing cat (EN)	Prionailurus viverrinus	Angelika Appel	Fishing Cat Working Group	Nepal, Asia	\$7,990
Fishing cat (EN)	Prionailurus viverrinus	Erwin Wilianto	Sumatran Tiger Conservation Forum (HarimauKita)	Indonesia, Asia	\$12,300
Ganges River dolphin (EN)	Platanista gangetica gangetica	Shambhu Paudel	Kathmandu Forestry College	Nepal, Asia	\$3,976
Ganges River dolphin (EN)	Platanista gangetica gangetica	Gopal Khanal	River Dolphin Trust	Nepal, Asia	\$4,000
Greater big-footed mouse (EN)	Macrotarsomys ingens	Seheno Julia Rasoanomenjanahary	N/A	Madagascar, Africa	\$5,000
Guigna (V)	Leopardus guigna	Constanza Napolitano	Universidad de Chile	Chile, South America	\$8,970
Hispid hare (EN)	Caprolagus hispidus	Achyut Aryal	Massey University	Nepal, Asia	\$10,000
Hooded spider monkey (DD)	Ateles geoffroyi grisescens	Pedro Guillermo Méndez-Carvajal	Fundación Pro-Conservación de los Primates Panameños	Panama, North America	\$8,000
Indian pangolin (EN)	Manis crassicaudata	Faraz Akrim	Department of Wildlife Management PMAS AAUR	Pakistan, Asia	\$5,000
Indian pangolin (EN)	Manis crassicaudata	R. Marimuthu	Zoo Outreach Organisation	India, Asia	\$11,000
Irrawaddy dolphin (CR)	Orcaella brevirostris	Budiono Budiono	Yayasan Konservasi RASI	Indonesia, Asia	\$11,000
Javan rhinoceros (CR)	Rhinoceros sondaicus	Inov Sectionov	International Rhino Foundation	Indonesia, Asia	\$10,000
Javan slow loris (CR)	Nycticebus javanicus	Anna Nekaris	Oxford Brookes University	Indonesia, Asia	\$10,000
Jungle cat (V)	Felis chaus	Lakdas Fernando	Wild Life and Nature Protection Society of Sri Lanka	Sri Lanka, Asia	\$10,000

Vernacular Species Name	Scientific Species Name	Name	Name of Organisation	Country, Continent (S Funding
Kipunji (CR)	Rungwecebus kipunji	Alfred Chitiki	Sokoine University of Agriculture	Tanzania, Africa	\$12,500
Kolar leaf-nosed bat (CR)	Hipposideros hypophyllus	Bhargavi Srinivasulu	Biodiversity Research and Conservation Society	India, Asia	\$7,000
Lemurs (CR)	Lemurs	Alessandro Badalotti	IUCN	Madagascar, Africa	\$30,000
Leopard (NE)	Panthera pardus	Muhammad Kabir	University of Haripur	Pakistan, Asia	\$5,000
Mittermeier's sportive lemur (EN)	Lepilemur mittermeieri	Leslie Wilmet	Liege University Gembloux Agro-Bio Tech	Madagascar, Africa	\$6,000
Mongolian wild ass (EN)	Equus hemionus hemionus	Anne-Camille Souris	Association GOVIIN KHULAN	Mongolia, Asia	\$12,500
Northern yellow-cheeked gibbon (NE)	Nomascus annamensis	Tara-Lyn Camilleri	Australian National University	Cambodia, Asia	\$4,500
Old world monkey (CR)	Cercopithecidae	Christoph Schwitzer	Bristol Zoological Society	Uganda, Africa	\$20,000
Oncilla (Southern Tigirina) (V)	Leopardus guttulus (Leopardus tigrinus)	Alcides Ricieri Rinaldi	Mater Natura	Brazil, South America	\$10,540
Pallas' cat (NT)	Otocolobus manul	Ganga Ram Regmi	Global Primate Network-Nepal	Nepal, Asia	\$6,500
Pallas' cat (NT)	Otocolobus manul	Yasaman Talebi Otaghvar	N/A	Iran, Asia	\$6,905
Persian leopard (EN)	Panthera pardus saxicolor	Arash Ghoddousi	Georg-August-University Göttingen	Iran, Asia	\$9,500
Peruvian yellow-tailed woolly monkey (CR)	Lagothrix flavicauda	Sam Shanee	Asociacion Neotropical Primate Conservation Peru	Peru, South America	\$8,000
Sand cat (NT)	Felis margarita	Georgiy Shakula	Wild Nature NGO	Kazakhstan, Asia	\$5,000
Sanje mangabey (EN)	Cercocebus sanjei	Grainne McCabe	Bristol Zoological Society	Tanzania, Africa	\$12,000
Seram bandicoot (EN)	Rhynchomeles prattorum	Andrew Bagnall	N/A	Indonesia, Asia	\$4,000
Sibreei's fat-tailed dwarf lemur (CR)	Cheirogaleus sibreei	Cyprien Miandrimanana	Missouri Botanical Garden	Madagascar, Africa	\$5,000
Southern woolly lemur (EN)	Avahi meridionalis	Kathryn Scobie	Impact Madagascar	Madagascar, Africa	\$5,000
Sumatran mountain maxomys (DD)	Maxomys hylomyoides	Heru Handika	N/A	Indonesia, Asia	\$5,000
Sunda pangolin (CR)	Manis javanica	Louise Fletcher	N/A	Brunei, Asia	\$4,600
Vanzolini's bald faced saki monkey (DD)	Pithecia vanzolinii	Laura Marsh	Global Conservation Institute	Brazil, South America	\$12,300
Varied White-fronted Capuchin (EN)	Cebus versicolor versicolor	Andres Link	Fundacion Proyecto Primates	Colombia, South America	\$7,000
West African chimpanzee (EN)	Pan troglodytes verus	Kimberley Hockings	Oxford Brookes University	Guinea-Bissau, Africa	\$12,000
Wroughtoni's free tailed bat (DD)	Otomops wroughtoni	Adora Thabah	N/A	India, Asia	\$6,100
Yangtze finless porpoise (CR)	Neophocaena asiaeorientalis asiaeorientalis	Lisa Mogensen	Institute of Zoology, Zoological Society of London	China, Asia	\$8,000
Yellow-tailed woolly monkey (EN)	Lagothrix flavicauda	Rolando Aquino	ICBAR/UNMSM	Peru, South America	\$10,000



EX=Extinct | EW=Extinct in the Wild | CR=Critically Endangered | EN=Endangered | VU=Vulnerable NT=Near Threatened | LC=Least Concern | DD=Data Deficient | NE = Not Evaluated

Vernacular Species Name	Scientific Species Name	Name	Name of Organisation	Country, Continent	Funding
Acanthodesmos distichus (NE)	Acanthodesmos distichus	Keron Campbell	Natural History Museum of Jamaica	Jamaica, North America	\$15,000
African zebrawood (CR)	Microberlinia bisulcata	Limbi Blessing	The Environment and Rural Development Foundation	Cameroon, Africa	\$15,000
Alfiler (CR)	Acacia belairioides	Jorge Alberto Sánchez Rendón	Instituto de Ecología y Sistemática	Cuba, North America	\$8,000
Artocarpus annulatus (CR)	Artocarpus annulatus	Nyree Zerega	Chicago Botanic Garden	Malaysia, Asia	\$6,000
Azulejo (CR)	Magnolia cristalensis	Alejandro Palmarola	National Botanic Garden, University of Havana	Cuba, North America	\$4,500
Bufonia multiceps (NE)	Bufonia multiceps	Karim Omar	Minister of State for Environmental Affairs	Egypt, Africa	\$4,000
Cipres (NE)	Harpalyce macrocarpa	Enma M. Torres Roche	N/A	Cuba, North America	\$4,000
Culantrillo (NE)	Adiantopsis asplenioides	Ledis Regalado	N/A	Cuba, North America	\$4,000
Dendrobium whistleri (DD)	Dendrobium whistleri	David Lorence	National Tropical Botanical Garder	Samoa, Oceania	\$20,000
Espino de Costa (NE)	Bonania elliptica	Lisbet Gonzalez-Oliva	N/A	Cuba, North America	\$10,000
Faveiro de Wilson (Wilson's Faveiro tree) (CR)	Dimorphandra wilsonii	Lucio Bede	Instituto Terra Brasilis	Brazil, South America	\$7,500
Klein's rib-less orchid (CR)	Anathallis kleinii	Neil Brummitt	Natural History Museum, Londor	Brazil, South America	\$7,000
Nigerian kola (CR)	Cola nigerica	Kirsty Shaw	Botanic Gardens Conservation International	Nigeria, Africa	\$19,000
Pinus cernua (CR)	Pinus cernua	Leonid Averyanov	Komarov Botanical Institute	Vietnam, Asia	\$12,000
Rattan (NE)	Subtribe Calaminae, family Palmae	Andrew Henderson	The New York Botanical Garden	Malaysia, Asia	\$7,000
Tortuella abietifolia (CR)	Tortuella abietifolia	Javier Francisco-Ortega	Florida International University	Haiti, North America	\$10,000
Water-starworts (NE)	Callitriche	Richard Lansdown	Ardeola Environmental Services	Russia, Asia	\$20,000
Yuanbaoshan fir (CR)	Abies yuanbaoshanensis	Hannah Braithwaite	Fauna & Flora International	China, Asia	\$12,000



2015 FINANCIAL STATEMENT

Endowment:

The Fund's endowment started on 7 April 2009 with a value of \$29,202,745

Analysis Period: 1 January 2015 to 31 December 2015

Reporting Currency: US dollars

Statement of Assets:

Begin value	32,260,279
Cash flow adjusted change in assets	-159,144
Portfolio performance	-0.49%
Sum of cash flows	896,299
End value	31,204,836

Note: Negative sum cash flows include management fees and taxes, as well as withdrawals for grants. The endowment is managed by Credit Suisse; historical information and financial market scenarios are not a guarantee for future performance.



www.speciesconservation.org



Please visit: www.speciesconservation.org

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