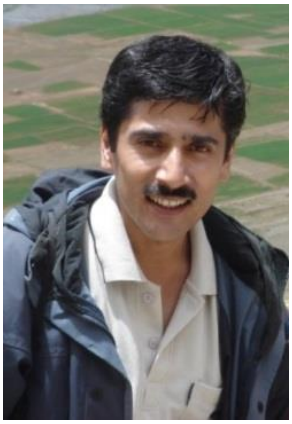
Partnership Funding Results

Contents

DR. CHARUDUTT MISHRA, SNOW LEOPARD TRUST (SLT)

From grassroots to global: Realising a conservation vision for snow leopards across their range

Whitley Gold Award (2005), Continuation Funding (2008, 2010, 2011), WFN Partnership Funding by Fondation Segré (2014).



Whitley Gold Award winner, Charu Mishra played a key role in bringing together the governments of all 12 snow leopard range countries for an international summit in Kyrgyzstan in 2013. The summit resulted in the development of a landmark global commitment to protect these iconic cats whilst acknowledging community involvement as a key principle for the future of snow leopards. Fewer than 7,000 snow leopards remain in the wild due to loss of habitat and wild prey, human-wildlife conflict and poaching. A lack of funding, political and industrial awareness and scientific information hinder conservation efforts. Partnership Funding was awarded to support implementation of the new global strategy to protect snow leopards and deliver community-based, science-led conservation across Asia. With the support of Partnership Funding Charu and his team at the Snow Leopard Trust have achieved the following outcomes:

Goal 1: Create the next generation of snow leopard conservation leaders in the most important range countries.

The future of snow leopards across their range depends greatly on the capacity of local leaders to implement conservation:

- Six Conservation Leaders have been developed and/or recruited in India, Pakistan, China and Mongolia. This includes four women researchers, one of whom is the first female researcher employed by the Snow Leopard Foundation in Pakistan.
- Each is completing a PhD on some of the most critical threats to snow leopards including climate change in high altitude environments, and has received hands-on conservation training.
- Best practices in community-based conservation were published as a training toolkit entitled PARTNERS Principles. The document has been distributed as a go-to for community conservationists internationally, and attracted +500 reads on Researchgate in 2017. PARTNERS Principles training modules have been developed and provided to over 88 SLT staff and partners, including those from Wildlife Conservation Society, The Nature Conservancy and WWF.
- SLT's community-based conservation work is impacting approx. 111,000 km^2 of snow leopard habitat, meaning cat populations in these areas are relatively protected because of engagement with local communities.

Goal 2: Generate political support for conservation of snow leopards and their mountain habitat in all 12 range countries.

In 2013 governments from all 12 snow leopard range countries agreed a global strategy to conserve snow leopards: the Global Snow Leopard and Ecosystem Protection Program (GSLEP). Commitments were made to identify and protect 23 priority landscapes - covering nearly 500,000km^2 or ~25% of snow leopard habitat - for snow leopards by 2020.

- The GSLEP Secretariat was established in 2014 and has developed into a strong entity providing leadership, management and convening power towards driving the strategy forward.
- All 12 countries are now working on management plans for the priority landscapes. Five management plans have been completed in Afghanistan, Pakistan, Bhutan, Kyrgyzstan, and Nepal. Of those, Nepal's has been approved by government.

- Government and NGOs have worked together in eight countries to develop proposals for over $48 million USD in GEF and other government grants to support the GSLEP to realise its range-wide conservation goals. As a result of the programme, more funding than ever before is being allocated to support snow leopard conservation.
- The 2017 Global Snow Leopard Forum organised by the Secretariat attracted nearly 600 attendees becoming the largest single gathering focused on snow leopard conservation in history, and garnering attention from UN Secretary General, governments, businesses, major film stars, and snow leopard supporters across the world.
- At the Forum in August 2017, all 12 range countries endorsed the 2017 Bishkek Declaration for Snow Leopards, reaffirming their commitment to increase snow leopard protection. They also released a Statement of Concern appealing the recent downlisting of snow leopards from 'Endangered' to 'Vulnerable' by the IUCN until scientifically sound data on Snow Leopard populations and trends become available. SLT are now launching a new collaborative initiative called PAWS (Population Assessment of the World's Snow Leopards) to generate reliable population estimates.

Goal 3: Catalyse government-sanctioned protection of key snow leopard landscapes in 3 of the 5 most important range countries.

- Following a seven year campaign, in April 2016 the Government of Mongolia approved creation of a new 7,000 km^2 Nature Reserve in the Tost Mountains – the first state-level Protected Area declared specifically for snow leopard protection. Tost and the two adjoining National Parks now form one of the largest continuous protected areas for snow leopards in the world and are regarded as core habitat for snow leopard conservation and population connectivity. Boundary mapping has been completed, creating a 'line in the sand' where mining is allowed and prohibited. Action and management plans for the reserve have been created and are now under implementation.
- In Kyrgyzstan, an agreement was secured to convert a 250km^2 trophy hunting concession into a nature reserve. Co-managed by government, NGOs and local people, the reserve will give ungulate populations a chance to recover, increasing prey for snow leopards. Baseline surveys have provided the first photographic evidence of snow leopards in the reserve and, having seen the success of the first year, government have expressed an interest in expanding this 'outside the box' model into more concessions with potential to protect a further 3,000km^2.
- SLT launched a nationwide expansion of their Citizen Ranger Wildlife Protection Program in Kyrgyzstan, which Partnership Funding helped pilot in 2014/15. The programme, which encourages rangers and local communities to combat poaching, now operates in all 20 of Kyrgyzstan's National Parks. Interpol provided wildlife managers with training in anti-poaching law enforcement**.** These managers are being primed as future trainers, so they can build and maintain skills of 100+ frontline rangers across the country.
- In Spiti, India, local government support for the Spiti Management Plan has increased. For many years, Charu has been working on integrating the plan from a national to local level. The invitation of SLT to join the Spiti landscape level society in 2017 is a positive step towards inclusive management planning for snow leopard conservation. Two new grazing free reserves covering 39km^2 were set aside by Spiti communities, taking the total of reserves to 12 in northern India.

Goal 4: Help develop a more sustainable cashmere industry for the benefit local communities and the snow leopard habitat.

Over-grazing and competition caused by increasing herds of cashmere goats to supply the growing industry degrades habitat for snow leopards and their prey, impacting food availability. SLT are working with communities and distributors to create a 'snow leopard friendly cashmere' brand based on sustainable grazing practices that increase income for herders and benefit wildlife.

- An MoU was signed with the largest cashmere cooperative in India to pilot a new Snow Leopard Friendly Cashmere program working with communities to boost income while benefitting snow leopards and their habitat.
- The first Snow Leopard Friendly Cashmere program was officially launched in northern India. Three villages signed contracts and became certified as 'Snow Leopard Friendly'. This concept has been nominated for the 2018 St Andrew's Prize.
- The programme is on-track to enable participants to earn 100INR/kilo more for sustainably-raised cashmere. This model could prove to be a huge opportunity for sustainable development across Asia and shape a global industry. The next step is to launch it in Mongolia and China – two of the world's largest cashmere producers.

Goal 5: Enhance social carrying capacity for snow leopards by strengthening community-based conservation initiatives in key snow leopard landscapes.

4,000-5,000 herder families have been directly engaged in community-based conservation initiatives. These programs have proven successful for engaging communities in conservation, raising awareness, and increasing tolerance towards snow leopards.

- In 2016 women from 36 communities in four range countries produced over 47,000 handicrafts, earning more than £48,000, through the NGO's programme - Snow Leopard Enterprises – which empowers women and boosts income for communities. During the first half of 2017 a further community joined the programme (taking the total to 37) and over 23,000 items were produced by 400 women, with earnings expected to match that of the previous year.
- In Pakistan nearly 60,000 livestock were vaccinated in 2017 benefitting 3,000 households as part of an livestock vaccination programme led by 2016 Whitley Award winner Dr. Ali Nawaz. Livestock mortality was reduced by 50-80% in participating villages. This programme helps communities buffer against livestock depredation and build tolerance of big cats.
- Bonus monies have been awarded to communities where no cases of poaching were recorded in Mongolia and India a part of a scheme to incentivise conservation.
- Sterilization campaigns have been held in India to get the feral dog population under control who compete with wild carnivores for prey and kill more livestock than wolves and snow leopards, again to help communities buffer against livestock loss.
- Predator-proof corrals have been built in Mongolia (10), Pakistan (2), while 11 corrals have been repaired in India to reduce depredation of livestock and retaliatory killing of snow leopards. Preliminary results from attitude surveys collected pre-post corral construction in Mongolia show that corral fortifications reduce livestock depredation and improve attitudes towards snow leopards.
- Over 1,900 children living in snow leopard habitats took part in Nature Clubs, and 350 participated in outdoor eco-camps in India and Mongolia during 2017.

Goal 6: Improve scientific understanding of the ecology of the snow leopard and associated biodiversity, and the threats they face, to enable better conservation management.

These studies were initiated during the Partnership Funding grant and are on-going.

- Through GPS collaring and population surveys using trap cameras, the project has amassed the largest datasets in the world for snow leopard locations and images. 23 snow leopards have been collared to track their movements. This is higher than all other previous collaring studies put together! These data are being used to determine snow leopard range size and help design and manage protected areas.
- Camera trapping was scaled up in India, Mongolia, Pakistan, Kyrgyzstan and China to monitor presence, poaching and abundance. Results show the snow leopard population is relatively stable with an average of .94 snow leopards per 100 km^2 in Spiti where conservation work began.

- Two snow leopard den sites were discovered during the project. This is incredibly rare and will contribute vital data to understanding snow leopard birth rates, sex ratios, litter sizes, and cub survival.
- A multi-country study into the impact of climate change and grazing on snow leopard habitat is now fully underway. Mongolia, India and Pakistan are using outdoor 'living laboratories' to collect comparative data on the effects of climate change on snow leopards habitat and have collected a year of data. Results found that livestock grazing together with increased temperature slows down decomposition and nutrient cycling. Further research into how this will impact larger ecosystem health is underway.
- The first ever studies were launched on snow leopard disease ecology, predator-prey and habitat interactions and the role of religion and culture in influencing peoples' attitudes towards snow leopards.
- 12 manuscripts have been accepted into peer-reviewed publications, shedding new light on snow leopard population dynamics, hunting behaviour, wild prey, and influence of livestock on snow leopard habitat use. This includes the finding that 40% of protected areas are too small to encapsulate a single male cat's home range.

DR. PABLO BORBOROGLU, GLOBAL PENGUIN SOCIETY (GPS)

Fostering global penguin conservation

Whitley Award winner (2010), Continuation Funding (2012), WFN Partnership Funding by Fondation Segré (2014).

2010 Whitley award winner, Pablo Borboroglu established the world's first international coalition for the protection of penguins, the Global Penguin Society (GPS). By uniting scientists, conservationists and decision makers across the Southern Hemisphere, Pablo is giving penguins a voice. Over half of the 18 species of penguin are listed as 'Vulnerable' or 'Endangered' by the IUCN. Threatened by poor fisheries management, pollution and climate change in the oceans, penguins also face pressure on land from coastal development and introduced predators. Partnership Funding was awarded to increase understanding, management and protection of penguin colonies in Argentina, Chile, Ecuador, South Africa and New Zealand. With the support of Partnership Funding Pablo and his team have achieved the following outcomes:

Goal 1: Improve scientific knowledge on critical aspects of the biology and ecology of penguin species in order to make fact-based recommendations to guide conservation action.

GPS data is helping to justify ocean protection and underpin management for penguins and other marine wildlife. The cross-project results are a great example of how science can increase conservation problem visibility, inform decision makers, influence management recommendations and lead to effective action.

- Pablo was appointed a member of the United Nations Ocean Sanctuary Alliance Scientific Panel to justify and provide empirical evidence towards increasing the area of ocean under conservation.
- Following this, in September 2015, the 193 countries of the UN General Assembly adopted the 2030 Agenda for Sustainable Development. It includes 17 'Sustainable Development Goals' that are an inter-governmentally agreed set of targets relating to international development. Thanks to scientists including Pablo and colleagues, a goal on the conservation and sustainable use of oceans was included by the UN for the first time. A landmark change!
- The new El Pedral colony in Argentina grew from just six pairs in 2008 to 1,891 pairs at the 2015 census. The growth is fuelled by more optimal food availability and immigration from other colonies to the El Pedral beach which Pablo has secured as a Wildlife Refuge. GPS set up a research station on site and findings show food sources at El Pedral are at located just 18km away in comparison to an average distance of 150km at other colonies, decreasing the distances travelled and risk of doing so, thus increasing penguin and chick survival.
- A peak of 160 King penguins were counted in the recently established Strait of Magellan colony in Chile where feeding routes and food sources were established for the first time. This is the only continental king penguin colony in the world, however high rates of human disturbance were hindering breeding success. GPS research led development of an adaptive management plan for the new colony including visitor guidelines for 20,000 tourists which is now being implemented.
- The Fiordland penguin project in New Zealand (NZ) became the first to determine feeding corridors and food source locations for penguins and how this overlaps with human activity. NZ is home to seven species of penguin, all with small/declining populations and about which little is known. The country has recently increased commitments to develop oil and fisheries industries, making it timely to fill these information gaps. GPS are now collaborating with NZ government to design a network of marine protected areas in the South Island of the country based on this research.
- New results indicate Argentina's Punta Tombo colony is no longer the largest Magellanic penguin colony on the planet, having been overtaken by San Lorenzo in the northern Peninsula Valdes. GPS is now

working with colony landowners to develop an agreement similar to that successfully applied in El Pedral, involving research, management and education.

- 120 artificial nests were built for Galapagos penguins - the most endangered penguin species which has seen a 50% decline since the 1970s, to 1,500 individuals due to climate change and loss of suitable nesting habitat. Penguins bred in a third of the nests, lending the species a helping hand.
- Pablo was a member of the Organising Committee and Scientific advisory board of the 2016 International Penguin Congress (IPC) in South Africa – a meeting that brings together the world's penguin experts. GPS was a major sponsor of the event and provided travel aid for delegates. They also supported an early career event before the Congress, attended by 45 students and researchers. The next IPC will be in 2019.
- A two-day workshop involving 60 people was held in Cape Town to conduct the IUCN conservation status assessment, which became the official IUCN Red List document.
- Nine scientific papers and two books related to this project were published in peer reviewed international scientific and conservation journals.

Goal 2: Promote informed decision-making regarding the management of penguin species and their habitats. Share knowledge and experience of skilful professionals within the international penguin community with governments and landowners to influence and improve decisions that affect management and conservation actions.

- The IUCN Penguin Specialist Group (PSG) was established in 2015 to provide cutting-edge information to advise international penguin conservation and contribute to global conservation targets. Pablo was appointed Co-Chair and a core group of experts from every relevant region was chosen. The first workshop was held in the USA in 2016 where a Steering Committee was appointed.
- The PSG coordinated actions to compile and update all available information on population growth trends, threats and key variables for all 18 penguin species in preparation for the IPC. A second meeting was held with all 42 members at the Congress to define next steps, conservation goals and priority topics to be addressed by Working Groups and Task Forces.
- Management plans for responsible tourism were developed and are now being implemented at the El Pedral colony in Argentina and King penguin colony in Chile, based on GPS research (see Goal 1), and GPS continue to work on implementation of the science-based African Penguin Biodiversity Management Plan and Marine Protected Areas (MPAs) with the Government of South Africa.
- A major new protected area was declared in Argentina. Following GPS nomination, the Blue Patagonia Biosphere Reserve was approved by UNESCO in June 2015. It is the largest of this kind in Argentina, encompassing 3.1 million hectares; an area nearly the size of Belgium! It protects 20 penguin colonies, 700 species and 40% of the global population of Magellanic penguins. In 2017 a management plan was completed for one of the core areas of the Biosphere. The Biosphere is home to southern right whales, sea lions, penguins, guanacos and the only continental colony of elephant seals in the world.
- A new 100,000 hectare Marine Protected Area was created around the Punta Tombo Magellanic penguin colony in Argentina to protect penguin feeding grounds. Home to 400,000 breeding pairs, it is the second largest Magellanic penguin colony in the world, but numbers have declined by 20% in the last 20 years. Until recently penguins were protected on land but not when they entered the water to feed. One million penguins and other wildlife use this area and will benefit from its protection.
- Pablo is now working with the Government of Argentina to foster designation of five new oceanic protected areas. One of these proposed areas will complement the newly created Punto Tombo MPA and Biosphere Reserve, extending protection further offshore. Work to secure these areas is on-going in line with plans to expand work to include the largest Magellanic penguin colony at Peninsula Valdes.
- MPA recommendations have been submitted to the Government of New Zealand. The areas proposed for protection will benefit four penguin species, three of which are endemic. Pursuing their designation will be an important next step.

Goal 3: Reach communities and decision makers with a clear conservation message about penguin and ocean conservation.

Science does not speak by itself, making effective science communication crucial for conservation action.

- 'Penguins: Natural History and Conservation' was published in 2015, bringing together information on all penguin species in a book for the first time. It has now been translated into Spanish and received the Award for the ¨Best Book Edited in Argentina¨ presented by the Chamber of Publications. Even the Minister of Environment for Argentina has it in his office. The English version was the Best Seller Title of the University of Washington Press.
- An educational book entitled 'SEA MESSENGERS' was published and 3,000 copies were distributed free of charge in five Spanish speaking countries where penguins occur (Ecuador, Peru, Chile, Argentina and Uruguay). The book is being used in schools, by tour guides, and is available to the public.
- To date 5,500 children have participated in lessons and school trips to visit penguin colonies for the first time and learn about them. Thousands of children have benefitted from the hundreds of books donated to their schools via GPS's education programme which has now been running for a decade.
- The year three project results were covered in 149 media pieces including 14 newspaper articles, two TV programmes, films, 46 radio interviews and digital news and blogs, with some reaching 37,000 impressions. 32 talks and lectures were given in four countries.

DR. FERNANDO TRUJILLO, OMACHA

Strengthening Local and Regional Conservation Initiatives for the Protection of Rivers & Dolphins in South America

Whitley Gold Award winner (2007), Continuation Funding (2010, 2013), WFN Partnership Funding by Fondation Segré (2014).

2007 Whitley gold winner, Fernando Trujillo promotes trans-boundary conservation of freshwater habitats and their wildlife using river dolphins as a flagship in the Amazon and Orinoco basins, covering their entire global range across Bolivia, Brazil, Colombia, Ecuador, Peru and Venezuela. South America's river dolphins face increasing pressure as a result of competition with the fishing industry and are even killed for fishing bait. Pollution from illegal mining and the development of hydro-electrical dams punctuating rivers is also a growing threat. Fernando collaborates with 19 partner organisations to strengthen conservation of pink and grey river dolphins. Partnership Funding was awarded to improve understanding and facilitate joined up conservation efforts for these enigmatic cetaceans. With the support of Partnership Funding Fernando and his team at the Omacha Foundation have achieved the following outcomes:

Goal 1: Evaluate, monitor and communicate the status of river dolphins in South America.

This vast network of rivers are home to three recognised sub-species of pink river dolphins (*Inia)* and two sub-species of grey river dolphins *(Sotalia)*, about which little is known.

- During the Partnership Funding grant research expeditions were conducted on 11 rivers in six countries and involving the training of almost 400 people, building in-country capacity for conservation. A total of 28 expeditions covering 28,000km have been conducted altogether.
- This is important because the species is still globally classified as 'Data Deficient' by the IUCN. Based on the survey results Fernando estimates 28-35,000 pink dolphins remain, occurring at low densities over a huge area (the Amazon Basin is 7.5 million km^2!). Fernando's research is filling this important gap in data, and the species Red List status is now being reclassified as 'Critically Endangered' as a result.
- At the beginning of the project Fernando was faced with the task of amalgamating multiple datasets collected by different scientists using various research methods to derive meaningful results. The combined results were published, finding a 75% probability that pink dolphin numbers had declined in the Colombian Amazon. The paper was selected by the well-known journal 'Science' as an example of an effective approach to evaluate population trends for species where different methods have been used to collect population data.
- There are a whopping 361 dams in the Amazon, 145 proposed and 33 under construction which threaten to clog the arteries of this immense river system. A database that maps the locations of existing and proposed dams created during Year 1 of the project is being used to show where planned damming projects and dolphin habitat overlap in order to pin-point where development will have the largest impact on cetaceans and build a case against damming/to adjust engineering in sensitive sites. 15 dolphins have been fitted with GPS tags in dammed and free flowing areas to evidence where dams are limiting dolphin movements. Maintaining free flowing rivers in the Amazon is a pressing issue and one Fernando will continue to address with hopes to tag a further 35 dolphins in future.
- Protocols for inclusion of river dolphin abundance estimation in Environment Impact Assessments (EIAs) have been developed in collaboration with WWF for publication in Spanish and Portuguese. This will ensure dolphins are considered when dams are being planned and steps are taken to mitigate their impact, or prevent harmful projects from going ahead altogether in key breeding, feeding and migration areas in order to maintain connectivity.

- Legally binding Action Plans (APs) for river dolphins have been developed with governments in all six countries. The APs outline recommendations for management, policy, tourism, research towards national river dolphin conservation based on research.

Goal 2: Provide Technical capacity building to strengthen river dolphin conservation.

- 117 researchers have been trained in the analysis of field data during three workshops held in Venezuela (26), Peru (20) and Colombia (60), and expeditions in Ecuador (3) and Bolivia (8).
- More than 500 researchers are now using the South American River Dolphin Protected Area Network (SARDPAN) online forum designed to enable resource sharing, publication of research and aid government decisions on freshwater conservation. In 2017 the site received >28,000 hits.
- Staff exchange trips between Omacha and other South American NGOs including WFN alumni Joanna Alfaro-Shigueto identified opportune regions in which to promote good dolphin watching practices, develop fishing agreements and initiate artisan programmes expanding the project.
- A river dolphin workshop was held at the 10th Biennial Meeting of the South American Aquatic Mammal Society in Cartagena, Colombia with 28 presentations and 94 attendees.

Goal 3: Grassroots capacity building to strengthen river dolphin conservation.

- Fishery agreements in the Tarapoto lakes systems (Colombia) are benefitting ~2,000 indigenous people from 23 communities who are already seeing positive results, with fish populations showing signs of recovery. The agreements were created with local communities and are endorsed by government. Following demand, the approach is now being replicated in Colombia and in Peru's Caballo Cocha Lake.
- In 2017 the Tarapoto Lakes were declared a RAMSAR site, making them the first protected wetland in the Amazon. The declaration affords this 40,000ha wetland international recognition of its importance and a commitment from government towards its conservation as a key dolphin nursery ground.
- After 10 years, the project's existing floating house was renewed. Situated at the mouth of the lakes, the floating house is used to conduct monitoring and enforce the fishing agreements to enable sustainable management of these lakes and their resources to support indigenous livelihoods.
- Dolphin watching tourism is huge in South America and worth more than £8million to the local economy. To ensure tourism does not harm dolphins, Omacha have published a national guide for good watching practices with the Colombian Environment Ministry and are working with the industry to train guides.
- A collective of 282 people have been trained in good dolphin watching practices in Colombia, Peru, Ecuador, and Bolivia to promote local initiatives that encourage the conservation of dolphins or their habitat; 119 people in Colombia and Peru received training in sustainable fishing practices; and 77 artisans were trained in handicraft production to boost engagement and incomes for people living in dolphin habitat in Colombia and Peru.
- Two interpretation centres have been built in Peru and Colombia to rehabilitate and house injured freshwater wildlife and educate the public about these species.
- 20,000 people have been reached by a mobile exhibition providing educational materials about dolphins in Colombia. Over 1,000 children have benefitted from education classes.

Goal 4: Find alternatives with the goal of banning the 'mota' (catfish) fishery.

- After three years of campaigning the government of Colombia banned the trade of mota fish indefinitely in August 2017 following research conducted by Fernando and his team at Omacha. His work proved these scavenger fish contain toxic levels of mercury from illegal gold mining, making them unsafe for human consumption. The mota trade not only risks the health of the nation but fuels the illegal hunting of Amazonian pink river dolphins whose carcasses are used as bait to catch mota fish. Now the trade has been halted, the killing will stop.
  A timeline is given below:

- As a result of a national campaign, in 2015 Brazil declared a moratorium on the mota fish trade for five years until 2020. Following the Brazilian ban, hunting shifted to Peru to supply Colombian markets, making work to address the trade in Colombia pertinent.
- Fernando's research finds mercury levels in mota fish exceed the limit set by the World Health Organization, making them unsafe for human consumption. Results show 95% of the 260 samples contained significant levels of mercury. Fernando shares this evidence with government to support halting the trade in Colombia. The government do nothing.
- The film 'A River Below' featuring Fernando premiered at the 2017 Tribeca film festival in New York. The film exposes the illegal hunting of pink dolphins to be used as fishing bait, the high levels of mercury pollution in the Amazon and its harmful effects on indigenous communities and urban dwellers suffering mercury poisoning as a result of consuming mota fish. The film follows Fernando's campaign to tackle the industry at the political level and highlights the very real risks conservationists face in South America. It asks what sacrifices are acceptable in the fight for this endangered animal and examines the bigger social, economic and environmental issues involved.
- The film received several awards, including the best Environmental documentary at the Sheffield Film Festival, 100% on Rotten Tomatoes and was covered in the NY Times. It entered the running for an Oscar, and is now broadcasting on Netflix for USA, Canada and Latin America, and available to buy internationally on iTunes.
- After ongoing lobbing, Colombian government commission an independent analysis of mercury levels in mota. The results found the same toxic levels as Fernando.
- Following Fernando's research, campaiging and the momentum built by the film's release, Colombia's government finally banned the mota trade indefinitely in August 2017.
- In November 2017, WFN held an event with Fernando and the charity's Ambassador Kate Humble to showcase Fernando's journey to protect the pink river dolphin. Photos form the event are here.
- Colombia became a party to the Minamata agreement in December 2017 following international pressure. The agreement seeks to reduce use of mercury and support poorer nations to do so in order to eradicate mercury poisoning from the planet.
- Fernando is attending a high profile meeting will be held with the International Whaling Commission (IWC) in March 2018 to discuss progress since the ban in Brazil and Colombia and the next steps.

PROF ÇAĞAN ŞEKERCIOĞLU, KUZEYDOGA

Landscape Conservation of Large Carnivores, Turkey

Whitley Gold Award winner (2008, 2013), Continuation Funding (2011, 2012), WFN Partnership Funding by Fondation Segré (2014).

Double Gold Award winner, Çağan Şekercioğlu is in the top 1% of the world's most cited conservation scientists and oversees the largest active conservation project in Turkey which is protecting, connecting and restoring habitat for endangered wildlife, providing a vital corridor between Turkey and neighbouring Georgia. North East Turkey is a biodiversity hotspot but receives little conservation attention. A relentless construction agenda threatens to dismantle environmental laws and wipe out wildlife populations, putting Turkey's biodiversity in crisis. With the support of Partnership Funding Cagan and his NGO KuzeyDoğa have brought plans for the corridor to fruition and achieved the following outcomes for large carnivores such as the Eurasian brown bear, wolf and lynx:

Goal 1: Create the next generation of conservation leaders in Turkey.

- A team of young experts has been established through the training of PhD, MSc and undergraduate students who have benefitted from hands-on training as field assistants and have gone on to pursue careers in conservation.
- A total of 26 individuals received training in conservation, education and outreach, including 11 PhD and three MSc students, building in-country capacity in Turkey.

Goal 2: Generate population estimates for large carnivores in this data-deficient region using population surveys, ecological research and mark-recapture analyses.

- A trained sniffer dog was used to collect over 2,600 carnivore scats (droppings) during the project from which DNA was extracted. The molecular study identified a total of 76 individual brown bears in the research area and preliminary mark-and-recapture results estimate a population of 91 bears. This is the first genetics-based scientific population estimate for any wildlife species in Turkey.
- Field studies estimate 7-8 packs of wolves inhabit the Sarıkamış region. Five dens were found in a single season, making this a conservative estimate. Pack size is relatively small, made up of 4-6 individuals living in family groups.
- Five adult lynx were identified from camera traps. This species is highly forest dependent, and the team estimate there are 5-6 pairs living in the region.

Goal 3: Track the movements and understand the habitat requirements of large carnivores in the region.

Tracking data was crucial towards designing the location and size of Tukey's wildlife corridor in 2011 and plays an important role in understanding wildlife ecology and behaviour to guide conservation measures.

- GPS collars have been fitted on a total of 29 bears, 16 wolves and three lynx to track their movements and provide crucial information on habitat use, range and behaviour.
- This is the first project to use crittercams (video collars) on bears and wolves in Turkey. It has led to significant media attention for the project, providing a 'carnivore's eye view' of the corridor, and has even deterred poachers from killing collared animals. The project was part of a BBC documentary called 'Animals with Cameras', which aired in February 2018.
- A group of 16 brown bears were monitored: six of the bears seasonally migrated between feeding and breeding sites along the corridor, the first known brown bears to do so. The other ten bears stayed in one spot all year long: the city dump.

- This is not healthy for the bears and encourages reliance on human waste for food. The dump is planned for closure and if done overnight, it could increase human-wildlife conflict in urban areas as bears search elsewhere for food. Cagan is advocating for gradual closure of the dump and for garbage to be stored in bear-proof containers. Closure of the dump could also increase competition between bears for food and space when they return to the forest, so reforestation efforts are focused on boosting both available habitat and vegetation for bears to feed on.
- KuzeyDoga is sharing information with an Italian NGO to strengthen brown bear population management towards the implementation of EU policies and legislation in both countries.
- Data gathered during collaring shows lynx in the project area are the smallest in the world, weighing just 15kg. This could be due to a lack of natural prey, strengthening campaigns to reintroduce prey species and highlighting the need to reforest degraded areas to improve habitat suitability.
- Five scientific papers have been published including the most comprehensive survey ever undertaken on human-wildlife conflict in Turkey and the discovery of the world's first migratory brown bears. The latter was published in the Journal of Zoology and received an attention score in the top 1% of all online publications of the same age.

Goal 4: Use camera traps to monitor mammal diversity and abundance.

- The first comprehensive camera trap survey in north-eastern Turkey has been completed. A network of 40 camera traps was set-up to monitor mammal populations and interactions in the Sarıkamış forest. Over 66,000 photos of vertebrates were collected at 65 stations over three years.
- The images show a unique mammal community with more carnivores than prey, suggesting a reliance of carnivores on human food sources and supporting Cagan's proposal to government to reintroduce native prey species such as roe and red deer.

Goal 5: Increase community Involvement.

- Nearly 1,000 community surveys have been conducted in 58 towns and villages since 2010, finding that human-wildlife conflict is a crucial barrier to conservation in Turkey. However, encouragingly the percentage of people using guns in reaction to large wildlife has declined three fold, and the percentage of people avoiding large wildlife instead has equally increased as a result of outreach.
- Knowledge of wildlife ecotourism and desire to participate has more than doubled since 2010 following education and outreach. KuzeyDoğa presented to over 1,600 people about wildlife tourism opportunities in and around Sarıkamış and collaborated with nine Turkish tourism agencies to develop wildlife watching itineraries. Ecotourism training was given to 398 people in 10 villages to facilitate the growing interest in Sarıkamış, mainly driven by the bears.
- Biodiversity conservation presentations were given to 880 students and 25 teachers at 11 schools.
- Increasingly, people call KuzeyDoga staff and/or government officials when a bear or wolf attacks their livestock, instead of shooting them. People are now aware of deterrent solutions like non-lethal electric fencing of bee hives and are now insuring their livestock against predator attacks.
- The project was featured in over 510 news stories about wildlife research and conservation efforts including local and national newspapers, radio and TV programmes and international news outlets. This included 16 documentaries on National Geographic Wild, TRT Belgesel (national TV documentary channel), IzTV (dedicated documentary channel), CNN Turk (the most respected news channel of Turkey) and BBC documentary 'Turkey' with Simon Reeve which aired in April 2017.

Goal 6: Build political support for large carnivore conservation.

- Data collected by KuzeyDoğa is being used to lobby the Turkish government to increase protected areas and conservation efforts in Turkey during national and international meetings and in national media.

- The official process to secure the wildlife corridor as a 'Protected Forest' is ongoing with plans for completion in 2018. The Ministry of Forestry and Water Affairs has begun reforestation of the wildlife corridor and included the planning of Highway Passes, both in the region and country-wide, to their planning. Cagan has met with President Erdogan on several occasions to discuss the corridor. The fluid political situation in Turkey has held up finalising land tenure issues but a visit from the Ministry of Forestry is planned later this year to complete this work.
- Following successful lobbying to reduce road kill incidents KuzeyDoğa is working with government to construct a wildlife crossing that will connect two patches of Sarıkamış forest that are currently bisected by a high-speed, four-lane interstate highway. The location of this wildlife overpass was determined by using the data collected from GPS collars – another first for Turkey. Construction will take place from May-October 2018.
- KuzeyDoga was elected an IUCN member in April 2016, becoming one of only five NGOs from Turkey that are IUCN members. The NGO represented Turkey at the 2016 World Conservation Congress in Hawaii.
- The project was chosen as one of the five most successful United Nations Development Programme (UNDP) projects in the world and KuzeyDoga was the only Turkish NGO invited to the Global Environment Facility's (GEF) 5th Assembly meeting in Mexico.