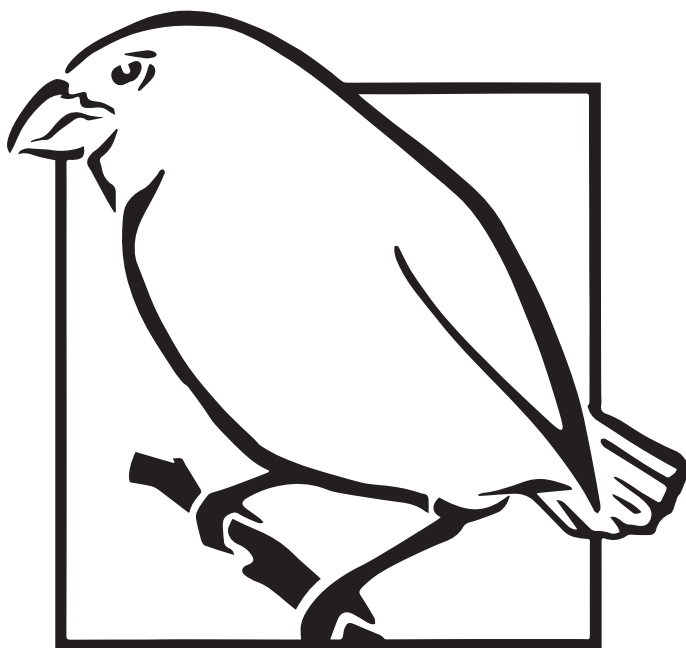


Newsletter

August 2018



Children on Ataúro Island, Timor Leste,
Credit: Blue Ventures/Martin Muir



**DARWIN
INITIATIVE**

The Darwin Initiative supports developing countries to conserve biodiversity and reduce poverty. Funded by the UK Government, the Darwin Initiative provides grants for projects working in developing countries and UK Overseas Territories (OTs).

Projects support:

- the Convention on Biological Diversity (CBD)
- the Nagoya Protocol on Access and Benefit-Sharing (ABS)
- the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)
- the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

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Credit: Ruth Bone

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Children playing the WCS educational elephant board game, Credit WCS-Myanmar

Publicity and information about the Darwin Initiative

For more information on the Darwin Initiative please visit [gov.uk/government/groups/the-darwin-initiative](https://www.gov.uk/government/groups/the-darwin-initiative)

For further details about current and completed Darwin Initiative projects, including their final application forms, please visit darwininitiative.org.uk

We also have a blog, that includes news and thoughts on issues being tackled by the Darwin Initiative – both at the project and programme level. You can read it here darwininitiativeuk.wordpress.com

We're also keen to share other Darwin project blogs. If you have a blog you'd like to share on our website, please get in touch at darwin-newsletter@ltsi.co.uk

Publicity and referencing Darwin Initiative

We kindly remind project leaders that if they are publicising their work then it is important that they make every effort to mention Darwin Initiative funding. This is important as it helps us to ensure the Darwin Initiative retains a high profile and secures continued Government funding.



Educational booklets about human-elephant conflict, Credit: Compass Films

A word from Darwin

12th August 2018 is International Youth Day, a United Nations endorsed celebration of young people and their contribution towards the Sustainable Development Goals around the world. This year, the theme of the day is “Safe Spaces for Youth” under SDG 11 “Sustainable Cities and Communities”. International Youth Day aims to be inclusive and engage young people around the world, actively involving them in sustainable development activities and giving them a global voice. This year’s theme focuses on building safe communities and landscapes for youth development.

Community engagement and participation is a cornerstone of many Darwin Initiative supported projects. Effective stakeholder engagement can ensure a project has longevity, sustainability and an impact on both

biodiversity and community livelihoods. Working with youth groups, providing training in schools, or partnering directly with universities and their students extends this effect and ensures the project lessons will be longer lasting.

In this Newsletter, in celebration of International Youth Day, we have invited articles from Darwin Initiative projects working closely with youth groups in a range of countries and biodiversity hotspots. These projects are working to empower the youth community, supporting them to take ownership of their local biodiversity and build a safe space, both for them and the wildlife supporting their livelihoods.



Merak children looking at red panda fact sheet, Credit: Joanne Millar

Red Panda youth ambassadors for eastern Bhutan

Red pandas in far eastern Bhutan are under threat from habitat degradation caused by livestock overgrazing, bamboo flowering events, dogs and human disturbance. In the village of Merak within Sakteng Wildlife Sanctuary, the children of yak herders are learning about their elusive neighbour through film, posters and drama plays. Forestry and project staff visit the primary school on a regular basis to work with 140 students ranging from 6 to 13 years old.

On the first visit in 2016, we found that most children knew that red pandas eat bamboo but were unaware of other foods in their diet, where they nested or how many young they could have. Our team showed them the beautiful film “Cherubs of the Mist” where red pandas in Sikkim, India were tracked and filmed during breeding and feeding. Each child was given a simple fact sheet developed by World Wildlife Fund Bhutan to take home and show their families.

“ Students from grades 4 to 6 performed a play about a mother red panda and her two cubs who live in a forest that is slowly degraded by yaks and logging ”

More recently, students from grades 4 to 6 performed a play about a mother red panda and her two cubs who live in a forest that is slowly degraded by yaks and logging. Wearing masks, and moving between bamboo clumps on stage, the students acted out the cubs being attacked by a dog and a leopard. A small herder group

discuss amongst themselves, then jump up to start fencing and planting. The mother and her cubs emerge to start feeding once again!

The enthusiasm shown by both actors and the school audience was electric as it was the first time they had done a drama performance on their own. The project will continue to build on this enthusiasm and interest in the coming year by establishing a Red Panda Junior Ranger program. Students will be involved in restoring habitat, learning how to identify scats, monitoring camera traps and participating in games and competitions. Together with our direct work with their herder parents, the aim is to grow Red Panda Conservation Ambassadors for the future in Bhutan.

Article written by Project Leader Joanne Millar. For more information on project 23-009 please click [here](#) or go to www.redpandabhutan.wordpress.com.



Merak school children performing the red panda play, Credit: Joanne Millar



Ilik-namu fisheries monitoring group,
Credit: Blue Ventures/Jenny House

Young people in Timor-Leste engage in conservation for themselves, their communities and their future

Timor-Leste has a young and rapidly growing population – 70% of the population are under 30 – and there is a growing effort in the country to empower young people with opportunities to develop their skills and confidence, giving them the power to shape the future of their communities.

Blue Ventures is working to engage young people in marine conservation on Ataúro – an island where communities depend on the sea for their livelihoods. Blue Ventures staff lead school classes on Timor-Leste's marine ecosystems, reaching over 100 students who are keen to learn about how conserving their natural resources will affect life on the island. School teachers regularly emphasise to their students that they will play a key role in decision-making and community development in the future.

“ Young people make up the majority of these community-based monitoring programmes; 85% of the seagrass and fisheries monitoring groups are under the age of 25

There is a shortage of fisheries and ecological data in many low-income countries, making sustainable resource management a challenging endeavour. On Ataúro

however, Blue Ventures is responding to this problem with participatory monitoring, a technique that promotes community ownership of, and responsibility for, their marine resources.

Young people make up the majority of these community-based monitoring programmes; 85% of the seagrass and fisheries monitoring groups are under the age of 25. The seagrass group have mapped significant portions of Ataúro's seagrass meadows, and are now shifting their focus towards long-term monitoring efforts. The all-female fisheries group are using smartphone technology to collect much-needed fisheries data and are helping change the role of women in Timorese society by getting involved in community decision-making and resource management.

“ We want to implement *tara bandu* [customary laws for community-based natural resource management] in our community. We can share the information we've learnt with our friends, family and community leaders. We can give training to teach others about this work, and we can support each other to make change in our communities

”
- Ilik-namu fisheries monitoring group

“

The all-female fisheries group are using smartphone technology to collect much-needed fisheries data and are helping change the role of women in Timorese society by getting involved in community decision-making and resource management

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Timorese youth are also flourishing within the Blue Ventures team. Jemima Gomes, aged 23, has recently completed her PADI Divemaster qualifications, making her the first Timorese woman to achieve this professional-level scuba diving certification. It's largely thanks to her leadership and example that many more young people in her community are now beginning to participate in marine conservation and pursue their ambitions. Jemima believes that this participation is a great opportunity for her friends:

“Young people who stay in the house won't learn anything but if they work with Blue Ventures they can learn about new things about the ocean. They can collect data on the special animals and habitats around Ataúro, which is good for society because they can learn about how to protect these things. Personally, after learning about coral reefs, I saw how many benefits these ecosystems give our community. Some people don't understand about this yet, but I can share my experiences and knowledge with my community so that they can help take care of the reefs for the future.”

The number of opportunities for young people to get involved in conservation is growing on Ataúro, and the leadership that they are showing to the rest of the community is encouraging stronger community engagement with conservation. The young people here are taking action for themselves, their communities and their future.



Members of the seagrass monitoring group, Credit: Blue Ventures/ Christina Saylor

“

The number of opportunities for young people to get involved in conservation is growing on Ataúro, and the leadership that they are showing to the rest of the community is encouraging stronger community engagement with conservation

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Blue Ventures would like to thank our supporters and funders including the Darwin Initiative through UK Government funding. For more information on project 24-012 please click [here](#) or read more about the project in their blog [here](#) and [here](#).



Schools on the island decorate their classrooms for Marine Awareness Week, Credit: Marine Conservation Section St Helena Government

Getting young people on St Helena talking about plankton and plastics

St Helena doesn't have a shallow sea surrounding its coastlines like most places: you're on the land and then, less than a few hundred meters off the coast, you're in a few thousand kilometres deep patch of oceanic water. This creates a unique marine ecosystem. Darwin is helping St Helena understand how this ecosystem works and how all the marine organisms link together in the food web in order to make more informed management decisions about the marine environment.

When work started on this project the word 'plankton' was used a lot. Local people, who identify as 'Saints', weren't sure what plankton was or why it's so important. Through our Darwin project work we started spreading the information. The message was simple: plankton are the base of the food web, everything eats plankton, and everything needs plankton to survive.

But everywhere we found plankton we were also finding plastic. When we dragged nets through the water to scoop out plankton we also scooped out plastic. When we looked in our fish stomachs we found plankton but we also found plastic. When we went to our sea bird nesting sites little pieces of plastic were being used to mark their territories. We wanted to tell Saints about plankton, but we couldn't do that without also talking about plastic.

Each year on St Helena the Marine Conservation Section of St Helena Government run 'Marine Awareness Week'. We choose a topic for which a week of outreach activities are organised to educate and inspire school children about their marine ecosystem. This year we knew what story we wanted to tell. Our theme was 'Our Invisible Ocean: from plankton to plastics'.

Every class from every school on the island was invited to attend. The younger children learned through games: circling what doesn't belong on the beach, or trying to fish in our paddling pool and answering 'What did you catch and should it be there?' The older children had a more challenging day learning how long different plastic items stay in the ocean for. They then created St Helena's food web with plankton as the base, working out what happens if you take away plankton and replace it with plastic.

Small actions by lots of individuals can add up to big changes. The children were given simple things to try to swap some of their single use plastic items with more ocean safe options. This included things like encouraging re-usable shopping bags and water bottles, taking metal cutlery on picnics instead of plastic and saying no to the straw when they buy a drink. St Helena relies heavily on imported food goods that bring in a lot of plastic packaging. Many Saints feel that this is beyond their control, but by adding their voice to those around the world saying 'no' to plastic, can have a powerful effect.

This Darwin project wasn't started to spread the message about plastic – it was by accident that we realised how much plastic was part of St Helena's marine ecosystem. We hope to keep Saint children talking about plastic and plankton, so they make the best choices they can for their marine environment for years to come.

For more information on project DPLUS070 please click [here](#).



Reefs Go Live: Behind the Scenes, Credit: CCMI

The underwater world comes to classrooms via live video lessons

In an island community, education about the importance of the surrounding environment ties directly into the future success, health and longevity of that community in a very immediate way. For children from the Cayman Islands, marine debris, overfishing, and the disruption of the balance of life on coral reefs is not a distant threat a world away. Rather, it has a real and lasting impact on them, their families, and their future.

It is for these reasons that education has been central to the mission of the Central Caribbean Marine Institute (CCMI) since its inception 20 years ago. CCMI hosts a variety of short and long-term residential courses for elementary, high school and university students throughout the year. Through these courses, students learn about the important research that takes place at CCMI's marine field station on Little Cayman (including that which is supported by the Darwin Initiative), the threats our ocean ecosystems face, and what we can do to make a positive difference.

However, not all children are able to visit the Little Cayman Research Centre (LCRC). Financial, physical and time constraints can make it an impossible task. The station is also limited in its capacity to provide space for so many children, teachers, researchers and staff. CCMI's ocean literacy mandate states that our goal is that every child in the Cayman Islands be ocean literate by the age of 12. To achieve that goal, the CCMI team

had to think creatively about how to make the underwater world accessible to children wherever they are. This need gave rise to Reefs Go Live, CCMI's innovative approach to education: broadcasting interactive lessons live from underwater on the reefs.

“ CCMI's ocean literacy mandate states that our goal is that every child in the Cayman Islands be ocean literate by the age of 12. To achieve that goal, the CCMI team had to think creatively about how to make the underwater world accessible to children wherever they are ”

Following nearly a year of planning, preparation, testing, development of lesson plans and teacher training, Reefs Go Live was officially launched as part of CCMI's International Year of the Reef. School children in the Cayman Islands were the primary target of this initial Reefs Go Live rollout. Targeted lessons during the piloting stage were also delivered directly to classrooms in Peru and the United States. As the series developed, the Reefs Go Live videos were broadcast on social media, broadening the audience to include viewers around the globe. The pilot lessons achieved



Broadcast screenshot, Credit: CCMI

an estimated 16,000 views, which does not account for views with multiple people per device (as in classrooms with 20-25 students). Total reach of the videos was nearly 70,000 people.

Topics for each lesson were based upon current research and conservation efforts taking place at CCMI, including a lesson entitled “Herbivory: Remember to Eat Your Greens, Reds and Browns”, focused upon CCMI’s current Darwin Initiative-funded research. The lesson, “How Do Scientists Grow Corals?” involved the outplanting of staghorn coral reared in CCMI’s nursery, which was supported in its infancy by the Darwin Initiative in 2013. Each lesson tied into the Cayman Islands curriculum for years 4, 5 and 6 and also included suggested actions which students and all audience members could take to make a positive difference, such as reducing single use plastic and fishing sustainably.

CCMI is changing the way we teach children about the ocean, using Reefs Go Live to make the underwater world accessible to children without them ever having to leave the classroom. By engaging with scientists and having their questions answered by researchers on the coral reefs, students are learning about coral reefs in an active way, no matter where they are in the world. The underwater world is drawn closer and made more understandable; as a result, students are able to understand how threats to coral reefs affect us all.

For more information on project DPLUS061 please click [here](#).



March for the Ocean, Credit: Naomi Johnnatty



Young Indigenous women are also having their voices heard, Credit: Claudia Nuzzo

Participatory video empowering Indigenous youth

A Darwin Initiative project entitled 'Integrating Traditional Knowledge into National Policy and Practice' is currently being implemented in Guyana. This project focuses on tackling the important theme of traditional knowledge that the Convention for Biological Diversity's Aichi Target 18, seeks to address. This target is geared towards greater recognition of traditional knowledge and the push for governments to develop mechanisms to ensure it is respected and incorporated into conservation efforts.

This project seeks to do just that by facilitating communication between communities and decision-makers through participatory video. Participatory video is a great way of exploring and capturing the views and opinions of the local people on issues that are important to them. It allows for several voices and opinions to be heard and recommendations to be recorded and subsequently shared with relevant stakeholders and partners. This project focuses particularly on Indigenous people and communities located in and around Protected Areas and seeing how traditional knowledge could better inform the management of these areas.

To date, the project has begun to engage communities associated with the Iwokrama Rainforest Reserve and the Kanuku Mountains Protected Areas. These two protected areas are located in the southern region of Guyana's hinterland region known as the 'Rupununi' region. The Rupununi region has been recognised for

its unique ecological diversity. During the dry season, its expansive savannas stretch for miles while during the rainy season, the banks of the mighty Rupununi River overflow to flood vast expanses of these savannas and forest areas. This ultimately transforms the area into a wetland habitat that supports and welcomes a wide array of species including hundreds of birds and fishes.

The Makushi people of the North Rupununi are no strangers to supporting local conservation efforts. In fact, a total of 21 villages are affiliated with the management of the Iwokrama Rainforest - 371,000 hectares of pristine rainforest - which, in 1996, was allocated for conservation through a balance of sustainable management and wilderness preservation. The rights of Indigenous people and communities to access resources in these rainforests and rivers continue to be respected.



The rights of Indigenous Peoples to access resources in these rainforests and rivers continue to be respected



To this day, they continue to practice many of their traditions. Unfortunately, this is not without its challenges.



Indigenous Youth build capacity in Participatory Videoing, Credit: Claudia Nuzzo

The present education system conflicts with the process of passing many traditional practices and customs between youth and older people. Secondary education also requires young people to spend months away from their families, as secondary schools are limited in the region and attending requires pupils to board.

Through our on-going Darwin initiative project, many young Indigenous men and women have had the opportunity to be trained in participatory video skills. The project uses a methodology whereby video dialogue allows local Indigenous people and communities, through the youth, to voice their opinions, concerns and recommendations to decision-makers for improved management of the Iwokrama Rainforest.

As part of the training, young people in the community are provided with the knowledge and skills to develop storyboards, conduct interviews and, most importantly, use video equipment including smart tablets with tripods. Capacity building in ICT is an area that is lacking in Indigenous communities, and so the training provides youths with skills that will help to make them much more marketable. They are also gaining valuable experience in taking responsibility among their peers, working together as a team and building good leadership qualities. Through their work on the project they have the opportunity to actively engage with elders and other community members, thus facilitating intergenerational

interaction. They are gaining research skills as they explore the views of traditional knowledge in their community and capture the views and opinions of individuals through the videos.

“
They are gaining research skills as they explore the views of traditional knowledge in their community and capture the views and opinions of individuals through the videos

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Seeing the response and interest of local youth, including young women, in these Indigenous communities to learn these new skills that they know can be used to preserve their culture and support conservation efforts is astounding. Clearly, these young men and women continue to have an appreciation for their peoples' role in caring for their environment and if given the opportunity - as this project is doing - are ready and willing to put their best foot forward.

Article written by Sean Mendonca of the Environmental Protection Agency, Guyana. For more information on project 24-026 please click [here](#).



Two students leafing through an educational booklet, Credit: Compass Films

Integrating biodiversity and elephants into peace and development in Burma (Myanmar)

August 12th is a special day for Elephant Family. Not only is it International Youth Day, it is also, coincidentally, World Elephant Day. Teaching youngsters about elephants and the role they play in their ecosystem, as well as how to live safely alongside them, is one of our strategies for ensuring a future for Asia's elephants. In Burma (Myanmar) a dynamic partnership of NGOs supported by the Darwin Initiative, is doing just that.

Rather surprisingly for a country that has endured decades of ethnic conflict in its borderlands, financed largely by natural resources, Burma (Myanmar) still has the largest tract of intact elephant habitat in Asia. This means that it could, in theory, support a much larger wild elephant population than the current estimate of under 2,000. But a major challenge to achieving this outcome is the competition for fertile land between wild elephants and expanding rural communities. The result is human-elephant conflict (HEC) with tragic fatalities on both sides.

To address this challenge, Elephant Family's Darwin project is forging an alliance between two local partners – Burmese-led Grow Back for Posterity and WCS-Myanmar - who work with rural communities in Burma (Myanmar).

Grow Back for Posterity is sharing its effective HEC-mitigation methods and materials with the WCS outreach team in Dawei to help protect people and elephants before trouble even starts.

“ the HEC education teams will reach over 12,000 families in key areas for elephants and biodiversity, giving them the knowledge and skills they need to conserve their natural resources and avoid conflict with elephants ”

WCS, in turn, is sharing this knowledge with the education officers of two Karen wildlife conservation NGOs who train communities in areas inaccessible to outsiders. WCS is also sharing its approach to community natural resource management wherein villagers map the agricultural and community forest land they use. Once digitised, these maps will be used to secure community land rights under the Burmese government's national land use planning strategy, a painstaking process that entails much trust.

These exchanges between two experienced field teams, each addressing critical conservation issues in different socio-political contexts, generate fertile discussions



School children hear about human-elephant conflict, Credit: Compass Films

about how to achieve outcomes that are ecologically and economically effective while also being sustainable at local and national levels.

In the course of this project, the HEC education teams will reach over 12,000 families in key areas for elephants and biodiversity, giving them the knowledge and skills they need to conserve their natural resources and avoid conflict with elephants. Our common aim is for elephants to be seen as an ecological asset rather than an economic risk. This seems to be paying off for, in recent months, villagers who have engaged with Grow Back for Posterity are those that have reported elephant poachers to the authorities.

So far, the Grow Back for Posterity teams have held HEC awareness workshops in 61 schools or community centres with over 10,000 students. These are hugely interactive events involving educational films, Q&A sessions, memory games and other learning tools that grip these novelty-hungry audiences ranging in age from 8 to 80. Packed in tight cross-legged groups, children eagerly participate while their parents and grand-parents stand around watching, highly amused and equally engaged.

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Human-elephant conflict awareness workshops have been held in 61 schools or community centres with over 10,000 students

One game, a novel version of Pelmanism, requires players to pair elephant-related pictures on individual

boards. The first to fill a board wins. The contest is lively. The students are intensely focused, their parents actively encouraging.

After the workshop, each family leaves with illustrated booklets and a DVD compilation to reinforce the lessons learned – gifts that are evidently as valued as any Kung Fu movie or Pokémon app.

The WCS team has also developed a beautifully illustrated board game similar to Snakes and Ladders which explains the challenges faced by a young elephant as it grows up. This game has been piloted in six villages in the Tanintharyi region of southeast Burma (Myanmar) and is also a hit. Grow Back for Posterity looks forward to adding this to its suite of educational tools.

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The WCS team has also developed a beautifully illustrated board game similar to Snakes and Ladders which explains the challenges faced by a young elephant as it grows up

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 We hope that by helping young people in Burma (Myanmar) appreciate elephants as part of their uniquely wonderful heritage, and by equipping them to live happily alongside them, we are making an important contribution to the aims of both World Elephant Day and International Youth Day.

Article written by Belinda Stewart-Cox and Vicky Flynn. For more information on project 24-024 click [here](#).



Dr Marc Botham explaining to a group of children about insects and surveys, Credit: Cath Turvey

Engaging youth to tackle the spread of Invasive Alien Species in Cyprus

RIS-Ký or **Researching Invasive Species of Kýpros** was launched in April 2017 funded by the Darwin Plus grant scheme. This project is looking at the impact of invasive alien species in terrestrial, freshwater and marine habitats at the Sovereign Base Areas in Cyprus. RIS-Ký is a partnership between the Centre for Ecology & Hydrology (UK), the Joint Services Health Unit, British Forces (Cyprus) and the University of Cyprus.

The spread of Invasive Alien Species (IAS) represents a threat to biodiversity, economies and human health worldwide. The UKOT biodiversity strategy prioritises: (i) obtaining data on the location and status of biodiversity and the human activities in order to inform policy; and (ii) preventing the establishment of invasive IAS, and eradicating or controlling IAS that have already become established. These are also priorities for the Sovereign Base Areas government in Cyprus and, through surveillance and improved biosecurity, RIS-Ký addresses both.

Raising awareness and involving citizens in complex ecological issues such as IAS is critical to decision-making and conservation. Citizens recording species such as the lionfish or Asian tiger mosquito through the use of apps, social media or by simply spreading the word can also contribute greatly to scientific work.

“

The ideas and enthusiasm from young people for the environment is utterly inspiring

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Young people can play a particularly important role and they are a fabulous audience with which to engage! Our RIS-Ký project has run a number of activities dedicated to children of different ages. We distributed questionnaires to Greek and English pupils of primary schools on perceptions around mosquitoes, have organised events to raise awareness of non-native species, run laboratory and field sessions where we looked for invasive fish, mosquitoes, plants and animals and discussed the impact of different IAS.

Gaining an understanding on the impact of IAS at an early age is crucial to the long term protection of biodiversity. Children can help identify breeding sites of the Asian tiger mosquito or let their parents know that the rabbit fish should not be consumed as it can cause illness or death. During playtime or educational visits to the Akrotiri Environmental Education and Information Centre, our hosts for this outreach, children can learn about the environment. It is hugely rewarding to hear from the parents that when the children arrive home they disseminate their new knowledge and their parents learn from them too. However, it is not all one way. The ideas that the children bring through their questions is truly inspiring.

To scientists we would like to say that communicating your research subject with children is hugely rewarding and we highly recommend it to all. The ideas and enthusiasm from young people for the environment is utterly inspiring, and we are looking forward to continuing these interactions through the final year of our project.

For more information on project DPLUS056 please click [here](#).



*Clearing the fire-breaks by hand,
Credit: WILD Foundation*

Local youth are fundamental to elephant conservation in Mali

In recent years, Mali's elephants have been facing unprecedented threats to their survival. Initial studies had shown that the Mali elephants would only survive if the whole of their migration route was protected. Their range covers a vast, remote, populated area almost the size of Switzerland (40,000km²) in central Mali. The scale of the migration route, the level of the threat, and the absence of resources meant that conventional approaches to conservation were impossible: immediate action was required.

The **attitude of the local population**, however, was the one big asset in favour of elephant conservation. They did not want elephants to be lost because "if elephants disappear it means the environment is no longer good for us". They understood that the elephants were indicators of a healthy ecosystem that was essential for all life to thrive, and that every species has a role to play in that ecosystem.

The Mali Elephant Project (MEP) has been empowering local populations to work together to develop a model of conservation that benefits both people and elephants, that delivers very tangible local benefits, and which puts natural resources under the control of local communities. They gain, for example, from having pasture at the end of the dry season because they have protected it from

bush fire. They can sell this and grazing access rights to others, and their livestock are healthier and worth more, and the proceeds are shared between the management committee of elders, the women and the eco-guardians, making it self-sustaining.

Protecting the forest prevents its loss to agriculture, along with the wood and many useful fruits, seeds, resins, forage and medicines that can be marketed by the women. It also secures vital ecosystem services linked to the healthy forests, such as water retention and erosion control.



*Ecoguard looking for elephants,
Credit: WILD Foundation*

The 670 youth recruited by the project as eco-guardians are fundamental to all these achievements. Not only do they conduct patrols to ensure community rules of resource protection are respected but they conduct resource protection activities such as building fire-breaks and fences, and providing manual labour for the women who establish revenue generation activities. They provide information on elephant locations and movements and, crucially, on poaching.

“
The Mali Elephant Project has been empowering local populations to work together to develop a model of conservation that benefits both people and elephants, that delivers very tangible local benefits, and which puts natural resources under the control of local communities

Across the world societies are witnessing problems of unemployed youth, environmental degradation and violence. This experience demonstrates the power of a systemic approach to tackling such challenges.

“
Protecting the forest prevents its loss to agriculture, along with the wood and many useful fruits, seeds, resins, forage and medicines that can be marketed by the women

”
Article written by Dr Susan Canney of the Mali Elephant Project, a project of WILD Foundation and the International Conservation Fund of Canada. For more information on project 23-022 please click [here](#).



Meeting with ecoguards,
Credit: WILD Foundation



Establishing a mulching pit to make organic compost fertiliser, Credit: NATURAMA

Promoting youth involvement in the continued sustainable management of Burkina Faso's Shea parklands

The project "Building resilient landscapes and livelihoods in Burkina Faso's shea parklands" led by Birdlife International and implemented by NATURAMA, aims to restore landscape diversity in southern Burkina Faso. With this increased mix of native trees and shrubs, a more pollinator friendly habitat is created, which in turn increases the resilience of local farms in this parkland, to shocks and stresses including climate change. In doing so local livelihoods are supported and favourable habitats provided for birds, many of which are European migrants..

The project has implemented numerous education and awareness initiatives for different stakeholders, including shea butter producers and parkland farmers, but most notably school children, and university students, who have benefited from the knowledge generated by the Trees Bees and Birds strategy. This strategy promotes:

- practices for increasing plant diversity through 'Assisted Natural Regeneration', planting species of importance to people, livestock, insects and migratory birds, in an integrated way to sustain pollinators throughout the year;
- promotion of pollinator friendly practices - including organic manure to fertilize agroforestry parks, integrating beekeeping in crop plots for better pollination of all plants – across the shea parklands, to provide insect homes and food.

In order to fully engage young people in the importance of sustainable management of shea parklands, the project is developing specific education and awareness-raising activities targeted at them, which focus on communicating 'pollination services' and the 'role and needs of pollinators' in the landscape. Illustrated documents have been designed to explain to the public why these services are so important and how biodiversity is key to achieving them.

Education and information has been promoted through presentation sessions in schools and colleges around the communities where the project is implemented, followed by explanations of content and question and answers. In addition, some university students have received training, and diplomas for thematic research on pollinators.

“ In order to fully engage young people in the importance of sustainable management of shea parklands, the project is developing specific education and awareness-raising activities targeted at them ”



Nobere community manager undertaking education and awareness raising, Credit: NATURAMA

Implemented in collaboration with the University of Ouagadougou and Trinity College Dublin, Masters and Postdoc student placements have been established to undertake research on pollination and pollinators, to be published in dissertations, thesis and peer reviewed publications. This is actively contributing to knowledge generation across the scientific community of Burkina Faso.

The students are involved in setting up monitoring sites in ten villages to study and evaluate the following aspects: data recorded on ten shea trees in each site,

from flowering to fruit set, and harvest; observe pollinator foraging on shea flowers; capture pollinators by different standard methods; count flowers and fruits according to pollination patterns; weigh the fruits and shea kernels from each shea tree; track flowering species that may be sources of reserves for these pollinators, throughout the year, as shea only flowers for one month; and study the plant diversity of these shea parks.

For more information on project 23-017 please click [here](#).



Credit: Sydelle Willow Smith

Youths in Zambia serving as powerful agents of change in conserving local natural resources

Investing in the next generation of conservation leaders is the surest way of securing a more sustainable and secure future. The intrinsic energy which young people exude can turn conservation policies into action and yield optimal tangible results. With the potential rise of up to 160,000 child deaths a year in sub-Saharan Africa and South Asia directly resulting from climate change, it is children and the young, especially the most vulnerable children, who will be caught at the centre of the storm. They will unquestionably carry the greatest burden both as children and as future adults, and yet they are the least culpable for its damage.

In most parts of Zambia, as a result of floods and environmental degradation, some children have failed to go to school as the long walking distances to their schools have been made impassable. Nonetheless, some young people in Zambia are organising themselves and taking matters of conservation into their own hands. Take for example Agents of Change Foundation, a youth-led Zambian organisation that is using radio and community outreach events to change mindsets and attitudes toward the conservation of local resources.

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Working with over 300 young radio broadcasters and reaching approximately two million weekly listeners across seven community radio projects in Lusaka, Central, and Copperbelt Provinces of Zambia, the Agents of Change youth reporters take a holistic approach to conservation awareness and advocacy, creating programmatic linkages to broader issues of health, education, gender dynamics, food security, culture, unemployment, poverty and inequality. In 2016 and 2017, the organisation carried out a nationwide campaign involving over 1,000 high school students.



Credit: Ruth Bone

Through high school radio listening clubs, the campaign managed to empower young people with knowledge and the right attitude to become indigenous trees stewards in their villages and communities.

Zambia has an extremely youthful population; young people aged 15-35 and children aged 0-14 account for 36.7% and 45% of the total population respectively. The Chikanda Orchid Conservation Initiative and Agents of Change Foundation acknowledge that targeted and strategic actions are required to unlock the potential of this next generation of environmental scientists, innovators, social entrepreneurs, change agents and leaders.

“ Agents of Change Foundation is developing a programme of workshops and media activities to further engage young people as conservation activists and raise awareness and spark debate around the cultural and conservation issues associated with the trade in edible wild orchids

In the third year of the Darwin Initiative funded project “Edible wild orchid trade: sustaining livelihoods and biodiversity in Zambia”, Agents of Change Foundation is developing a programme of workshops and media activities to further engage young people as conservation activists and raise awareness and spark debate around the cultural and conservation issues associated with the trade in edible wild orchids (Chikanda). Investment in youth is critical to ensure a safer, secure and sustainable future for all.

For more information on project 23-034 please click [here](#).



Credit: Sydelle Willow Smith

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Credit: Sydelle Willow Smith

Newsletter Contacts

The Darwin Initiative Secretariat (Defra)

The Darwin Secretariat is based in Defra and includes Claire Millar, Fiona Charlesworth, Siriol Leach and Shaluki Perera.

If you have any general queries about how the Darwin Initiative operates please e-mail us at [**darwin@defra.gsi.gov.uk**](mailto:darwin@defra.gsi.gov.uk)

For any queries on project applications or existing projects please contact our Darwin Administrators (LTS International) at [**darwin-applications@ltsi.co.uk**](mailto:darwin-applications@ltsi.co.uk) or [**darwin-projects@ltsi.co.uk**](mailto:darwin-projects@ltsi.co.uk)

This newsletter is produced quarterly. To include an article on your project please contact us at [**darwin-newsletter@ltsi.co.uk**](mailto:darwin-newsletter@ltsi.co.uk)

The UK Government's Darwin Initiative aims to promote biodiversity conservation and sustainable use of resources around the world including the UK's Overseas Territories. Since 1992, the Darwin Initiative has committed over £153 million to 1,123 projects in 159 countries.