



Darwin News

Newsletter of Defra's Darwin Initiative
February 2012



Welcome to another issue of the Darwin Initiative newsletter. We've been going through a very busy period here with the stage 2 applications undergoing assessment by the Darwin Expert Committee. We hope to make a formal announcement of these results shortly. We're also just beginning the assessment process for applications to the Fellowship scheme, Challenge Fund and Scoping Awards. We've seen some truly wonderful applications this year and it is just a shame that we can't fund all the applications.

An important change occurred in 2010 which means that there will be alterations in due course to the Darwin Initiative. In 2011, the Department for International Development made a commitment to provide significant financial support going forward to the Darwin Initiative. As a result of this funding, we expect to launch another funding round in 2012, albeit with some changes in eligibility. Keep an eye on the Darwin website (and of course the newsletter) for more news on how the changes evolve in 2012.

To find out more, follow these changes on the website (darwin.defra.gov.uk) and Twitter @Darwin_Defra.

The future of conservation in Tajikistan (17-013)

Dr Alex Diment from Fauna & Flora International talks about the natural beauty of Tajikistan and explains how support from Defra's Darwin Initiative is helping local people to secure the future of their natural heritage.

"I'll never forget my first trip to Tajikistan. This

landlocked country in Central Asia is breathtakingly rich in biodiversity, and has the most dramatic and awe-inspiring mountainous landscape I've ever seen."

Its biological richness is equivalent to countries 20 times its size, with a wonderfully diverse range of fauna and flora, including a globally significant population of the snow leopard. There are also 84 mammal species, almost 350 birds, and a wide array of interesting mountain plants.



Snow leopard from camera traps. Credit: Panthera and FFI

Formerly part of the Soviet Union, Tajikistan relied on the USSR for over half of its GDP and almost all of its technical and scientific expertise. As a result, the Union's collapse in 1988 hit the country hard: its economy declined rapidly, and it was left with almost no skills to manage its land and natural resources.

To make matters worse, many of Tajikistan's educated people fled during the five-year civil war in the 1990s. As a result, it is now the poorest of the former Soviet states, with more than half the population living below the poverty line.

These economic and social challenges have led to enormous environmental problems.

Because many people cannot afford to buy fuel and firewood, they often turn to the natural resources at hand. As a result, 90% of Tajikistan's forests have disappeared over the past 100 years, causing serious soil erosion and increased risk of landslides.

To help address these huge problems, Fauna & Flora International (FFI) has been working with the Tajikistan government (and with partners at the University of Central Asia and the National Academy of Sciences) to develop

a national conservation training programme that will help local people to conserve their natural



environment.

Thanks to the support of Defra's Darwin Initiative, we have been able to train over 200 conservation professionals and develop an effective network of experts.

FFI continues to provide ongoing training, and is supporting a number of Darwin Scholars, who recently presented the results of their work to an interested audience at Tajikistan's first international conference on the protection of biodiversity.

Conservation from holiday snaps - citizen science and new ways to monitor seabirds in Antarctica (EIDCF001)

The Southern Ocean is changing and we need a step-change in the amount of biological data collected to understand the relative threat of climate change, fisheries, human disturbance and disease to animals in the region. The single greatest limitation to data collection in biology is that biologists need to visit places to collect standardised data. Physicists and Oceanographers have long had remote sensing (data loggers and satellite monitoring) in

place to collect data while they are not there, and from a much larger area than they can visit. To answer 21st century questions at an appropriate scale, biology needs analogous systems. Long-term monitoring programmes have repeatedly demonstrated their worth, but are very few, confined to near scientific bases and are under threat due to funding cuts.

While remote and logistically hard to work in, much of the Southern Ocean is visited regularly by tourist and scientific vessels. If opportunistic visits can collect meaningful data or service a network of cameras, we will be able to monitor an area far greater than before.

Citizen science projects often suffer because it is hard to get volunteers to collect calibrated, repeatable data; error increases with the



number of volunteers. We are fortunate in Antarctica in that people are very good at taking photos. Targeting volunteers to take photos from repeatable waypoints means that we can extract population counts from these photos. Using funding from Defra's Darwin Initiative Challenge Fund, we have been setting up photo-monitoring sites, placing time-lapse cameras and (with collaborators at Oxford University) we are trying to teach computers how to recognise and count penguins so that we can automate the whole data collection process.

Seven camera traps placed in February 2011 have survived the winter in South Georgia and on the Antarctic Peninsula. We aim to place

another six this year to trial new technology and demonstrate how much data a remote sensing network in Antarctica can generate. The success of the cameras and the strength of volunteer support we have received means that we are now in a position to deliver the greatest increase in data that we need.

We now intend to scale up this network; aiming to monitor a hundred penguin colonies around Antarctica, to validate this system for animals other than penguins' and to use volunteers to recreate penguin photos from the great age of exploration, projecting our time series much further into the past. Finally, we may be able to deliver data sufficient to meet our needs.

New Documentary highlights Important Bird Areas as providing vital services for people in Nepal (18-005)



Warden and community doing exercise on ecosystem services
Credit: J. Birch

Worldwide, natural resources are being lost due to unsustainable use and human-induced environmental change - so much so that future generations are likely to suffer the repercussions of our excess. These resources, known as 'ecosystem services', include the provision of goods such as timber, fuel wood, grass, herbs, fruit, fish and so on. People also benefit from other aspects of nature such as soil formation, storm protection, nutrient cycling, carbon sequestration and recreation. These benefits

are realised at a range of scales, from local communities through to the global population. Unless we understand, measure and monitor the impact that we are having on the ecosystem services provided by nature, we will not be able to halt or reverse, the damage that has been done.

Bird Conservation Nepal (BirdLife International's Partner in Nepal) has launched a documentary to present work from Defra's Darwin Initiative project that is assessing and quantifying the ecosystem services provided by Important Bird Areas (IBAs: critical areas for biodiversity conservation). The aim is to highlight the value of IBAs, hence the importance of their conservation for both biodiversity and people. View it here: http://www.youtube.com/watch?v=hHJmixQMfuw&feature=player_embedded

The documentary features several IBAs in Nepal where field surveys are being conducted. Survey work has recently taken place at Koshi Tappu Wildlife Reserve which involved holding local stakeholder meetings, carrying out workshops, expert interviews, household surveys and training of several host country staff, including the reserve's assistant warden. Koshi is Nepal's most important IBA for wetland migratory birds and some globally threatened species including Swamp Francolin and Bengal Florican which are grassland specialists. It also provides direct benefits

to people in the form of grass for thatch and fodder, Typha for mat-weaving, edible plants such as Neuro and driftwood used for cooking. Local people value the reserve, not only for providing direct benefits, but also recognize the reserve's role in regulating the local climate, providing groundwater for growing crops, storing carbon, providing important habitats for species and for the spiritual experience of



Koshi Tappu river Credit: D. Thomas

worshipping in the river and conducting death rituals.

In 2012, the project will complete a rapid appraisal of all 27 IBAs in Nepal, to present an overview of the contribution that these high biodiversity sites make to local livelihoods. This will be released as a National Report endorsed by the Ministry of Forest and Soil Conservation.

Defra's Darwin Initiative's legacy in Madagascar: Madagasikara Voakajy goes from strength to strength (17-006)

Madagascar is among the hottest biodiversity hotspots in the world. Unsurprisingly therefore, Defra's Darwin Initiative has supported projects in Madagascar from its inception. The early Darwin projects built capacity among young Malagasy scientists to understand and address conservation issues. However in many cases



Interviews with communities in Madagascar Credit: Madagasikara voakajy

the trainees struggled to find post-project employment in biodiversity conservation. In addition, the host country partner of many Darwin projects often played a minor role when compared to the British institution.

Discussions among UK partners, Malagasy stakeholders and ex-Darwin trainees concluded that a new Malagasy conservation science and practice organisation was needed. Crucially, this organization would recruit high calibre Malagasy scientists to continue working on issues that the Darwin Initiative had funded, would train the next generation of Malagasy conservationists, and would itself be in a position to act as a viable host country partner. With the support of Defra's Darwin Initiative funded project led by Professor Paul Racey of the University of Aberdeen, Madagasikara Voakajy (MV) was established in 2005 with 10 personnel and a board of trustees comprising Malagasy conservation experts and academics. The organisation has gone from strength to strength and now employs 45 people (10 of whom were students with MV) in two offices, and has projects across the country. MV staff have helped 25 MSc students carry out their dissertation research, led the IUCN assessment of chameleons and reptiles, have published over 50 scientific papers, and are responsible for managing seven new protected areas in Madagascar.

In 2009, Madagasikara Voakajy became the host country partner on two new Darwin Initiative projects - with Bangor University and the Durrell Institute of Conservation and Ecology at the University of Kent. In both cases MV was the driving force behind the inception and development of the proposals. However, the organisation was still led



Dead lemur and boy Credit:Madagasikara Voakajy

by a British scientist. In November 2011, Madagasikara Voakajy completed a key stage in its development and appointed Julie Razafimanahaka as the new director. Julie had joined a University of Aberdeen Darwin project working on bat ecology as a student in 2003. Her potential as a conservation leader was recognised and she was awarded a number of scholarships, including a Darwin Initiative Fellowship to undertake an MSc at the University of East Anglia in 2007. On her return to MV she became the Manager of the Sustainability and Outreach programme and coordinated the Darwin Initiative bushmeat project which began in 2009.

Julie now faces her biggest set of challenges as delivering conservation outcomes in Madagascar at a time of donor and political uncertainty will not be easy. The quality and dedication of MV's staff and the excellent reputation they have built puts them in an excellent position to continue to make a real difference to conservation in this unique country for many years to come. The organisation hopes to be involved in future Darwin Initiative projects as its works with the Malagasy government towards achieving the Aichi Biodiversity Targets.



Julie Razafimanahaka Credit J. Jones

Achieving food security and sustainable agriculture in Comoros (17-011)

Defra's Darwin Initiative funded project 'A participatory conservation programme for the Comoro Islands', launched in March 2008, is working to develop and implement a landscape management strategy to preserve endemic biodiversity through achieving long-term food security and forest conservation for Anjouan, the poorest and most ecologically fragile of the Comoro Islands in the Western Indian Ocean. The project is run as a partnership between Bristol Conservation and Science Foundation, Durrell Wildlife Conservation Trust, and the Government of the Union of the Comoros.

The Comoros form part of one of the five most important global biodiversity hotspots, but conservation action to date has been negligible. A lack of alternative economic options, high poverty levels, increasing population pressure, a lack of effective governance, and the use of unsustainable agricultural techniques are just some of the factors leading to ongoing deforestation. Comorian farmers are forced to go higher up the steep slopes to clear land for crops in the forest, or have to cut the remaining large trees in order to earn cash.

With such high human pressure on natural resources in a limited area (population density on Anjouan is over 420 people per km²),



forest conservation is only feasible if food security for the local population is achieved and issues are tackled at the landscape level. The project has thus focused on sustainable agricultural intensification and the development of an integrated landscape approach to forest conservation, using a participatory process to engage with local people and build capacity.

The project is now in its final year of Darwin Initiative funding and has a number of notable achievements under its belt. In the first year of funding the project secured co-funding of over £650,000, from the French Development Agency, allowing the project to expand the the community activities to nine villages in the south of Anjouan. To do this, the project now employs a team of 20 people made up of community



A farmer planting tree cuttings to prevent erosion. Credit K. Brayne

facilitators, agricultural technicians, and ecological monitoring technicians.

Using a participatory approach to analyse problems and identify solutions, the project has developed packages of agricultural techniques, adapted to Anjouan which improve production sustainably and ensure that existing fields remain fertile for the long term, thus reducing pressure on the forest for fertile land.

Conservation agriculture techniques that use a permanent cover of vegetation to improve fertility and reduce erosion, developed first in Brazil and now used widely in Madagascar, are being introduced to the Comoros for the first time. The project has trained over 800 farmers in eight villages to adopt the new techniques, and has set up credit systems to help villagers overcome financial barriers to participation. It has also supported over 250 villagers to develop alternative economic activities to traditional agriculture, further reducing pressure on agricultural land.

In this final year of Darwin Initiative funding activities will be focused on securing the long-term legacy of the project. This will principally be achieved through the development of



a local NGO, for which planning is well underway. By concentrating efforts at the local level and developing strong relationships with communities, this project has been able to establish a sustainable presence in the Comoros and make a number of advances to both improve understanding of the situation and test management options. There is still a long way to go until we have working examples of successful landscape-scale management for food security and biodiversity conservation. This will become the role of the next phase of the project and the future for the NGO, which we hope will become a strong voice for conservation and rural development in the Comoros.

No monkey business here: Community leads the way to protect chimpanzee populations in innovative payments scheme, Uganda (18-012)

Uganda has more species of primates than anywhere else on Earth of a similar area. It is particularly noted for its chimpanzee population, estimated at approximately 5,000 individuals. Yet these chimpanzees are under threat because of the bushmeat trade, habitat loss, and conflicts with farmers. Most farmers do not see chimpanzees and the conservation of forest habitats as a contribution to their livelihoods, but as a threat.

However, in Hoima and Kibaale District in

Uganda, things are changing. Members of the local community are now recording the population status of the Eastern sub-species of chimpanzees (*Pan troglodytes schweinfurthii*) in the Albertine rift forests of western Uganda. They are also monitoring other wildlife and forest resources, recording incidents of human-wildlife conflict in the forested and degraded habitats that local landowners have committed for a conservation and reforestation program. In return, they receive both financial and non-financial benefits.

The Chimpanzee Sanctuary & Wildlife Conservation Trust (CSWCT), a local Ugandan NGO, and The International Institute for Environment and Development (IIED), a UK policy research organisation, have been working with the local community since April 2010 to begin this new initiative, which is funded by Defra's Darwin Initiative. This



Chimpanzees in Uganda Credit CSWCT

innovative payments for environmental services (PES) project aims to design, test and set up a fair, effective and long-term payment scheme that will compensate local landholders, who effectively conserve and restore forest habitats.

CSWCT works with the community leaders (village councils) to select and train the best candidates to work as monitors. The monitors undergo trial tests in the field to ensure they understand the whole process. They are then deployed but receive constant field support by the project staff. The project also facilitates and supports meetings to inform community members about the scheme, assesses forest areas for eligibility, and provides assistance to develop and monitor appropriate conservation action plans.

Monitors are also trained and equipped with environmental ambassadorship skills, to help continue the important conservation work among other community members and provide a lasting legacy among other communities. Some have begun training their community members on aspects of energy-saving technologies to reduce the amount of fuel wood that is used in cooking for example. This ultimately helps protect the forests, since less wood is harvested thus ensuring continued and sustained habitats for wildlife.

So far the monitors have built over 60 energy-saving stoves in their localities, and they are training their community members to do the same. An energy-saving stove is built for the host homes wherever a forest land assessment for the PES scheme is carried out, as a way of leaving an example for the rest of the

community members.

Vincent Kiiza, a community monitor from Kitoba sub-county in Hoima said; “PES has helped people become responsible for managing their own forests and this has had an effect on the non-participants because they have also expressed interest to engage in tree planting. Personally, I am now locally respected and have become friends with other community members and my fellow monitors in other areas.”

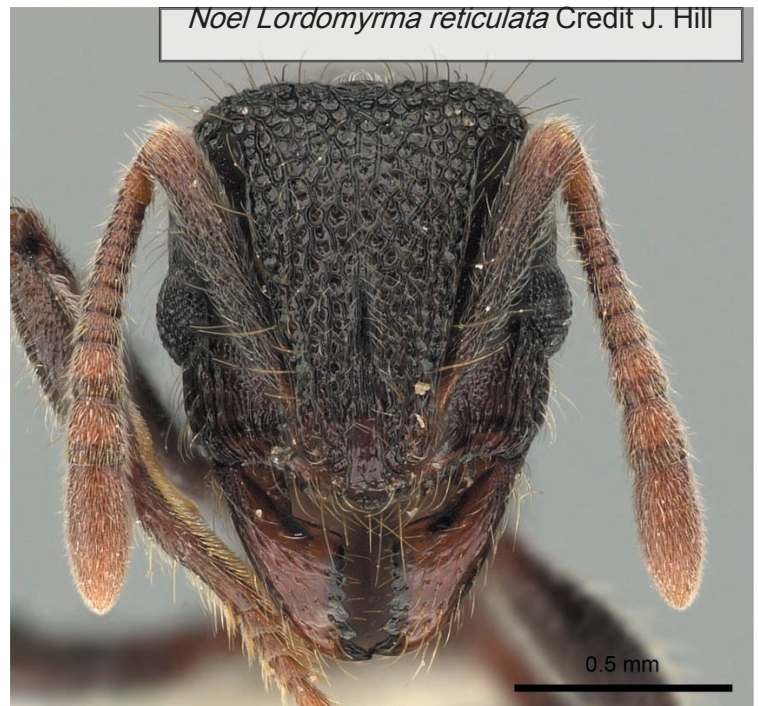
To date, the local communities (farmers) have received 11,330 tree seedlings to reforest 94ha, and are conserving about 700ha. If community monitors verify and confirm that they have complied with the commitment, they should receive an annual PES payment at \$USD35/ha provided by a GEF pilot project.

Paul Hatanga, the PES project manager said; “By ensuring that the livelihood of local communities is improved through conservation of the forests, we are protecting the chimpanzee corridor. Communities are now directly benefitting from forests in ways such as collection of water, fuel wood, foods, fruits and medications as well as improving and stabilising agricultural production.”

Ultimately it is hoped that biodiversity will be secured as well as improving livelihoods of the forest owners, thus offering a win-win situation for both local users and conservation practitioners. By making forest conservation a livelihood opportunity, it’s hoped that the payment scheme can provide social benefits as well as meeting environmental objectives.

Developing tools for reducing biodiversity losses in tropical agricultural landscapes, Malaysia (17-003)

Production of palm oil is crucial to the economic development of several SE Asian countries, but oil palm plantations support much lower biodiversity than the original rainforest habitats they have replaced. This project is examining biodiversity losses in oil palm plantations by investigating whether retaining remnants of rain forest within plantations boosts plantation diversity. It is studying butterflies and ants and examining 'spill over' of insects from forest remnants into adjacent areas of oil palm plantation. It has found that larger forest remnants support higher diversity, but reduce the land available for planting. Within plantations, species richness is highest adjacent to large fragments of high habitat quality, and decreases in plantations with increasing distance from the forest edge, suggesting that oil palm diversity is boosted by spill over of forest species. Thus, retaining patches of forest within plantation can boost diversity in these tropical agricultural areas.



Field surveys of ants have also contributed to a web-based resource 'Antweb' for aiding the identification of Bornean ants (www.antweb.org, hosted by the California Academy of Sciences). To date, information and details for c.460 species from >1500 specimens have been uploaded and it is hoped that all Borneo ant species sampled will be included by the end of the project. Given the important role of ants in ecosystem functioning, this identification resource will support further research on this important taxon by local scientists in future.



Oil palm fruit Credit J. Hill

A Christmas bonus - Wildlife forensics firmly on the radar of Vietnamese CITES authorities (17-019)

Christmas came early for Defra's Darwin funded project 17019 "Developing wildlife forensic capacity for ASEAN biodiversity conservation", as the project team received an invitation to deliver bespoke wildlife forensics training to 30 Vietnamese officials from Customs, the Environmental Police, and Border Patrol.

"What made the training event particularly delightful to be involved in was that it was conceived of, organised and funded by the Vietnamese CITES authorities. There was no support or organisation from foreign partners driving the event – just the desire to increase the species

identification and wildlife forensics knowledge of Vietnamese officers" said Project Manager, Jennifer Mailley. In all 30 officers were trained in evidence collection, sample storage and submission to the laboratory.

"The sense that your project is becoming genuinely entrenched in a region, and helping to catalyse activity by the authorities is immensely rewarding", added Dr Ross McEwing, Director of TRACE Wildlife Forensics Network, the

Harnessing carbon finance to arrest deforestation: Saving the Javan rhinoceros (17-008)

To address the problem of deforestation and habitat degradation in the Cat Tien National Park (CTNP), the International Institute for Environment and Development (IIED) in collaboration with SNV Vietnam launched a REDD (reduction of emissions from deforestation and forest degradation) pilot

project lead. "In addition, the connections made and the problems identified during the three day stay in Ho Chi Minh City will make sure that any future efforts to increase Vietnam's wildlife forensics capacity are in response to clearly stated and prioritised needs". The training event replicated 'train the trainer' modules delivered



Officials looking at medicine that may contain tiger parts.
Credit: Vietnamese CITES MA

earlier in the year by project partners TRAFFIC South East Asia. The knowledge of TRAFFIC staff concerning species identification and smuggling techniques complements that of the TRACE Wildlife Forensics Network, in forensic techniques. Both TRACE and TRAFFIC are looking to ensure this knowledge is routinely passed on in the ASEAN region, with hopes to embed lectures within the curricula of local bodies such as Malaysia's Royal Customs Training College.

project funded by the Defra's Darwin Initiative to reward local communities for avoiding deforestation and co-management of the forest resources.

CTNP covers 72,000 ha of lowland forest and wetlands in southern Vietnam, located 160km north of Ho Chi Minh City and consists of two adjacent segments separated by agricultural land. The park is one of the most important biodiversity hotspots in Southeast Asia, providing habitat for 40 globally threatened species of plants and animals and 126 species threatened in Viet Nam. However, this habitat

is highly threatened by agricultural expansion mainly for cashew production resulting in encroachment onto the park.

In line with the priority of the Government of Vietnam, from its very outset, the project was determined to ensure that potential benefits from REDD are distributed equitably. Thus, one of the principal objectives and major achievements of the project has been in

“benefit distribution” sub-technical working group for REDD+. This is also being informed by a report produced by IIED entitled “pro-poor benefit distribution in REDD+”, which explores experiences from similar interventions elsewhere, such as payments for ecosystem services (PES) and highlights potential distributional and financial consequences of different benefit distribution approaches.



Carbon finance meeting with community Credit IIED

the design of equitable benefit distribution system for REDD. “The Darwin grant has been essential to begin to explore key national priorities in the REDD+ debate, particularly in developing pro-poor benefit distribution system options. The grant has helped us look at options for the benefit distribution system in Lam Dong Province, but also has much wider implications for the design of the national REDD+ program in Vietnam” says Adrian Enright, SNV REDD+ Advisor.

Moreover, through Defra’s Darwin Initiative support, the project has been able to develop a strong platform for exploring further options for the design of pro-poor benefit distribution systems at national level. This is being done by actively engaging with the national

SNV-Vietnam, the host country partner organisation, has also been exploring options for establishing local level funds for the allocation of REDD+ benefits. This has included close collaboration with representatives from national and local government, Women’s Union and extension service groups, in addition to interviews with six different village groups across four communes around the most appropriate jurisdictional levels, to establish a fund to deliver benefits in the most efficient, equitable and transparent manner. SNV-Vietnam also aims to take the experience from Vietnam and use it to inform decisions in other countries, expanding the work of the Darwin project beyond borders.

Between a rock and a hard place: doubling salmon farming in Chile while complying with CBD 2020 (EIDP041)

Chile is one of the world's top salmon producers, the third most consumed fish in the world. Therefore the country is making an important contribution to global food security and helps to fulfil the increasing demand for fish worldwide. Chilean salmon production is expected to reach 1 million tonnes by 2020, the year when signatories to the Convention

their views and sought points of convergence on the importance of reducing the impacts of aquaculture with alien species. They also served to build capacity and raise public awareness. Intensive sampling campaigns carried out over a six year period have resulted in a large geo-referenced database of invasive and native fish (19,068 records from 383 locations within 143 basins) that provides an essential baseline for future monitoring. An isotopic and molecular toolkit was developed (Schröder & Garcia de Leaniz, 2011; Vanhaecke et al. 2011) and used to track down the origin of salmonid escapees and assess their impact on native fishes (see <http://darwin.defra.gov.uk/featured-project/2011-10-EIDPO041>).



Endangered galaxiid fish *Aplochiton zebra* in Chile.
Credit C. De Leaniz

on Biological Diversity (CBD) aim to manage aquaculture sustainably.

Doubling Chilean salmon production poses a special challenge for sustainability, given that salmon is alien (non-native) to the southern hemisphere, and that alien species represent one of the main causes of global loss of biodiversity (second only to habitat loss). In just over 25 years, Chilean salmon production has increased almost 7,000 times, from 80 tonnes in 1981 to 550,000 tonnes in 2007. But is it possible to continue increasing production sustainably?

Defra's Darwin Initiative project in Chile has addressed various impacts of invasive salmonids on the native fauna and has provided evidence-based science to inform policy and management (www.biodiversity.cl). A series of international workshops brought together a range of stakeholders who shared

We also examined the predicted scope for competition between invasive salmonids and invaded galaxiid fish (Young et al. 2009, 2010; Garcia de Leaniz et al. 2010), while the use of molecular markers allowed the project to determine the extent and incidence of trout escapees, which was directly related to the number and distance to fish farms (Consuegra et al 2011). Overall, the findings provide a strong causal link between salmon farming and presence of invasive salmonids, and can be used to inform policy in relation to conservation of native galaxiid fish in the region. In particular, the project recommends that for the effective protection of native galaxiids, two action points should be urgently considered, namely (1) improvements in bio-containment of salmonid farms, and (2) the creation of aquaculture-free areas in local biodiversity hotspots not yet affected by salmonids.



Capacity building for management of Chinantla's Indigenous Voluntary Conservation Areas (17-018)

Chinantec communities in the Chinantla, a bioculturally rich area in a remote part of the state of Oaxaca (Mexico), have risen as stewards of biodiversity, taking responsibility to improve their livelihoods while nurturing their environment. Evidence of this is seen through CORENCHI (The Committee for Natural Resources of the Chinantla), a community-based organisation consisting of seven Chinantec communities who have set aside more than 26,770 ha of land for community conservation, and have received official certification as part of an important Mexican initiative, driven by local communities, NGOs and government to recognise Indigenous and Community Conserved Areas (ICCAs).

Defra's Darwin Initiative project to strengthen the capacity of these Chinantec communities to produce a management programme that incorporates local ecological knowledge and community-based research on the cloud forest ecosystem in the Chinantla area is now in its third year. At the centre of this project are the Community Research Teams (CRTs), composed entirely of CORENCHI

members. As part of these teams, community members have been trained as counterpart researchers, learning skills and techniques in socio-cultural research and gaining hands-on experience in ethnoecology research, documenting and managing their biological resources and ecological knowledge in the form of biodiversity registers. Training sessions held to enhance residents' capacity in community conservation include topics on social science and ethnoecology research methods, ethno-classification, bio-cultural community protocols, community mapping and participatory GIS, community video production and editing, and fair trade.

Community research and systematisation of results continues with two specific CORENCHI communities - San Pedro Tlatepusco and Santiago Tlatepusco - alongside community evaluations, presentation of research results and awareness efforts targeting local key actors, and working sessions between the Global Diversity Foundation's Mesoamerica team and community researchers from these two communities to finalise the management programmes for their Voluntary Conserved Areas. Community collections and registers of biological resources will provide these communities with crucial information needed for decision-making about conservation and sustainable use projects that aim to improve local livelihoods.