

The Rufford Small Grants Foundation

Final Report

Congratulations on the completion of your project that was supported by The Rufford Small Grants Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. We understand that projects often do not follow the predicted course but knowledge of your experiences is valuable to us and others who may be undertaking similar work. Please be as honest as you can in answering the questions – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please complete the form in English and be as clear and concise as you can. We will ask for further information if required. If you have any other materials produced by the project, particularly a few relevant photographs, please send these to us separately.

Please submit your final report to jane@rufford.org.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details	
Your name	Sarita Kendall
Project title	Conservation and education in Amazon communities - Colombia
RSG reference	8395-2
Reporting period	July 2010-July 2011
Amount of grant	£5676
Your email address	saritaken@yahoo.com
Date of this report	August 2011

1. Please indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.

Objective	Not achieved	Partially achieved	Fully achieved	Comments
Protection of manatees with education campaigns, monitoring surveys and data on captures			X	Monitoring by fishermen resulted in 525 manatee sightings for Puerto Narino and 139 for Zaragoza over 12 months, the highest number since we started in 2002. The maximum number of manatees seen in a single day (Puerto Narino) was 27, including four calves, also a record. No manatees were captured in the study area, but one was killed in a Colombian community upstream. The community authorities acted for the first time to censure the hunter and Natütama educators worked with children and adults on the conservation of manatees and turtles. In another community, indigenous authorities linked to Natütama confiscated manatee meat brought from Peru for sale, the first time the law has been applied locally. One calf was netted in Colombia and released promptly; two were captured in Peru and subsequently died. The calf problem has prompted us to extend our coverage and design a poster to be used in a campaign to encourage immediate release of calves from nets.
Evaluation of 10 years of manatee protection through interviews			X	The 24 fishermen interviewed all said that the manatee population had increased and 70.8% said there were "many more". Two thirds of fishermen reported groups of three or more animals, compared to one or two in the past. All fishermen recognised that a protection/monitoring programme was in place and none suggested hunting should be resumed.
Documentation of Pirarucu fish by mapping of nests and monitoring captures			X	We recorded 32 new nests and 108 old ones. Although the number of new nests has not varied much over 6 years, distribution has changed significantly: 41% of new nests were recorded along levees inside the flooded forest, compared with 11% of old nests. Fishermen interpret this as a move away from nesting areas vulnerable to fishing nets and boat traffic along the edge of the lakes. Pirarucu captures in the off-season were down but many more under-sized fish were being taken in nets with no

				sanctions by the authorities.
Protection of Ceiba/heron nesting colonies with Tarapoto community			X	The community decided to continue protecting heron nesting <i>Ceiba</i> trees, with three <i>Ceiba</i> (150+ nests) in 2010 and four <i>Ceiba</i> (230+nests) in 2011. All the young flew free, with the exception of the few that fell out of the trees and were killed by predators.
Identify conservation strategies for boas/anacondas through interviews on local perception			X	Fishermen interviewed identified the boa/anaconda as a mysterious creature inspiring fear and respect; boas are closely identified with the protection of all aquatic creatures, especially fish in “wild” lakes, and with the health of aquatic ecosystems, which are said to be shaped by boas. The aim is to use this respect for boas to help protect ecosystems. We have developed boa “personalities” and stories for puppets and theatre and have been using 10 m long boas made of sacking to “transport” children from one activity to another. We also plan to use the boa as the key to protect some inner lakes as “reserves” for fish, with the help of older fishermen.
Develop fishermen’s outreach to Peruvian communities to encourage conservation of manatees etc.			X	Natütama fishermen made five trips to Peruvian communities, covering eight communities. Copies of the new Peruvian law giving special protection to manatees and dolphins were distributed to community authorities and police posts, as well as booklets etc. The fishermen were well-received, and the law was discussed at meetings, as well as the reasons for protecting these species. Peruvian police sanctioned a manatee hunter for the first time after receiving copies of the law. In several places people requested a conservation/monitoring system based on the Natütama model.
Recording of climate data to evaluate changes and adaptations			X	We now have 2 years’ records which show greater extremes for the wet and dry seasons than in the past, a tendency noticed by community elders. The 2010 dry season was the longest ever recorded in this area, with manatees cut off in pools and exposed to hunting and stranding. Pirarucu fish were unable to nest at the normal time and apparently deposited eggs on the bottom of the lake where there is less chance of survival.
Turtle protection through education		X		The turtle education campaign was intensive and covered all the communities using the

campaigns and monitoring of nesting				beaches. But this was offset by fishermen from towns downriver who set up camps on the beaches during the laying season and collected turtle eggs in our study area. There were fewer eggs being sold in Colombia but large quantities in Peru, where we have no jurisdiction.
Support and field trips for local guides in state training programme			X	Apart from taking guides on field trips to reinforce good tourist management and conservation, we took on three guides for 8 months' training, focusing on new guiding opportunities such as canoe routes and medicinal plants. Proposals to limit motorboat access to Tarapoto lakes are being supported by local guides.
Environmental education programme in Amazon schools based on endangered species diplomas			X	Five diplomas covering endangered species monitored by Natütama were completed. These cover 1 st (Ceiba trees) 2 nd (Turtles) 3 rd (Pirarucu) 4 th (Manatees) and 5 th grades (River dolphins) and over 500 were awarded to children in schools in the second half of 2010; each child completing primary school will acquire all five diplomas. These are also being used as an incentive for children in community outreach and in Bogotá schools. The environmental education programme is part of the school curriculum in Puerto Narino and Natütama Week, which focused on the Tarapoto lakes in 2011, involved the whole community. A Natütama infants' group began functioning in 2011, in addition to the two existing children's ecology groups, and we (and the parents) have seen progress in relation to rubbish disposal, treatment of animals etc.
Production of story carvings and booklet of indigenous animal transformation stories			X	The story carvings are used as visual aids when telling Ticuna Indian stories and also as illustrations for the booklet. All the stories were written by Ticuna educators and fishermen and refer to traditional transformation themes involving fauna, flora, astral bodies and people. The booklet will be used in schools and for sale at the Centre.
Diffusion of results through the Natütama Interpretation Centre			X	The Centre was visited by Amazon schools, urban Colombian schools, specialist teachers and biologists and tourists, totalling nearly 5000 people over the year. Centre guides were in constant contact with the monitoring programme, ensuring up-to-date information. We also held workshops on themes ranging from

				astronomy to turtles through the year, inviting elders and others from local communities.
Overall progress towards community commitment to conservation and management		X		For species such as manatees, herons and sloths we have seen substantial gains in conservation. There is greater pressure on turtles and fish (daily subsistence foods) so it is far more difficult to achieve community consensus for effective management plans. Community participation in events such as Natütama Week has increased, and so has awareness of new problems caused by climate change and tourism, but this is a long-term goal requiring an ongoing programme.

2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

Extreme changes in the river level, with high flooding and a very long low water season, made some communities difficult to reach and caused logistical problems in the area but we were able to re-schedule events. We also visited areas where manatees and dolphins were cut off to talk to local people about protecting them.

Although the environmental authorities, the police and the Indian organisation had agreed to control illegal egg and turtle sales in the area and patrol beaches, they started late and accomplished very little. Thus, the Natütama education work, designed to complement this, was not backed up by other measures. Natütama fishermen visited the beaches to count and camouflage nests but we did not have the authority to sanction people taking eggs (which is legal for subsistence but not for sale). The Colombian peso has remained unexpectedly strong and foreign currency grants are worth less than forecast. These gaps were partly filled with private donations but some of the Foundation's plans had to be postponed – for example, the re-furbishing of an area for sales of booklets, T-shirts etc. to help boost self-sufficiency

3. Briefly describe the three most important outcomes of your project.

1. Community outreach: The outreach visits to Colombian and Peruvian communities were carried out by indigenous educators and fishermen with minimal presence of professional staff and produced tangible results in manatee conservation, as well as increased awareness. While some visits were primarily educational, others focused on specific conservation issues such as fishing nets, turtle nests and hunting. Apart from talks and artistic work, we presented plays and puppet shows and used games and jigsaws with children and adults. The high level of participation in these programmes combined with greater local responsibility for planning and carrying them through constitutes a break-through, promising well for future conservation.
2. Manatee protection: Our evaluation of manatee monitoring and protection through interviews with 24 fishermen and manatee hunters, most of whom had been interviewed 10 years ago, showed an extraordinarily positive response. Not only did all interviewees report seeing more manatees (groups of three to 14 animals), but most also said they were now seeing calves and larger groups. "They no longer feel hunted" was a typical comment. Despite the increased population, respondents supported a continued ban on hunting and

other local people commented that it was good to be able to see manatees now. The interviews complemented monitoring data and a count of 27 manatees on one day during the migration period. Visits to Peruvian communities and contacts with the Peruvian authorities also showed fruit, with subsequent confiscations of manatee meat by local authorities and warnings to Peruvian hunters.

3. Education and indigenous culture: The endangered species diplomas, managed within an environmental education programme strongly rooted in local culture, have proved a very useful tool for complementing specific conservation campaigns. The indigenous educators developed more songs and games in the Ticuna language and used puppet-personalities based on mythical creatures such as the magical boa, the water jaguar and forest spirits to transmit conservation messages. Ticuna elders accompanied educators to classes and worked with children in the Interpretation Centre, once again reinforcing traditional values and stories which carry conservation content. Building on our monitoring of climate variables, we presented a story about the need to keep the world in balance, with four animal stars preventing the sun and moon from fighting at the municipal anniversary parade. The community supported the “cultural” approach to conservation and, as a result of interviews on the local perception of boas and anacondas, we believe we can extend this strategy to enhance respect for species that do not lend themselves to standard monitoring/conservation methodology.

4. Briefly describe the involvement of local communities and how they have benefitted from the project (if relevant).

Local communities were involved in all project activities, from wildlife monitoring, data processing and education activities, to artistic events, story writing and theatre. The Natütama team consists almost entirely of people from local communities and provides employment (mainly part-time) for 25 indigenous fishermen, educators and guides, as well as occasional work for other local people.

- The fishermen, educators and guides also took part in workshops which offered learning and training opportunities through the year.
- There are three local children’s groups with an ecological focus in the Foundation, meeting for games and activities at least once a week.
- The environmental education programme in schools covers about 600 children on a regular basis. In addition, another 350 children were covered by outreach visits to communities.
- Communities are involved in and benefit from monitoring, conservation activities and the feed-back of data on wildlife, allowing a better understanding of trends in local wildlife populations. There is more discussion of indigenous and legal management norms, based on greater awareness.
- The Interpretation Centre attracts tourists as well as local visitors, who enter free. Community elders are often involved in activities at the Centre designed to help reinforce local culture and provide extra income. The project as a whole contributes to activities in the municipality, taking part in special events and campaigns.

5. Are there any plans to continue this work?

Yes, community conservation is a long-term commitment for Natütama and there is evidence that the local population would like us to continue with our education and monitoring programme. We evaluate progress on conservation (for each species) and on education annually with the full

Natütama team and adapt our plans to changing local needs. The highly positive evaluation of manatee conservation is particularly encouraging and shows that it is possible to reduce and even eliminate hunting – this work needs to be extended to cover new areas. In addition, community elders have expressed approval of our emphasis on traditional culture (with, for example, re-enactment of stories related to climate change that had been forgotten), which is something we would like to reinforce in the future by exploring alternative conservation strategies for species which are conflictive and more difficult to protect.

6. How do you plan to share the results of your work with others?

We share results with the local population, including authorities, guides, fishermen and families, on a permanent basis through local committees, our education programme and the Interpretation Centre. We also have an educator working in Bogotá.

During the project two national TV programmes ran short features on our work. The Colombian Science Research Council chose Natütama for a special study of the appropriation of science by local communities and this was published in book form. People from Bolivia and Peru, as well as Colombian groups, came to share our experience.

Results on conservation and education were presented at the Colombian Zoology Congress, the South American Aquatic Mammals Congress, a meeting of Sloth specialists, Bioexpo-Colombia and the Oxford IX symposium on Astronomy in Culture. Manatee results will be presented at the Marine Mammals congress in Florida (2011).

7. Timescale: Over what period was the RSG used? How does this compare to the anticipated or actual length of the project?

The grant was used from July 2010 to July 2011 as planned.

8. Budget: Please provide a breakdown of budgeted versus actual expenditure and the reasons for any differences. All figures should be in £ sterling, indicating the local exchange rate used.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Monitoring of manatees & climate variables in Tarapoto	£648	£650.52	+£2.52	
Monitoring of manatees Zaragoza area	£660	£655.95	-£4.05	
Pirarucu mapping	£108	£104.81	-£3.19	
Food for interviews on manatees and boas	£72	£73	+£1.00	
Turtle protection campaign	£180	£178.53	-£1.47	
Educators for three communities	£1.650	£1648.72	-£1.28	
Education supervisor subsistence	£750	£749.91	-£0.09	
Training for local guides - Petrol	£44	£43.37	-£0.63	
Printing of turtle and pirarucu diplomas	£240	£240.33	+£0.33	
Printing of animal story booklet	£613	£617.82	+£4.83	
Petrol for monitoring	£248	£247.00	-£1.00	
Petrol for education campaigns	£223	£220.29	-£2.71	
Transport Cali-Puerto Narino return air	£240	£245.75	+£5.75	

fare				
TOTAL	£5676.00	£5676.01	+£0.01	Exchange rate: £1= 2.767 pesos at time of grant transfer

9. Looking ahead, what do you feel are the important next steps?

Several proposals have arisen directly from the project, including:

1. The evaluation of our manatee work was very encouraging and outreach visits produced a big demand for further extension work. The method used to evaluate, combining local perception with monitoring data, can be applied to other species in order to decide on future strategies. We hope to extend manatee conservation to two new areas.
2. The interviews on boas/anacondas, based on local perception, suggested a new approach to conservation, relying much less on wildlife monitoring and more on cultural factors as a way to achieve protection for species that are difficult to follow in the wild or have a mythical importance. We plan to explore this.
3. Collecting data on climate and watching for climate-generated conservation problems has made us realise how important it will be to develop adaptive strategies for protecting fauna with local people.
4. We plan to increase the focus on community as a whole, with slightly less emphasis on schools, as a result of this year's success in involving adults in many more activities.

These and other insights derived from the project will enrich our programme in the future.

10. Did you use the RSGF logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?

The logo was used on the booklet of animal transformation stories printed for distribution within the Amazon and outside. RSGF was acknowledged in presentations at congresses and visitors to the Centre are given information about funders.

11. Any other comments?

RSGF provides a very stream-lined funding process, efficient and easy to manage for people who are constantly in the field. The presence of the project on the website has generated several useful contacts.

We were very pleased with the support for this project and the funding made an important contribution to awareness and conservation in the area.