Community-based conservation program of three endangered species of river turtles with Amazonian indigenous communities of Colombia and Peru - 2011

FINAL REPORT 2011

Species involved: giant South American turtle (*Podocnemis expansa*), yellow spotted river turtle (*P. unifilis*) and six tuberculed river turtle (*P. sextuberculata*).

Project location: Colombian and Peruvian indigenous communities of the Amazon River.

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TSA turtle survival alliance www.TurtleSurvival.org

FUNDACIÓN BIODIVERSA COLOMBIA

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The Mohamed bin Zayed SPECIES CONSERVATION FUND

Abstract

The 2011 phase of the Program started in June, with socialization of the activities among neighbor communities during the II Festival de la Maloka cultural event. Afterwards, a new conservation beach on the Peruvian side of the Corea Island was concerted. From July to September, 10 to 15 monitors of the four participating LCGs each night guarded the beach (nearly 4.5 km) to protect nests and nesting females from poachers and hunters. When found after nesting, females were measured and marked, and basic data on the nests was gathered. The groups translocated the nests within the beach to make it more difficult for the day poachers to find them. From September to November, monitors waited for hatching to occur, and continued protecting the nests until the last hatchling had arrived safely to the water. During hatching, children and other members from participating and neighbor communities were invited to help the hatchling reach the river, as an awareness raising strategy. 54 nesting events occurred during the season. Of these, 54% were poached, 12% destroyed by natural causes and 33% hatched safely, with 364 newborns. Due to the presence of the monitors, no nesting female was captured on the beach. Most nests and hatchlings belonged to *P. unifilis* (54% and 73% respectively), whereas no *P. expansa* nesting events occurred. High poaching occurrence was probably due to the fact that the beach lies at eye distance of communities across the river and that it is the first time this beach is being protected. Hopefully with further awareness-raising, increased experience of the monitors on this beach and participation of more LCGs and communities, poaching will be reduced in upcoming seasons. Groups also suggested starting monitoring another beach on the Colombian side of the River next nesting season.
The groups received collective and individual incentives, and we started also supporting sustainable economic initiatives of the communities, as reward for their conservation actions. Although local turtle populations are still in a critical state, awareness-raising, positive influence of participating communities and persistence of conservation actions will surely contribute to their recovery in the middle term.

Introduction

Many natural populations of the Amazonia have been critically reduced over the last decades. This is especially significant in areas near major ports, where economy-dependence and lack of sustainable economic alternatives have driven indigenous communities to over-exploit their natural resources, such as Amazon River turtles (*Podocnemis* spp.). Excessive eggs poaching and nesting females hunting during reproductive seasons for commercialization and for local consumption have reduced their populations to critical levels and to be threatened to various degrees: in IUCN Redlist, *P. expansa* appears as Lower Risk/conservation dependent and *P. sextuberculata* and *P. unifilis* as Vulnerable (IUCN 2010, ver 2.3, 1994, needs updating). *P. expansa* was uplisted to Critically Endangered on a global basis by the TFTSG (Tortoises and Freshwater Turtles Specialist Group) (TCC [Rhodin et at.], 2011). In the last meeting of the IUCN - TFTSG, in Pará, Brazil (October 2010), *P. unifilis* was uplisted to Endangered (unpublished). Regionally, *P. unifilis* and *P. expansa* are Endangered (EN) in the Colombian Amazonia (Castaño-Mora, 2002), while *P. sextuberculata* is Data Deficient (DD), but also probably threatened (Castaño-Mora y Medem, 2002). Based on key informants and personal

observations, in the project area local populations of the three species have been critically reduced over the last decades, in particular of *P. expansa*, due to excessive commercialization in the major ports (Leticia, Tabatinga and Santa Rosa).
Based on a local initiative, in 2008 we started a community-based conservation program at nearly 40 km from Leticia, focusing on awareness-raising and environmental education, direct conservation actions and capacity-building and training of local conservation groups (LCGs). We have carried out several educational and awareness-raising activities in participating communities. LCGs from these communities have been in charge of monitoring and protecting a turtle conservation beach during successive reproductive seasons and socializing their activities with neighbor communities, with support of environmental authorities. We started up with one LCG in 2008 and two more joined in 2009. In January 2011, we carried out a capacity-building workshop for LCGs, in which two new groups participated. To date, four local LCGs (each formed by 10-15 volunteer men and women of all ages) from two Colombian and one Peruvian communities are fully committed and appropriated of the program and of turtle conservation.
During 2008 and 2009, monitoring was carried out on a conservation beach of a small deserted island in mid-river. The program helped raising awareness among participating and neighbor communities, showing a significant reduction of turtle exploitation on the conservation beach, and proved commitment and appropriation of the program and of turtle conservation by LCGs. Nest poaching levels on the conservation beach dropped from 100% before the program to less than 15% in the second year. More significantly, the conservation beach was no longer visited by hunters at night, avoiding extraction of nesting females. However, monitoring also evidenced the critical state of local turtle populations, and the need to expand conservation and awareness-raising actions in the area and to involve, empower and build capacity of more LCGs and more participating communities, while supporting their conservation-based economic initiatives. The island where the conservation beach was located was carried away by the high waters of the River. This forced us to concert a new conservation beach with neighbor communities for 2011 season, one that was larger and with higher number of nesting events during the year, having a greater number of groups, communities and monitors involved in the program.

Activities carried out

In June, we participated in the II Festival de la Maloka, a cultural festival organized by the participating communities and where five visiting communities attended. The LCGs socialized conservation activities to be carried out in 2011 and promoted the importance of preserving the turtles.
From July to September, four LCGs (three experienced and one new, three Colombian and one Peruvian) monitored a concerted conservation beach on the Peruvian side of the Corea Island. The declaration of the beach was discussed with the Peruvian community of Yahuma II, close to the conservation area, who agreed with the activities. Between ten and fifteen monitors guarded three sectors of the conservation beach (around 4.5 Km) during the night, to avoid nesting females from being extracted and nests from being poached by visiting fishermen. The beach was scanned for new nests twice every night (following female tracks). If monitors found a female during scans, they measured and marked it

with a unique inconel tag before releasing it directly to the River. When new nests were found, they were marked and georeferenced, basic information was taken and tracks were thoroughly erased to avoid fishermen from finding them during the day. This technique worked in the previous conservation beach but had to be tested in this new location. After two weeks, monitors started translocating the eggs, following a rigorous protocol, to new locations within the beach, to make them more difficult to find by day poachers.

Monitors from the new LCG from the Yahuma I Peruvian community were transported, trained and constantly supervised by the three experienced LCG members. Besides the participating LCGs, one young volunteer from the Yahuma II Peruvian community and four from the Santa Sofia Colombian community accompanied the experienced groups, to learn about the monitoring and also to watch over the conservation activities that were being carried out. The latter did not count enough members to form a group. However, they are currently encouraging other members of their communities to create new Local Conservation Groups to participate in the 2012 activities.

From September to November, groups continued to monitor the beach at dusk, waiting for hatching to occur. When hatching started, they took basic information and helped the hatchlings to arrive safely to the River. This continued until the last nest had hatched and all newborn turtles had arrived to the River, which occurred on November 16th. Members of participating communities (especially children) were invited to witness hatching on the beach and to help newborns to arrive to the water. Some hatchlings were transported to the community for the closure event, where communities of the area were invited to help releasing them to the River, to raise awareness about the importance of turtle conservation and to promote work of the LCGs.

At the end of the program, the new LCG (Yahuma I, from Peru) received an engine as a collective incentive, to have autonomous mobility for next nesting season. Experienced LCGs received collective and individual incentives as reward for their conservation actions.

We also started supporting economic initiatives from the two oldest participating communities (Nuevo Jardin and El Progreso). First, we formed a group of handcrafter families from these communities and supported them in a fair trade scheme to sell their handcrafts in Bogota, the capital city. Second, we started supporting implementation of sustainable technologies in the communities. Engineer Evelio Aponte is currently teaching members of the communities how to build efficient stoves to economise the use of firewood, and a mixed communitarian aqueduct between rainwater and groundwater, powered by solar panels, supported and co-sponsored by the program.

Main challenges faced

The main challenge we faced was that we were monitoring a new beach, with unfamiliar conditions for the monitors (we had to change the conservation beach because the previous one was taken away by the River). A new beach requires a new process of socialisation so that neighbour communities understand that it is important to support its protection. We had achieved this in the previous conservation beach for two years, where in the end very few nests were lost due to poaching. Furthermore, unlike the previous beach, this one is located at sight from communities across the River (which is narrow at this point). This makes very easy for poachers to watch the monitors and to locate the

nests during the day, even with having erased the tracks. Although after two weeks we started translocating the nests within the beach to make their finding more difficult by poachers, of the 54 nests total, we lost more than half due to poaching (54%). We believe that in following nesting seasons, acquired experience on this beach, together with further awareness-raising among neighbour communities and participation of new LCGs, will reduce significantly loss of nests due to poaching, as occurred with the previous conservation beach.

Another challenge was the variability of the hydric pulse of the Amazon River during 2011. Both the lower and highest peaks were displaced in time and presented anomalous smaller peaks. The beaches appeared more than a month later than usual, and small flooding events menaced the nests frequently. In November, supposedly the lowest water season, the water had flooded almost all beaches already. The monitors had to be to be extremely aware to translocate the nests to higher ground before the flood; without their intervention, probably almost all nests would have been lost. With current climate change, this unpredictability will probably start being the rule rather than the exception.

Finally, perhaps the most difficult challenge was that Susana Cuellar, one of the first members of the LCG of Nuevo Jardin and a turtle conservation enthusiast, died in childbirth in July, which was a great shock for everyone's morale. This made her two brothers step away the monitoring this year, reducing considerably the Nuevo Jardin group. However, solidarity and enthusiasm of the other members allowed the group to fulfil its duties successfully.

Main results

During the 2011 nesting season, four LCGs protected a new conservation beach of nearly 4.5 Km. In the protected area, 54 nesting events were observed, 29 of P. unifilis and 25 of P. sextuberculata, which is considerably higher to the previous conservation beach (32 in 2009 and 28 in 2009). No nesting events of P. expansa were observed during the 2011 season on the conservation beach. Of these 54 nests, 29 (54%) were poached, 7 (12%) were destroyed due to natural causes (the main cause being mole crickets), and 18 (33%) hatched safely. This was similar to what occurred during the first year in the previous conservation beach, where 49% of the nests were lost due to poaching, although the second year this percentage was reduced to 11%. 364 newborns hatched safely, 97 of P. sextuberculata and 264 of P. unifilis. This amount was higher than in 2008 (224) but lower than in 2009 (in the previous conservation beach (509). Although the number of nests was considerably higher, this lower number was mainly due to higher percentage of poaching. We expect that acquired experience on this beach, awareness-raising and participation of new LCGs will reduce significantly loss of nests due to poaching and will increase number of hatchlings.

Thanks to the presence of monitors, no nesting female was captured by hunters in the conservation beach. 12 adult females were captured after nesting and marked. Two awareness-raising events were carried out with neighbour communities, one before the program and one at the end of the program. Another event with children of the participating communities, in which they were invited to witness hatching on the conservation beach, was carried out towards the end of the program.

A very important result is the involvement of one additional community during the 2011 season, and the participation of volunteers of two more communities, one from Colombia and one from Peru, that will probably participate as two new LCG during the 2012 season. Finally, support of economic alternatives has been crucial to strengthen the bond with participating communities, since activities benefit the whole community rather than just the groups. Community members realise that this support is possible thanks to the conservation efforts of the LCGs and is an invitation to back and promote their work. Another success is that more and more neighbour communities gain interest in turtle conservation and agree and support the LCGs efforts.

Follow-up

At the closure of the program, we concerted with all participants about the continuation for 2012. The volunteers from Yahuma II from Peru and Santa Sofia from Colombia who participated in 2011 activities, committed to stimulate other members of their communities to form new LCGs. On top of the new conservation beach on the Peruvian side, the groups decided to start protecting another conservation beach in the Colombian side, which has been observed to host many nesting events, particularly some of *P. Expansa* (that did not occur in the new conservation beach). We also agreed to start raising funds to start paying a symbolic wage to experienced groups that have been working voluntarily for more than three years. These funds could be raised from the private sector (tourism industry) or from governmental environmental offices (Instituto Sinchi, Corpoamazonia). If everything works as planned, in 2012 six LCGs, four from Colombia and two from Peru, three experienced, one in consolidation and two new, would be protecting the two most important nesting beaches of the area, one in Colombia and one in Peru. The three experienced groups would receive a symbolic wage, sponsored by the tourism sector of by governmental environmental offices, the group in consolidation would receive collective and individual incentives, and the new groups would receive collective incentives (engines). The groups would continue socializing their activities and raising awareness among neighbour communities. Finally, we would continue supporting economic initiatives from participating communities, as reward for their conservation actions.

Photographic material

Concertation about the new conservation beach in Yahuma II, Peru

Conservation beach on the Peruvian side of the Corea Island


Volunteers from Santa Sofía Colombian Community Girls from the Yahuma I LCG


Members of Nuevo Jardin LCG


Monitors gathering data and hiding nests

Female of *P. sextuberculata* female found on the beach

Tagged Female of *P. unifilis*

Inviting children of the community to witness hatching and helping newborns reach the river

Closure event where neighbor communities and authorities where invited to release hatchlings to the River

Participating LCGs of El Progreso, Nuevo Jardin, Curuinsi Huasi, Yahuma I and participating volunteers together during closure event