

PROGRESS REPORT 2009

Community-based conservation program of river turtles
by indigenous Peruvian and Colombian communities
of the Amazon River (2009-2010)



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

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

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Period covered: From June 15th 2009 to 1st December 2009.



Abstract

The 2009 phase of the Program started in June, with organizing and training of two local conservation groups (LCGs) of 12-15 volunteers from Colombian indigenous communities. These and a local indigenous association were in charge of protecting a community conservation beach during the whole turtle nesting season, from July to September. Monitors gathered biological data on the nests and erased tracks so that nest poachers could not find them during the day. Monitoring and socialization among neighbor communities discouraged hunters from visiting the beach during night hours, thus avoiding nesting females from being captured. 29 nests of the three species were found. Four nests were poached by humans during the day hours, which was a great improvement from 2008, when almost 50% of the nests were lost due to poaching. Five more nests were lost by natural causes. LCGs continued to monitor the nests until the last hatchlings arrived safely to the River the 21th of November, with a total of 559 hatchlings of the three species from 20 protected nests. Children and other members of the communities were invited to witness the hatchlings on the beach. A closure event took place with participating and neighbor communities. LCGs presented results of their activities and received a diploma and a small engine to allow them to have self-mobility for next year's activities, as reward for their volunteer conservation efforts. Several communities showed their interest to participate in following reproductive seasons, including one of the most reluctant communities at the beginning of the program. 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

Despite the amazing biodiversity of Amazonian fauna, many native populations have been critically reduced over the last decades; this is the case of the three species of Amazon River turtles: the giant South American turtle or arrau turtle (*Podocnemis expansa*), the yellow spotted river turtle (*P. unifilis*) and the six tubercled river turtle (*P. sextuberculata*). One of the main causes for such reduction has been high utilization levels by extremely poor indigenous communities for commercialization and for local consumption. These turtles have reproductive periods and nesting beaches well known to local inhabitants, who benefit from egg poaching and nesting females hunting (which can be more than 100 years old). Systematic eggs predation and nesting females consumption are perhaps the greatest threats for turtles in Amazonia. These species are nowadays threatened to various degrees and included in the Red Book of Colombian Reptiles (Castaño-Mora, 2002) as: *Podocnemis unifilis* and *P. expansa* critically endangered (CR) in the Orinoquian region and endangered (EN) in the Amazonian region and *P. sextuberculata* as data deficient (DD), but possibly threatened. Near the major ports of the Amazon River, the situation is even more critical since economy dependence and lack of sustainable economic alternatives have driven indigenous communities to over-exploit their natural resources, including turtles, which have driven many local populations towards their extinction. This is the case in the area of the Santa Sofia Indigenous Reserve.

In 2007, Curuinsi Huasi Indigenous Family Association members, concerned by the rapid decrease of nesting turtles in the area, proposed to BioDiversa Colombia Foundation (FBC) an initiative to monitor and protect a nesting beach. In 2008, FBC carried out the program **Initial actions towards conservation of three species of endangered river turtles in the Colombian Amazonia. Community-based nests monitoring and educational pilot programs**. It included: a strong educational campaign in the Nuevo Jardin community of the Reserve, focused on children, young people and elder people to raise awareness, to recover traditional knowledge

regarding turtles and to generate appropriation of conservation; monitoring and protection of a community conservation nesting beach by the Curuinsi Huasi Indigenous Association and volunteers from Nuevo Jardin; and socialization among neighbor communities and environmental authorities. The program was received with high interest in several Colombian and Peruvian communities and environmental authorities of the area. However, the monitoring also evidenced very low abundances of the local turtle populations, since only 26 females of two of the three species nested in the protected beach during the whole season. Interviews with local fishermen indicated that in previous years a single fisherman could catch up to twelve nests in just one night at the same beach. Furthermore, almost half of the clutches were lost due to poaching by humans and one female was captured, despite the educational approach of the monitors, and several people roamed the beach at night looking for nests and adults. At the end of the season, only 112 hatchlings arrived safely to the River. Thus, there was a urgent need for a broader turtle conservation program that included involvement of more communities and authorities from both countries, conformation and capacity-building of local conservation groups and conservation efforts at different levels.

Activities carried out

Conformation of Local Conservation Groups (LCGs), concerting methods and training

Field phase started in June 2009. Several meetings were carried out with each of the four communities that had shown interest in the program in 2008, two from Colombia (including Nuevo Jardin) and two from Peru, in order to discuss and set up the activities to carry out during the 2009 nesting season (July to November). In each community, awareness-raising posters were placed in visible locations to suggest their commitment to turtle conservation (see appendix 1). These meetings started with a short workshop with the whole community to make them think why preserving the turtles was important for them. Next, a preliminary list of volunteers for the LCG was written. In the two Colombian communities, Nuevo Jardin and El Progreso, two groups of 12 to 15 volunteers were formed, men and women of different ages that were enthusiastic to work towards preserving the species for their children and grandchildren. Afterwards, an official concentration meeting with the definitive group members was held with the supervision of the traditional authorities and the Colombian environmental authority (Corpoamazonia). An agreement was signed with the coordinators of each LCG. It stated that the program would provide transportation, snacks, materials (flashlights, equipment, communication devices, etc.) and training to the conservation groups, and that the groups would survey and monitor each night the *Tori* conservation beach to protect the nests and nesting females until hatchlings arrive safely to the river. Also, that at the end of the season, each group would be awarded for their volunteer conservation efforts with a small engine, so they could have self-mobility for next year's activities.

Training of LCGs included practical guidance in the community and in-field supervision on the beach. The groups learnt the monitoring protocol, how to fill data formats and label the nests, taking coordinates on the GPS and erasing tracks. Curuinsi Huasi Indigenous Association contributed greatly to training of the newly formed groups, using experience gained during last year's monitoring. Finally, we practiced and explained the protocol for nest translocation that will be used in the next year's nesting season (see below). LCGs were organized in teams of 4-5 people, in which members had specific roles, such as team head, secretary and GPS operator.

Unfortunately, although the two Peruvian communities showed a great interest since 2008, few volunteers actually signed in to participate in the activities. However, they were willing to contribute by not poaching eggs from the conservation beach and by notifying neighbor

communities about the conservation program being held. We expect that after the awareness-raising activities planned for the first semester 2010, interest and commitment for conservation will also grow in the Peruvian communities and LCGs will be formed and be ready to participate in next season's activities.

Conservation beach monitoring

The *Tori* (River turtle in Tikuna) community conservation beach is located in a small uninhabited island of the Amazon River, near the border of Colombia and Peru.

Between 24th July and 15th September, the monitoring of the beach during the nesting season took place. Each night, two members of Curuinsi Huasi drove one of the teams to *Tori*. The team spent the night at the beach, watching for nesting females and for roaming visitors, to whom they approached through education and dialogue. The next day at sunrise, they walked along the beach looking for tracks and nests. When a nest was found, basic data was gathered, such as date, species, width of the track and coordinates. The nest was marked with a numbered label and an inconspicuous sign, and the tracks were erased rigorously to avoid poachers from finding it during the day. If a nest was found destroyed, date and cause of destruction (natural or human-caused) would be registered.

Between the 15th September and 15th November, LCGs continued to monitor the nests, waiting for hatchlings to emerge. Then, date, number of hatchlings, number of infertile or damaged eggs, number of dead hatchlings and other observations were recorded. Children and other members of the participating communities were also invited to witness the hatchlings on the beach.

Socialization of the activities

In August, a meeting was held in Leticia with civilian and military authorities of Peru and Colombia and with representatives of the LCGs and FBC. The purpose was to present to the authorities the conservation actions the groups were carrying out, and to discuss about how they could support them. As a result, we concerted a socialization event about turtle conservation to take place in the Reserve, organized by the authorities, where participating communities would be hosts and where neighbor communities would be invited. The event took place on the 5th of September, which was a key date because the *P. expansa* breeding season had begun. Unfortunately authorities and communities from Peru could not participate due to logistics, although they expressed their support and regret for not attending.

Nests translocation

The original idea was to translocate nests from non-protected beaches to an artificial beach. However, we realized several drawbacks about this idea. First, a similar project in Puerto Nariño, 40 km from our location, has reported high eggs loss due to ants and crickets, possibly due to the effect of grouping many eggs in a small area. Second, we realized that a community conservation beach, located between the two countries and that did not belong to any community, was a much stronger awareness-raising symbol than an artificial beach located inside a community (which of the four communities would we choose?). Therefore, we requested a research permit to Corpoamazonia, the Colombian environmental authority, to translocate nests from non-protected beaches to the conservation beach. The groups received training and practice on the nest translocation protocol. Although the permit was conceded, in the last minute Corpoamazonia realized that the conservation beach was located in the Peruvian side of the river, just across the imaginary country border, and therefore the permit could not be

granted. We decided to put on hold the permit for next year and to request another permit with the Peruvian environmental authority, since we expect two Peruvian communities to be involved. This procedure will probably take longer than with the Colombian authority, so we will start it as soon as possible to have the permit ready for the beginning of next nesting season. Furthermore, next year three LCGs (Nuevo Jardin, El Progreso and Curuinsi Huasi) will have their own engines and boats for self-mobility. This will allow at least two different teams working at the same time: one monitoring the conservation beach and one translocating clutches from non-protected beaches, which was not possible this year.

Closure of the breeding season and of the 2009 program

A closure event took place in one of the participating communities and neighbor communities were invited. LCGs presented the final results of their activities and received a diploma and a small engine to allow them to have self-mobility for next year's activities, and as reward for their volunteer conservation efforts. LCGs signed a commitment agreement in which they took responsibility for the maintenance of the engine and for making good use of it before the 2010 phase of the program started (June). After that, they agreed to use it exclusively for the activities of the program.

Results and discussion

Conservation beach monitoring

Turtles started nesting on the 28th of July, almost 15 days later than last year. The last nesting turtle, the only *P. expansa* of the whole season, nested on the 15th September. A total of 29 nests of the three species were recorded during the whole nesting season. During the 2008 program, many people roamed the beach at night, despite the educational approach of the monitors. That year, most of the nests were poached during the night because monitors did not have time to cover them. People wandering around with flashlights possibly also scared the nesting females, and exposed them to being captured during nesting. The main achievement of this season, compared to last year's, was that people were not roaming the beach at night anymore. This allowed the females to nest without being disturbed and without risk of being hunt. At first daylight, monitors could then look for the nests and erase the tracks, when not disturbing females. This achievement is perhaps a combination of different factors: involvement and cooperation of the two Peruvian communities that will participate next year; socialization activities among neighbor communities and further support of environmental authorities; and presence of at least six monitors on the beach, compared to two or three from last year.

Despite the efforts of the monitors to erase the tracks, four nests (17%) were still extracted by humans during daytime, most of them probably found accidentally. This was an improvement in relation to nearly 50% in 2008. Albeit some losses, proper and thoughtful wiping out of the tracks proved to be an effective method for nest protection during non-guarded hours, and its human cost is considerably less than guarding the beach 24 hours.

Four more nests were lost due to natural causes (15%), one by insects (mole crickets), one by a tegu (lizard), one by a sudden water course and two by landslides on the island. It is to note that, in other nests, around 100 eggs or hatchlings were killed by insects (mainly mole cricket), which requires attention to evaluate a possible future management of this predator.

The last hatch occurred on the 21th of November, with a total of 559 newborns of the three species. Again, this was a major advance compared to 112 of two species in 2008.

Main monitoring results of are summoned in table 1.

Table 1 Beach monitoring summary

	<i>P. unifilis</i>	<i>P. sextuberculata</i>	<i>P. expansa</i>	Total
Number of nests	16	12	1	29
Successful nests	11	8	1	20
Lost by poaching	3	1	0	4
Lost by natural caused	2	3	0	5
Successful hatchlings	62	447	50	559

Socialization of the activities

Five communities, including Nazareth and Arara, the largest in the area, and five institutions from Colombia participated in the turtle conservation event. Authorities carried out educational activities related to environmental legislation and importance of turtle conservation, oriented to both attending adults and children. LCGs explained to the other communities about their work and their results so far, and invited them to contribute and support their conservation efforts. A brochure that explained conservation activities of the groups was prepared and distributed during the event (see appendix). Attending communities responded positively and showed their interest, their support to the groups and their will to participate with conservation groups on their own in the future.

Next year, a similar activity will be planned in the Peruvian side of the River, hosted by the participating communities of Peru, and hopefully with more attendance of communities and authorities from both countries.

Closure of the breeding season and the 2009 program

The closing event had excellent results and positive consequences. LCGs were rewarded for their conservation activities and were congratulated publicly in front of other communities, which further encouraged them to continue participating in the following phases of the program. They exhibited proudly their diplomas and their engines, and felt committed of being an example of conservation in front of their neighbors. They also saw the benefit of collective incentives versus individual ones. Other communities were enthusiastic about the results and the activities carried out, which rose their awareness about preserving the turtles and supporting future efforts of LCGs. They also saw that conservation activities could be rewarded and that they can eventually become an economic alternative, which was one of the objectives of the program. Some even approached us to show their interest in participating in following phases of the program. One of this communities is Santa Sofia, which was one of the most reluctant at the beginning of the program.

Problems and constraints

The main difficulty was related to some communities that have been invited to participate or to support the program since 2008 but have been reluctant. One community in particular, Santa Sofia, was trying to create difficulties for the development of the program from the beginning. They refused to participate in the program and to support the work of the conservation groups, and they tried to obstruct the turtle conservation event held by the authorities. They even presented a letter of complain to the authorities about the presence of the Foundation Biodiversa Colombia and about the program (without any clear arguments). Since we know the importance of having the support and acknowledgement to the groups' conservation activities by neighbor communities, both Biodiversa and the participating communities tried in different occasions to

approach them, so they could present personally their concerns and we could reach an agreement. They did they participate in the turtle conservation event and, for some time, they did not attended to our invitations. It is important to notice that this community had the highest number of egg confiscations by environmental authorities during last year. Fortunately, at the end of the program, a group of young people from Santa Sofia understood the importance of what the groups are doing for the benefit of a resource that is common to all communities and not for their particular interest. On their own accord, they approached us to show their interest in participating in 2010 and, through them, raising awareness of the whole community. This was clearly another one of the great successes of the program, and we are excited to start working with such a previously reluctant community. 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.

Activities planned for 2010

For the next phase, the following activities are planned:

- The Peruvian environmental authority will be contacted to start the application procedure for a research permit that will allow us to transplant clutches to the conservation beach.
- During the first semester of 2010, an intensive awareness-raising campaign will be carried out with the two Peruvian communities, so that they form conservation groups and get involved in next season's activities. We will continue to carry out awareness-raising activities with the Colombian communities.
- Prior to the start of the nesting season, the four conservation groups and the Curuinsi Huasi association will participate in capacity-building workshops. The idea is that they will receive proper theoretical and practical training in different areas, such as: turtle biology and conservation; monitoring of nests and nesting females; gathering and analyzing data; sustainable management of natural populations; organization capacity; and project planning, fund-raising and execution; among others.
- A gathering will be held between the four LCGs and one that carries out turtle conservation activities in Puerto Nariño, to exchange knowledge and experiences and present their main results.
- Also prior to the nesting season, groups will be in charge of visiting neighbor communities to carry out awareness-raising activities, to socialize their conservation actions and to ask for their support by not extracting eggs or females from the beach. This will include the turtle conservation event with authorities and communities of both countries, this time with the Peruvian communities as hosts.
- The four LCGs and the Curuinsi Huasi Association will be in charge of monitoring and protecting the community conservation beach. This will be done in such way that Colombian groups will be able to transmit the acquired experience to the newly formed Peruvian groups. While one team monitors *Tori*, another team will visit non-protected beaches to translocate clutches to the conservation beach.
- At the end of the season, groups will be stimulated to propose conservation actions to carry out in 2011, to help them designing and writing the project, raising funds and executing it.

PHOTOGRAPHIC MATERIAL

Initial workshops with participating communities



Initial workshops held in El Progreso, Colombia, and Yahuma II, Peru. The list shows why communities thought turtle conservation was important: for future generations, for cultural reasons, as food source, and for ecological reasons.

Monitoring and protection of a community conservation beach



LCGs spent the night at the beach protecting nesting adults and learning to gather relevant biologic information.

Socialization of activities supported by civilian and military authorities



Authorities carry out educational activities while LCGs present their work to attending communities.



Witnessing hatching on the conservation beach



Children and other members of the participating communities were invited to witness hatching on the conservation beach.

LCGs received their diplomas and their incentive for their conservation efforts



APPENDIX

PRINTED MATERIALS

Two different printed materials were produced. The first was a poster oriented to the participating communities to suggest their commitment to turtle conservation. It says:

"If we don't protect them, this will be the only way our children will get to know them"

"Help us taking care of them! (in Spanish and in Tikuna)"

"Nuevo Jardín, El Progreso and Yahuma I y II Zona committed to river turtle conservation".



The second was a brochure oriented and distributed among non-participating neighbor communities. It explained about the conservation actions that the groups were carrying out. It had four sections:

Why are we protecting the river turtles?

How are we protecting them?

Who are supporting us?

How can you help protecting the river turtles?

¿Quiénes nos están apoyando?



La Fundación BioDiversa Colombia nos está enseñando cómo cuidar las playas para que las tortugas puedan subir a poner sus huevos y cómo tomar la información que necesitamos. También nos está capacitando en la importancia de la conservación, cómo manejar nuestros recursos naturales sosteniblemente y cómo plantear nuestros propios proyectos para hacerlo. También contamos con el aval de Corpoamazonia y el apoyo de distintas autoridades de Perú y de Colombia, como la Marina de guerra del Perú, la Policía Nacional del Perú, la Policía Ambiental, Guardacostas, la Brigada de Selva XXVI, la Capitanía de puerto, Senasa y las autoridades civiles de Santa Rosa, y esperamos que muchas más autoridades y comunidades se unan a nuestro esfuerzo de conservación.



¿Cómo puedes ayudar a proteger a las taricayas, a los cupisos y a las charapas?

1. Participa y colabora con los programas de conservación: si tú o tu comunidad están interesados en aprender a cuidar este recurso, pueden ayudarnos en nuestras actividades o conformar su propio grupo de conservación.
2. No las captures en la época de reproducción: no cojas ni molestes a las hembras que suben a las playas a poner sus huevos.
3. Protege los nidos: si encuentras un nido, no saques los huevos. Mejor borra los rastros para evitar que otras personas los encuentren.
4. Protege las playas de anidación: evita transitar o hacer fogatas en las playas de anidación durante la temporada reproductiva. No permitas que tus animales domésticos perturben a las hembras cuando estén anidando ni que se coman sus huevos. Evita transitar en embarcaciones con motor cerca de las playas en la noche.
5. Déjalas en su hábitat natural: si accidentalmente atrapas una tortuga, suéltala en el mismo lugar donde la capturaste y no la lleves como mascota.
6. No contamines su hábitat natural: no arrojes basura (plásticos, botellas, icopor) al río ni a las playas, pues las tortugas y otros animales pueden confundirlas con alimento y morir asfixiados.
7. No vendas ni compres tortugas o huevos: el comercio de tortugas y de huevos es ilegal en Colombia y en Perú, y puede acarrear hasta siete años de cárcel y una multa de hasta 300 salarios mínimos legales mensuales vigentes (Artículo 242 Ley No 141 de 1999 de Colombia). Denuncia ante las autoridades ambientales cualquier caso de comercio ilegal.

Programa de conservación comunitaria de charapas, cupisos y taricayas con comunidades indígenas amazónicas de Colombia y Perú

Comunidades de Nuevo Jardín y El Progreso
Asociación Curuinsi Huasi
Comunidades de Yahuma I y II zona



Para que nuestros hijos y nuestros nietos puedan conocerlas
¡Ayúdenos a cuidarlas!



Russell E. Train
Education for Nature Program

¿Por qué cuidamos a las taricayas, a los cupisos y a las charapas?

Antiguamente subían muchas madres a poner en las playas del Amazonas durante la época reproductiva. Los abuelos las cuidaban para no se acabaran y pudiéramos aprovecharlas de manera sostenible. Sin embargo, las playas dejaron de cuidarse y la gente comenzó a cazarlas y a sacar todos los nidos para comerlos y para venderlos. En la actualidad, ya suben muy pocas madres a poner en las playas y las pocas que suben las estamos capturando y llevándonos sus huevos. Es por esto que las taricayas, los cupisos y las charapas se están acabando y nuestros hijos y nuestros nietos no van a poder conocerlas.



¿Cómo estamos cuidándolas?

Las comunidades de Nuevo Jardín y El Progreso y la Asociación Curuinsi Huasi, preocupadas por la escasez de estas especies, conformamos grupos de conservación para ayudar a protegerlas. Desde el año pasado, estamos cuidando la playa de conservación comunitaria "Tori" en la isla del medio detrás de la Isla de los Micos, para poder preservar una parte del recurso y que las tortugas puedan seguir reproduciéndose.



Todas las noches, un equipo de cada comunidad viaja a la playa "Tori" para cuidar a las madres que suben a poner y evitar que se pierdan los huevos.



También estamos recogiendo información que nos permitirá saber cuántas tortugas suben a la playa y si las poblaciones están aumentando o disminuyendo. Las comunidades de Yahuma I y II zona también están conformando sus grupos para poder ayudarnos en la próxima temporada reproductiva.

