

BP Team Field Report-7th -21st Feb 2006

Extending Chelonian Research, Education, and Conservation in Southwest Cambodia

Prek Youn and Prek Angkunh, Trapaing Rong commune, Koh Kong Province, Cambodia

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Introduction

The Cambodian Turtle Conservation Project (CTCP) is conducting a research project in the coastal southern Cardamoms of Southwest Cambodia, which is managed by the Forestry Administration with support from WildAid-Cambodia. Surveys led by BP team in 2004 in Central Cardamom Protected Forest (CCPF) recorded 30 live turtles and 118 shells of seven species. Those species were the Elongated tortoise, Impressed tortoise, Giant Asian pond turtle, Black marsh turtle, Asian box turtle, Asian softshell turtle, and Asian leaf turtle. In 2005 the team was funded for a follow-up BP award to do conservation and education activities across Southwest Cambodia and till now we found one more species (a very important IUCN-classified Endangered species, the Yellow-Headed temple turtle) adding to the previous findings. So now we found a total of 8 different species in southwest Cambodia. We conclude that some areas are extremely rich in turtles and tortoises and we have to take immediate action to protect the populations of these species so they remain in the wild.

Our aim of the project is to further research on endangered species and others in more areas in Southwest Cambodia, to provide education to government rangers, local people, local schoolchildren and students, and other stakeholders, and to share turtle data among the Government departments and NGOs in Cambodia.

This survey was to mostly assess the possible presence of two endangered species, the Cantor's giant softshell and the yellow-headed temple turtle.

Methods

During the trip we used three methods: formal interview following a set questionnaire, live-trapping using bait, and timed searches.

We conducted surveys in two different places and habitats. Those areas are Prek Youn for finding Cantor's giant softshell turtle, and Prek Angkunh for surveys of the Yellow-headed temple turtle. See Appendix 1 for trap location. The areas were confirmed to be rich in turtle

species through interviews with local people by our team from the last trip. So we decided to do survey there to confirm the interview findings.

There were 7 people joined in this trip, including one BP team member, three students from RUPP, a local guide, a policeman who would help find turtles and tortoises by walking transects with us, and also helping in case of meeting poachers in the forest, and a cook who would help at the camp and cooking food when we are tired from the field.

We spent 11-days (10th to 21st Feb 2006) trapping and doing timed searches. We trapped at Prek Youn for 8-day and Prek Angkunh for 3-day. We used 52 small traps and two big traps by putting them in the river and in the small marshy lakes around the areas. Traps were kept partially out of the water to make sure trapped turtles did not drown when they went into the traps. The baits were good dispersing fruits such as banana, papaya, durian, and jackfruit. We tried fresh and rotten meat (fish and chicken).

We also did tortoise timed search along the forest nearby. The method was to find out the presence of some terrestrial tortoises and concealed turtles. We used a local dog under close control to help find turtles and tortoises, as they are very good at sniffing hiding tortoises.

Results

Household interviews: We did interviews with 15 families in Prek Angkunh village and 5 families at Trapaing Rong village and we found some reliable information. One-hundred percent of interviewees at Prek Angkunh village strongly confirmed about the presence of seven species of turtles. These species are Elongated tortoise, yellow-headed temple turtle, giant Asian pond turtle, black marsh turtle, Asian box turtle, Asian leaf turtle, and Asian softshell turtle. Interviewees at Trapaing Rong identified seven species of turtles and tortoise. Those species are Elongated tortoise, giant softshell turtle, Asian softshell turtle, giant Asian pond turtle, black marsh turtle, Asian box turtle, and Asian leaf turtle. But there is no confirmation about the yellow-headed temple turtle at Trapaing Rong. This is maybe because the area is a bit far from the flooded forests and the area is located at the higher position than Prek Angkunh.

Turtle trapping

Prek Youn: All of the traps were put along the edge of the very deep river (it was up to 3.5 meters deep) with UTM recorded (Appendix 1). We spent 8 nights trapping turtles we caught 1 Asian softshell turtle at the second night (See: Appendix 2). We also caught many fish in the traps and 4 traps were broken by animals. The softshell turtle was released back to the river after recording measurements.

Prek Angkunh: We used 12 traps to catch turtles in the seasonally flooded forest in the rainy season and canal in forest (See: Appendix 1). The reason we used 12 traps due to there was not many places to put traps because it is the dry season so ponds and canals became dry everywhere. The baits we used were only fish and banana. After 3-day of trapping we caught three Asian leaf turtles in two different traps. After marking and recording we released them back at the same habitat with Buddhism inscriptions.

Tortoise timed search

Prek Youn: We did timed searches in different vegetation of habitats such as grasslands; flat areas, hill stream, semi-evergreen forest. These areas ranged from sea-level to about 115 meters. We conducted line walks for tortoises and turtles with 5 men and two dogs for two hours so in total we spent approximately 19 men-and-dog hours in the forest. As the result we found no tortoise and turtle but we found some signs of elephant's dung and tracks instead.

Prek Angkunh: We searched turtles and tortoise using dogs at flooded forest close to the sea to survey the presence of turtles. But our team did not catch any turtles or tortoise. According to local people, they said that the surveyed areas are very rich in turtles in the rainy season, but in the dry season the turtles are hiding underground.

DISCUSSION

According to our observation we think that Prek Youn is still rich in softshell turtles because we still caught a juvenile Asian softshell turtle in the river. On the other hand, we importantly found that the areas are being under threats because we found that along the river's edge there were ten bamboo sticks of lining hooks putting along the river for catching softshell turtles. Also, people from Veal Tapou and Trapaing Rong sometimes come and fish at the area. Our team met a turtle hunter at Trapaing Rong village and said that he just caught two of Asian softshell turtles and sold to an outside trader. We just stayed at village one day but found two turtles in the village, so we think that some of people at Trapaing Rong and Veal Tapou are still frequently hunting turtles. According to police who accompanied with us, they recognized that in Trapaing Rong there is a turtle trader who always buys turtles from hunters and then re-sells to others from outside.

Even though the area is difficult to go because of hard moving water current, people still get there to find animals. The guide said that last year there was a Vietnamese motor boat came and poured poisonous chemical to the water and after that there were many fish died including eels that floated up to the water surface. So this was a very big threat to turtles and other animals living depending on water.

Prek Angkunh is one of the confirmed areas during our interview to be rich in turtle species such as black marsh turtle, giant pond turtle, Asian leaf turtle, elongated tortoise, yellow-headed temple turtle, Asian box turtle, and others. We surveyed there only 3 days but we found two Black marsh turtles in the village and three Asian leaf turtles during trapping. So this place is still rich in turtles.

We did not find the endangered yellow-headed temple turtle because people said that in the dry season this species always goes to hide under the ground and one more reason is that there is less water at this time so they need to hide instead of moving around. People said that surveying for turtles in rainy season we will discover lots and we did agree with them, as we surveyed similar areas nearby last rainy season and found five different species including the Yellow-headed temple turtle.

According to Village chief, there is less threat to turtles at Prek Angkunnh because most local people are depending on fishing in the sea for their personal income. But we observed that the area is becoming serious threats to turtle because the area now is under control by a Chinese company and that they are clearing the forest for their plantation.

Black marsh turtles were also found in Prek Angkunnh where it is a flooded and flat area and we used to find this species in similar habitats such as Koh Andeth village, Areng valley. So we think that if we go to Prek Angkunnh in the rainy season we could find many of this species in the wild.

People said they rarely found giant Asian pond turtle in the dry season because it is the time for them to hide from their predators and the dryness and heat.

In the rainy season the area will be full of freshwater, pushing the salt water to the sea. The villagers say that at that time the turtles always come down the rivers along the current to lay eggs and find food in the flooded forests.

Conclusion

Prek Youn: According to our results we can conclude that Prek Youn is the good place for softshell turtles and Asian leaf turtles because the river is very deep along with forest and mountains nearby. But there are many threats to softshell turtle through hunting using the turtle-line-hook to fill the market demand and we think that if there is no immediate action to stop these illegal activities, softshell turtles may be almost extinct from that area of river in the near future.

Prek Angkunnh: There should be seven turtle species in the area according to interviews and field research. Based on household surveys and trapping we can assume that the area is still rich in turtles and that information from local people can be reliable because we already found and proved three among the seven they confirmed. We do hope that the yellow-headed temple turtle will be there because all people were sure about this species and it is endangered.

We think that the best time to find turtles is in rainy season because this time all species are active and come out to find food and lay egg. But in the short future the area will face a serious problem because of forest clearance for plantation by Chinese company.

One more threat to turtles is that when people caught turtle they rarely release back to the wild they always consume it as food or sell it to traders instead.

Recommendations

Prek Youn: WildAid and local authorities could take actions on patrolling the river because we found many turtle hooks that are a kind of illegal material to catch the IUCN-classified Vulnerable Asian softshell turtle.

One more threat to hard and softshell turtle is that people use iron sticks with three sharpened spikes. Hunters push it into the ground where they think turtles are hiding, in order to spike them and capture them.

We talked friendly with guide, cook, and police and they acknowledged that people have a lot of tricks to escape from WildAid and FA teams because they have a hunting network. More importantly, they said that even local polices are also committing illegal hunting on wildlife.

According to the policeman, he said that in Trapaing Rong there is currently a wildlife trader that is always collecting the illegal hunting wildlife products to re-sell to the market.

Prek Angkunnh: We recognized that the most serious threats to turtle and tortoise are in the rainy season but in the dry season is mostly just a threat to Asian leaf turtles because this species always lives in a pond or stream and does not hide, so when there is not much water in the dry season it is easy to catch them.

The Chinese company should be stopped because they now deforest the area for a commercial plantation. This will destroy the habitat of seven turtle species including two IUCN Endangered species and four Vulnerable species.

Appendix 1: Location of traps

Prek Angkunnh

Trap No	UTM Easting	UTM Northing	Altitude (m)
Trap 1			46 m
Trap 2			37 m
Trap 3			34 m
Trap 4			22 m
Trap 5			22 m
Trap 6			18 m
Trap 7			4 m
Trap 8			32 m
Trap 9			28 m
Trap 10			43m
Trap 11			42 m
Trap12			12 m

NOTE: GPS locality data removed

Prek Youn

Trap No	UTM Easting	UTM Northing	Altitude Meters
Trap 1			28 m
Trap 2			18 m

Trap 3			22 m
Trap 4			22 m
Trap5			15 m
Trap 6			18 m
Trap 7			17 m
Trap 8			18 m
Trap 9			17 m
Trap10			15 m
Trap 11			16 m
Trap 12			19 m
Trap 13			23 m
Trap 14			21 m
Trap 15			18 m
Trap 16			18 m
Trap 17			15 m
Trap 18			
Trap 19			15 m
Trap 20			16 m
Trap 21			19 m
Trap 22			18 m
Trap 23			16 m
Trap 24			20 m
Trap 25			15 m
Trap 26			16m
Trap 27			16 m
Trap 28			10 m
Trap 29			14 m
Trap 30			12 m
Trap 31			11 m
Trap 32			7 m
Trap 33			19 m
Trap 34			17 m
Trap 35			18m
Trap 36			19m
Trap 37			20 m
Trap 38			18 m
Trap 39			12 m
Trap 40			11 m
Trap 41			14 m
Trap 42			15 m
Trap 43			12 m
Trap 44			13 m
Trap 45			16 m
Trap 46			11 m
Trap 47			13 m
Trap 48			15 m
Trap 49			12 m
Trap 50			11 m

Big trap 51			17 m
Big trap 52			14 m

NOTE: GPS locality data removed

Appendix 2: Numbers of caught turtles (from wild and villages)

No	Species			Altitude	Sex	Location
1	<i>Amyda cartilaginea</i>			26 m	Female	Prek Yuon
2	<i>Siebenrockiella crassicolis</i>			28m	Male	Prek AngKunh
3	<i>Amyda cartilaginea</i>			0m	Male	Prek AngKunh
4	<i>Siebenrockiella crassicolis</i>			19m	Female	Trapaing ROUNG
5	<i>Cyclemys atripons</i>			15m	Male	Prek AngKunh
6	<i>Cyclemys atripons</i>			20m	Female	Prek AngKunh
7	<i>Cyclemys atripons</i>			20m	Male	Prek AngKunh
8	<i>Cyclemys atripons</i>			20m	Female	Prek AngKunh

NOTE: GPS locality data removed