

## Final Evaluation Report

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Your Details	
<b>Full Name</b>	Elvis Bawah
<b>Project Title</b>	Conservation and Ecology of Trionychidae in River Offin at the Atwima Mponua District of Ghana
<b>Application ID</b>	35910-1
<b>Date of this Report</b>	June 2023

**1. 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
Population and distribution assessment				<p>We conducted an intensive survey on the three species belonging to the Family Trionychidae. The survey covered a total river distance of 12.4km. During the survey, only one of the three species was encountered. Locally manufactured traps were used during the abundance survey. Individuals captured were tagged and released back into the river. Additionally, nesting sites were not sighted during the survey. This was majorly due to presence of anthropogenic activities along the beds of the river.</p>
Habitat assessment				<p>Riparian zones of the river adjacent to the capture locations were assessed to determine their correlation with the presence of the captured species. The survey revealed immense conversion of the riparian zones for illegal anthropogenic activities.</p>
Awareness creation				<p>Community level conservation education was conducted in the major town which is situated along the River Offin. Educational activities engaged all factions of the communities with a major focus on traditional leaders, religious groups, youth, and students. Education centred on the urgent conservation terrapins and protection of the riparian areas of the river.</p> <p>In addition, educational activities emphasised on behavioural change of community's members towards the conservation of the species.</p>
Stakeholder forum and training				<p>A stakeholder forum involving all the leaders of the community was held. The forum informed and raised awareness on the plight, conservation urgency, and strategies to protect the species and its habitat. The leaders were also engaged in focal group discussions to solicit interventions for the conservation of the species.</p>

## 2. Describe the three most important outcomes of your project.

**a).** Through consistent surveys, conducted for a period of 12 months, the project has scientifically re-established the presence of *Trionyx triunguis* (African softshell turtle) in River Offin. According to the IUCN Red List, the species is categorised as Vulnerable with a continuous decrease of its population across the globe.

The discovery of the species is very significant to science and conservation, as it was thought to be extinct within this catchment. In addition, its presence, conservation status, and ecological significance, comes as a revelation to the traditional authorities of the Domenase and Abora communities. Therefore, it has gained traditional support for future conservation efforts.

Ten individuals were captured, tagged, and released back into the river. Morphometric dimensions of the captured individuals were recorded to aid age and sex determination.

Though the surveys did not sight *Cyclanorbis elegans* (Nubian flapshell turtle) and *Cyclanorbis senegalensis* (Senegal flapshell turtle), primary information from fishers and community members indicate that both species occur within the river.

**b).** Habitat assessment as a major objective was conducted to determine habitat usage and significance to the survival of terrapins. The assessment revealed unfortunate occurrence of intense habitat modification to the socioeconomics of the community.

The watershed and banks of the river are laced with numerous dugouts of illegal mining activities locally known as “Galamsey”. These activities have destroyed riparian vegetation and creeks, which serve as nesting grounds and niche for freshwater turtles. Additionally, highly detrimental activities including agricultural encroachments and hunting activities occur within the remaining vegetative cover along the river. The species are also captured as by-catch from fishing activities.

Collectively, these activities are destroying the habitat of terrapins and increasing the extinction risks of the species within the study area.

**c).** The project is the first of its kind to highlight the plight and conservation urgency for terrapins within the communities along the River Offin. Through awareness creation activities including stakeholder meetings and schools' outreaches, the project has informed over 500 inhabitants on the ecological importance and conservation of the species. Furthermore, awareness creation, has aroused interest and sympathy for the species. And has resulted in the creation and establishment of local support for the species' conservation. Traditional leaders, youth, and students have pledged their participation towards efforts that will safeguard the species and its habitat.

Support from the community indicates a positive attitudinal change, which will significantly sustain terrapin conservation within and along the River Offin. This, if upscaled, will aid in the achievement of the IUCN goal to protect the species and its habitat.

**3. Explain any unforeseen difficulties that arose during the project and how these were tackled.**

- a. River mining, a form of galamsey, obstructed the installation of traps in the river. Thus, trapping was done within days when less river mining activities occurred. Additionally, traps were visited during these periods.
- b. Any encounter with the miners could have resulted in the injury or death of members of the project's team. Therefore, the team avoided encounters with miners and conducted surveys during periods of less illegal mining activities.
- c. Due the presence of numerous mining dugouts, riparian areas along the river could not be easily accessed. Walking along the banks of the river proved fatal to the life of teams. However, areas with less dugouts were evaluated. Additionally, a local guide provided navigation assistance within the banks and watershed to help the team avoid the mined pits.

**4. Describe the involvement of local communities and how they have benefited from the project.**

The participation and involvement of local community members was overwhelming and successful. Importantly, the community leaders provided enormous support by granting permits for the surveys, appointing a local guide for the project, and gathering community members for conservation awareness activities. The traditional leaders have gained knowledge on the ecological significance and conservation of the species. Awareness activities highlighted the roles the leaders and their organisations, groups, and communities can play in ensuring the long-term persistence of the species within the River Offin.

Fishermen, whose livelihoods depended on the river, were also educated on ecological roles of the species in the river. They were urged to avoid the use of harmful substances in fishing as these will destroy the waterbody and lead to the death of all lifeforms in the river, including the terrapins. Education of these subjects were very necessary as knowledge on the species eco-benefits, engendered fishers support for the conservation. Furthermore, abstinence from the use of harmful substance will ensure the survival of all riverine lifeforms and sustain their livelihoods. Additionally, the fishermen were trained in terrapin surveys and conservation techniques.

With a revelation of the presence, global conservation status, and ecological significance of the species, the chiefs and elders of the communities, have decided to take steps with the support of the government to stop the illegal mining activities within the river to protect the species and the vegetative cover of the riparian areas.

Traditional leaders, fishers, students and communities were given branded Rufford t-shirt for their great support.

**5. Are there any plans to continue this work?**

Considering the large coverage of the River Offin, which joins other rivers, there are plans to conduct subsequent surveys on other parts of the river to assess and establish the presence and status of three Trionychidae species within in the River Offin.

Also, we would establish terrapin conservation groups within Domenase, Abora, and other communities situated along the river. These groups will serve as media to promote terrapin conservation and awareness needed to safeguard the species, their habitats, and the river.

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

Final reports will be shared with The Rufford Foundation, Ghana Wildlife Division, Traditional Authorities, and schools engaged during the project. A research article will also be published to inform the ecologists and herptile enthusiasts of the discovery and status of the *Trionyx triunguis* (African softshell turtle) in River Offin.

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

The most important step is to conduct long-term monitoring surveys to establish the species population, distribution, and occupancy within the River Offin and its tributaries. In addition, the nesting and dominant feeding areas should be identified and delineated as conservation hotspots. Furthermore, conservation and awareness education within communities along the river should be conducted to galvanise community support for the species' conservation. Consequently, terrapin conservation groups should be created in communities which are situated close to major populations of the species to ensure sustained protection of such areas and the species.

**8. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did the Foundation receive any publicity during the course of your work?**

Yes, we provided t-shirts which showed the Rufford Foundation logo to many of our collaborating fishermen, communities' leaders, and students. The Rufford Foundation logo was inserted into presentation slides. Acknowledgement to this will also be made in any publications produced from this work.

**9. Provide a full list of all the members of your team and their role in the project.**

**Elvis Bawah** (Team Leader)- project lead and field researcher, conducted all surveys and all trapping efforts for all turtles captured. Aided in the organization of conservation education activities.

**Kwasi Aning Dwumah** (GIS Expert)- Helped develop occupancy maps and distributional maps for the species within the project domain. He assisted the field surveys and education activities.















