

## Final Evaluation Report

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Your Details	
<b>Full Name</b>	Pearson McGovern
<b>Project Title</b>	Conserving the African Softshell Turtle in Senegal
<b>Application ID</b>	30330-1
<b>Grant Amount</b>	£6,000
<b>Email Address</b>	Pearsonmcg21@gmail.com
<b>Date of this Report</b>	22/01/2022

**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
Locate the African Softshell Turtle in Senegal				<p>Through over 75 interviews with fishermen in the Kedougou region of south-eastern Senegal we were able to both locate a current presence area as well as learn of a previously larger distribution and of possible reasons and a timeline for <i>Trionyx triunguis</i> decline. Only four fishermen incorrectly identified the species by the local name 'Tanto,' which corresponds to the sympatric <i>Cyclanorbis senegalensis</i>. <i>Trionyx</i> is in clear need of long-term monitoring and enhanced protection as many of the fishermen said they haven't seen the species in over a decade, with the highest sighting frequency being about one every 1-2 years in the most remote villages bordering a national park.</p>
Involve the local community in research				<p>Through our efforts and time in the field, we now have a contact list of 36 fishermen from 27 villages along the Gambia River that have shown a clear interest in the project and have called us in response to a turtle sighting near their village. This has resulted in a team of now more knowledgeable and interested fishermen who are now releasing turtles alive from their nets, as well as sending us photos and videos of these releases. Through these photos and our time spent trapping and, in the field, we were able to locate all five species of aquatic and terrestrial turtle found in the Kedougou region (<i>Trionyx triunguis</i>, <i>Cyclanorbis senegalensis</i>, <i>Pelomedusa olivacea</i>, <i>Pelusios castaneus</i>, <i>Kinixys nogueyi</i>) and thus we were also able to show the locals the diversity around them and peak</p>

				their interest in finding and documenting the elusive <i>Trionyx</i> (of which we only found one alive along with two butchered carapaces).
Increase the knowledge on the turtle assemblage of south-eastern Senegal				This objective was accomplished through trapping efforts and collaboration with local fishermen. We were able to document the three largest individuals of <i>Cyclanorbis senegalensis</i> on record as well as publish the CBFTT species account for this species in the global effort to consolidate the available knowledge on all turtle species (Chelonian Research Monographs series: <a href="https://iucn-tftsg.org/cyclanorbis-senegalensis-114/">https://iucn-tftsg.org/cyclanorbis-senegalensis-114/</a> ). All four other species of turtle known from the region were also documented, including over 30 <i>Pelusios castaneus</i> , and morphometric and habitat data were collected.

**2. Please explain any unforeseen difficulties that arose during the project and how these were tackled.**

Though we expected the target species, *Trionyx triunguis*, to be in need of conservation attention in the region, the rarity of the species made it very difficult to see let alone capture and study. In over 10 weeks of field time, and 1 year of contact with local fishermen, we were only able to capture and record data (including genetic material) for one juvenile individual. Additionally, we were given two carapaces of individuals eaten by villagers before they knew of our project. All three individuals were within 10 river km of each other, in an area we hope to focus our efforts in the future.

Another minor source of difficulty was the knowledge gap on the use of maps, with many villagers we interacted with having never seen a paper map, let alone aerial photos or maps on a mobile device. This led to confusion on the exact locations of turtle sightings, but also allowed us to clearly show the sources of the many rivers and streams in the area, many of which were assumed to be coming from different areas by local fishermen. And finally, the use of various local names in the many languages and dialects in the region made it sometimes difficult to discern the turtle being discussed (laminated photos helped a lot with this until we were able to learn all the local names for the various species – just the local names for *Trionyx* are included below).

**Language = Name for *Trionyx***

Malinke = Kifo or Fato (different dialects)

Bambarra = Gna

Wolof = Khouo or Pallala  
Pular = Makhourde or Taw (different dialects)  
Tanda = Ambok  
Jalunke = Yey Kurana

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

Prior to this study, our understanding of the African softshell turtle in Senegal was anecdotal, outdated, and speculative. We assumed the species was rare based on the paucity of records and museum specimens/vouchers. Our combination of active trapping and widespread community interviews has greatly improved our clarity on the threatened status of the species in Senegal. In addition, our sampling efforts resulted in us capturing all other turtle species present in the region, broadening our knowledge on the life histories and myriad threats these species face as well. Our widespread documentation of opportunistic consumption of 4/5 species (the lone exception being the unpalatable *Pelomedusa olivacea*) further demonstrates the challenge we will face in inspiring local communities to adopt our conservation vision for these 'protected' species. Finally, we were able to collect valuable genetic material for the seldom studied *Cyclanorbis senegalensis*, satisfying specific requests from the scientific literature for this material.

### **4. Briefly describe the involvement of local communities and how they have benefitted from the project.**

Though many fishermen, and thus their communities, have benefitted from this collaborative effort, the main beneficiaries are the fishermen and families from five villages (Soucoute, Krekonko, Coroungoto, Badian, Bomboya) where we see a future for this species and this project. This area represents the western border of Niokolo-Koba National Park and houses perhaps the last remaining population of *Trionyx* in Senegal. We have supported fishermen from each of these communities by improving their gear, supplying traps which augment their fish yields as well as capture turtles for subsequent release, and employing members of their families to mark, measure and release all observed turtles. We now have a strong relationship with each of these families, as well as the village leaders in each of these communities, providing the foundation for a long, mutualistic relationship for us, the communities, and the threatened turtles in the area. We are currently in talks with these villages on the commencement of an aquaculture programme to provide added income, reduce community pressure to hunt bushmeat (including turtles), and instil security for periods of reduced wild fish captures. Most importantly, we seem to have created a previously lacking interest in these animals, primarily among youth, as well as provided an interested sounding board for many of the fishermen to share their multitude of experiences from their years on the river.

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

I plan to continue funding our local contact Mady Konjira to continue opportunistic data collection for all turtle species in the area as well as to continue our warm relationships with the local fishermen who were instrumental in this project and in our ability to find turtles. This will be in an effort to receive word from the field when future

*Trionyx* are seen or captured, allowing us to sustain a long-term mark recapture monitoring program for the species in this area. Of course, to accomplish this, our local contact will continue to visit the villages around our newly found focus area as well as continue to call in for information every so often. Even since leaving the field <2 weeks ago, we have received two videos of *Cyclanorbis senegalensis* videos being marked, measured, and released by our collaborating fishermen.

Another future potential avenue to survey for the presence of the species would be the use of eDNA techniques. We would now be able to target specific areas where locals have told us the species is most commonly observed.

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

After synthesising the results, I plan to write an article called “A quest to unearth the status of *Trionyx triunguis* in Senegal: on the way out but not yet lost,” for the news section of the Oryx Journal. I hope this article will show conservationists and the public alike that efforts are needed to ensure the long-term survival of the species in Senegal. The African Chelonian Institute and African Aquatic Conservation Fund social media pages will also be highlighting this project for our members and followers. With continued monitoring, our team will eventually be able to publish data from our capture-mark-recapture program for both *Cyclanorbis* and *Trionyx*.

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

February 2021 – January 2022: the beginning of this project was delayed by roughly 6 months due to COVID-19.

**8. Budget: 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. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.**

Item	Budgeted Amount £	Actual Amount £	£ Difference	Comments
Lodging/Food/Local Travel to Kedougou (where the motorbike was kept)	2000	1220	-780	The majority of the time (9 of the 10 weeks) in the field we ended up only having two team members (Pearson McGovern & Mady Konjira) instead of the projected three, reducing our food costs.
Motorbike/Gas	850	758	-92	We spent less on gas than

				expected.
Equipment/Shipping	1700	1073	-627	Shipping costs were higher during COVID-19.
Shirts/Printed materials	500	505	+5	
Turtle ID tags	350	564	-217	Tags were shipped with other materials to reduce costs.
Overhead	600	600		
<b>Sub-total</b>	<b>6000</b>	<b>5478</b>	<b>-522</b>	<b>Rufford Foundation agreed to use underspend towards additional costs.</b>
Guide/Translator		779	+779	Even with tips for exceptional work and extra funds for phone credit, the cost of a local guide was less than expected.
<b>TOTAL</b>	<b>6000</b>	<b>6257</b>	<b>+257</b>	<b>Exchange rates used: \$1 = £0.73 £1 = 785 cfa</b>

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

The most important step for the future of this project and the species it aims to conserve is a continued presence amongst the fishing community in the target area. We must be seen as long-term partners rather than transient researchers to ensure that the newly adopted behaviour of marking and releasing turtles as opposed to consuming them is engrained for the future. A continued relationship with national park staff will also be important given the close proximity of these villages to the border of Niokolo-Koba National Park. Additional surveys within the park boundary would also allow us to have a clearer picture of the status of the species within the park, though likely this species is rare throughout its current Senegalese distribution given the connectedness of the habitat within and outside the park, coupled with the fishermen saying that when fishing inside the park they still seldom encounter *Trionyx*. Though this project was focused on finding *Trionyx* in Senegal, *Cyclanorbis senegalensis* is also benefitting from the fishermen's willingness to include this species in our long-term marking and release program. These data have the potential to provide some of the first movement data for the species, as no mark-recapture study has previously been enacted for *Cyclanorbis*. Importantly, we will also continue to support our local contact, Mady Konjira, as he continues our monitoring efforts and relationships in the area.

**10. 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 shirts which showed The Rufford Foundation logo to many of our collaborating fishermen and partners. These were worn proudly amongst our team and many pictures were taken for our social media accounts (see attached). This

project was also highlighted on the One Planet Conservation Awareness website and Facebook pages, with mention of being funded by The Rufford Foundation. Finally, The Rufford Foundation was acknowledged as a funding partner in our publication of the CBFTT species account for *Cyclanorbis senegalensis*, a species for which very little has been published (Chelonian Research Monographs: <https://iucn-fftsg.org/cyclanorbis-senegalensis-114/>).

**11. Please provide a full list of all the members of your team and briefly what was their role in the project.**

**Pearson McGovern** – project lead and field researcher, conducted all community interviews and all trapping efforts for all turtles captured.

**Mady Konjira** – Kedougou native who served as local guide and translator for all field efforts, a truly indispensable asset to work with in the Kedougou region, with contacts seemingly everywhere.

**12. Any other comments?**

Without The Rufford Foundation this project would not have been possible, a profound thank you is in order!

# The Rufford Foundation

Picture Presentation

Title of Application:

Conserving the African Softshell Turtle in Senegal

Grant recipient:

Pearson McGovern – African Chelonian Institute













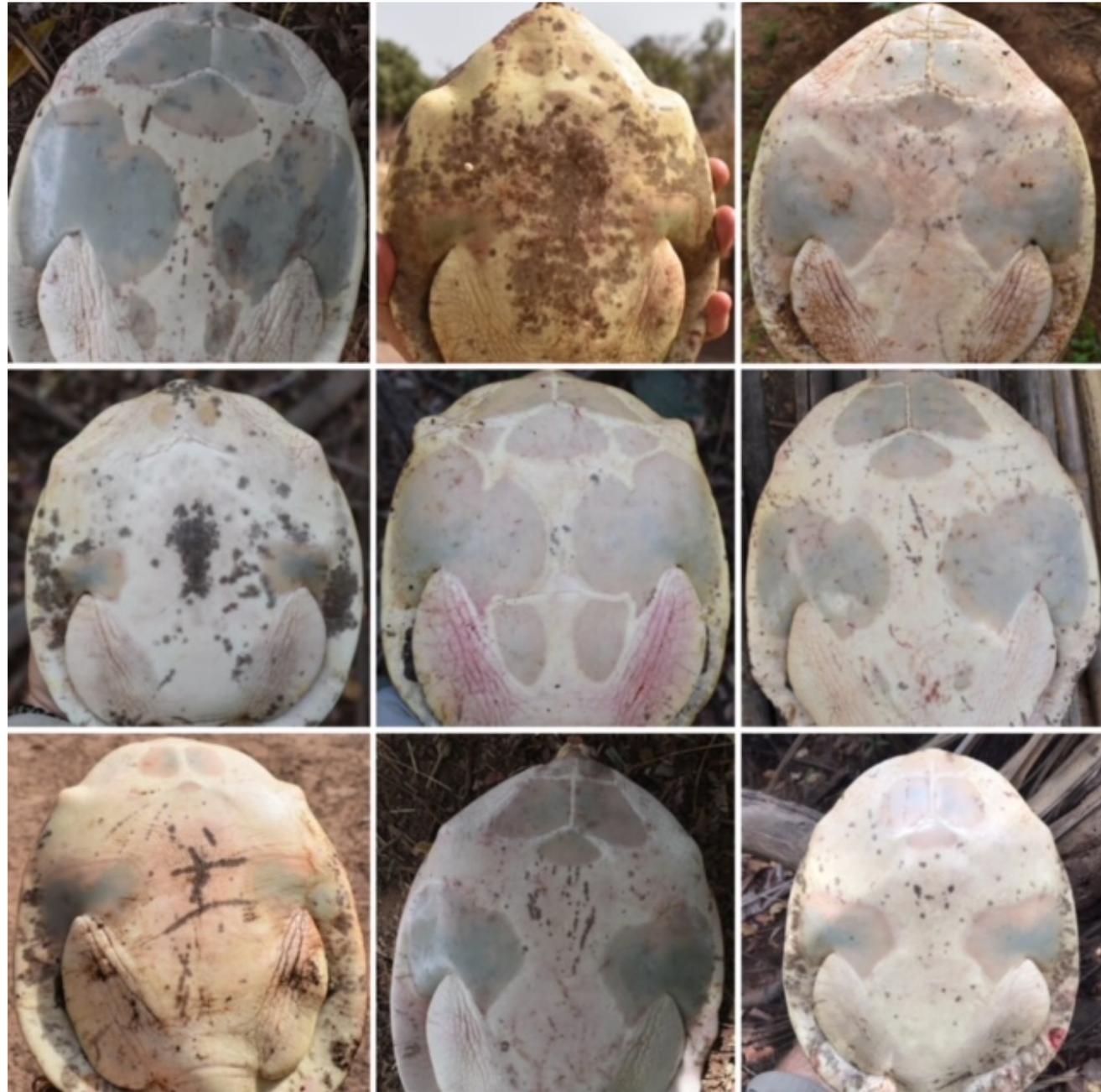




















































This photo was sent to us by Sorin Ndiay from Coroungoto Village, unfortunately it was taken before he knew of our project and this individual was eaten by his family.

Please let me know if you would like captions for any photos you may want to use.

Thank you so much for your support of this project!