

## The Rufford Foundation

### Final Report

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Congratulations on the completion of your project that was supported by The Rufford Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. The Final Report must be sent in **word format** and not PDF format or any other format. We understand that projects often do not follow the predicted course but knowledge of your experiences is valuable to us and others who may be undertaking similar work. Please be as honest as you can in answering the questions – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please complete the form in English and be as clear and concise as you can. Please note that the information may be edited for clarity. We will ask for further information if required. If you have any other materials produced by the project, particularly a few relevant photographs, please send these to us separately.

Please submit your final report to [jane@rufford.org](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

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Grant Recipient Details	
Your name	Kay Zin Than
Project title	Conservation of Saltwater Crocodiles ( <i>Crocodylus porosus</i> ) through exploring suitable habitats in Myanmar
RSG reference	ID:21646-1
Reporting period	July
Amount of grant	£5000
Your email address	<a href="mailto:kayzinthan@yahoo.com">kayzinthan@yahoo.com</a>
Date of this report	06.06.18

1. Please 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
To identify the suitable habitats of <i>C.porosus</i> in Meinmahla Kyun Wildlife Sanctuary				Thirty rivers inside three project sites, Meinmahla Kyun Wildlife Sanctuary, Kadonkani Reserved forest and Pyindayae Reserved forest were surveyed. The survey took 4 days per river in each site. We conducted data collection on habitat characteristics which enable us to estimate the occupancy of saltwater crocodiles in three project sites with respect to different habitat characteristics. We would provide a baseline data on the distribution and abundance of saltwater crocodiles to estimate the population size and range in the future.
To access the distribution of <i>C.porosus</i> outside Meinmahla Kyun Wildlife Sanctuary				The saltwater crocodile was found in Meinmahla Kyun Wildlife Sanctuary and Kadonkani Reserved Forest (RF) but there were no sightings in Pyindayae Reserved Forest (RF). Seasonal variation in crocodile movements may exist and further surveys in two reserved forests will be conducted in the winter season again.
To access the awareness and knowledge of local villagers about the saltwater crocodile ecology and hunting threats				Our group surveyed 200 households in 14 villages near Meinmahla Kyun Wildlife Sanctuary, Kadonkani RF and Pyindayae RF with structured questionnaires and focus group discussions. We found that local communities have weak interest in the biodiversity conservation including the conservation of saltwater crocodiles, mangrove forests and rivers. Though no hunting threats on saltwater crocodiles were found, almost all households do not want to participate in conservation

				activities.
To review the existing wildlife management practices of Meinmahla Kyun Wildlife Sanctuary				We reviewed all existing wildlife laws, regulations and instructions such as Wild Flora and Fauna Protection and Conservation Law (1994), annual wildlife management plan, and the periodic conservation activities which have been conducting in Meinmahla Kyun Wildlife Sanctuary.

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

During the survey, our team had to rent wooden boats for conducting field survey along the rivers. All the boats using in Meinmahla Kyun WS are wooden boats with small engine power (7hp). As the boat engines are still loud and noisy though we drove as slowly as possible, it was inconvenient especially in finding and counting crocodiles during the night-time spotlight surveys. We concluded that the electric boat can reduce engine noise and disturbances while conducting crocodile survey. And the resources in Meinmahla Kyun are very poor such as lack of electricity and freshwater scarcity at the camps, so it should be listed as one of the important factors needed to consider in planning the long-term conservation project in those region.

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

1. Habitat suitability map of saltwater crocodiles throughout the coastal area of Myanmar.
2. Detailed occupancy (abundance and distribution) estimates of saltwater crocodiles with respect to habitat characteristics in three project sites.
3. Better understanding about local communities' interest and build awareness in saltwater crocodile conservation.

**4. Briefly describe the involvement of local communities and how they have benefitted from the project (if relevant).**

Local communities participated in focus group discussion and questionnaire survey in assessing their local knowledge and awareness in biodiversity conservation programmes.

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

We would like to continue saltwater crocodile conservation project especially to conserve through local communities' participation. The habitats of saltwater crocodiles are highly threatened by overpopulation, forest degradation, deforestation, habitat fragmentation through unsystematic different land uses nearby. Without valuable awareness on the ecological importance role of saltwater

crocodiles and participation of local communities, the implementation of all conservation activities would not be successful and the goal of conservation activities would not be achieved. Participatory approach through involvement and participation of local village in conducting biodiversity surveys led by the MMHK staffs should be implemented to persuade the interest of local people on biodiversity conservation. Public educational talks about ecology, environment and biodiversity should also be organized for effective biodiversity conservation activities.

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

The results of “saltwater crocodile’s conservation project through exploring suitable habitats in Myanmar” are very useful in biodiversity conservation and protected areas management in Myanmar. Our project results will point out the importance of suitable habitats to conserve the keystone species like saltwater crocodiles in the protected areas and adjacent places. As we share all our results and findings to Wildlife Conservation Department, Ministry of Natural Resource and Environmental Conservation, the policy makers and conservation advocates could review the current biodiversity and protected areas management practices based on our results and develop good practices that could support well to the park warden and rangers so as to develop all the conservation activities on ground. We are planning to publish our results and findings in an international journal and present in ATBC conference in 2019.

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

The anticipated length of the project was 5 months starting from April 2017 to August 2017. As I got Rufford grant in June 2017, I made changes to the project timeline depending on the funding situation and seasonality in Myanmar to be able to conduct the project activities safely. Hence, all project activities were carried out during February to May 2018 which is the summer season in Myanmar.

**8. Budget: Please 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.**

Item	Budgeted Amount	Actual Amount	Difference	Comments
Travel from Nay Pyi Taw to Ayeyarwady region Project sites (2 persons * 100£)	400	200	200	Project team members reduced three to two persons
Local Transport at survey sites (Including boat renting, fuel and	3300	4200	-900	

boat driver charges) (60days * 2 boats per day *35£)				
Hiring field assistant (60days * 10 £)	1300	600	700	Surplus amount were used in renting boats during survey
<b>Total</b>	5000	5000	0	

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

Our project reveals the habitat preferences of saltwater crocodiles based on the occurrence records of crocodiles in three project sites and the local community perception on saltwater crocodile conservation programs which have been done by the Meinmahla Kyun Wildlife Sanctuary. The next crucial steps will be:

1. Mangrove forests rehabilitation and restoration programmes in two main project sites (Meinmahla Kyun and Kadonkani Reserved Forest).
2. Extension and awareness raising programmes for local community to get more interest and awareness on conservation activities.
3. Organizing stakeholder’s meeting in Meinmahla Kyun Wildlife Sanctuary to raise the problems and find solutions which can be found in the conservation of saltwater crocodiles within their habitat range.

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

We used the Rufford Foundation logo in organizing meeting and interviews with local villagers and staffs from Forest Department, Meinmahla Kyun Wildlife Sanctuary. We will acknowledge Rufford Foundation in our publication, thesis, and poster presentation in conferences.

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

**Mr. ZAW ZAW** (Project member)  
 B.Sc (Forestry), M.Sc (Ecological Restoration)

**12. Any other comments?**

Saltwater crocodiles are legally protected within Meinmahla Kyun Wildlife Sanctuary (MMHK WS). The surrounding habitats are highly threatened and fragmented due to high human disturbances. Establishing buffer zones around MMHK WS is feasible way to conserve saltwater crocodile effectively. Therefore, more research about the population trend and movement of saltwater crocodiles should be done to know the extent of home range of saltwater crocodile in Myanmar.