

## The Rufford Small Grants Foundation

### Final Report

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

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. 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. 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**

#### Grant Recipient Details

|                            |  |
|----------------------------|--|
| <b>Your name</b>           | Islam Mohammad Elsadek   |
| <b>Project title</b>       | Ecological studies on marine turtles at two protected areas in the Southern Egyptian Red Sea |
| <b>RSG reference</b>       |  |
| <b>Reporting period</b>    | August 2012 – August 2013  |
| <b>Amount of grant</b>     | £5970  |
| <b>Your email address</b>  | <a href="mailto:Islamelsadek2003@yahoo.com">Islamelsadek2003@yahoo.com</a>                   |
| <b>Date of this report</b> | 11/09/2013   |

**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  |
|---|--------------|--------------------|----------------|---|
| Characterise population in nesting ground                               |              |                    | x              | Two trips have been organised through the nesting season of 2013 and still waiting for one more at the end of the nesting season  |
| Describe population in their feeding ground                             |              |                    | x              | 6 months of collecting data in some of the most important feeding grounds.  |
| Collect data on the nature and magnitude of mortality                   |              | x                  |                | We conducted some questionnaires with fishermen, however as the interviewer was one ranger from the National Park (and thus part of the Authority) the fishermen felt uncomfortable and only gave answers that we wanted to hear. We changed this part of the project and interviewed instead tourists to understand how they value two important marine turtle feeding grounds. This information will be included in the new management plans for these areas. |
| Identify critical habitat   |              | x                  |                | We identified some important habitats for green turtles (important nesting and feeding grounds but also cleaning stations).<br>However for this part we were planning to use acoustic tags but we couldn't get the permission from the Ministry of Defence.   |
| Identify different source of human impact on nesting and feeding ground |              |                    | x              | We identified the following human impacts on nesting grounds:<br>1) Presence of people on the nesting beaches (military and fishermen mostly but also tourists) and evidence of turtle consumption/egg poaching;<br>2) Presence of safari boats in front of the nesting beach keeping their lights on all night.  |
| Awareness, capacity building and local community participation          |              |                    | x              | We organised:<br>One workshop at Wadi Gemal National Park. Participants were rangers from Wadi Gemal, Gabel Elba and Marsa Alam Office<br>One workshop in South Sinai – Ras Mohammed National park. Participants were rangers and staff from Ras Mohammed and Naqb National Parks.<br>We organised a workshop for the diving  |

|   |  |   |   |   |
|---|--|---|---|---|
|   |  |   |   | community in South Sinai on general marine turtle biology and how to collect data.<br>Furthermore we gave informal talks to the fishermen that joined us during the monitoring of Zabargad Island and we trained the rangers and students participating in the field work in a hands-on manner.     |
| ADDED – Study the impact of climate change on nesting grounds in the Southern Egyptian Red Sea                    |  | x |   | <b>Status: on-going</b><br>We installed temperature loggers on a main nesting ground for green turtles in August 2013. We will go back in November to collect the loggers and analyse the data. This is the first time that climate change is addressed for marine turtles in the Egyptian Red Sea. |
| ADDED – Understand perceptions of visitors towards marine conservation and valuation of green turtles and dugongs |  |   | x | One of our trainees, a student from Port Said University, conducted questionnaires on visitor's perception and valuation of endangered green turtles and dugongs. This information will be integrated in future management plans for two feeding grounds.   |

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

- The biggest difficulty we had was to use acoustic tags to study habitat use by marine turtles, however after an initial informal agreement from the Ministry of Defence, the navy refused the use of any kind of tags.
- Working with fishermen: I couldn't organise workshop with fishermen or conduct questionnaires myself. As I am a Ranger from National park, fishermen didn't feel comfortable replying to the questions and usually gave me the answers I wanted to hear. While I think this part of the project is very important, I need to find a student to conduct the questionnaires in the field.
- We had problems in 2013 to get permits to visit the far islands where main nesting sites are located. In particular Zabargad Island is a military area and in summer 2013, because of the complex political situation, we only got permission to survey the island for 3 nights.
- Educational activities and workshops: we planned to organise some activities with local schools however, because of the unstable situation, it was not possible to plan activities in advance and we had to move them to this scholar year (starting end of September 2013). We will organise Turtle Days in elementary schools in Marsa Alam.

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

Three most important outcomes were:

1. Population abundance of endangered green turtles in their main nesting ground in the Egyptian Red Sea: we found that approximately 200 female turtles visit the island every year however more data are needed to establish trends. When comparing our data with data collected in previous season, we found a sharp decline in the number of nesting turtles. However this can be due to different factors:
  - a. Marine turtles have annual fluctuations in their nesting grounds due to food availability.
  - b. Data have been collected with different methods and are not fully comparable.
2. Baseline of population abundance in some major feeding grounds: we obtained the first abundance estimates of marine turtles in their feeding grounds. We identified two areas in particular with high density of turtles that are also intensively used for tourism. For these two areas (Marsa Abu Dabbab and Marsa Imbarak) we are designing management plans to mitigate human impact from tourism and boats.
3. Capacity building for local rangers working in marine protected areas of the Egyptian Red Sea: we trained 12 rangers on how to collect data in feeding and nesting grounds. We created standard protocols that can be easily implemented in all the area.

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

We have been working with the local fishermen (although not as much as we wanted), the diving community, students and national park rangers. The fishermen supported us during the survey of the nesting grounds providing a boat for free. The diving community was involved in the data collection while students and rangers took part to our surveys and field activities and had hands-on trainings. We will organise educational activities with younger students so that they will also benefit from our new knowledge.

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

I am planning to continue this work and include the activities in the actual work plan of the Park Ranger Office in Marsa Alam. As we still have some money left, I was planning to:

- Continue the survey on the feeding grounds focusing on five areas in the Marsa Alam sector that are also overused by divers and snorkelers.
- Continue the work on the nesting grounds (Zabargad in particular) in cooperation with the Egyptian Environmental Affairs Agency (we need more funds to carry longer night surveys).
- Include a “Marine Turtle Surveying techniques” for new rangers.
- Work with local community and involve them in data collection process.

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

Part of the results has been shared with the international scientific community in February during the International Sea Turtle Symposium.

I have also presented part of my results during the workshops for rangers in South Sinai and Southern Egyptian Red Sea.

I am working on scientific publications to be submitted as soon as possible and i am finishing my master thesis.

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

I received the grant in August 2012 and I tried to respect the planned work schedule as planned:

- Monthly surveys were conducted in the feeding grounds from August to 2012 to July 2013 (only December missing, the weather conditions were not suitable for snorkelling transects).
- I did three surveys in far nesting grounds in August 2012, May 2013 and August 2013, plus sporadic surveys of minor nesting grounds during summer 2012.
- The training with rangers took place in April 2013 and July 2013.

I did not complete all the activities and I made major changes to the original plan (as explained below) but I am planning to finish all the activities in the next 4-6 months.

**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   |
|--|-----------------|---------------|------------|--|
| Sonar tags – 4VH16   | 1000.00         | 0.00          | 1000.00    | The navy refused to give permits to install acoustic tags.   |
| Sonar Receiver – 1VR 100   | 2600.00         | 0.00          | 2600.00    | The navy refused to give permits to install acoustic tags.   |
| Software – 1VUE  | 70.00           | 0.00          | 70.00      | The navy refused to give permits to install acoustic tags.   |
| Temperature loggers – 30 HOBO Pendant 64k  | 0.00            | 1570.00       | -1570.00   |  |
| Software – 1 HOBEware PRO  | 0.00            | 90.00         | -90.00     |  |
| Pendant Optic base station – 1   | 0.00            | 60.00         | -60.00     |  |
| Shipping fees – HOBO   | 0.00            | 15.00         | -15.00     |  |
| Workshop for Dive Centers and Rangers in South Sinai   | 0.00            | 396.00        | -396.00    |  |
| Equipment (1 camera with night vision, 1 GPS, 1 waterproof bag, 1 infrared light for video camera) | 0.00            | 1.500.00      | -1500.00   |  |
| Educational material (t-shirts and banners)  | 0.00            | 150.00        | -150.00    | We didn't include any educational material in the original budget because we thought it was going to be too expensive. |

|  |         |                |         |  |
|--|---------|----------------|---------|--|
| Compensation for fishermen                       | 650.00  | 50.00          | 600.00  | The fishermen only asked for food and water  |
| Boat rental (from fishermen)                     | 540.00  | 140.00         | 400.00  | The fishermen only asked for gasoline  |
| Boat rental (private boat)                       | 790.00  | 0.00           | 790.00  | Due to low tourism, the owner of a safari boat provided it for free for 5 days.                    |
| Boat rental (from fishermen or join safari boat) | 0.00    | 540.00         | -540.00 | NOVEMBER 2013 – I will go recollect the temperature loggers and do the final survey of the season. |
| <b>TOTAL</b>                                     | 5650.00 | <b>4511.00</b> | 1139.00 |  |

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

I think that the three next important steps would be:

1. Continue to apply the standardised monitoring protocols in feeding and nesting grounds in the southern Red Sea and extend them to the northern area of the Egyptian Red Sea. The rangers from South Sinai and those from Hurghada office received the necessary training (or will receive the necessary training shortly). This way we will have good data and estimates for population abundance in the nesting grounds and we will be able to implement directed management plans.
2. Include local community and stakeholders in data collection process in feeding areas as this has a positive effect on conservation and spread awareness on the importance of natural resources.
3. Investigate which are the main causes of mortality of marine turtles in the Egyptian Red Sea, in particular study if and how by-catch and poaching are threatening the local populations of marine turtles.

### 10. Did you use the RSGF logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?

I used the RSG logo on the banners I printed for 2013 Environmental Day and the rush-guards that we use in the feeding grounds, we included the RSG logo in the two presentations we did at 33rd International sea turtle symposium in February 2013.

We will use the RSG logo for an event we will organise with local schools in Marsa Alam (Turtle Day): this project will include activities that will spread awareness on marine turtle's biology and main threats and we will also show some videos from the Red Sea that we took on their behaviour (nesting, swimming, breathing, cleaning, etc).

### 11. Any other comments?

- The project went through major changes since its beginning and we had to replace sonar tags with a study on climate change impact.

- We did not spend all the money and we are planning to continue the field activities for another season (as long as possible) focusing on five areas highly used by tourists as well. The feeding and nesting grounds in Wadi Gemal National Park are almost untouched and there is not much to do because there is not much impact (the access is restricted), but in the Marsa Alam area some feeding grounds are used by hundreds of tourists daily.
- We are conducting some genetic studies to understand where do the turtles of the Red Sea come from and how isolated they are from the Indian Ocean populations (so how unique they are). I will send the updates for RSG when I finish the analysis.

