

The Rufford Foundation Final Report

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.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details	
Your name	Fethi Bengil
Project title	Might Karaburun Peninsula be a new SEPA in Aegean Sea? Tempo-spatial evaluation on the Resident Bottlenose Dolphins in the Izmir Bay, Aegean Sea
RSG reference	20374-2
Reporting period	August 2016-2017
Amount of grant	£5000
Your email address	oceanographer@gmail.com
Date of this report	20 August 2017

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
Interview with local communities and authorities				Many meetings and interviews with stakeholders, local communities and authorities were held to provide knowledge, their support and to present results of the project
Sea surveys				Our field study concentrated on dolphin-fisherman interactions and photo-identification of the individual of dolphins.
Evaluation of the collected data, analyzes and identification procedures of dolphin individuals				Data on distribution of dolphin species were collected and analysed. Our results indicated that interactions between fisherman and dolphins are significantly higher in the Izmir Bay. Process on identification of the individuals of dolphin species still continues and will be published in scientific journal, as we did in the first project.
Visual material design, printing and distribution				We got delayed during distribution study due to the state of emergency in Turkey after September 2016. However, we shared our materials in public places and our research material. We also sent our preliminary results to authorities, additionally we will request for meetings to share our results with governmental authorities after the state of emergency.
Educational activities about the sea life and sea animals in local schools				Having a permission for educational activity at schools was very difficult due to the state of emergency in Turkey. However, we had chance once to organise educational activity for children. We plan to continue our volunteer education activities after the state of emergency due to availability of permissions.

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

Our main problem during the project period was about getting permission from authorities. Some educational, dissemination activities have not been able to conduct yet due to the state of emergency in Turkey. We sent our results as written document without meetings and we got only one successful attempt for educational activity during the project due to permission issues. To tackle this difficulty, we plan to organise these activities after the state of emergency in Turkey. Refugee problem in the Aegean Sea was another difficulty to choose filed trip area. However, more field trips than proposed has been conducted in inner parts to tackle disadvantages of restricted area.

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

First of most important outcomes of the project is understanding of interaction between marine mammals and fisherman in the Izmir Bay. Our results indicated us that the interaction is significantly higher in the bay. Results of our first project showed us that population of the dolphin species use generally coastal area than open waters of the bay in the summer period. Results from this project showed us that distribution of dolphins in the area depend on fisheries activities in the bay. For instance, trawling, as legal fisheries method, is available from autumn to spring. Trawl fisheries use the deeper and open water part of the bay during this period. Parallel to the tracks of the trawl vessels, individual of dolphins were abundantly sighted open waters of the bay. They use generally coastal area which is also the fisheries area for artisanal fisheries in the region during the summer period.



Figure 1. Insufficient amount of fishes for fisherman after trawl effort and dolphins surround the trawl vessel for feeding.

Second outcome is better understanding the distribution of dolphins in Izmir Bay. After results, we can clearly say that individuals of dolphins inhabiting the area have seasonal distribution pattern. Deeper offshore areas (up to 100 m) are their preference in the winter, then they gradually started to prefer narrow coastal area towards to summer. This is most probably because of their feeding habits that depend on fishery

activities in the area. We also took significant amount of photo for photo identification purpose. These photos will help us to understand distribution of individual within the bay, as well as their distribution distance by comparing other possible studies in neighbouring areas in the Aegean Sea. We already have published photo-identification catalogue for the individuals of dolphins in the area from the first project. After completing identification analysis, we will expand our catalogue for the Izmir Bay. It is also be noted that reporting the Mediterranean monk seal observations were frequent during the project period both in coasts of Foca and Karaburun. The region is still important area for the seals as well as cetaceans that this project point out.



Figure 2. Photo-id survey of the survey team.

Third outcome is reflection of first outcome in sociological aspects. Fisherman's behaviour against dolphins were like enemies due to damage on their fishing gears. Even though there has not been reported harmful attack from fisherman towards dolphins, this in fact happens in the northern coasts of the Turkey (Black Sea). Fish as food (prey) became more important for both sides, fisherman and dolphin due to insufficient fisheries management and over-usage of fisheries sources. Thus, competition between them becomes more aggressive every year. Results and observations from this project indicated us that awareness of fisherman on marine organisms, especially marine mammals are crucial steps for near future as well as implementation of suitable management plans for marine sources.

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

As being in the previous project in Foça, local people in both areas, Foça and Karaburun, showed attention to our project and they were volunteers as part of the project as we hoped in the beginning. As a result of frequent relationship with local

communities, they wanted to gain knowledge on dolphins in the area. We had our previous catalogue to share with them. Knowing some dolphins individually amazed all local people who were interested. Local authorities were included in the project by their requests in different ways. Municipality of Foça and Karaburun helped us to organised meetings with stakeholders and children; and fishery cooperatives as well as fishermen were in collaboration for the sea surveys. We were invited to trawl vessels for observations on interaction between fishermen and dolphins. As previous project, cafes, bars and restaurants encourage us to put our posters and flyers on their walls, windows and stands.



Figure 3. One of project posters; our volunteer put on the big windows of famous cafe in study area



Figure 4. The dorsal fins of identified bottlenose dolphins in Foça SEPA. Each photograph shows the identified individual in the study. This catalogue was used during meetings and interactions with stakeholders and local communities.

5. Are there any plans to continue this work?

Yes, there are. Results brought us the knowledge that a holistic approach is needed for the conservation of dolphins in the region. We still do not know distribution range of dolphins individually for the area. Broadened study area will be required to better understand their ecology and behaviour. As well as conservational biology of the dolphins, some attempts are required for protection and making/improving ecological base management plan for living marine sources. Interactions between fishermen and marine mammals are significant for the study area and this fact brings up an extensive question whether all Turkish Aegean Sea has the same problematic interactions or not? Further effort is planned to extend study area to understand biology and ecology of dolphins and their conservation with more effective management plans. Observation frequency of Mediterranean monk seals in the area is another encouragement fact for further studies.

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

We have already established an e-mail group and social media group to share our results. As well as popular communion, we also planned scientific publications for the project. Our catalogue for Foça has been published in an important international scientific journal in 2017, we would like to add our new individuals into the catalogue. We also prepared a poster presentation for the dissemination of the information obtained from results of project for scientific conference of European Cetacean Society in March 2018. We sent our results as written document without meeting; we plan to organise these sharing activities after the state of emergency in Turkey with the governmental organizations.

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 grant was used all over the length of the project. As proposed first activity, which were interviews with local communities and authorities, took almost 2 months from end of August to the middle of October 2016. Interviews with fishermen were a continuous activity for our project. We had started it from September 2016. Sea surveys started in December 2016 and continued up to end of July 2017. Evaluation and analysis of collected data have started at the end of July 2017. Analysis on distribution and interactions completed, however photo identification analysis continued to have more accurate catalogue, especially for scientific outcome. Completed outcomes shared with stakeholders, especially fishermen, relevant institutions and organisations after first week of August 2017, we still continue to share our results. Educational activities partially have started in March 2017; however, it has not been completed yet due to difficulties in permission issues.

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
Print material for educational and conservational activities	80	80	0	
Food supply for volunteers and team	50	100	-50	We had more volunteers than we expected in our surveys. Additional sea surveys with trawl vessels were required more food supply.
Accommodations in Karaburun (30 days)	720	880	-160	We spent more day for field survey and we also had two additional field researchers in some field days.
Travel expenses (4 times)	600	500	+100	Even though we visited 6 times, cheap flights in the winter time reduced the budget of this item.
GPS	150	100	+50	We found cheaper GPS.
Fuel (40 field surveys)	3400	3700	-400	We had more field trip than our plan, thus we spent more than we planned, and additionally stakeholders provide us free/discounted boat or donated fuel for some additional field trips.
Total	5000	5360	-360	

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

After this second project, this dataset became the first long term cetacean database in the Aegean Sea coasts of Turkey. Results from the second project also point us out that interaction between marine mammals and fishermen is significantly important and required further knowledge and some cautions for the sustainability of living marine sources. Further project should be implemented on these findings.

Another importance is that, findings on distribution range of the individuals of dolphins. Results showed us, further project needs to extend study area geographically for further understanding of ecology and behaviour of the dolphins. A holistic approach will be more efficient to collect catalogue of the dolphins in the Aegean coasts of Turkey.

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

We used the RF logo in all printed materials and products; on flyers, posters, banner, t-shirts, walls and windows of cafés, bars, restaurants, research boat, field forms, presentations and social media. You can see some products below and above under other questions.



Figure 5. Some example of RF logo in printed material.

11. Any other comments?

None.