

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	Grgur Pleslić
Project title	Status of Bottlenose Dolphins in North Dalmatia, Croatia
RSG reference	13450-1
Reporting period	6 th June 2013 – 6 th June 2014
Amount of grant	£5715
Your email address	Grgur.pleslic@blue-world.org
Date of this report	25 th June 2014

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
Data Collection			Yes	78 daily boat surveys; 2503 nm distance travelled and 87 sightings of bottlenose dolphins were recorded
Data analysis			Yes	180 individual bottlenose dolphins were identified that were not previously known from the reference catalogues of the Adriatic Dolphin Project. From this analysis, a reference catalogue was compiled and included in the shared database of the Blue World Institute.
Data sharing			Yes	The reference dorsal fin catalogue shared with other working groups of the Blue World Institute, Morigenos and Marine-Life
Reporting			Yes	Reports sent to public institution National Park Kornati, State Institute for Nature Protection, Directorate for Nature Protection, ACCOBAMS, International Whaling Commission (IWC).
Public awareness		Yes		Only two out of eight planned public lectures were held due to insufficient capacity and interest in the visited island towns
Capacity building		Yes		There were Croatian biology students available to take part in the project, but two workshops for ranger service of National Park Kornati were held, hence we consider capacity building partially achieved.

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

There were three main difficulties that arose during the fieldwork. First was a technical issue – insufficient capacity of batteries on the MB Anika, the boat that was used as a mobile field station. This meant that we were limited in number of hours daily when electricity was available to run laptop computers needed for data storage and analysis. This problem was tackled by choosing less optimal routes in order to visit ports that provide electricity to

visiting boats. Less optimal routes were compensated by covering more distance with the RIB.

Second difficulty was related to the planned involvement of Croatian biology students. Due to favourable weather conditions the fieldwork started at the beginning of June. Since the summer exam terms on Croatian faculties last until mid-July we received no application by Croatian students to join the team.

The third difficulty is related to planned public awareness campaign. Most of the island towns in the study area are very small (around 200-300 inhabitants, mainly elderly), meaning there is no infrastructure needed to organise public lectures (no suitable venues, no tourist office or any other "official" body to initiate contact and organise a lecture). Hence, instead of eight planned public lectures, we managed to organise only two in Sali on the island of Dugi Otok. Sali is the only island town in the study area that had enough population (roughly 800) and infrastructure (public library). We held two public lectures in Sali during the summer season, on 26th July and 2nd August 2013. The lectures were visited by total of 60 attendees. In order to tackle this problem and still contribute to educational component of the project we organised two workshops for the employees of the public institution National Park Kornati. The aim of the first workshop was to provide the participants with knowledge on the biology and ecology of the bottlenose dolphins in this area. The second workshop aimed to provide skills to correctly report sightings of bottlenose dolphins and by the ranger service of the National Park Kornati and thus enhance the reporting network in the Adriatic Sea. These workshops turned out to be successful since reporting scheme was defined and is currently ongoing. Additionally, public institution Nature Park Telašćica was contacted and workshops for their rangers are scheduled for the summer 2014.

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

Collection and analysis of baseline data on bottlenose dolphins in northern Dalmatia. Between 3rd June 2013 and 30th September 2013 a total of 66 daily boat surveys were conducted. An additional 12 area surveys were conducted between 1st October 2013 and 6th June 2014. Total distance travelled was 2762 nm of which 2194 nm were travelled in favourable search conditions. Total time spent at sea was 250 hours, of which 160 hours were spent in favourable search conditions. During the fieldwork 87 sightings of bottlenose dolphins were recorded. A total of 46 hours were spent in presence of bottlenose dolphins. Photo-ID procedure was successfully conducted during all sightings. Analysis of the data collected during summer season 2013 started during fieldwork and was finished in April 2014. From the collected photo-ID data 180 individual bottlenose dolphins were identified that were not previously known from the reference catalogues of the Adriatic Dolphin Project. From this analysis, a reference catalogue was compiled. Based on total research effort and the amount of the collected data, the first research season is considered highly successful.

Enhanced network of researchers working on bottlenose dolphins in the Adriatic
The compiled dorsal fin reference catalogue is now included in the shared data base of the Blue World Institute. This catalogue is also shared with the Morigenos, dolphin research organisation from Slovenia, and Marine-Life, dolphin research organisation from Italy. To improve future collaboration on the photo-ID data, a standardised protocol for data storage, analysis and sharing was developed in cooperation with other working groups of the Blue World Institute and Morigenos. A step-by-step manual was written, describing the standardised data analysis method and use of Adobe Photoshop Lightroom software for this purpose. This manual is in pdf format and readily available to all researchers working in the Adriatic. Additionally, previous data on bottlenose dolphins in the area of National Park Kornati, collected between 2002 and 2007 by Marine Life from Italy was standardised according to current protocol, analysed and included in the shared database of the Blue World Institute. Contact was also made with a student of the University of Hamburg who currently conducts a bio-acoustic study on bottlenose dolphins in National Park Kornati. A meeting is scheduled for summer 2014 to discuss potential collaboration and combination of photo-ID and acoustic data to enhance our understanding of the status of bottlenose dolphins in the study area.

Inclusion of other stakeholders in the study area and public awareness

Two public lectures were held in Sali (Dugi otok), attended by total of 60 people. Two workshops were held for employees of the National park Kornati. Nature Park Telašćica was contacted to propose similar workshops, which were agreed to be held during summer 2014.

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

Numerous spontaneous contacts were made with locals that we met during field work in the study area (fishermen, workers at fish farms, land owners in NP Kornati...). During these contacts background and aims of the project were explained, brochures and contact cards were dealt and locals were invited to report sightings of dolphins. Also, protocol in case of injured or stranded dolphin was explained.

5. Are there any plans to continue this work?

This project is foreseen to last for minimum of 3 years. This is believed to be minimum necessary period to collect enough data to produce meaningful results and conclusions. Based on the success of the first year, this plan is very realistic. In fact, the second field work season already started at the moment of writing this report.

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

The compiled dorsal fin reference catalogue is shared with other working groups in the Adriatic, including research teams of the Blue World Institute working in Lošinj and Vis, Morigenos working in Slovenian, Italian and Croatian waters, Marine Life working in Italy. The

results were included in the reports sent to National park Kornati, State Institute for Nature Protection, State Directorate for Nature protection, ACCOBAMS, IWC (International Whaling Commission) and the yearly report of the Blue World Institute, publicly available on <http://www.blue-world.org/en/annual-reports/> .The results will also be used for writing scientific papers, published in international peer-reviewed journals and presented at international conferences.

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 funds received from the Rufford Foundation were used from 6th June 2013 to 6th June 2014. Majority of the grant was used until 30th September 2013, since this was the main fieldwork season, due to favourable weather conditions. Smaller part of the grant was used for area surveys in the months out of the main fieldwork season. This period corresponds to the planned duration.

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. 1£ = 8, 81 HRK (exchange rate used on the date of budgeting)

Item	Budgeted Amount	Actual Amount	Difference	Comments
Gasoline for RIB; Based on 5 hour surveys, 58 surveys in total, average fuel consumption 6lit/hour, price 1.25£ per litre	2175	2521	-346	The difference was covered from the surplus of the budget line for diesel for MB Anika (next budget line)
Diesel for MB Anika; Based on 3 hour transfers, 40 transfers in total, average fuel consumption 14lit/hour, price 1.25£ per litre	2100	1768	332	The difference is due to the fact that we used diesel that was already in the tanks at the beginning of the study. This difference was used to compensate for the costs of the gasoline for the RIB (see above)
RIB engine service; outboard engines require regular service every 100 working hours, based on the costs for a 60HP 4-stroke outboard engine	280	523	-243	Three regular services were foreseen, but the last service was more expensive since it also included "conservation" of engine for the winter (when the RIB is out of the water). The difference was covered from

				other sources secured for this project.
MB Anika harbour fee; cost for overnighing in visited harbours. Based on costs for a 14 m boat, visiting 8 harbours per month	450	369	81	It's hard to exactly predict harbours that will be visited and some of the visited harbours charged less than expected for overnighing.
External hard drive unit; used for data storage, backup and transfer	60	89	-29	The difference was covered from other sources secured for this project
Projector; used for public lectures in visited towns	500	485	15	No comments
Printer; used for printing data collection forms, informative flyers	50	51	-1	No comments
Printer paper and ink	100	100	0	No comments
Total	5715	5906	-191	The difference was covered from other sources secured for this project

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

Continuation of data collection, more area surveys out of the summer season, extension of the study area to the south and more focus on the interactions between dolphins and fish farms. Get additional battery for the boat to gain more available electricity for work. Detailed cross-checking of all existing catalogues of bottlenose dolphins to find matches, determine distinct communities in the Adriatic and their respective home ranges. Building up on the initiated cooperation with other research groups and representatives of the protected areas.

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?

The Rufford Foundation was acknowledged as supporter of this project on the web pages of the Blue World Institute: <http://www.blue-world.org/en/sponsors/>

Blue World Institute is publishing "Akvmarin", a yearly bulletin with containing news about the dolphin research in the Adriatic Sea and other educational and public awareness contents. The project "Status of Bottlenose Dolphins in North Dalmatia, Croatia" was featured in 2013 issue of the "Akvmarin". The bulletin is distributed electronically (in pdf format, http://www.blue-world.org/media/files/Akvamarin_2013_EN.pdf) to all members and supporters of the Blue World Institute, in Croatia and worldwide. The 2013 issue was sent to over 800 e-mail addresses.

The project was featured in "Zadarski list", a regional newspaper in Zadar County. The article presented the project, its objectives and current achievements and also mentioned The Rufford Foundation as supporter. The article is attached to this report (in Croatian).

The project was also featured in Il Piccolo, a web based version of the Italian newspaper from the Trieste region (<http://ilpiccolo.gelocal.it/trieste/cronaca/2013/10/28/news/dalmazia-oasi-felice-per-i-delfini-1.8003258>)

11. Any other comments?

I am grateful to Rufford Foundation, National park Kornati, my assistants and colleagues from the Blue World Institute for their contributions which made this research project possible.