

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.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details

| | |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Your name | Murat ÖZAYDINLI |
| Project title | Mapping and conservation of <i>Posidonia oceanica</i> beds in Aegean Sea: Assessing threats and creating public awareness |
| RSG reference | 14274-1 |
| Reporting period | October 2013 – October 2014 |
| Amount of grant | £6000 |
| Your email address | muratozaydinli@gmail.com , murat.ozaydinli@deu.edu.tr |
| Date of this report | 20.12.2014 |

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 |
|----------------------------------------------------------------------------------------------------------------|--------------|--------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Production of a detailed cartography of the <i>P. oceanica</i> meadows for use as an essential management tool | | ✓ | | Because of the technical problem with acoustic instrument (Side Scan Sonar), as stated below, this objective marked as 'partially achieved'. Lack of sea floor morphology data is delimitating the detail and extent of the cartography. But this limitation will be tackled by the data from other acoustic instrument and the scuba diving observations. Production of cartography is currently being worked on. |
| Assessment of current status of <i>P. oceanica</i> | | | ✓ | During the scuba diving observations, Hayırsız Island, which is in the northern part, was relatively healthier than the Fener Island. <i>Posidonia</i> meadows around the Hayırsız Island were stable comparing with previous studies. On the other hand, meadows around the Fener Island were in regression state due to anthropogenic impacts i.e. fisheries, tourism, boat traffic, intensive anchoring. |
| Investigation of <i>P. oceanica</i> ecosystem's contribution to the total biodiversity in the pilot area | | ✓ | | This is a long-term objective that requires more time for identification of species found in <i>Posidonia</i> beds. We are currently working on. |
| Investigation of potential anthropogenic threats that effecting health status of <i>P. oceanica</i> beds | | | ✓ | During the scuba diving surveys, wastewater discharge was the most important anthropogenic threat that affecting <i>Posidonia</i> by reducing water clarity and light penetration. Reduction in water clarity affects the distribution depth and photosynthesis efficiency of <i>Posidonia</i> beds. The other threats was trawling and anchoring. |
| Publishing the scientific results in a national/international peer-reviewed scientific journal | ✓ | | | This objective will be achieved when the all data is analysed and additional data from another area is available for a comparative study. |
| Increasing public awareness about the environmental and economic value of these ecosystems | | | ✓ | For increasing public awareness, we tried to reach as many people as possible by individual meetings, banners and flyers. Local fishermen informed about meadows' role in breeding of commercially important fish species. |
| Development of a | | ✓ | | This is a long-term objective that requires more |

| | | | | |
|--------------------------------------------------------------------------------|--|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| management plan that will ensure effective future management of this ecosystem | | | | detailed studies on ecological dynamics of the area and the socio-economical dynamics of the local people. By this project, a small contribution was made to achieve this objective. |
|--------------------------------------------------------------------------------|--|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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

First major problem was getting permissions for field surveys from government. Due to fact that Foça is a specially protected area and also an underwater archaeological site, scuba diving and using acoustic instruments are depending on strict regulations and special permissions. This regulations and the bureaucracy in Turkey caused just a delay (longer than expected) in starting field surveys. Second major and the most important problem was the technical problem with Side Scan Sonar (acoustic instrument). The problem has been noticed during the field survey. Due to fact that the instrument should be sent to company in another country, it would cost so much time and money, which will exceed our project's timescale and budget. So, one of the important acoustic instrument for mapping couldn't be used. But this problem was tackled by using the other acoustic instrument (Multi-Beam Echosounder), considering the loss of data quality.

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

1. Data, to product cartography of *Posidonia* beds, have been collected. Analysis will be completed soon and the cartography will be published.
2. Assessment of current status of *Posidonia* and the potential threats has been determined. This information will be useful for further studies and management plans.
3. Public awareness about the environmental and economic value of *Posidonia* ecosystems has been increased.

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

There are two sides in this situation. Due to fact that Foça is a 'specially protected area', local people get used to regulations for conservation of the nature. And they are really supportive in that case. On the other hand, they are wary of more regulations that can limit their economic activities, such as fisheries. So, during the public awareness activities, we tried to clear their mind about the importance of *Posidonia* beds as a feeding and nursery area for the fishes.

Members of Sailing Club of Foça were very interested in our project. They asked if we could make a presentation about marine environment to all members of the club. We are going to schedule a proper time to make presentation about our project and in general conservation of marine environment.

5. Are there any plans to continue this work?

We are planning to continue this work in a large scale. The Headquarters of Nature Conservation in Turkey will open a call for project proposals about sea floor mapping next year. So, we are developing a project proposal about mapping of *Posidonia* beds in different 'specially protected' coasts of Turkey. And also, we have already sent a project proposal to Turkish Science and

Technology Council (TUBITAK) about habitat mapping, which includes mapping of *Posidonia* beds in Dardanelles and in Sea of Marmara.

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

We are planning to share our results in a scientific paper or as a poster in a scientific meeting. We are also planning to use social media (Facebook, Twitter, etc.) to increase the public awareness.

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

The RSG was used from November 2013 to the October 2014. This time period perfectly match with the anticipated length of the project.

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 GBP=3.2421 TRY (18.11.2013)

| Item | Budgeted Amount | Actual Amount | Difference | Comments |
|---------------------|-----------------|---------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Transportation | 900 | 990 | +90 | See the 'Equipment' |
| Boat renting & fuel | 2200 | 2420 | +220 | See the 'Equipment' |
| Equipment | 1400 | 990 | -410 | We used some diving equipment that belongs to our institute. And after we bought the rest of the equipment, we still had money. So we decided to spend it for extra 2 days scuba diving survey, |
| Accommodation | 1000 | 1100 | +100 | See the 'Equipment' |
| Public Awareness | 500 | 500 | 0 | |
| TOTAL | 6000 | 6000 | 0 | |

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

Mapping of *Posidonia* beds needs to be continued and should be expanded to the other coastal areas of Turkey. Mapping studies are necessary to create a baseline for conservation strategies.

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?

RSGF logo has been used in all of our public awareness events. It has been used in t-shirts, banners and flyers.

11. Any other comments?

We would like to thank to the Rufford Foundation for funding our project. We believe that outcomes of this preliminary project will be useful for further detailed studies.