

## 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	Ramvilas Ghosh A
Project title	Bridging key knowledge gaps for the conservation of Indian Ocean gorgonians
RSG reference	23959-1
Reporting period	
Amount of grant	£4958
Your email address	ramvilas@kufos.ac.in
Date of this report	30-05-2019

**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 understand the diversity and distribution of gorgonians of the Lakshadweep islands				Minicoy island could not be covered in the project period due to budget constraints and time-limit.
To identify critical habitats and species of conservation priority				None
To increase the level of awareness and willingness of locals towards protecting the gorgonian fauna				None
To develop draft IUCN Red List Assessments of gorgonians of Indian waters.				Since there exists a deficiency of scientific data and taxonomic ambiguity with many taxa, it is not possible to do a complete Red List assessment. However, an expert committee that was formed as part of the project has developed an alternate strategy to tackle this issue, which is discussed in detail in the coming sections

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

Prior intimation was given to the collaborators briefing them about the project objectives, activities and timeline through direct meetings and video conferences. The major issue that we faced during the initial period of the project was the unforeseen delay in the sanction of 'entry permits' to the 'Laccadive Islands'. An internship programme was launched exclusively for the islanders to tackle this issue. Local interns from two islands (Agatti and Kavaratti) were called to the home institution and trained to carry out the activities (sampling, questionnaire surveys, interviews etc) in the absence of our team members. Once the entry permits were sanctioned, the project activities were carried out by our team members and were monitored directly by the project leader. Also, the deficiency of historical data was a major challenge in the conservation assessments and prioritisation. However, the expert committee constituted as part of the project could propose alternate strategies to tackle the issue.

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

a) Useful information on the knowledge, perception and attitude of fishers toward conservation of gorgonians, listed in the Indian Wildlife Protection Act was collected which will form the baseline reference for long-term conservation actions.

b) Awareness campaigns in the form of education classes and distribution of brochures among the stakeholders throughout the project period helped in creating a better understanding of gorgonian fauna and the need for its conservation.

c) Generated baseline information on the diversity and distribution of the gorgonian fauna in the sampled sites.

d) Though there was no significant threat to gorgonian gardens in the areas we surveyed, occasional natural calamities like cyclones and tsunamis have affected the gorgonians, particularly to those restricted to the shallow regions. Since there is no comprehensive historical data on the distribution and diversity of gorgonians, any conclusions on local extinctions could not be made. At the same time, we foresee new threats like developmental activities to be sanctioned by the government and continuing island erosion which may affect the gorgonian colonies in future.

e) Better collaboration with research institutions like Department of Science and Technology and Department of Forest and Environment, of the Government of India, dive centres and NGOs has helped initiate plans for a continued monitoring of 'gorgonian gardens.'

f) Owing to the lack of data, instead of conducting the Redlist assessments of gorgonians, data gaps were identified and prioritized for future action.

A workshop named *GORGON-IND: Conservation needs and priorities for gorgonians in India*, was conducted in joint collaboration with Department of Aquatic Biology and Fisheries, University of Kerala and Kerala University of Fisheries and Ocean Studies (KUFOS) at Trivandrum, India. Ten experts representing five institutions (both from the government, non-government and civil society) from different parts of India participated in the assessment workshop. All the participants were introduced by Dr. Biju Kumar, Dean, Faculty of Science, University of Kerala and a brief introduction to the background, need and importance of the present workshop was given by Dr Ranjeet K, Head of Department of Aquatic Environment Management, Kerala University of Fisheries and Ocean Studies. This was followed by a brief discussion on conservation and importance of gorgonians.

Outcome of the draft assessment meeting is summarised below:

i) Priority matrix created and circulated among the gorgonian experts for populating the cells with relevant data.

ii) Research priority was listed for future endorsements.

iii) Initial talks were undertaken to formulate a network of Indian gorgonian researchers and experts (GORGON-NET) under the South Asian Invertebrate Specialists Group.

iv) A monograph on gorgonians of India based on the data of the 'priority matrix' along with an updated checklist to be published in *Journal of Threatened Taxa* and summary to be published in *Current Science*.

v) Organise a workshop to bring in experts from outside India to clarify taxonomic ambiguities and molecular techniques.

vi) Capacity building exercise every year for students.

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

For any successful adaptation of conservation project, it is important to know the information that the stakeholders have about the target species or ecosystem. We talked to groups like dive centres, fisher society heads, scientists and government officials to gather information related to the project and understand the willingness of these stakeholders and local communities to take up the conservation lead.

We used the following techniques to gather such information

- Focal group discussions and meetings.
- Personal interviews.
- Questionnaire surveys.
- Field and family visits.

This gathered information was used to plan the nature of awareness campaigns and related activities. We organised formal and informal awareness campaigns for the local communities, especially the fishers in two islands of Lakshadweep, viz. Kavaratti and Agatti. Close to 50 people attended the campaign. They were given basic information on the importance of gorgonians as a fauna and how as an ecosystem builder will benefit their livelihood in the long run. One of our prime targets was to eliminate the myth of considering gorgonians as a 'water plant' by explaining the 'animal character (polyp)' to our target audience. This was essential as it can influence the attitude and perception of the fishers towards the conservation of gorgonians in the long run. Some of the older generations were already aware of the conservation consequences, so including their perspectives in the campaign gave a boost in the acceptance of the project mandates. Flyers (in native language) were first distributed among the participants which was subsequently distributed to the others to spread the word of the project. Besides, the enumerators and interns from the island will serve as models to spread the project information through word of mouth and remain a permanent contact in case of project extensions and monitoring programs.

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

Yes. There are still several gaps to be filled in terms of bridging the diversity data. There are areas that haven't been covered under the project and also others that has never been surveyed at all for mapping the diversity and distribution of the gorgonians. The continuing case of island erosions, sea surges, cyclones and changing environment have urged the urgency of biodiversity documentation and threat assessments in these areas. The permanent contacts and institute collaborations and MoUs would allow future endeavours in the region and the extension of project activities.

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

We will share the information with the Department of Science and Technology which will forward the same to Department of Environment and Forests and Ministry of Environment, Forest and Climate Change, Government of India for further actions in implementing project recommendations and monitoring. The information will also be shared to other project collaborators. The same in the form of a documentary will be published online and shared in the social media which will increase the reach of the project activities and outcomes (will be also shared to our project sponsors).

Besides, four research papers of which two are based on the outcome of the workshop (explained in Q3.); one based on the survey to tap the knowledge, perception and attitudes of fishers towards gorgonian conservation and other in the form of diversity and distribution of gorgonians in Kavaratti atoll; is already in pipeline.

**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 project fund was used during the last 6 months of the project with another 2 months extended than the project timescale. The seasonal closure during the monsoon seasons and delay in the sanction of entry permits caused a temporary suspension during the initial months of the project, though we used this time to do the ground works and launched the internship program. But the team's cooperation and planning could finish the project activities in the next 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
Travel for Field work	£700	£691	-£9	<b>Conversion rate =&gt; 1£ = ₹90.88</b> Air flight (Round trip Kochi to Agatti) = £71*4 = £284 Ship (Round trip Kochi to Agatti/Kavaratti) = £48*4 = £192 Speed Vessels (Inter-island travels Kavaratti/Kalpeni/Agatti/Bangaram) = £86 Bike rent (Intra island travel + fuel) = £129
Accommodation & Meals during Field work	£960	£904	-£56	Accommodation + food expenses = £594+£310
Hiring Scuba diving assistants, field assistants and Boat	£1380	£1477	-£97	Boat rent and fuel = £369 SCUBA assistance (sample collection, videography) = £772 Field assistants = £336
Equipment including camera, Kayak & SCUBA	£613	£606	-£7	Camera + Accessories = 308+31 = £339 Kayak hiring and SCUBA = 212+55 = 267
Purchase of Books	£36	£28	-£8	£11 for the book and £17 for postage
Education and awareness workshops and campaigns	£1160	£1321	+£161	<b>Awareness Program</b> Logo designing & layout for T-shirt, Pamphlet, Banner = £47 Designing & Printing (Banner) = £45 T-shirt = £8*50 no's = £400 Brochure = £0.65*200nos = £130 Food for participants = £110 Documentary editing charges = £40 <b>Conservation Workshop</b> Travel charges for delegates (flight charges) = £342 Accommodation for delegates (for 2 days) = £86 Transport charges (to and from the venue, 2 days) and food (2 days) = £96 Banner, refreshments = £25
Contingency	£109	£109		Contingency fund was spent for Conservation Workshop
<b>Total</b>	<b>£4958</b>	<b>£5136</b>	<b>+£178</b>	

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

1. To continue document the diversity, distribution and abundance of gorgonians in other islands and mainland.
2. To use the disseminated data and develop a holistic approach towards gorgonian conservation for Lakshadweep Islands.
3. To determine critical sites and species, based on the level of threats and abundance in areas that has not been surveyed.
4. To continue creating the awareness among the stakeholders and improve the participation of stakeholders towards gorgonian conservation.
5. Revisit existing conservation actions (e.g. Wildlife Protection Act) and help formulate improvements (formulating MPAs) and update the list of species.

**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?**

Yes, we used The Rufford Foundation logo in the brochures, t-shirts, research presentations and posters, news articles, documentary, awareness programme activities and conservation workshop. Throughout the project dissemination, The Rufford Foundation has received publicity through the aforementioned activities and direct mentions during the public lectures and awareness campaigns.

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

The project team includes

**Dr Ranjeet K** (Kerala University of Fisheries and Ocean Studies (KUFOS)) – technical advice and support (Project Advisor)

**Ramvilas Ghosh A** (KUFOS) – managed the whole activities of the project (Project leader)

**Shyam S** (Kavaratti Island) - Managed, advised, and organised community participation

**Abdul Raheem** (Agatti Island) - Managed, advised, and organised community participation

**Vishnu S Dharan** – Social media handling and marketing

My colleagues – **Shalu K, Arya S, Liju Thomas** – Managed and organised specimen sampling, cataloguing and supported other project activities

#### Other project partners involved

- Department of Science and Technology
- Sandy Beach, Kavaratti
- Dive Time, Agatti
- Local administration of Lakshadweep
- Forest officials and Coast Guard, Lakshadweep
- Department of Aquatic Biology and Fisheries
- Dr Phil Alderslade, CSIRO, Australia - Technical advice in sampling and identification

#### **12. Any other comments?**

We would like to thank our sponsor for providing an opportunity for the team to discuss these issues in International conferences during the course of the project. We are also working on the possibility of creating a road map for capacity building programmes for both the islanders as well as officials of forest department for whom the topic (gorgonians as protected species) could be made mandatory in the 3-month training programme that they receive during the initial phase of their service. The team is also looking forward to percolate the idea of gorgonian conservation in schools and higher education institutes through the video documentary that we have created as part of the project.