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	Chenxing Yu
Project title	Wintering Spotted Greenshank (*Tringa guttifer*): migratory movement patterns, habitat selection and the implications for its conservation
RSG reference	16060-1
Reporting period	September 2014- December 2016
Amount of grant	£5000
Your email address	YUCHENXING108@GMAIL.COM
Date of this report	23 March 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
Understanding of both small-scale and large-scale movements of spotted greenshank				We are still working on this objective because to date we have only caught one out of four birds anticipated for satellite-tagging (two purchased with Rufford funds and two from another source). However, our results from this bird are the first to describe individual movements of migratory spotted greenshank, and we are still attempting to catch three more birds.
Estimation of the current status and distribution of spotted greenshank in Thailand				We surveyed a total of seven sites and followed groups of spotted greenshank from November 2014 to May 2016, resulting in a baseline estimation of non-breeding spotted greenshank in the Inner Gulf of Thailand and the western Andaman coast of Southern Thailand.
Identification of microhabitat characteristics associated with spotted greenshank winter site selection				The roost habitat selection of non-breeding spotted greenshanks was modelled using habitat variables along with the presence of other shorebird species as predictors
Provide clear recommendations to the Bird Conservation Society Thailand				We are continuing to work on this objective because more migratory information in Thailand is needed. Nevertheless, through our survey results and roost selection models, we have provided a better understanding of spotted greenshank habitat requirements at the site level.

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

There were two main unforeseen difficulties during the project. One is we misunderstood the process of satellite transmitters, no bird capturing was commenced in the first year of the project (2014/2015) and several months in field season 2015/2016, due to the testing process by the transmitter manufacturer and the application of import licence required by Thailand customs.

The other challenge encountered was the bird capture method. We had tried to catch spotted greenshanks several times by cannon-netting and mist-netting on mudflats and saltpans, where they usually roost. There were only small time window to catch shorebirds with mist nets, as we had to wait for a suitable tide level, moon phase and the weather as well. We are now continuing to investigate the capturing sites, and working on catching three more birds to fit with the purchased satellite tags.

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

1). Our results are the first to describe individual migratory patterns of spotted greenshank from wintering grounds to potential breeding grounds.

2). Locating the last stopover site to the breeding grounds, which is also a newly found stopover site close to Dafeng City, Jiangsu Province, China. And the bird's locations on the Yellow Sea area also provide extremely important information for conservation management of other endangered shorebirds (e.g. spoon-billed sandpiper) sharing the same stopover areas.

3). The tagged spotted greenshank showed a high level of site fidelity to its wintering site, which might have implications for the survival of the wintering population when facing land changes in the Inner Gulf of Thailand.

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

Some local bird guides participated in this project and the roost information we provided promote shorebird wintering grounds in the Inner Gulf of Thailand. These areas have become more and more popular as a bird watching hotspots in the world.

5. Are there any plans to continue this work?

Yes, as noted above, we are continuing our attempts to capture more spotted greenshanks to satellite-tag to get more information about the location of breeding grounds and attempt to radio-tag (VHF) some individuals for more detailed information for local movement patterns.

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

We have already shared our work on the satellite tagging by submitting an article to *Tattler*, the newsletter of the Australasian Wader Studies Group (AWSG), which will be published in April 2017. In addition, we gave four oral presentations in both local and international conferences to share our results about the roost habitat selection and migratory movement patterns of spotted greenshank.

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

We received the funds in September 2014, but we began to use it to pay for the satellite transmitters from September 2015 to December 2016. Two satellite transmitters were purchased with Rufford funds, so we are in the process of trying to tag another bird. We anticipated that we would have at least four satellite-tagged individuals by now, but due to the difficulty of bird capturing we have only one tagged. We will continue to try to satellite-tag more spotted greenshanks in this field season.

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
Satellite transmitters	4000	4,480.17	-480.17	The exchange rate difference for the bank payment of transmitters.
Satellite data downloading	1000	514.76	+485.24	From September 2015 to December 2016 for one transmitter.
Total	5000	4994.93	+5.07	

(Exchange rate at 15 September 2015, 1GBP: 55.89 Thai Baht)

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

There is still much basic information required in order to effectively prioritise stopover sites along the flyway and breeding grounds in Russia as well. We hope to set up a bird catching and tagging team to allow us to satellite-tag more spotted greenshanks and answer fundamental questions about their migration and breeding ecology.

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 RSGF logo in four oral presentations listed below. In addition, we submitted an article titled "First Satellite Tracking of Spotted Greenshank from Thailand" to *Tattler*, the newsletter of the Australasian Wader Studies Group (AWSG), which will be published in April 2017.

1). Spotted Greenshank (*Tringa guttifer*): A Neglected Species? The 13th Thailand Bird Fair, 8-9 November 2014, Bangkok, Thailand

2). Roost Habitat Selection and Activity Pattern of Spotted Greenshank (*Tringa guttifer*). International Ornithological Congress of Southeast Asia, 20-23 July 2015, Khon Kaen, Thailand

3). First satellite tracking of the Endangered Spotted Greenshank (*Tringa guttifer*) from Thailand. Biodiversity Research Training Annual Meeting, 15-17 June 2016, Nan, Thailand

4). Roost habitat selection and activity pattern of Spotted Greenshank (*Tringa guttifer*) in Thailand. Annual Meeting of the Association for Tropical Biology and Conservation (Asia-Pacific Chapter), 29 June - 2 July 2016, Singapore

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

- Ms Chenxing Yu, supervised the overall of the project, field work, write proposal/reports and data analysis.
- Mr George A. Gale, field worker for bird capturing, writing reports, project proposal, and amendments.
- Mr Andrew Pierce, field worker for bird capturing, ringing and transmitter tagging.
- Mr Philip D. Round, field worker for bird capturing, ringing and transmitter tagging.

12. Any other comments?

First, we would like to thank again The Rufford Foundation grant for all the support and trust during the project. Without this help we would not be able to make the first step to study of the endangered spotted greenshank, and obtain a better understanding of the migratory ecology of this species. Second, I apologize for all of uncertainties and delays, as it was my first experience as a project leader and this was compounded by a family emergency.