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	Yliana Delfín Fuentes
Project title	Stingless Beekeeping School: Conserving Stingless Bees through Capacity Building Workshops in Chiapas, México.
RSG reference	20150-1
Reporting period	September 2016 – September 2017
Amount of grant	£4,997 £
Your email address	ydelfin@ecosur.edu.mx
Date of this report	16-september-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
1. Create an inclusive learning community that recognises the contribution of all participants, valuing local knowledge such as traditional stingless beekeeping practices and medicinal uses of bee products.			■	We succeeded in creating an inclusive learning community; all sessions (workshops, field visits, etc.) and activities were designed to recognise and value the knowledge of the participants, and to draw from this knowledge worked towards the collective construction of the learning experience.
2. Raise awareness about the importance of bees in the ecosystem, in local culture, in agriculture, and as honey producers, touching on themes such as bee diversity, pollination, and properties of stingless bee honey.			■	The central "bee" theme was present at all times and examined through different lenses, such as bee biology, diversity, management, and the relevance of bees in the territory and in agriculture, among others. Over the course of the workshop series, the participants broadened their knowledge of bees and their role in their territories. The majority of participants also implemented concrete and collective projects, sharing their bee experience in community spaces, such as youth groups, families, and organisations.
3. Identify and analyse the socio-political and environmental forces that threaten the territory, and the implications these have for stingless bee populations; develop the tools necessary to organize and take collective action to protect the bees and their environment.		■		In addition to including territory as a transversal theme throughout the process, weaving this important topic into group discussion, activities, and homework assignments, we also dedicated a specific workshop session to explore "territory". Participants analysed the external and internal threats present in their territories, and the ways in which these factors impact people and bees on a local scale, drawing from their own personal experiences. Although participants were introduced to local and regional

Objective	Not achieved	Partially achieved	Fully achieved	Comments
				initiatives to organize and protect the bees and their environment, the group itself was not able to take concrete collective action, though some individuals did start initiatives in their own communities.
4. Develop the basic skills required to construct a stingless bee apiary and manage stingless bee colonies. This will include surveying native bee populations and identifying the species present, creating new colonies to reinforce local populations, and understanding seasonal cycles.				Participants worked through a series of activities to identify native bees in their region and determine the species whose behavior is conducive to management. However, throughout this process, we realised that the topic of management required much more attention, care, and follow up than we had previously anticipated. It was important to make sure that despite our excitement to establish stingless bee colonies, we were careful to avoid the risks associated with lack of management knowledge and experience. Starting in February of 2017, we intensified our direct follow-up strategy through active field visits to the communities of the most active participants. In this way, information shared during workshop sessions was reinforced through regular field visits where we worked through the installation of colonies, among other activities. As expected, some participants did not install stingless bee apiaries (not all participants had the land, time, interest, and resources to pursue this activity). Of the 25 people who participated, seven were able to establish or improve their own stingless bee apiaries.

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

Once the participants' interest in stingless bees was sparked, several of them were eager to install colonies in their homes. The greatest difficulty that we faced was one we did not anticipate: how to promote stingless bee conservation and management in an area where few people have established hives that can be reproduced. We saw that, without guidance, participants might resort to counterproductive strategies for obtaining colonies, some of which involve significant environmental risks (such as cutting down trees with colonies to extract the nests or bringing in managed colonies from other regions).

We decided to adjust our approach, taking slower, more deliberate steps towards the installation of possible stingless bee apiaries, obtaining colonies only from fallen and/or hollow trees, caves, and through trapping swarms. We also opened up discussion at different moments to address the risks involved in the installation of colonies and purchase of colonies from other regions. The groups' collective reflection was both important and profound.

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

- Completion of a pilot project that has allowed us to test our educational approach and proposal related to stingless bees. This process has been full of learning experiences for us, and has informed the design and launch of our next workshop series.

- Consolidation of a group of *campesinos* interested in becoming bee guardians and promoting the role of bees in the environment. Additionally, some participants now have their own bee colonies on their farms and in their homes. We will continue to follow up with this group, working with them to maintain responsible management of these and future colonies.

- Reactivation of stingless beekeeping in the highlands and jungle regions of the state of Chiapas, which has provided us many important learning experiences and additional factors to consider in future projects and processes.

- The most important and least expected result that we obtained through this experience was the collective construction of "agroecological principles for stingless beekeeping," which has allowed us to promote the responsible management of stingless bees, prioritising the conservation and care for native stingless bees in a holistic way, taking into account different elements that we had not considered previous to the pilot project.

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

34 individuals participated in the workshops, of which 25 completed the series. Participants were very active and engaged, both during workshop sessions and in homework and group work.

Through the work of these 25 participants, a total of seven collective stingless bee apiaries were established or improved. This achievement reflects the interest and commitment of the participants and the Ecosur Bee Team, which have been strong throughout the process and during follow-up visits.

The University of Bachajó also played an important role in this pilot project, especially through the group of students that participated in the workshops, provided logistical support, and took on the responsibility of establishing the collective "Stingless Bee School" on university grounds, which will serve as a learning space for future cohorts.

5. Are there any plans to continue this work?

As previously mentioned, this project has served as a pilot experience that has allowed us to strengthen our educational approach to native bees in the highlands and jungle region in the state of Chiapas. We have many future plans related to this first initiative.

We maintain our commitment to taking action to strengthen and spread the word about native bees in the region, and along those lines will be opening the Stingless Bee School workshops for a second series starting in October of 2017.

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

The intention is to share our learning experiences, discoveries, challenges and difficulties with other regions of the country where groups are also working to reactivate and strengthen educational efforts linked to native bees. So far, we have shared our experience and reflections with a work group from the Universidad Intercultural de Quintana Roo and with our colleagues at the organization "Inana" in the state of Veracruz. Both groups work on educational projects related to bees and their management.

In the month of August of 2017, we will participate in the "Third Meeting for Agroecological Stingless Beekeepers" which will take place in the state of Veracruz, and in November 2017 we will attend the Tenth Mesoamerican Conference on Native Bees and present several talks based on the work we have done this year.
As part of this project, a "Manual for Basic Stingless Beekeeping" has also been published, which has helped us to reinforce stingless beekeeping in the region.

The most important results of this project will be reflected in the methodological construction of the next workshop series, which will commence in October 2017.

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 from September 2016 to August 2017. In general terms, the programmed activities were carried out as planned, with a few minor adjustments to the dates of workshop sessions.

Eight workshops were planned, and seven were actually carried out, but with a greater number of hours per session. All of the sessions took place at the University of Bachajón with the exception of one session, which took place at the Ecosur campuses in San Cristbóbal de las Casas and Tapachula.

The follow-up phase was more intense than initially anticipated, which allowed us to work more closely with the participants that installed or improved their own stingless bee apiaries.

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.

NOTA: Tipo de cambio 1 peso mexicano = .0429 £ sterling

Item	Budgeted Amount	Actual Amount	Difference	Comments
Materials				
Workshop materials	259	322	-63	The amount allotted was exceeded slightly.
Beekeeping equipment	56	231	-175	A few tools were purchased that were not accounted for in the original budget.
Stingless bee apiary construction	148	257	-109	The palm fronds used to build a natural roof for the stingless bee apiary was more expensive than anticipated.
Workshop expenses				
Meals for participants	518	870	-352	The initial calculation for cost of food was lower than the real food cost.
Lodging for participants	0	0	0.00	
Regional transportation	355	267	88	Less money was spent on regional transportation than initially anticipated because many of the participants came from nearby villages.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Bee team transportation San Cristóbal-Bachajón	148	202	-54	The amount allotted for transportation of the coordination team was exceeded slightly.
Transportation to Tapachula	648	935	-287	An entire bus had to be rented to transport participants and facilitators from San Cristóbal de las Casas to Tapachula, which was more expensive than anticipated.
Lodging in Tapachula	389	150	239	A house was rented in Tapachula to accommodate participants and facilitators during the workshop, which was less expensive than the hotel rooms that were budgeted for.
Transportation to San Cristóbal	194	0	194	This expense turned out to be unnecessary.
Lodging in San Cristóbal	194	0	194	This expense turned out to be unnecessary.
Follow-up visits	148	118	30	Some money was saved: some visits were covered using other Bee Team resources.
Human resources			0.00	
Coordinator 1	0	0	0.00	
Print manual	275	259	16	Two hundred manuals were printed, and these are being distributed to participants and local stakeholders.
Internal (Ecosur) facilitators and technicians	0	0	0.00	
Subsitence payments for local team	925	1,073	-148	Slightly more was spent to pay the local team.
External facilitators, transportation to San Cristóbal	444	316	128	Costs were lower than anticipated.
External facilitators, fee for services	296	0	296	The facilitators that were invited to present did not charge for their participation.
Total	**4,997**	**5000**	**-3**	

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

There is still much work to be done to continue to raise awareness about native bees and to reactivate stingless beekeeping in the region. This first step has provided us with much new information, and it has helped us to understand the best ways of approaching this task, as well as important factors to consider as we promote the responsible management of native bees. Our next step is to open up a workshop series to a new group of participants, implementing the information we gathered during the pilot project in the next process. We will also continue to provide field assistance to the first cohort of participants, as they grow in their role as bee guardians, and, for those that have started their own stingless bee apiaries, as they further develop responsible management practices.

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 Rufford Foundation logo on the "Basic Stingless Beekeeping" manual that we published as part of this project. We obtained authorization for the use of this logo and sent an electronic version of the manual to the Foundation previous to its publication.

11. Any other comments?

We are grateful for the support we have received, which has allowed us to complete this pilot project, an experience that has served as a first and very important step towards the continuation of our work with native bees. For the Ecosur Bee Team, this support was essential and allowed us to complete our work.

Currently, we are receiving funding from other sources, and this support allows us to follow-up on our Stingless Bee School project. Most importantly, the funding that we received from The Rufford Foundation has given us the opportunity to learn, grow, and generate new ideas for the sharing of knowledge around the role of native bees in our territories.

Bee *Scaptotrigona Mexicana*

Bee Scaptotrigona pectoralis