

## Final Evaluation Report

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Your Details	
Full Name	Ravinder Kaur
Project Title	Research and conservation of Helmeted hornbills (Rhinoplax vigil) in Malaysia
Application ID	1a6fb2-1
Grant Amount	5000
Email Address	raveen2000@hotmail.com
Date of this Report	04/02/2020

1. 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
Weekly nest monitoring of Helmeted hornbills at its known nest site in 2019				The presence of hunters in the area and the sudden disappearance of the female Helmeted hornbill became the reason why we had to increase nest observation time. Observations ended the day after the chick left the nest with the male.
Establish a Helmeted hornbill preferred food plant nursery				We collected the Helmeted hornbill feces and tried to germinate the fig seeds within it. We also sought for help from Sabah Forestry Department and they were also unable to grow the seeds in the feces. However, we managed to grow seeds that were regurgitated from other endangered hornbill species. These seeds were collected from under the Bushy crested hornbill, Wreathed hornbill and the Rhinoceros hornbill nest tree. 270 seeds grew and survived. They were used in reforestation efforts and they have been tagged, so we can track their survival over the next yer.
Conduct a feasibility study to identify a new project site for research and conservation efforts specifically on Helmeted hornbills.				We managed to visit several locations for this feasibility study but not Ulu Jelai. Much of our time and resources ended up with observations on the Helmeted hornbill nest.

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

The encounter with illegal hunters that were armed – these people shot warning shots at us and may have been involved in the disappearance of our female Helmeted hornbill, the one we were observing over the last six months in 2019. Their presence increased the amount of time we intended to devote to the Helmeted hornbill nest observation. We had to conduct 43 days of daily nest observation after the female left, to be present and offer some form of guardianship over the nesting male and chick, to avoid giving these hunters a chance to hunt the remaining members of the family.

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

- 1) 270 plants grown in the nursery from regurgitated hornbill seeds that were collected from under hornbill nest trees. These plants were then transferred to the forest for planting. These plants are not only food plants of hornbills, but they will also provide food to a variety of animals such as orangutan and gibbons. These apes share very similar diets with the eight species of hornbills in Borneo.
- 2) The safe fledging of the critically endangered Helmeted hornbill, a male chick. Two local community people carried out observations for two days each week, for the first four months of the nesting period. Then in the fifth month, daily observations were conducted until the chick left the nest in the sixth month by the whole team of four people. There were three illegal hunters encountered during observations and the female Helmeted hornbill had vanished in the fifth month of nesting. The team requested for more manpower support from local ngo, and a bigger team was formed to watch the nest and be present at the site, everyday for the final 43 days of nesting period. It was a scary time for the team, but we are proud to say the remaining nesting family of the Helmeted hornbills were protected until the chick fledged.
- 3) Discovery of new nesting sites, for future research and conservation work. We discovered one Wreathed hornbill *Rhyticeros undulatus* (Vulnerable) nest, one Rhinoceros hornbill *Buceros rhinoceros* (Vulnerable) nest and one Bushy crested hornbill nest *Anorrhinus galeritus* (Near threatened).

**4. Briefly describe the involvement of local communities and how they have benefitted from the project.**

Besides earning a monthly stipend for Amidi and Helson, Amidi was exposed to data collection and data entry using Microsoft word and Excel, something he has never done before. Amidi had dropped out of school when he was 14 years old and has been an odd job worker. We are trying to train him to be more computer literate. Helson learnt a lot about caring for a plant nursery and he managed to grow many plants from the seeds we collected as a team. It was a totally new experience for him. In addition, Helson and Amidi got to travel out of their village and expand their minds by meeting new people in new places. We visited Tabin, another neighbouring forest and we managed to meet the local people there to exchange ideas.

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

Yes, and we hope Rufford will continue being one of our supporters.

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

We have a list of hornbill preferred food plants that we wish to share with other conservationist such as APE Malaysia, as they are involved in reforestation efforts. We will inform Birdlife International and the IUCN hornbill specialist group about the

Helmeted hornbill (but not the general public. Due to hunting pressure, we cannot reveal that we have an active Helmeted hornbill nest in our study area)

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

Though it was anticipated to be May 2019 until December 2019, the project went on until January 2020.

**8. Budget: 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. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.**

Item	Budgeted Amount	Actual Amount	Difference	Comments
Accommodation (four locations)				Did not manage to visit Ulu Jelai. Went to Gombak and managed to book a free stay under the University Malaya field center,
room rental (long term rental to store equipment and for Ravin and Sanjit to stay frm Kuala Lumpur	1200	1200		
hostel	300	360	+60	
hostel	300	0	-300	
Stipend for four people during field work 70-80 days (food & water purchase)	1300	1300		Each of the four people in the team received 325.00
Boat fuel	200		-200	Local ngo provided fuel, therefore we carried this budget to fund other aspects of the project such as plant nursery
Boat rental				We have boats
Potting soil and fertilizers	50	240	+190	The costs of creating a shed was higher than anticipated
Mileage and tolls	500	300	-200	We carried this budget to fund other aspects
Flight tickets and airport transfers	1150	2500	+1350	Flight prices fluctuate.
<b>TOTAL</b>	<b>5000</b>	<b>5900</b>	<b>+900</b>	

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

We need to locate more natural nests and collect fallen regurgitated seeds for reforestation efforts. These plants are specifically hornbill food plants and should be planted. We need to train more locals to actively participate in nest guardianship programmes, to deter poaching. We also need to put up more artificial nest boxes to provide nesting opportunities for hornbill.

**10. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did the Foundation receive any publicity during the course of your work?**

Yes, we used it on reports and we also mentioned the foundation in hashtags in our Instagram postings.

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

Ravinder Kaur (Female) – 37 years old

Team Role: Team leader, observer, fund raising, study design & statistical analysis.

Helson Bin Abdullah (Male) – 28 years old

Team role: Observer, tree climber, boatman and forest guide (to navigate through the forest).

Sanjitpaal Singh (Male) - 38 years old

Team role: Observer, fund raising, photographer (visual documentation)

Amidi Majinun (Male) – 21 years old

Team role: Observer, tree climber, boatman and forest guide (to navigate through the forest).





Figure 3: The Wreathed, Bushy and Rhinoceros hornbill nests discovered during 2019



Figure 4: The team; Sanjitpaal Singh, Amidi Majinun, Helson Hassan and Ravinder Kaur



Figure 5: Plant nursery shed established and 270 plants of hornbill preferred food plants grown from regurgitated seeds. Figure 6: Amidi learning how to use a laptop for data entry purposes.



Figure 7: Ravin and Sanjit giving a talk about how to find hornbill nests to wildlife department staff.



Figure 8: Interview with villager head about hornbills in Gombak



Figure 9: Surveys through forest and a mud volcano