

## Final Evaluation Report

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We ask all grant recipients to complete a project evaluation that helps us to gauge the success of your project. This must be sent in **MS Word and not PDF 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 – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

**Please DO NOT fill in and submit this form until the project has been completed.**

Complete the form in English. Note that the information may be edited before posting on our website.

Please email this report to [jane@rufford.org](mailto:jane@rufford.org).

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Your Details	
Full Name	Tri Sayektiningsih
Project Title	Efforts to Conserve Moluccan babirusa ( <i>Babyrousa babyrussa</i> ) on Buru Island, Indonesia
Application ID	ID 44357-1
Date of this Report	30 September 2025

**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
To estimate and map the occupancy of the Moluccan babirusa using occupancy model			√	<p>We deployed cameras at 80 stations across different types of land cover/use (forest: 37 stations, bush land: 16 stations, agriculture: 21 stations, open area: 5 stations, and shrub land: 1 station).</p> <p>The total effort of cameras was 2448 days with average of 32.21 days ± 4.34. The Moluccan babirusa was recorded from 26 stations, of which 25 stations were in forested areas and one another in bush land. The number of videos with identifiable babirusa was 336 videos. We estimate occupancy (here occupancy refers to habitat use) and map distribution on the Moluccan babirusa using single species single season occupancy model. We found that the probability of habitat use was 0.30. The proportion of forest cover and distance to road were the factors determining habitat use by babirusa. This first goal of project could be reached because of the solid team and help from the local community, which enabled us to deploy cameras in most locations in accordance with the study design.</p>
To provide recommendations on how to manage the Moluccan babirusa based on the occupancy study			√	<p>Our habitat use map could be used as a consideration for setting priority conservation actions. We proposed that the Nature Reserve Agency of Maluku (BKSDA Maluku) should intensify forest patrol to prevent encroachment, and embrace various stake holders to conserve the species.</p>
To build the capacity of local communities			√	<p>We were able to organise a 3 day training in Batu Jungku village,</p>

<p>by providing the experience of using camera traps for babirusa survey</p>			<p>Batabual District from 10-12 June 2025. There were 11 people participated of which all was local community.</p> <p>Overall, participants were enthusiastic following each activity and actively engaged in Q &amp; A sessions. Majority they were satisfied with the quality of course and the performance of presenters, and the effectiveness of training. I intend to do monitoring 1 year after the completion of this project, and I will invite the training attendees to participate.</p> <p>Initially I planned to run in-house training for 5 days. However, the plan was changed because of:</p> <p>(1) Extended fieldwork; we worked during the wet season with unpredictable weather. It was true that in the proposal our fieldwork needed 4 months to complete. However, we had to be flexible since rainy days were the biggest challenges. Especially those located in the mountainous areas, we had to wait for some days to deploy or retrieve cameras since river was inaccessible during rain.</p> <p>(2) Budget availability; there was a difference between the real and expected price. The price shown in the proposal was calculated based on local price when I conducted preliminary study in January 2024. I did not consider the influence of season on local price of some goods and cost of speed boat rent.</p> <p>Although planned in the project proposal, none of the rangers attended the training because of their tight working hours. In addition, travel cost from Ambon to Batu</p>
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				Jungku and meeting allowance were also other considerations as we had limited budget.
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**2. Describe the three most important outcomes of your project.**

**a).** Presence/absence data collected from this project provides baseline for conservationists or the nature reserve management to design long-term monitoring program. Rangers, for example, can redeploy cameras on sites where babirusa occur and then assess whether there are changes on babirusa's occupancy. In addition, the map produced through this project benefits the management to guide future survey or study such as density study.

**b).** This project successfully empowered local communities by equipping them with practical skills in setting and operating camera traps, and navigating position using handheld GPS devices. This capacity building program may able to create a sense of ownership and awareness about wildlife, babirusa in particular, among local people. Indirectly, this initiative has led to the formation of a small, trained community-based team to support future wildlife conservation actions.

**c).** The result of this project contributes to scientific understanding of the Moluccan babirusa distribution on Buru Island. Previously, the knowledge was only derived from anecdotal information through community judgment. Our study was the first systematic and robust field study using camera traps, which provides evidence-based data on babirusa occurrence. Moreover, the findings offer a new insight into factors affecting the habitat use of the Moluccan babirusa.

**3. Explain any unforeseen difficulties that arose during the project and how these were tackled.**

As initially designed, our camera trap stations were stratified random based design, where camera trap stations were to be randomly placed within different land cover/use strata. However, due to field constraints such as limited accessibility, safety concerns, difficult terrain, and community acceptance (we could not deploy cameras in forested areas under the authority of certain villages), truly random placement was not always feasible following design generated in ArcGIS. For instances, camera stations had to be relocated to alternative sites. Despite these adjustments, we applied several protocols to minimize spatial unrepresentativeness and reduce potential bias. First, we ensured that land cover or land use type originally assigned to each station was retained. Second, we maintained comparable distances between stations. Third, we preserved the spatial orientation and position of the stations as much as possible. For example, if a camera was originally located on the east side of a valley, we attempted to relocate it to another position with similar geographic characteristics. As a result, the collected data still accurately reflect real field conditions, and the conclusions drawn from the study remain valid and representative of the study area.

**4. Describe the involvement of local communities and how they have benefited from the project.**

We involved local community as field assistants. They supported us in locating camera trap stations, and installing cameras. Through these activities they acquire new skills that may benefit both themselves and other researchers in the future. Additionally, community involvement in this project also provided additional income for field assistants as well as stimulate local economy through the rental of accommodation (houses) and transportation (speed boats).

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

Yes, there are. After we identified areas used by babirusa, we intend to conduct long-term monitoring to know the pattern of occupancy over time.

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

Given that this is the first ecological study of the Moluccan/hairy babirusa using a robust methodological approach, we intend to publish the result in a reputable scientific journal. We also plan to disseminate the results in conferences and popular articles. I have emailed the report of this project to the park managers. Importantly, one of our team member was the park staff, so it allows me to update any information regarding this project.

I will share the findings of this project with the IUCN SSC Pig Specialist Group. Previously, I have informed Wild Pig Specialist Groups members regarding this project when I attended workshop to re-evaluate the status of Indonesia's pigs in Bali in June 2025.

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

We intend to extend our study area to the central and west part of Buru Island in the future. We also plan to broaden the research scope by not only focusing on ecology of the species but considering social perspectives of the local community. During fieldwork, we noticed that some people are active hunters employing traditional techniques such as snares, dogs, and spears. The result of our short interview indicated that deer were the main target of the game animal particularly for those acknowledging Islam as their faith. Besides, wild boar (*Sus sp.*) was also common to be hunted by Orang Gunung, the name of local tribe who still maintains their tradition. Although they reported that babirusas were not the main target, they accidentally caught the species. Research is then needed to uncover hunting practices by local community.

#### **8. 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?**

We only attached the logo of Rufford in banner for training.

#### **9. Provide a full list of all the members of your team and their role in the project.**

Our team consists of:

1. Tri Sayektiningsih. She is a PhD student at Seoul National University. Her role in this project is as the project leader.

2. Bayu Wisnu Broto (member). Mr. Bayu is staff of Gunung Merapi National Park. He has a lot of contribution in designing research and collecting field data.
3. Tri Heni Kuswoyo (member). Mr. Tri is staff of the Natural Conservation Agency of Maluku (BKSDA Maluku). He contributed to data collection, arranging entry permit to the Batabual Nature Reserve, and preparing in-house training.
4. Chang Yong Choi. He is the Assoc. Prof at Seoul National University. In this project, he acted as the supervisor, ensuring the project run smoothly and achieve its goals.

## **10. Any other comments?**

Rufford small grant (RSG) has given me an opportunity to deliver my passion in wildlife research, contributing more in wildlife conservation in Indonesia. Started from proposal writing that demands logical thinking about the purpose of project, activities, methods, and output, to budget planning requiring careful considerations about local cost and taxes.

Based on our experience during the project, we recommend allowing flexible budget management during fieldwork, as unforeseen expenses often arise that must be addressed promptly to ensure smooth progress and success of the initiatives. Apart from funding flexibility, we would like to recommend several key areas to strengthen the efforts to conserve the Moluccan babirusa on Buru Island:

- (1) We recommend the development of a long-term monitoring program to track changes in babirusa populations and habitat conditions.
- (2) In line with this initiative, we propose support for community outreach and education programs to raise awareness of the ecological importance of the babirusa and to reduce threats such as poaching and habitat loss.
- (3) Lastly, we recommend the donor to support collaborative work among stakeholders to secure the long-term persistence of babirusa in its natural range of distribution. Majority of babirusa's habitats is located outside the protected area (Gunung Batabual Nature Reserve), therefore a landscape-level approach involving various stakeholders is imperative.

**ANNEX – Financial Report**  
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