

EAZA Silent Forest

Babi and Lasia Community Ranger Project: An Update on Progress and Future Plans

June 2022





1. Introduction

1.1. Project Introduction

The Ecosystem Impact Foundation (EcosystemImpact) is an Indonesian Foundation that works to protect the wild landscapes of the Bangkaru and Simeulue Islands through a sustainability approach where people, nature and sustainable business thrive together.

Part of the West Sumatra Island chain off the coast of Sumatra, the Bangkaru and Simeulue Islands are located just 350 kilometres north of the equator. The region is made up of highly diverse tropical rainforests and coral seas. These islands are home to some of the most endangered species of birds and turtles in the world. Our mission is to save this species from the brink of extinction in partnership with the community, government, and conservation organisations.

Babi and Lasia Islands are home to a number of endemic and endangered species of birds, turtles and fish. Babi and Lasia Islands have been recognised as unique ecosystems which are in need of support to secure their protection. The project has worked with local fishing communities to implement a data collection and monitoring methodology through subsidising local fishing teams.

1.2. Original Project Goals

The project was originally set up with four interconnected phases:

- (i) A research phase which will lead to a better understanding of Simeulue, Babi and Lasia's bird populations and habitats as well as the current poaching threats.
- (ii) Piloting an innovative, efficient and on-going data collection and monitoring approach to Babi and Lasia Islands.
- (iii) An environmental education and conservation awareness raising program aimed at influencing local attitudes within in Simeulue communities, regional and local politics, and procedures in relation to keeping and catching wild birds.
- (iv) Develop engagement with local owners and trades of birds in cooperation with regional and local authorities.

Progress has been made towards achieving each of these project goals. A bird survey of Simeulue and surrounding islands – including Babi and Lasia – was carried out in July 2021 and funded in partnership with Marlow Bird Park and ZGAP. Key findings from the survey were that no Barusan shama were found across all surveyed locations, and Nias hill myna were found on Babi Island.

EcosystemImpact has since implemented a community ranger, data collection and monitoring project utilising local fishing groups. Community engagement activities have been carried out in order to support the project and increase local awareness of environmental issues. Through the project EcosystemImpact has also made contact with a group of bird poachers which remain active on Babi and Lasia.



2. Update on Progress

2.1. Data Collection

Following the identification of the most knowledgeable and frequent fishermen to both Babi and Lasia Islands, EcosystemImpact conducted a training day in September 2021 outlining the project's data collection methodology, goals and operating procedures. Beginning in October 2021, three teams of different backgrounds comprising of a traditional fisherman, an octopus fisherman and a boat providing transportation for people to the islands, began collecting data on bird and turtle egg poaching, bomb and net fishing vessels, fish catch quantities, origin and number of boats visiting the islands and more. The "*Panglima Laot*", a traditional Aceh maritime custodian, has worked in tandem with the data collection teams providing coverage and documentation of returning vessels to Simeulue from the islands.



Figure 1. Fisher patrol teams and Panglima Laot training day, EcosystemImpact office.

The data collection, which is currently in its ninth month, has given the EcosystemImpact team a foundation on which to direct community engagement activities. Community engagement activities have been both with local government, community groups and local community members. These have been in the form of meetings, official workshop days and coffee mornings. Community engagement activities have been carried out in Simeulue's southern most communities, within the Teupah Selatan region – predominantly within the Labuhan Bajau, Labuhan Jaya and Labuhan Bakti villages – as it is these communities which utilise Babi, Lasia and the surrounding seas.



Figure 2. Community engagement events, left the official socialisation event held in partnership with local and island government, Yayasan Pesisir Lestari (YPL), local police and army; and right an EcosystemImpact led coffee morning with local fishing groups.

The data collected during the first nine months of community patrols and monitoring (outlined in Table 1 below), has provided EcosystemImpact with sufficient data to start to plan Phase Two of the project, which will include the development of a full-time ranger presence on Babi and Lasia, through the creation of a land-based ranger camp and team – to be funded by Mandai Nature and explored further in Section 3 below.

	2021			2022					
	October	November	December	January	February	March	April	May	Total
El Team Trips	<u>16</u>	<u>15</u>	<u>15</u>	<u>16</u>	<u>20</u>	<u>17</u>	<u>18</u>	<u>12</u>	<u>129</u>
Rawadi	9	9	9	10	13	13	12	8	83
Hasidin	4	3	3	4	3	4	4	3	28
Sarlim	3	3	3	2	4	0	2	1	18
Total Days	<u>60</u>	<u>53</u>	<u>48</u>	<u>49</u>	<u>60</u>	<u>41</u>	<u>49</u>	<u>31</u>	<u>391</u>
Rawadi	20	18	14	16	20	20	20	8	136
Hasidin	24	19	18	21	19	21	20	17	159
Sarlim	16	16	16	12	21	0	9	6	96
Days with no team on location	1	4	2	3	1	7	4	15	37

Table 1. Data summary of data collected by monitoring teams from October 2021- May 2022.

Returning Boats met by Panglima	8	10	9	9	5	10	16	5	72
J									
Total Boats Operating	107	80	69	58	68	44	56	40	522
Individuals Transporte d to the Islands	<u>40</u>	<u>42</u>	<u>47</u>	<u>73</u>	<u>93</u>	<u>92</u>	<u>83</u>	<u>51</u>	<u>521</u>
Babi	25	23	47	46	81	92	67	31	412
Lasia	15	19	0	27	12	0	16	20	109
20010							10	20	100
Turtle Nests	11	9	15	20	13	2	2	3	75
Bird Poaching Incidents	1	0	1	0	0	0	0	0	2
Bird Sightings/ld entifications							2	3	5
Bomb Fishing Boats	4	0	0	7	0	1	1	0	13
Net Trawling Boats	3	6	1	6	1	0	6	4	27
Lasia Monkey Sightings	1	0	0	0	0	0	1	0	2
Fish Species Catch Quantities (kg)									
Dogtooth	100	40	000	100	A A	4.0	40	0.5	077
	186	48	329	126	44	16	43	85	8//
Irevally	329	315	93	265	163	47	195	127	1,534
Ked Snapper	60	66	14	213	44	-	44	9	450
Coral Trout	111	189	143	148	34	-	18	3	646
Emporer	-	15	-	2	8	-	36	2	62

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Barracuda	10	3	-	11	-	-	-	-	24
Cod	3	8	-	-	-	-	-	-	11
Yellowfin Tuna	-	80	-	-	-	-	-	-	80
Sailfish	-	71	-	-	-	-	-	-	71
Parrotfish	30	-	16	22	30	-	-	-	98
Maori Sea Perch	4	-	18	13	20	-	-	-	56
Red Bass	-	-	26	-	9	-	-	-	35
Mangrove Jack	-	-	6	-	-	-	-	-	6
Green Jobfish	-	-	-	18	35	10	-	-	63
Wahoo	-	-	-	-	19	-	-	3	22
Shark	7	-	-	-	-	-	-	-	7
Ruby Snapper	-	48	-	_	-	-	-	-	48
Not Specified/M ix	210	473	632	336	150	179	172	89	2,241
Octopus	128	159	106	353	418	1,157	958	155	3,432
Lobster	80	400	238	310	217	74	65	79	1,463
Hermit									
Crabs	25	-	-	-	328	-	-		353
Sea Snails	140	-	-	-	-	-	-		140
Coconuts (kg)	13,400	6,333	3,500	360	4,669	23,880	7,183	5,550	64,875

2.2. Key Findings

2.2.1. Bird Poaching Events

One of the key findings from the monitoring program element thus far is that bird poaching is far less prevalent than expected. Although EcosystemImpact cannot say that all bird poaching events have been recorded during the period of data collection, with regular community patrols and monitoring – and the Panglima Laot's presence at ports recording boats returning from Babi and Lasia – EcosystemImpact is able to say with a fairly high level of confidence that most bird poaching events will have been intercepted. During the eight months of completed monitoring, there have only been two confirmed encounters with bird poachers. The first was in October 2021, where the poachers were recorded on video stating they had managed to trap seven Barusan Shama. The other, on the 28th of December 2021, a returning boat from the islands was checked by the *"Panglima Laot"* who found 36 Barusan Shama. Unfortunately, when the Panglima asked if he could take photographs of the shama, their response was hostile and he was unable to capture photographic evidence.



EcosystemImpact has made contact with what appears to be the only active bird poaching group on Babi and Lasia Islands. At this phase in the project, the name of the poachers will be kept confidential, however, the group is from Batu-Batu village, Teupah Tengah District. The group is well known within the Simeulue bird keeping and poaching community. A poacher explained that population levels of the more expensive and sought-after species, such as the Barusan Shama, are now so low that catching enough birds to make the trip economically feasible is far more difficult. This could explain the small number of bird poaching events intercepted. Phase Two of the project, outlined below in Section 3, will aim to employ and train the Batu-Batu bird poaching group as rangers, with a focus on protecting Babi and Lasia's most endangered bird species.



DATA SHEET PANGLIMA LAOT

TANGGAL	PERLABUHAN	JENIS KAPAL	JUMLAH ANGGOTA	DESA ASAL	BERAPA HARI DI PULAU	
28-12-21	LABUHAN BAKTI	P.ROBIN	7 ORANG	BATU-BATU	5 HARI	
KEGIATAN DI PULAU		ALAT		CUACA		
TANGKAP BURUNG		PERANGKAP DAN TEN BURUNG	IPAT	BAIK		

ADA BARANG ILLEGAL?	JUMLAH DAN JENIS	LAPORAN ATAU PERINGATAN?	JUAL KEMANA	LOKASI NELAYAN DAPAT
TELUR PENYU				
BURUNG	36 EKOR MURAI	ΥΑ	LOKAL/SINABANG	?

Figure 3. Panglima Laot data sheet, showing the second bird poaching event intercepted, with '36 Ekor Murai' – translates to 36 Barusan shama.

2.2.2. Temporary Camps on Babi Island

Another key finding from the data monitoring is that a temporary camp has been established on the beach *"Pasir Tinggi"* located on the north-east corner of Babi Island. This beach is the most common landing place for nesting turtles. Due to the close proximity of the camp to the nests, it is almost certain that no eggs are ever left to hatch as can be seen in Figure 4, the documentation photos below.



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Figure 4. Collection of turtle egg poaching photos collected during monitoring. It's here important to note that during Phase One of the project, the community ranger have had no law enforcement capacity as 'rangers', and that their task has purely to collect data. Phase Two of the project will require the land-based rangers to have law enforcement capacity.



EcosystemImpact runs two programs which focus on protecting sea turtles on Bangkaru and Selaut islands. From the initial data collected during the first eight months of the project on Babi and Lasia, it can be seen that the turtle nesting on the islands is low compared to other nesting sites within the region such as Bangkaru and Selaut. Given the importance of Babi and Lasia as the last location to have possibly extant population of Lasia Barusan shama (*Copsychus melanurus opisthochrus*) and some of the last islands to have extant populations of Nias hill myna (*Gracula robusta*), Phase Two of the project will focus on endangered songbird poaching reduction.

However, all turtle egg poaching is illegal with both turtle species found to be nesting on Babi classified by the IUCN as threatened; green sea turtles (*Chelonia mydas*) as Endangered, and leatherback sea turtles (*Dermochelys coriacea*) as globally Vulnerable and Data Deficient at the subpopulation level. EcosystemImpact is therefore proactively trying to reduce the poaching of the turtle eggs through ongoing community engagement, as well as working together with the head of the local police force to raise awareness of the issue.

2.2.3. Bomb and Destructive Fishing

A further key finding of the project's initial eight-month monitoring has been the frequency of bomb fishing boats, mainly from Sibolga, North Sumatra, operating in the area. Throughout the initial eight months of monitoring, a total of 13 bomb fishing boats have been sighted operating around the islands. This data has helped raise awareness through the *"Panglima Laot"* and the local head of the area *"Camat"*, resulting in increased media attention of the issue. In May 2022 the new head of police was able to successfully detain three bomb fishing boats which, at present, are being processed by the prosecutor's office.



berita_simeulue_official Boat Nelayan dari Luar Simeulue Diduga Gunakan Bom Ikan

SINABANG - Boat nelayan asal luar Kabupaten Simeulue diduga melakukan akfitas ilegal dengan menangkap ikan menggunakan bom ikan di seputaran Pulau Lasia dan Pulau Babi, Kecamatan Teupah Selatan.

Dari laporan nelayan setempat, Jasmin, pihaknya melihat aktifitas boat ikan luar Simeulue itu sedang mengumpulkan ikan yang diduga hasil dari pengeboman ikan.

Menurutnya, pengeboman ikan itu dilakukan berdekatan dengan Pulau Lasia dan Pulau Babi, yang dimana di kedua pulau itu ssbagai lokasi nelayan untuk memancing ikan.

Aksi pengeboman ikan itu dibenarkan Panglima Laot Teupah Selatan, Wawan, saat dikonfirmasi wartawan.

"Kami duga kapal dari luar Simeulue. Saat ini sudah kami laporkan ke pihak terkait," katanya, Senin (28/3/2022).(*)

sumber : serambi

Figure 5. Local media attention in March 2022 of bomb fishing boat activity, acting on information and attention raised by the EcosystemImpact Babi and Lasia Ranger Project.



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Figure 6. May 2022, further local media attention of the successful arrest and detainment of the Sibolga based bomb fishing boats active around the Babi, Lasia and Simeulue region. 'Polres Simeulue tangkap tiga kapal pengebom ikan' translates to: Simeulue police department detained three bomb fishing boats.

2.3. Song Meter

Beginning in April 2022, the EcosystemImpact team has begun data collection of bird species on Lasia Island, through the use of a Wildlife Acoustics Song Meter Audio Recorder device. The device has been placed at two locations on Lasia Island, with the primary focus of gaining information on the presence of Lasia endangered and endemic songbird species, predominantly Barusan shama. The first month's data has been collected and analysed (summary in Table 2 below), and the team awaiting an improvement in weather conditions to retrieve the memory card active from May-June. Table two below shows only positively identified bird species. A possible Barusan shama call was recorded, however, after consultation with international and regional bird experts, the recording is inconclusive.

Table 2. Data Summary from Song Meter Location One (Activated: 09/04/2022 11:14am Deactivated: 13/05/2022 11:04am)

Number	Species Name	Status
1	Asian koel (Eudynamys scolopaceus)	
2	Crimson sunbird (Aethopyga siparaja siparaja)	
3	Greater racket-tailed drongo (<i>Dicrurus paradiseus platurus</i>)	
4	Red-breasted parakeet (<i>Psittacula alexandri major</i>)	Endemic subspecies
5	Stork-billed kingfisher (Pelargopsis capensis)	
6	Collared kingfisher (Todiramphus chloris chloropterus)	
7	Roving Cuckooshrike (<i>Coracina sumatrensis babiensis</i>)	Endemic subspecies





Figure 7. Song Meter locations, Lasia Island. Location One activated: 09/04/2022 11:14am Deactivated: 13/05/2022 11:04am. Location 2: activated: 14/05/2022 9:40am Still operational in position.



Figure 8. EcosystemImpact team member Erlan installing the Song Meter (April 2022).

3. Future Plans and Phase Two

3.1. Outline of Phase Two Plan

Goals:

- Protect the Babi and Lasia Barusan Shama subspecies from extinction,
- Protect other endemic and endangered bird species,
- Convert community mindset to protection rather than poaching, with a specific focus on converting bird poachers to community rangers.

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Strategy Overview:

- Develop community ranger project similar to the current EcosystemImpact led Bangkaru and Selaut ranger projects,
- Construct small facility/ranger accommodation and access on Lasia Island,
- Convert identified poachers to rangers,
- Economically incentivize local community to protect bird species rather than poach them,
- Collect bird data at the island using noninvasive techniques such as photography,) and sound recording. For year two capture mark release (bird ringing) will be used, although this will require further training and permits, so will be implemented once the project has been operational and initial background bird data has been collected.

Strategy:

- Two teams of three rangers taking 2-week shifts,
- Teams comprised of one key poacher from Batu-Batu village, one data collector, one assistant from local area (Teupah Selatan),
- SMART Patrolling application will be used to record data collected from patrols including:
 - o Species identification through photography and sound recording,
 - o Location / track of patrols and point data from points of interest
 - o Illegal activity
- EcosystemImpact to provide ranger salaries, build accommodation ranger camp and provide project logistic, equipment and supplies.

Transport:

• Team transport to and from the islands can be facilitated by current El data collector "Rawadi", who runs almost daily to the islands transporting people for a relatively cheap cost. This would also help El spread the program message as many other people are transported with him.

Location:

- The location at Teluk Aceh, Lasia Island is a good protected beach landing and is not affected by swells and storms that can frequent the islands.
- Close proximity to the farmers that utilise the area.
- Close proximity to El's proposed coral restoration program.



Figure 9. Lasia Island proposed ranger camp location.

3.2. Phase Two Details and Objectives

3.2.1. Project Phase Two Background

Babi and Lasia are two uninhabited neighbouring rainforest islands of which both maintain close to 100% primary forest cover. As two deep sea islands that have never been connected to mainland Sumatra, Babi and Lasia are home to high levels of high levels of endemism, with two endemic mammal subspecies, the Lasia long-tailed macaque (*Macaca fascicularis lasiae*) and Lasia lesser false vampire bat (*Megadema spasma lasiae*); and five endemic bird subspecies, Babi black-naped monarch (*Hypothymis azurea abbotti*), Lasia Barusan shama, Babi green imperial pigeon (*Ducula aenea babiensis*), Babi roving Cuckooshrike and Babi red-breasted parakeet; along with being one of the last remaining locations to have an extant population of IUCN Critically Endangered Nias hill myna. The island's beaches are nesting sites for leatherback, green and hawksbill sea turtles, however, poaching of both turtle eggs and songbirds remains prevalent.

To combat the threats to Babi and Lasia's unique biodiversity, EcosystemImpact is developing an innovative community ranger and monitoring project. Having spent the last year building community and local government relationships, and spent the last eight months collecting initial data through a community ranger and monitoring project, which subsidised local fishing groups to carry out marine patrol and data collection. Both islands are partially protected as Hutan Lindung (Protected Forest), with Babi having 62% and Lasia 50%. A long-term goal of the project is to work with Simeulue and the provincial level government to heighten the protected status of



the islands, with the aim to gain both terrestrial and marine protected status. YPL, the Indonesian sister foundation of Blue Ventures – which works to build community marine conservation areas using octopus as a flagship species – have expressed that they share EcosystemImpact's vision and are supporting the development of a two-year fisheries and marine management project based in Southern Simeulue, including the communities which most utilise Babi and Lasia. Mandai Nature have pledged initial support for Phase Two of the Babi and Lasia Ranger Project, which as outlined above, will implement a full land-based ranger patrol project aimed at saving the islands most endangered species.

Objective Number	Description
Objective 1	To have built temporary ranger facilities on Lasia Island in order for project
	to start by November 2022.
Objective 2	To have developed rigorous plan and all required supporting documents –
	such as SOPs and data collection methodology – by October 2022.
Objective 3	To implement full land-based ranger project, with full ranger presence on
	Lasia Island by November 2022, with full support of local and regional
	government and permits granted for ranger activities and law enforcement.
Objective 4	Design and build ranger camp on Lasia Island, with support of government
	and all required permits gained by the end of 2022.
Objective 5	To have placed 30 Barusan shama nest boxes on Lasia Island by the end of
	2022.
Objective 6	To have a full 12-months Song Meter data collected by April 2023.

Table 3. Project Phase Two Objectives

Table 4. Key indicators of progress and success

Indicator Number	Description
Indicator 1	Number of Barusan shama and Nias hill myna recorded on Babi and Lasia
	Islands.
Indicator 2	(Pending permits as required) Number of Barusan shama's data collected
	and bird ring fastened.
Indicator 3	Number of ranger patrols carried out.
Indicator 4	Number of community members involved in community engagement
	activities.
Indicator 5	(If required) number of poachers successfully cautioned.
Indicator 6	Number of nest boxes in situ.
Indicator 7	Number of months Song Meter data collected.
Indicator 8	(Second year of project) Number of juveniles reached independence from
	ringed parents using nest boxes provided.

3.2.1. Outlining and Developing Methods Through Situational Analysis and Theory of Change

As described throughout this document, Barusan shama, hill myna and all Simeulue and surrounding islands threatened bird species are subject to a myriad of threats. Identifying the most appropriate strategies for effective conservation action therefore requires the identification of the factors contributing to these threats and strategies which can be utilised to reduce their impact. Figure 10 below maps the threats, contributing factors and strategies for the conservation of Simeulue songbirds.

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Figure 2. Situational model diagram for songbirds on Simeulue Island. Conservation target in blue oblong; direct threat in pink rectangle (with threat ranking H (high), M (medium) and L (low)); contributing factors in orange rectangles; conservation strategies in yellow hexagons; and arrows to show impacts. Model was created in Miradi Share by Tom Amey, using the Conservation Standards guidelines, *Open Standards for the Practice of Conservation* Version 4.0.



3.3. Risks and Assumptions

Tables 5 and 6 below show the threats and assumptions which may impact the success and/or effectiveness of the project. Threats have been ranked using the Conservation Standards guidelines.

T I I C				1 (P
Table 5.	Threat ranking	system for	project threats a	and assumptions

Likelihood	Consequence	Risk summa	ary (Likelihood x
		Consequen	ce) thresholds
1 – Very Unlikely	1 – Negligible	1 to 4	Low
2 – Unlikely – may occur once	2 – Minor	5 to 6	Medium
3 – Moderately likely/could occur once	3 – Major	7 to 8	High
4 – Likely – could occur more than once	4 – Very high impact	9	Very high
5 – Almost certain/could occur frequently	5 – Extreme	10	Extremely High

Table 6. Breakdown of project threats and assumptions

Risk Title	Likelihood	Consequence	Risk summary	Action to be taken
Poaching of songbirds from Babi and Lasia Island.	5	5		Implementation of Phase Two strategy of full-time island community rangers.
Dangerous weather at times of the year preventing ranger's reaching the ranger camp. Could lead to serious situations of rangers becoming stranded on Lasia.	4	4		Ranger camp always stocked with emergency rations. Rangers supplied with a GPS satellite phone device for emergency contact.
Simeulue government and local communities do not agree to support the project.	2	4		Rangers and project staff employed from local communities whenever possible. Supporting strategies of alternative livelihoods and environmental education implemented.
Breakdown of relationship with key stakeholders, including Simeulue and provincial government; and local communities.	2	4		EcosystemImpact staff maintain good relations, through regular meetings.
Rangers encountering hostile poachers, leading to violent and possibly dangerous situations.	4	3		Close communication with Simeulue law enforcement agencies, with the rangers having an ability to enforce the law. Official permit and letters provided to the rangers to support them in dangerous situations. Creation of signs on Babi and Lasia islands outlining the legalities and consequences of poaching from Babi and Lasia Islands
Inadequate staff performance.	4	3		Good training of all staff. Continues performance analysis by senior staff members.

			EcosystemImpact currently runs two similar ranger projects, with staff members having experience in the development, early phase and continued management of such project.
Natural disaster impacting project, such as tsunami or earthquake.	2	2	Natural disaster evacuation procedure developed.

3.4. Phase Two Summary

Phase One of the Babi and Lasia Ranger Project has been successful, in that EcosystemImpact has gained sufficient data in order to gain a better understanding of the current situation on Babi and Lasia and the conservation requirements moving forward. Data has shown that the island's remain important sites for threatened species and subspecies, such as Nias hill myna, Barusan shama, green sea turtles and leatherback sea turtles. However, although Phase One of the project has allowed for data to be collected and initial community engagement work to be carried out, in order to have a tangible conservation impact – in particular save the Lasia Barusan shama from extinction – further action is required. EcosystemImpact will therefore create a community ranger project, providing full time ranger presence on Lasia Island, with rangers carrying out data collection and anti-poaching patrols.