

Project Update: September 2019

EXECUTIVE SUMMARY

Some achievements were reached during this period from June to August 2019. We have identified Java sparrow (*Lonchura oryzivora*) habitat in Giriwungu and Girikarto. We also have conducted observation in two roosts and breeding sites at Song Gobar cliff and Jothak cave as well as interviewed the local community around site. The observation suggest that the Java sparrow movement are closely related to the planting season. During this survey we did not encounter individuals of Java sparrow in these locations, which is more than likely due to it being the dry season in Gunungkidul. During dry season Java sparrow often to visit cattle shelters foraging for rice among straw (cow food).

To prepare community work including village mapping and capacity building we have conducted discussions with the representatives of farmer community group. The discussions suggested that the upcoming activity will be conducted in September 2019.

INTRODUCTION

Java sparrow (*Lonchura oryzivora*) is an endangered bird species, endemic to Java and Bali. The population have been extirpated from their habitat due to poaching activity. The remaining population in Gunungkidul karst region are mostly located near farming area.

Gunungkidul karst region is part of Gunung sewu karst landscape, which are dotted with thousands limestone hill stretching along the southern coast of Gunung kidul regency, Yogyakarta Province, Java Island, Indonesia.

According to our survey in Gunungkidul during 2017-2018, there were 15 former breeding sites, now there is only five remaining breeding sites (83-123 individuals) (Yayasan Kanopi Indonesia 2018). Kanopi Indonesia and WCS (2017) in 2016-2017 conducted a bird market survey in three bird markets (Yogyakarta, Surakarta, Purblingga), and found that 759 Java sparrows were traded during the survey period. This investigation reveals that significant numbers of these birds were supplied from Gunungkidul Regency. This worrying facts leads us to conclude that the bird poaching activity are still happening as we speak. Thus being noted, it's very imperative for us to develop conservation activities to protect the remaining population by involving the local communities.

This project will engage with the local farmers and communities near Java sparrow habitat. We will actively encourage them to participate in various activities such as safeguarding and monitoring the Java sparrow population. We will also actively educate the locals to reduce the number of conflicts between the locals and Java sparrow through participatory mapping and transfer knowledge to tackle the negative stigma of this particular bird in the locals, primarily rice farmers.

OBJECTIVE

1. Java sparrow habitat distribution survey in the project site.
2. Capacity building for community to conserve Java sparrow and the habitat.
3. Spreading awareness to Local villagers about the important of Java sparrow conservation.

4. Implementation of the monitoring and conservation mechanism.

METHODS

1. *Java sparrow habitat survey,*

This activities includes interview with local community especially farmers, literature study, and also direct observation. We will use opportunistic species observations data, collected from interview with the local community and other informant. Hopefully, these informants could also share the historical bird's data from the previous years. This survey aims to spot at least 10 the Java sparrow feeding site and other encounter site in their home range. Interview will be conducted by purposive method to the potential informant especially farmer which are live or owning area in the village pilot or which located no more than 4 km from Java sparrow roost site. We will record the feeding site GPS location, when and how many Java sparrow usually come, the owner perception about Java sparrow. we also ask them whether he or she will available to be involved in java monitoring as volunteer by sharing the information of java sparrow encounter. To cross check the information we will conduct observation according to the information from informant.

2. *Capacity building for community*

This activity will involve around 15 persons from the local community, especially young people and farmer. This activity consists of:

(1) Village mapping facilitation. Villagers will be trained to assess the local village landscape (settlement, farmland, forest, etc.) and Java sparrow distribution. The Java sparrow distribution data will also include the data from the previously conducted survey.

(2) Bird monitoring training: the training will be focused in bird observation and reporting, and monitoring scheme introduction which will be implemented during this project.

(3) Community based conservation training: The training will be about the bird protection technique, field patrol methods, and swift report mechanism to the authorities (BKSDA ranger or police) regarding the poaching activities.

3. *Monitoring implementation:*

We will involve the training participant and wider community from the local villager to work with the monitoring program. Hopefully the villagers will also commit in the future as a monitoring volunteers. There will be three type of location to be monitored, including:

(1) Roosting or nesting site,

(2) Feeding ground – especially on the paddy field and,

(3) Other locations which are reported to be visited regularly by the Java sparrow. The monitoring will be led by the local coordinator, and three field coordinators (training participant). This team will collect every record from the monitoring volunteers. The data monitoring will only include the occurrence reports that provide date and location information. In this activity, Kanopi Indonesia will only use data collected from pilot village. Any other data collected from another site will be stored in a different database. The monitoring implementation will be conducted for at least for three months at five locations involving 15 volunteer.

4. Awareness raising:

We will execute these activities through a school visit at two different schools, and a village visit into two different villages. Awareness material production: These awareness raising activities will also include the production of 500 posters, 500 infographic pamphlets and one billboard.

PROGRESS OF ACTIVITIES:

Java Sparrow Distribution Survey

The survey was conducted through interview with local community and observation to the potential location. The interview was conducted in several times from 16 July 23, 24 and 25 July 2019 and during 21-25 July 2019. During the survey we have conducted interview with 28 informants in project site primarily in Girikarto, and Giriwungu village.

Sub activity: Bird observation

The observation was conducted during 16,23,24,25 July 2019 and we found that the bird is not observed during observation in Song Gobar Cliff and only five individuals observed in Jothak cave. Java sparrow has wide movement and we don't understand about the movement pattern. We found that most of individuals didn't stay all year in project site, and during our survey in July and August, the bird were not observed in most of observation area, including in Song Gobar, where last year we observed about 20-30 individuals in this site in August 2019. But in Jothak cave we only observed 5 individuals.

Song Gobar cliff:

Song Gobar is located at Pejaten, one of five sub-village in Giriwungu Village, the nest is situated at the cliff which is located side by side with farm field. According to our survey in 2018 there was 40-50 individual roost in this site which at least 12 of them were still juvenile.

In 16, 23-24 July 2019 The observation was conducted through counting the bird in the roost site which the bird used to nest in this location. We waited for bird coming to roost in dusk and we repeat again during dawn. There were no Java sparrow individual observed during observation, but we found those nests which have already been abandoned, presumably this nest is active in the last breeding season this year during February- March 2019.

From the interview with the land owner (farmer) suggest the bird is not occupied in this place all year. The farmer said that sometime the bird present for couple months but on another month they were never seen again, someday the bird will come again. However he doesn't really know the pattern whereas he doesn't aware about when the bird come or go.



Figure. 1. View of “Song gobar” cliff which situated side by side with farm field.

Other cliff inhabitant: During observation in the evening near dusk we observed other wildlife inhabit in this cliff which presumably some of them is suspected to be predator or competitor of Java sparrow. We observed squirrel, collared kingfisher come to roost in the cliff hole. On the contrary we observed many bat flying from the hole in the cliff. And the most interesting was when we observed four individuals barn owl (we guess they are come from two couple) and bare eagle-owl while flying from their nest in the cliff. At the ground right under their nest we found faeces containing those prey bone and hair which suggest those prey on mouse and squirrel. The finding about cliff inhabitant was continuing during observation the morning. Instead of encountered Java sparrow we found snake moulting skin hanged on the cliff.

Jothak cave

This site have been long time reported as Java sparrow nest habitat. According to Wardani 2005 and Yuda 2008 the population of Java sparrow in 2005 is about 34-40 individual. While according to our survey in May 2018 the population of Java sparrow in this location is at least 12 individual-20 individuals in maximum.

During this project observation in 16 and 24 July 2019 e only observe at least 5 individual Java sparrow in this site. The observation was conducted from the dawn until 08:00 am. Instead of roost in the cliff of the vertical cave the bird seemly roost on the tree around the cave but at 07.00 the bird coming to the cave and perch on the cliff and the tree which grow in the cliff.

We also conducted interview with some key person near the cave to gain information about the Java sparrow and the habitat. According to the interview with chief of village in Girikarto, Now Jothak cave has been developed for tourism and owned by one villager which is live in Dusun Pundung, Girikarto named Mr Gandung. In order to develop tourism he built road to access the cave from the main road. The good news is that he support our program to conserve the bird. He also has prohibited everybody to catch the bird in this area.



Figure 2. Java sparrow at Jothak cave, left up: perch on the scrub in the cave bank, right at Ficus grow at the cliff of the cave entrance Java sparrow observation with Mr Yono, Villager from Pijenan, Girikarto village.

Macanan cave cliff.

Our survey in 2018 observed 2 individuals in this location, as chief of Pejaten village said that this location is Java sparrow breeding site. But during this survey at 23 July 2019 we didn't conduct observation, but we found ex-java sparrow nest in the cliff crack, possibly it was still used during early year breeding season. Conducted interview with local community near location.



Figure 3. Nest material in the cliff hole, possibly Java sparrow's nest which still active in early breeding season this year.

According to the interview with two Farmer near site we got two different information. One farmer (age >65 years,) said to have never seen java sparrow in this location, but another informant in 20 august 2019 experienced to saw java sparrow one or two individuals while visiting cow cattle shelter foraging for rice among straw.

Wota wati

This location was identify based on interview with villager in Klepu sub village Giriwungu village. He said that Java sparrow is often visiting wota-wati particularly when foraging for rice during rainy season. This location is a do line as it often found in karst but now this area have been modified as farm land. This site is located near song Gobar only about 200 m toward north east. When we visited this site in 25 July 2019 we didn't observe Java sparrow.



Figure 4. Wota-wati, farm field which villager said that when approaching rice harvesting in rainy season, Java sparrow often to come.

Piji

Piji is a name of sacral place in Girmulyo, (neighbour village of Girikarto and Giriwungu village) which keep nature as no body do not allowed to disturb such as cut the tree or do un-appropriate habit. Actually this place is only small area (about 1 Ha) conical hill with consist of many big wild tree, liana, just look like a primary forest, it very contrast with that surround environment where have already modified as agriculture area. According to local village there is vertical cave, near Piji which its cliff wall is often occasionally visited by Java sparrow. However when we conduct observation in 24 July 2019 in we didn't observe Java sparrow.



Figure 5. Small area of Piji remains natural forest habitat which is contrast with the surrounding

Tedunan cliff

Tedunan is small conical hill near beach in Girikarto, According locals believes Tedunan area is sacral as no body allowed to cut the tree. We visit Tedunan, at 22 August 2019, According to the interview with some farmer, the cliff in Tedunan hill side is Java sparrow roost site. However during observation at 7.00 am in the morning Instead of Java sparrow we saw some other bird such as java munia, scally-breasted munia, sooty-headed bulbul, yellow vented bulbul, and racket-tailed treepie and small group of macaque, *Macaca fasciculatis*.



Figure 6. Cliff at Tedunan

Interview with local informant: In 21-28 August we have conducted interview with local people in Girikarto and Giriwungu village, to identify the important location for Java sparrow habitat. The location was chosen according to the people information we ask during survey. The location that we have 7 identified including, Song gobar, Jothak cave, Gua macanan, Song kadut, Soka, Tedunan, Wota wati and Tanah kas desa. At that location we conducted interview with local people to ask about the

encounter with Java Island. Most of them also state to available if sometime we come again to ask about Java sparrow.

However we had a bit difficulty of finding people in field farm seeing in this dry season they tend to reduce their activity in farm field, we met them mostly when feed their cow, grassing or dry their cassava under the sun. We also found that most of people we met in field farm is old man or old women more than 50 years old.



Figure 7. Interview with Farmer in Girikarto and Giriwungu Village

Table 1. Description of the interview with local informant about Java sparrow habitat in Girisuko and Giriwungu.

LOCATION	INFORMANT	DESCRIPTION	HABITAT INDICATION
Girikarto	Mr. Wanto	Mr. Wanto from Dusun Padem village, is known as a coconut tree climber and helps harvest coconut in Panggang district. During the interview, he said that about three years ago he saw some individuals near Tedunan, but few last years the birds have been getting rare.	Cliff possibly roost site
		Many years ago he often time encounter java sparrow at Bolang cave.	Roost site
Girikarto	Mr. Mbah Parmo Padem	Mbah Parmo Padem from Tedunan conducted his interview while he was grassing in Tedunan area. During the interview he mentioned that he hasn't paid attention to the birds in the last few years he wasn't able to say whether any Java sparrow have come to his land.	Feeding site
	Mr. Mujiono	Mr. Mujiono is a farmer in Tedunan. In the interview he said, during last four years he had never seen Java sparrows on his farmland. But he suggested the Java sparrow can still be found in Jothak cave, however the population is not as many as previous years, (population is decreasing).	Roost site
	Mr. Ngadimin	Mr. Ngadimin a farmer in Wiloso sub-village near Tedunan, said that it had been years since he had seen a Java sparrow coming to his farmland. He also mentioned that many other birds were also getting rare including shrike, tailorbird and jungle fowl. He had noticed poachers coming to his land to catch Java sparrow and other song bird with nets.	Feeding site
Girikarto	Mr. Rudi	Mr. Rudi, said that about 20 individuals of Java sparrow often visit his cattle cage on his farmland. But later after we conducted an observation survey with him, he had thought that the Munia was a Java sparrow.	
Girikarto	Mr. Pardiman	Mr. Pardiman, a chain saw operator, said that he had never seen Java sparrow.	

LOCATION	INFORMANT	DESCRIPTION	HABITAT INDICATION
Girikarto	Mr. Maryadi	Mr. Maryadi, a farmer, said that he saw a Java sparrow about 15 days ago at Alas juged at around 7.00 am. He also encountered about 20 individuals while they were foraging amongst a pile of rice straw in the cattle cave which is owned by Mr. Adi Wastono.	Feeding site
Girikarto	Mr. Darso Sentono	Mr. Darso Sentono always comes to his cow cage in the morning and evening. He said the last time he saw Java sparrows in his farmland was about two years ago, about 30 individuals were often coming to the pile of rice straw near his cattle cow cage.	Feeding site
Girikarto	Mr. Adisucipto	Mr. Adisucipto said many years ago, (didn't mention exact year) Java sparrows were very common, and often came to his rice fields in Bolang during rainy season. But now he has not encountered any Java sparrows.	Feeding grown
Wiloso Girikarto	Mr. Ngadimin	Mr. Ngadimin said that about 5 years ago in this area, it was still easy to see birds including Java sparrow. But since many poachers have come, and many birds have disappeared all but the Spotted dove and Javan munia. He said that the poachers are coming from Imogiri district at Bantul regency (Gunungkidul neighbor regency). He said that there is no local regulation prohibiting bird hunting and poaching.	
Soka Pejaten Giriwungu	Mr. Sowayitemo	Mr. Sowayitemo said that during 4 last years he have never seen Java sparrow in his land.	
Macanan cliff Giriwungu	Mr. Basuki	Mr Basuki said about two week ago one individual was observed foraging for rice among pile of straw in a cattle cage in his farmland.	Feeding site
Song gobar cliff Giriwungu	Mrs RutiyeM, Mrs Marjo, Mrs JumiyeM	Mrs. RutiyeM, Mrs. Marjo and Mrs. JumiyeM the owners of the farmland nearest to the Song Gobar cliff (the identified Java sparrow nest site). Mrs. RutiyeM knew about the Java sparrow and during the interview said that Java sparrow always visits her rice farm when approaching the harvest, usually about 15-20 individuals.	Feeding site

LOCATION	INFORMANT	DESCRIPTION	HABITAT INDICATION
Giriwungu	Mrs. Jumarsih	According to Mrs. Jumarsih, who has cattle shelter near the Song Gobar nest site, in three last year she has never seen Java sparrow visiting her farmland. She remembered many years ago Java sparrows and red-breasted parakeets visiting a tree near her cattle shelter. She also said that there was poachers from Pejaten village but they all died more than 5 years ago.	Feeding site
Giriwungu	Mr. Adiwarsono	Mr. Adiwarsono, a villager from Klepu Giriwungu said that 1-2 individuals of sparrow still occasionally visit the farm foraging for rice among pile of rice straw after harvesting time near Soka cliff in Giriwungu village.	Feeding site
Tanah Kas desa Girikarto	Mr. Adiwastono	He also said that last year he saw 6 individual Java sparrow in Tanah kas desa (village government-owned land) in Girikarto village.	Feeding site
	Mr. Wasnanto	Mr. Wasnanto said that the birds always visit his farm field before or after he has spread rice seed. (In Gunungkidul rice is planted in the dry area by spread the seed directly without germinating it first). Java sparrows usually perch on the coconut trees near farm field. In the evening the birds normally fly south possibly towards their roost in Tedunan.	Feeding site
Girikarto	Mr. Wiyono	Mr. Wiyono, his house is located near to Jothak cave (identified as nest site of Java sparrow), said that the Jothak cave is still occupied by Java sparrow and they roost and breed there. During the observation in Jothak cave we only encounter 5 individuals.	Feeding site
		Mr. Wiyono said that about two months ago he saw Java sparrow individual at Tedunan cliff.	
		He also said that when the rice plant is approaching harvest time, the birds usually come to Kedukan cave, (Which is owned by Mr. Wastono). But when we checked the location we didn't see any birds.	Feeding site
Giriwungu	Mr. Rajiman	Mr. Rajiman said that on 21 st August 2019 at around 7.00 am, he saw about 20 individuals visit a cow shelter owned by Mr. Sunarno. He observed the birds foraging for rice among pile of rice straw. This location is near Song Soka cliff. Mr. Rajiman also mention that another place which is usually visited by Java sparrow is a farm field in Pucung.	Feeding site

LOCATION	INFORMANT	DESCRIPTION	HABITAT INDICATION
Klepu, Giriwungu	Mrs. Ngadiyah	Mrs. Ngadiyah said that she doesn't know about birds and can't distinguish between the Java sparrow and any others bird. But she said she had seen a bird with a red bill coming to cattle shelter to forage for rice.	Feeding site
	Mr. Kliwon	Mr. Kliwon had very little information. He said that he had not seen a Java sparrow in the last 3 years.	
Klepu, Giriwungu	Mr. Ngadino	Mr. Ngandino, an ex-poacher of red-breasted parakeet (<i>Psittacula alexandri</i>) and Java sparrow <i>Padda oryzivora</i> . He said that Song Gobar is Java sparrow site, especially during rainy season. He also said that he has not seen a Java sparrow in the last 2 years. He suggested that if Java sparrow were not present at Song Gobar, it may be present at the Jothak cave. However according to our last survey in May 2018 (one years ago we still observed 40-50 individuals in Song Gobar and 12-20 individuals in Jothak cave).	



Figure 8. Map of habitat of Java sparrow which is represented location of informant farm field. (Triangle figure: roost or nest habitat; circle figure: feeding habitat)

INDICATION OF HABITAT PREFERENCE

Nest area: Cliff and cave

Most local community said that Java sparrow nest in the cliff which is situated at entrance vertical cave, natural cliff (locals people call it "song",) as well as at the slope of conical hill. Our survey in Gunungkidul showed no informant which mentioned Java sparrow nest in tree hole, or in building.





Figure 8. Typical of Java sparrow nest habitat in Gunungkidul karst area, left Jothak cave, Girikarto Village. Right: Song Gobar cliff, at Giriwungu and Soka cliff, Macanan.

Roosting area

The roost site of Java sparrow in the project site is still unclear, so far we just conduct observation at dusk on their nest site, like in Jothak cave and song gobar. In Jothak cave Java sparrow observed roost in tree or shrub which grow at vertical cave entrance. While in song Gobar cliff Java sparrow roost on tree which grow above the cliff. However during this survey, we only encounter 5 individual in Jothak cave even in Song Gobar we never encounter Java sparrow. So we don't have idea where does they roost this time.

Feeding area

Generally villager in Giriwungu and Girisoka said that Java sparrow often visit rice farm when approaching or during harvest time in rainy season. During this survey (July-August 2019) there were no rice plantation in all Farm field in Gunungkidul.



Figure 9. The farm field condition during dry season: This was a situation after cassava harvesting in Girikarto village

Cattle cow shelter which usually located side by side with farm field reported to be often visited by Java sparrow in dry season. Java sparrow often visit cow shelter

foraging for rice among pile of rice straw (cow in this area feed on rice straw). During the peak of dry season, is usually difficult to find grass. They have to take away the straw from other regency in Bantul. They can just take the rice straw by free while helping the owner to harvest the rice.



Figure 10. Ordinary view of cattle cow shelter in Gunungkidul.

COMMUNITY ASPECT

Majority of local community livelihood in Giriwungu and Girikarto is farmer, the agricultural commodity in this area are consist of cassava, pea nut, corn, rice and also barley. The rice only planted once time during rainy season. Many of them also raise cattle especially cow in their farmland with wood framed shelter.

Gunungkidul is considered as dry area, during peak of dry season people in this area suffer from drought seeing water is always difficult to access. This condition triggering some donor charity to donate clean water to community in Gunungkidul including for the community in Giriwungu.



Figure 11. Woman collecting clear water from communal water reservoir located in chief of village house, right. Farmer pail and dry cassava under sun to make "Gaplek" (tapioca ingredients).

Many of farmer pay more attention to their cattle than to their farm during dry season. But, as no more grass grow in Gunungkidul karst area they have to take away the straw of rice from other regency in Bantul. Fortunately they can just take the rice straw by free while helping the owner to harvest the rice.

To increase their income, many of them go to the city to take alternative job as construction builder, particularly in dry season. Some of villager also make charcoal from *Acacia auriculiformes*.

MEETING WITH CHIEF OF VILLAGE TO DISCUSS THE UPCOMING ACTIVITY:

For the upcoming activity, we will conduct discussion and participative village mapping with farmer and the stakeholder. In order to prepare that activity, we have conducted discussion and coordination with chief of village Mr. Basuki in 10 August 2019. He is also known as key person which is representative of village farmer community in Giriwungu. We discussed the schedule and design the next activity including participative village mapping. According to the discussion with Pak Basuki, Farmer group at is ready to be involved in the project activity including discussion and training. Seeing in August all of villager still busy of activity of greeting the Indonesia independent day anniversary 17 August. After this discussion he planned to discuss with the group and later he suggested that the group will available for the next activity in 21 September 2019.

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