



SECRETARIAT OF THE EAST ASIAN–AUSTRALASIAN FLYWAY PARTNERSHIP

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2023 Small Grant Fund for Working Groups and Task Forces Report

Monitoring the Christmas Frigatebird in Jakarta Bay

August 2023 – August 2024

Indonesia

Submission Date: 19 November 2024

GRANTEE OVERVIEW

Describe your organisation by filling out the table below.

Grantee Details	<i>Fransisca Noni Tirtaningtyas Coordinator fntirtaningtyas@gmail.com</i>
Organisation	<i>Burung Laut Indonesia Other: Local group</i>
Country	Indonesia

List any contributions that your organisation or yourself might have been involved for the protection of the migratory waterbirds and their habitats across the East-Asian Australasian Flyway below.

Brief summary of your contributions. If applicable, please include the year, Flyway Network Sites, type of activities, and other relevant information.

Burung Laut Indonesia is the only seabird conservation group in Indonesia. Burung Laut Indonesia invites people with different scientific backgrounds to study seabirds and their habitats in Indonesia. Several universities are involved in undergraduate research with seabird researchers. Burung Laut Indonesia also works with multiple stakeholders, including the local government, and has many international collaborations. Here are some of the activities carried out by Burung Laut Indonesia:

- 2009-present: Coordinator of Seabird Activities in Indonesia
- 2024-present: Partner of Asian Waterbird Census activities in Indonesia
- 2024-2025: National Partnership for the Conservation of Migratory Birds and their Habitats Sub-Task Force for Seabird Network Management in Indonesia
- 2022-2023: National Partnership for the Conservation of Migratory Birds and their Habitats Sub-Task Force for Seabird Network Management in Indonesia
- 2022: Production of a documentary film on the Christmas Island Frigatebird in Jakarta Bay, Indonesia (<https://eaaflyway.net/christmas-frigatebirds-documentary-launch/>)

1.1 PROJECT SUMMARY

Project Title	<i>Monitoring the Christmas Frigatebird in Jakarta Bay</i>
Location	<i>Jakarta Bay, Tangerang, Indonesia</i>
Project Budget	<i>4,586 US\$.</i>
Co-funding	<i>Burung Laut Indonesia: 832.6 US\$</i>
EAAFP Working Group or Task Force	<i>Seabird Working Group</i>
Relevant EAAFP Strategic Plan	<p><i>Objective 2 - Enhance communication, education and public awareness of the values of migratory waterbirds and their habitats</i></p> <p><i>Objective 3 - Enhance flyway research and monitoring activities, build knowledge and promote exchange of information on waterbirds and their habitats.</i></p> <p><i>Objective 4 - Build the habitat and waterbird management capacity of natural resource managers, decision makers and local stakeholders.</i></p>

Project Overview and Outcomes

Please provide a brief summary of your project. In the summary, please include its objective and its location (Name of Place, City and Country), and explain the significance and relations of the species and its location (in link with [EAAF Key Species](#) and [Flyway Network Site](#)) for your project. Please also discuss how this project contributes to the implementation of the [EAAFP Strategic Plan 2019-2028](#).

Jakarta Bay is in the northern part of Java Island and has an area of approximately 490 Km². The sea is shallow (mean depth 15 m). Jakarta Bay is the dominant location for fishing with the large number of fishermen who catch in this area and a large number of wooden fish traps. The coastline of about 40 km is dominated by fish and shrimp ponds with small areas of coastal mangrove forests. A number of small islands are in Jakarta Bay, the nearest island is Pulau Rambut Nature Reserves and Untung Jawa. Pulau Rambut Nature Reserve included in the Ramsar site and Important Bird Area because it is one of the breeding sites for water birds. Pulau Rambut also as a roosting site for Christmas Frigatebird (Wardhani 2011). Besides as a foraging and roosting site for Christmas Frigatebird, Jakarta Bay as a foraging place for 17 seabirds and one of them is Aleutian Tern (*Onychoprion aleuticus*) (Vulnerable) (Tirtaningtyas & Khaleb 2017).

In Jakarta Bay, Christmas Frigatebirds have to share space with humans while birds are foraging for food. The abundance of anthropogenic activities in Jakarta Bay poses a threat to the birds. These conservation issues were identified by Burung Laut Indonesia, which has carried out activities since 2011. Throughout 2011 to 2019 there were 11 interactions between humans and seabirds, nine of them were the Christmas Frigatebird and caused death or still alive with the fishing line in their leg. From the results of interviews with 19 fishermen, 15 of them had experience with seabird bycatch in their fishnets. Most of them didn't know what to do, the others released the birds immediately, but some birds are sometimes taken home to eat, or when birds die in the fishnet, they are just thrown into the sea.

Another threat found in Jakarta Bay is and-derived litter. During the rainy season, the water brings the human-generated waste, plastic waste or organic waste from 13 rivers in Jakarta to the Jakarta Bay. The sea becomes brownish because of the mud and garbage. Several times we have seen Christmas frigatebirds flying from the dirty sea to the clean area of the bay. This is related to the ease of foraging. Some reports from the field see some frigatebirds carrying a plastic rope and interacting with other birds. Another birdwatcher saw three of the cormorants using and scramble the styrofoam.

Since 2011 until 2021, Burung Laut Indonesia monitoring the numbers and population of Christmas Frigatebird in Jakarta Bay. In one day, we found 209 birds (March 2012). These numbers and activities in Jakarta Bay were one of the inputs for changing the status of the Christmas frigatebird on the IUCN Red List from Critically Endangered to Vulnerable in 2022. Activities conducted from 2023 to 2024 will provide information on the number of Christmas Cranes in Jakarta Bay, as well as the presence of other seabirds, which is important to monitor because Jakarta Bay is one of the stopover areas for seabirds (de Korte 1991; Poole et al 2011; Tirtaningtyas & Yordan 2016; Goldstein et al 2019).

Our project objectives will cover:

1. Monitoring the population numbers of Christmas Frigatebird in Jakarta Bay
2. Monitoring the threats in Christmas Frigatebird in Jakarta Bay
3. Build the habitat and species management capacity with the local government
4. Capacity building for the local people around Jakarta Bay

This activity is a monitoring activity for one of the bird species included in the IUCN Red List of Threatened Species, namely the Christmas Frigatebird. Although this species is not included in the EAAF Key Species, by conducting regular monitoring activities, it can protect other seabirds in Jakarta Bay. By conducting this activity, it was found that this site is included in the Flyway Site Network, which supports more than 1% of individuals in a population of a species or subspecies of migratory waterbirds, which supports the population of the Christmas Frigatebird (0.083-2.333%). In July 2012, monitoring found more than 200 individuals in a single day of observation (almost 10% of the population). Jakarta Bay also supports two vulnerable bird species found during the survey, such as Christmas Island Frigatebird and Aleutian Tern, one species is Near Threatened: Swinhoe's Storm-Petrel, and 14 species protected by the Indonesian government. Jakarta Bay as a staging area because it supports the Christmas Island Frigatebird (~0.083-1.12% population).

1.2 PROJECT DETAILS

Detailed Project Implementation Process and Methodologies

Describe the process of your project, including timeline, methodologies, field work, interview, conference, etc. Please include analysis of your process, if applicable. (Any visual aids, including maps, graphs, tables, flowcharts, photos, etc. are strongly preferred)

The project location for monitoring the numbers and population is in Jakarta Bay with a line transect method using a ship and supported by an A-GPS tracker. The ship used a speed of 8.4 km/h with a distance of about 35.74 km and observed around three islands, namely Bidadari Island, Bokor Island and Lancang Island (Figure 1). Water depth during the observation at a range of 3-22 meters, with a total observation area of 26.88 km² (5 % from the total area of Jakarta Bay) (Figure 2). Our monitoring activities conducted on Augustus 2023, October 2023, December 2023, February 2024, April 2024, and July 2024 (Figure 3).

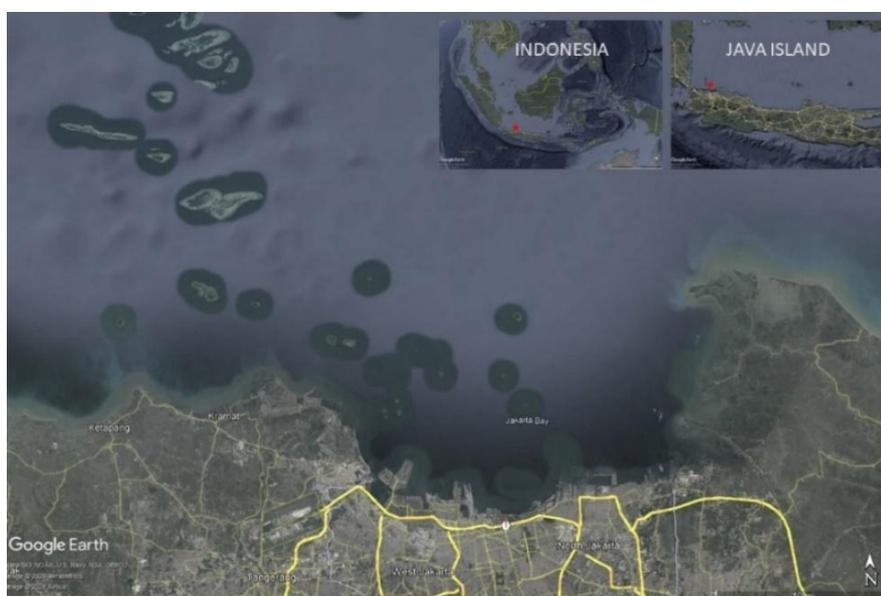


Figure 1. Jakarta Bay, one of the stops over for the seabirds and our project location © Google Earth Pro

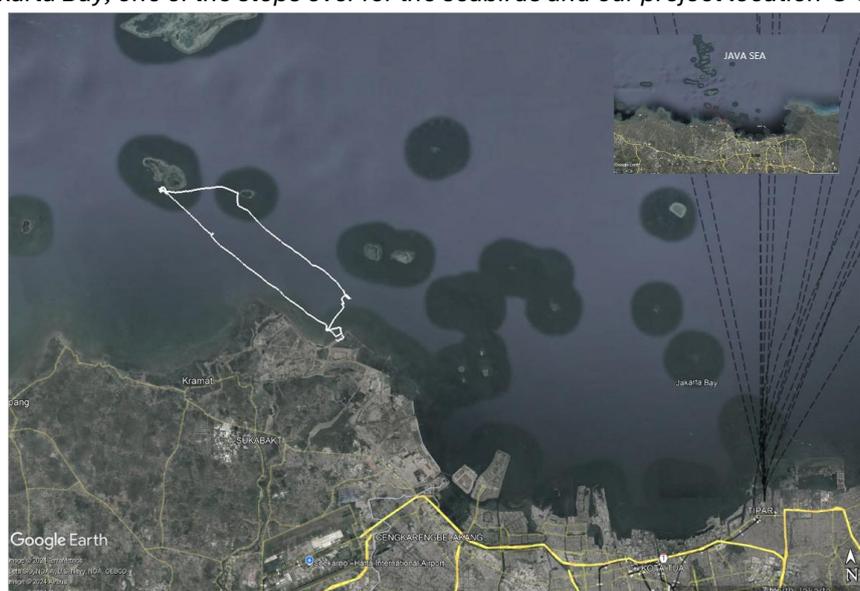


Figure 2. Location for data collection in Jakarta Bay © Google Earth Pro



Figure 3. Data collection (left) © FN Tirtaningtyas and documentation of Christmas Frigatebird and other seabirds in Jakarta Bay (right) © Aronika Kaban

To monitor the threats to the Christmas Frigatebird, we conducted interviews with 96 fishermen around the Bay of Jakarta, particularly around Tanjung Pasir, which is quite close to the Christmas Frigatebird roost. Another location is a fishing village in Cituis, which is about 11 km away from the Christmas Frigatebird roost. This activity was carried out in August 2023, October 2023, February 2024 and March 2024 (Figure 4). We conducted the discussion with the local government for capacity building for habitat and species management on August 2024 in Tanjung Pasir, and the capacity building for local people, we targeted the elementary school and primary school on July 2024 in Pulau Untung Jawa (Figure 5).

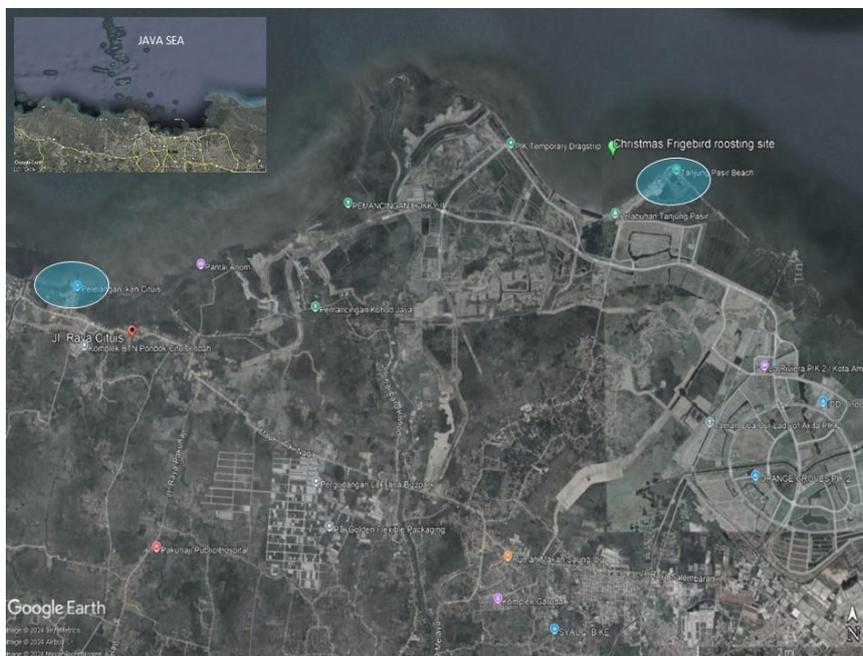


Figure 4. Location for interviewed with the fishermen. The blue circles are the location and the green placemark is the Christmas Frigatebird roosting site © Google Earth Pro



Figure 5. The location for the discussion and capacity building in the green placemark © Google Earth Pro

Problems Encountered/Adjustments/Challenges

If there were some changes made, please indicate them and explain (ex. unexpected circumstances, sudden cancellation, etc.)

NA

1.3 PROJECT RESULTS

Explain and evaluate the outcomes and findings of your project (Any visual data, including maps, graphs, tables, photos, etc. are highly preferred).

Objective 1: Monitoring the population numbers of Christmas Frigatebird in Jakarta Bay

The monitoring of Christmas Frigatebird in Jakarta Bay was carried out around the waters of Tanjung Pasir, Bidadari Island and Lancang Island. The Christmas Frigatebird monitoring is conducted using boats around Jakarta Bay. They are usually found perched on sero (bamboo poles used to catch fish). The highest number of individuals during the activity was in August (56), October (41) and July (47), respectively (Figure 9). While the lowest number and decreasing in December (11), February (0). It is possible that this month was the time of adult incubation (March to May for incubation) (Orta et al 2020) and in July the increase was probably post-fledging care (Orta et al 2020; Hennicke et al 2015), because as seen in Figure 10, male individuals were the most observed. This is also the reason why individual Christmas Frigatebird have not been seen for several months due to the strong wind and rain season in Jakarta Bay.

In long-lived species, the age-, stage- and/or sex-dependent patterns of survival and reproduction determine the evolution of life history strategies, the shape of the reproductive value, and ultimately population dynamics (Aquilar 2017). There were no complete age classes during the project, but some immature individuals were seen in August 2023 and October 2023. In December 2024, juvenile individuals begin to be observed, although they are not seen in February and April and again in July 2024 (Figure

11).

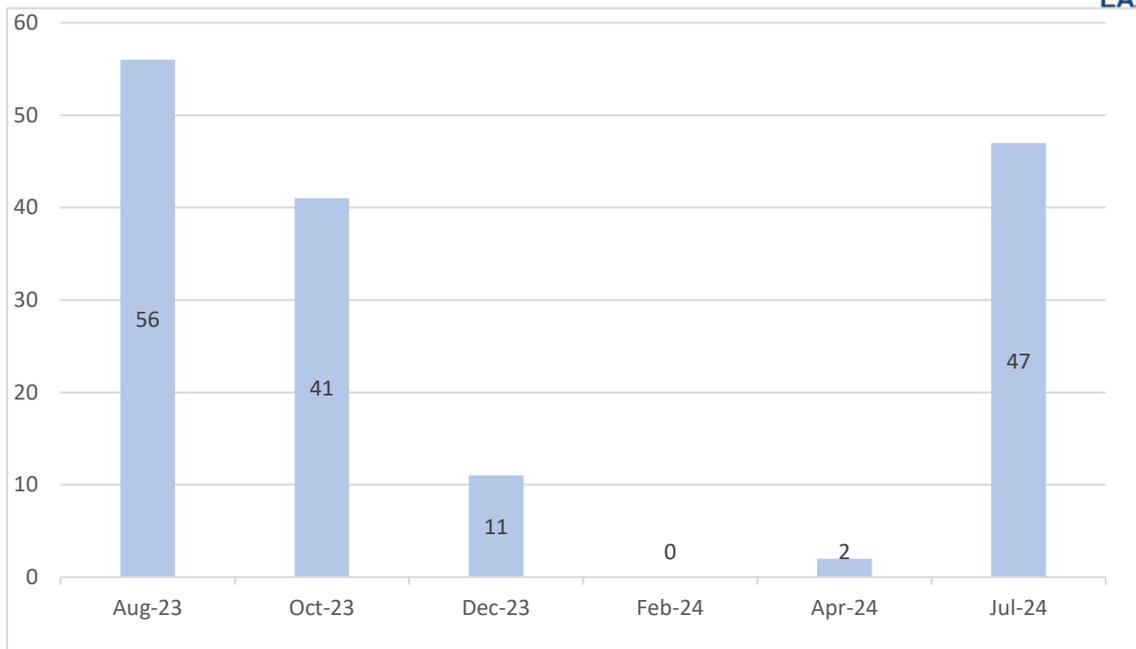


Figure 9. The number of Christmas Frigatebirds during the activity. It can be seen that August 2023 had the highest number. In February 2024 there was no bird during activity.

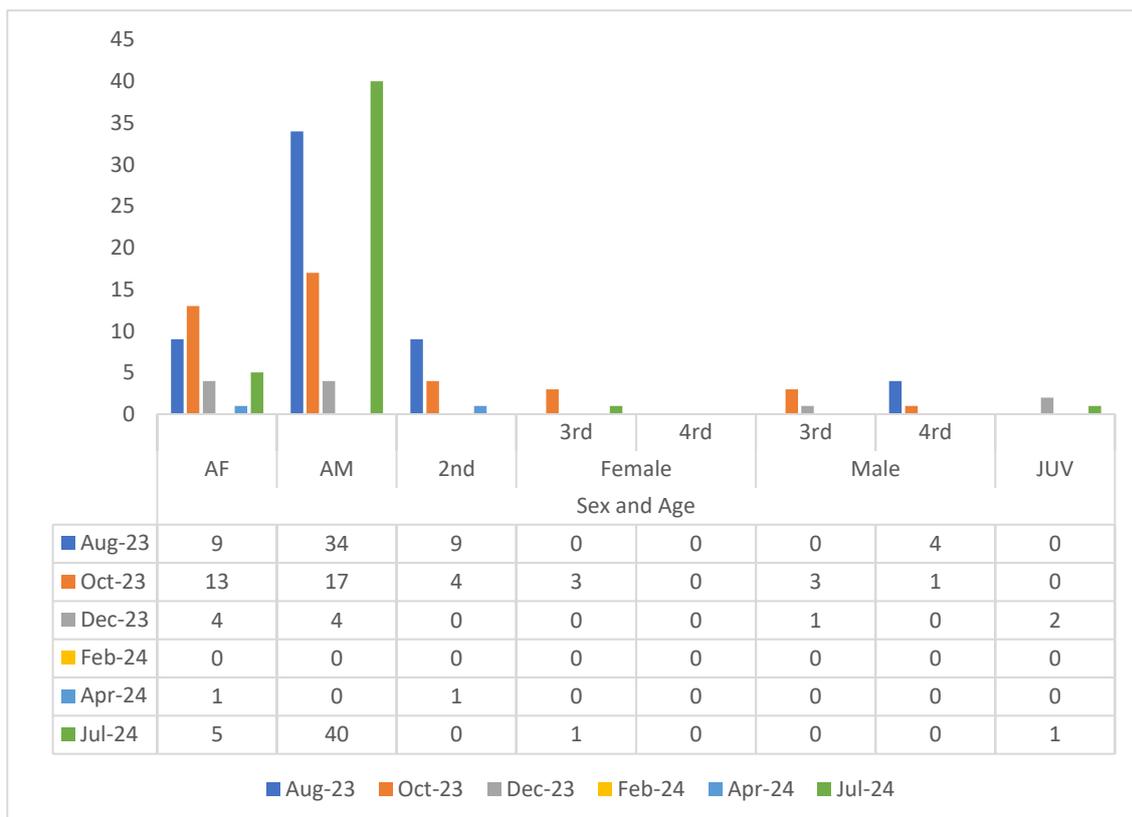


Figure 10. Age and sex composition encountered during the activity. In August and October, the age and sex composition were almost complete compared to other months.

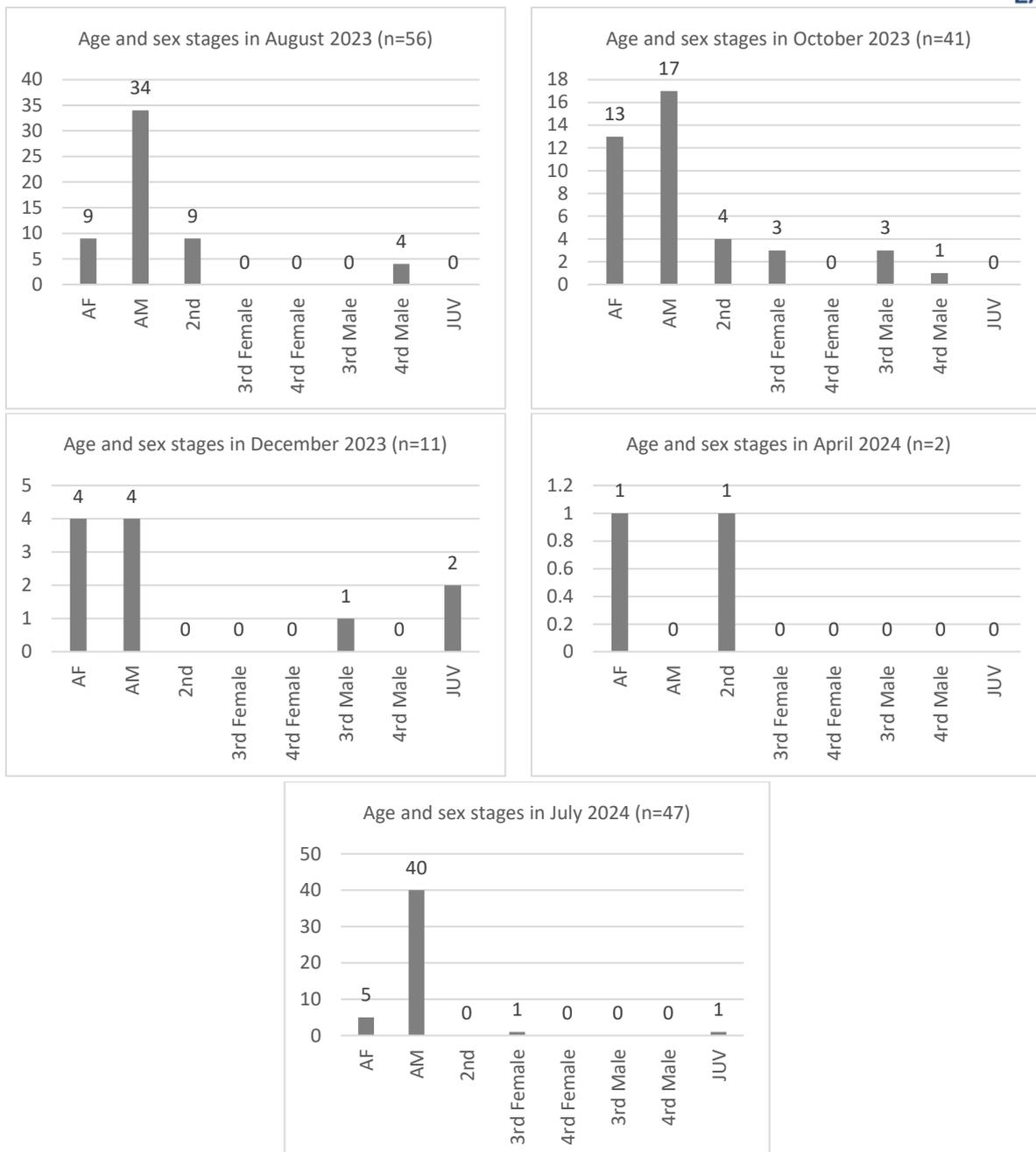


Figure 11. Age and sex stages of Christmas Frigatebirds in Jakarta Bay

The trend numbers of Christmas Frigatebirds in Jakarta Bay

Burung Laut Indonesia has been conducting monitoring activities since 2011, although in some years we did not conduct monitoring due to lack of funding. However, from the data series collected, it can be seen that the number of Christmas frigatebirds has decreased (Figure 12), although there are many influences that cause the number of Christmas frigatebirds to increase and decrease in the years of observation. These include the number of seros used by the Christmas Frigatebird when resting, the weather affecting the presence of the Christmas Frigatebird at the time of data collection, and the condition of their breeding grounds on Christmas Island.

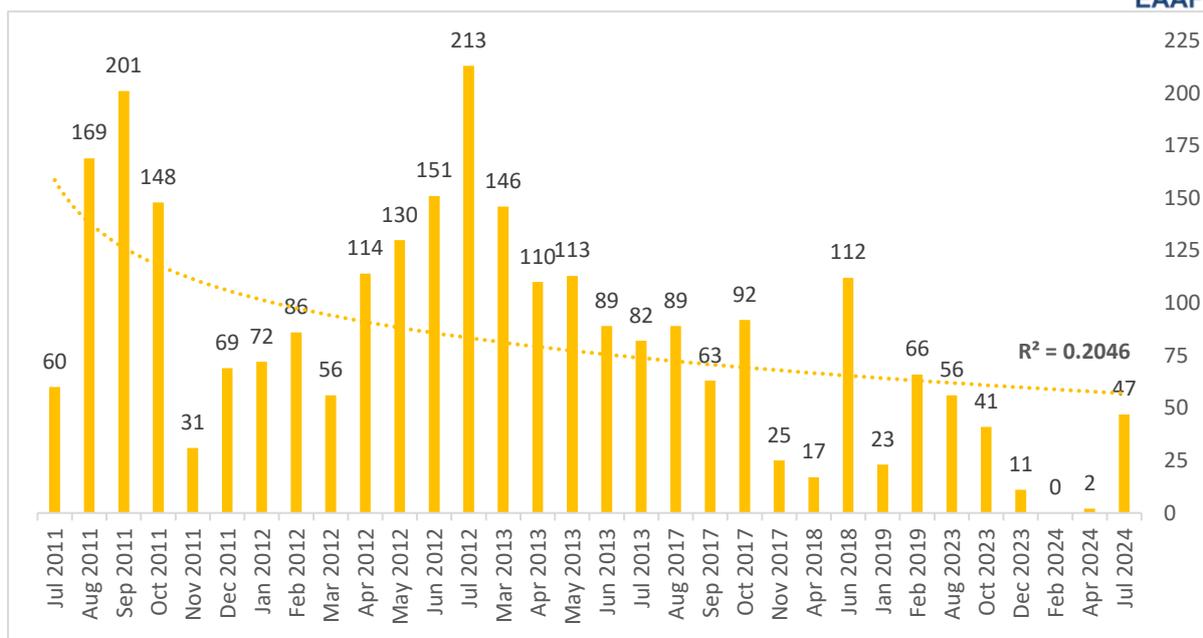


Figure 12. The trend numbers of Christmas Frigatebird in Jakarta Bay

Frigatebirds in Jakarta Bay

Three species of frigatebirds were recorded during the project period: Christmas Frigatebird, Lesser Frigatebird, and Great Frigatebird. The Great Frigatebird is rare in western Indonesia, while it is common in eastern Indonesia, where one island, Manuk Island, is a breeding site (Gauger et al. 2020). From the Figure 13, we can see the Great Frigatebird only seen in Oct 2023, December 2023, April 2024, and July 2024 in small numbers.

The presence of frigatebirds in Jakarta Bay is closely linked to the presence of Pulau Rambut, the wildlife sanctuary, as a roosting site. In December 2023 we waited until dusk to see where the frigatebirds were roosting, we counted up to 36 birds, it was different numbers during the count in the sero, probably during the day, some birds fly for foraging. We found that they were roosting in the mangrove tree, providing additional information that frigatebirds previously slept in the *Sterculia foetida* tree (Wardhani 2011).

The other reason where the frigatebird can be found in high numbers is because of the existence of a perching site, namely sero. Sero is a trap that consists of a series of bamboo fences that lead the fish to the trap. Bamboo is planted in the sea with a height from the water surface can reach 15 meters, with a distance between bamboo about 5 meters. Bamboo is used as a perch in the middle of the sea. The existence of Sero follows the direction of the wind because it is adjusted to the fishing season. There are several sero locations around the waters of Jakarta Bay. Sero is used by frigatebirds to rest after searching for food.

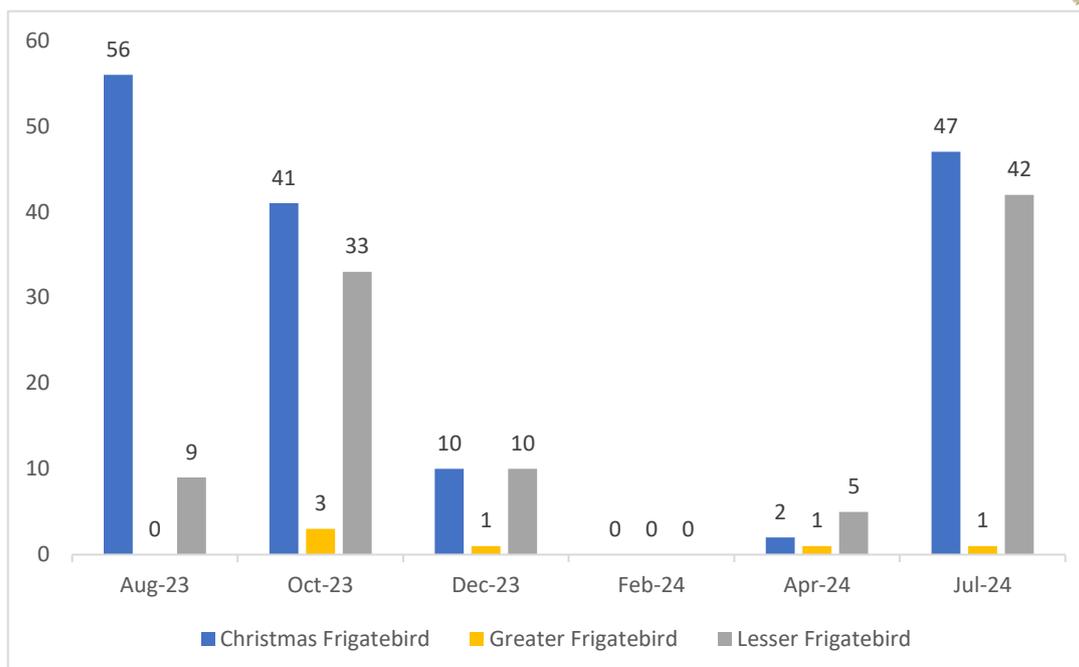


Figure 13. The numbers of Christmas Frigatebird, Lesser Frigatebird, and Great Frigatebird in Jakarta Bay during the project.

Other seabirds in Jakarta Bay

Jakarta Bay not only provides food and resting places for seabirds, but also serves as a stopover for several seabird species. During the activity, there were 13 other seabird species in addition to the three species of frigatebirds (Fregatidae) (16 seabird species in total), such as Little Black Cormorant (Phalacrocoracidae), Parasitic Jaeger (Stercorariidae), Swinhoe's Storm-Petrel (Hydrobatidae). There were 10 species from Laridae, namely Aleutian Tern, Lesser Crested Tern, Common Tern, Roseate Tern, Great Crested Tern, Little Tern, Whiskered Tern, White-winged Tern, Black-naped Tern, and Bridled Tern.

The highest seabird's species relative abundance is in August, October and December (Table 1). This is because these months are migration season. In August 2023, the highest relative abundance was white-winged tern and black-naped tern. In October 2023, the highest relative abundance was Common Tern. In December 2023, the highest relative abundance was Lesser Crested Tern. Great Crested Tern, Black-naped Tern, Common Tern and Lesser Crested Tern are not globally (Least Concern).

Table 1. Relative abundance seabirds in Jakarta Bay

No	Seabird Species	Aug-23	Oct-23	Dec-23	Feb-24	Apr-24	Jul-24
1	Christmas Frigatebird	11.69	5.89	2.14	0.00	0.39	10.58
2	Greater Frigatebird	0.00	0.63	0.21	0.00	0.21	0.21
3	Lesser Frigatebird	1.88	6.89	2.09	0.00	1.04	877
4	Parasitic Jaeger	0.00	0.00	1.17	0.00	0.00	0.00
5	Aleutian Tern	0.21	0.43	0.97	0.00	0.00	0.90
6	Lesser Crested Tern	0.63	0.14	27.82	0.00	0.00	0.45
7	Common Tern	21.71	25.14	8.17	0.00	0.00	1.35
8	Roseate Tern	0.00	0.00	0.00	0.00	0.40	5.63
9	Great Crested Tern	51.57	12.07	2.53	5.28	0.00	14.86
10	Little Tern	0.63	0.00	0.78	0.00	0.00	0.00
11	Whiskered Tern	18.58	0.00	0.00	0.00	0.00	10.81

12	White-winged Tern	0.00	0.29	0.00	0.00	0.00	0.00
13	Black-naped Tern	49.69	12.64	0.00	0.00	0.80	27.48
14	Bridled tern	0.00	0.00	0.00	0.00	0.00	1.35
15	Little Black Cormorant	0.42	1.29	3.50	2.64	5.78	14.64
16	Swinhoe's Storm-Petrel	0.00	0.57	0.00	0.00	0.00	0.00

High Conservation Value in Seabirds

There are 14 seabird species of high conservation value in Jakarta Bay based on protection by the Government of Indonesia, and globally threatened species according to IUCN. Birds protected by the Government of Indonesia are based on the Regulation of the Minister of Environment and Forestry of the Republic of Indonesia No. P.106/MENLHK/SETJEN/KUM.1/12/2018. In this study, 14 seabird species protected by the Indonesia government. The protected seabirds observed with the high numbers, such as Black-naped Tern (452 individuals), Great crested Tern (428 individuals), and Common Tern (327 individuals), while low numbers such as White-winged tern (2 individuals) and Swinhoe's storm-Petrel (4 individuals).

Two Vulnerable bird species were found during the survey, such as Christmas Island Frigatebird and Aleutian Tern. One species is Near Threatened: Swinhoe's Storm-Petrel. We counted there was one species in Jakarta Bay that has a population greater than 1% of the global population: the Christmas Island Frigatebird (~0.083-1.12%) (Table 2).

Table 2. Threat status and conservation value of seabirds in Jakarta Bay

No	Common Names	IUCN	Ind-leg	ΣTotal	ΣGlobal	%Global in Jakarta Bay
1	Christmas Island Frigatebird	VU	P	2-56	2,400-5.000	0.083-1.12
2	Great Frigatebird	LC	P	1-3	120,000	0.0008
3	Lesser Frigatebird	LC	UP	5-42	-	-
4	Parasitic Jaeger	LC	P	6	400,000	0.0015
5	Aleutian Tern	VU	P	1-5	17.000-20.000	0.0058-0.025
6	Lesser Crested Tern	LC	P	1-143	150.000-180.000	0.0006-0.0794
7	Common Tern	LC	P	6-175	30.000-70.000	0.02-0.25
8	Roseate Tern	LC	P	2-25	44.000	0.0045
9	Great Crested Tern	LC	P	13-247	100.000-1.000.000	0.013-0.024
10	Little Tern	LC	P	3-4	10.000-100.000	0.03-0.004
11	Whiskered Tern	LC	P	48-89	25.000-100.000	0.192-0.089
12	White-winged Tern	LC	P	2	100.000-1.000.000	0.002
13	Black-naped Tern	LC	P	4-238	-	-
14	Bridled tern	LC	P	6	-	-
15	Little Black Cormorant	LC	UP	2-65	25.000-1.000.000	0.008-0.0065
16	Swinhoe's Storm-Petrel	NT	P	4	65,000	0.0061

Note; Red list IUCN criteria (2024); EN= Endangered, VU= Vulnerable, NT= Near Threatened, LC= Least Concern

Ind-leg= Indonesia Legislations (Ministry of Forest, P.106/MENLHK/SETJEN/KUM.1/12/2018, concerning the Protection of Flora and Fauna);

UP= Un-Protected, P=Protected

ΣTotal = Total numbers in Jakarta Bay,

ΣGlobal = Number of mature individuals IUCN based on Birdlife International and wpe.wetlands.org

%Global = percentage from the persentase ΣGlobal and found in Jakarta Bay

Objective 2: Monitoring the threats in Christmas Frigatebird in Jakarta Bay

Monitoring of potential threats to Christmas Frigatebird is conducted with a primary focus on bycatch. In this activity, eight volunteers provided assistance to Burung Laut Indonesia in the collection of data for interviews with 96 fishermen. The 96 fishermen were divided into two groups: 20 fishermen in Tanjung Pasir and 76 fishermen in Cituis. The fishermen have a residence that is dependent on their location, and they engage in fishing activities within the confines of Jakarta Bay. These fishermen live around Jakarta Bay, with the distance they are willing to travel dependent on the gross tonnage (GT) of the ship.

The Ministry of Fisheries and Maritime Affairs has enacted a regulation, Permen KP No.18/ 2021, pertaining to the dimensions of vessels and the requisite distances for fishing. The 1-5 GT size category is reserved for small-scale fishermen and allows them to fish up to 6 miles from the coastline to the open sea. Vessel sizes above 5 GT are required to fish above 2 miles. As shown in Figure 14, there are 25 fishing boats below 5 GT and 28 fishing boats above 5 GT. However, 42 boats lack information on their vessel size.

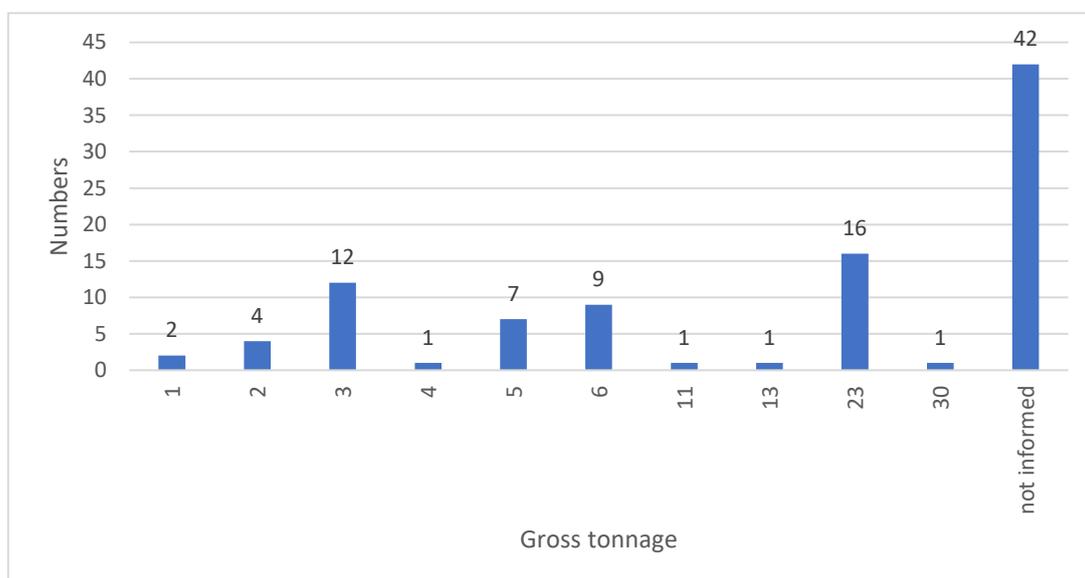


Figure 14. Size of vessels, the results of interview during the activity

The Jakarta Bay region is included in Fisheries Management Area No. 712, which encompasses the northern part of Java Island and eight provinces: The provinces of Lampung, Banten, DKI Jakarta, West Java, Central Java, East Java, Central Kalimantan, and South Kalimantan are included. A total of 96 fishermen were engaged in fishing activities within this region.

As illustrated in Figure 15, the majority of fishermen operate in the waters surrounding Kepulauan Seribu and Bokor Island, Lancang Island, Laki Island, and Rambut Island. A total of 46 boats were observed fishing in the areas surrounding the island, in close to the Christmas Frigatebird roosting site and seabird feeding grounds. The vessels observed traversing this region encompass a range of sizes, including 1-6 GT, 11 GT, 13 GT, 23 GT, and a few whose dimensions remain unconfirmed. It is notable that a considerable proportion of the vessels observed were engaged in fishing activities in the areas surrounding Bokor Island, Lancang Island, and Rambut Island, specifically those measuring 6 GT, 11 GT, and 13 GT. In accordance with the regulations, vessels of these sizes are prohibited from operating in these locations.

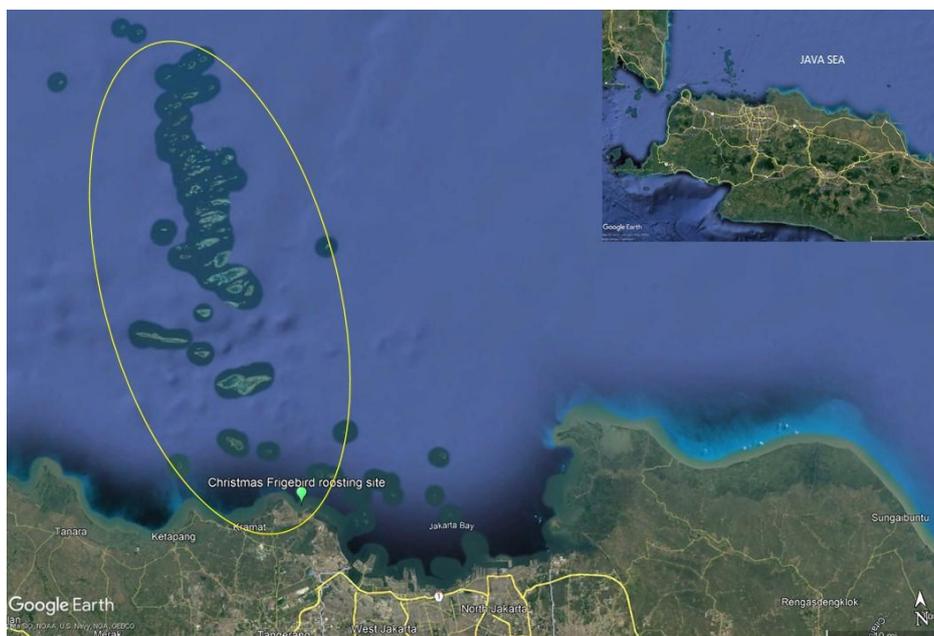


Figure 15. The yellow circle is where most of the fishermen is fishing.

The fishing tools most frequently utilized by fishermen are fishing nets ($n=58$) and fishing rods ($n=20$). The fishermen did not provide detailed information regarding the specific types of nets and fishing rods utilized. However, through direct observation and engagement with fishermen in Jakarta Bay, we were able to identify the types of fishing nets and fishing rods that are commonly employed by fishermen in the region. Some types of fishing gear have the potential to result in seabird bycatch, including trawl nets and fishing lines (Figure 16). This finding is corroborated by the interview data, which indicated that frigatebird species were caught in fishing net gear and cormorant species were caught in fishing gear. It was stated by fishermen that birds are released. During the data collection, two Christmas Frigatebirds caught in fishing lines were documented in August 2024 (Figure 17). It is possible that seabirds may be caught accidentally outside of this activity.





Figure 16. Mini trawl (above) and dan fishing road “layang-layang” (below) in Jakarta Bay © FN Tirtaningtyas



Figure 17. Two individuals of Christmas Frigatebird were captured in fishing line (blue circle) on August 2024. ©FN Tirtaningtyas (left) & Aronika Kaban (right).

Objective 3: Build the habitat and species management capacity with the local government

Following the collection of data through monitoring and interviewing fishermen, Burung Laut Indonesia, in collaboration with the BKSDA Jakarta, convened an interactive discussion to gain insights into the latest information regarding the number of Christmas Island Frigatebirds and the threats they face. The event, entitled "Fishermen and Seabirds: Sharing Space Together in Jakarta Bay," was held on August 30, 2024, at the Indonesia Navy Meeting Room in Tanjung Pasir, Tangerang (Figure 18).

This activity represents a continuation of the previous discussion, which was held in 2021 during the period of the pandemic. Due to the limitations imposed by the ongoing pandemic, invitations to the previous event were extended to a smaller number of individuals. However, in the follow-up activity, a considerable number of representatives from various fishing groups were in attendance. Some participants had previously attended the inaugural activity, while others were new to the event, thereby providing an opportunity for the fishermen groups to engage in a refresher session. The discussion

involved representatives from the Ministry of Marine Affairs and Fisheries (KKP) (online), the Food Security, Marine, and Agricultural Agency (DKPKP) of DKI Jakarta Province, Indonesia Navy (TNI AL) Tanjung Paser, the National Partnership for Migratory Bird and Habitat Conservation (KNKBBH), and the fishermen group. The participants included representatives from the following fishing groups: Mutiara, Samudra Bahari, Julung-julung, Tada-tada, Mina Baru, and "Sero." In total, 43 participants were presents in this discussion (Figure 19, Figure 20).

The proceedings commenced with a presentation on field activities conducted by Seabird Indonesia, which was followed by a presentation on seabird species in Jakarta Bay, presented by BKSDA Jakarta. Following the presentations, discussions were held between the resource persons and the fishermen, with responses from the respondents.

The main topic was how bycatch still exists in Jakarta Bay and how each fishermen group or local government can help to protect seabirds in Jakarta Bay. The fishermen group expressed that they have observed that the number of seabirds is decreasing and seabirds are still an indicator in finding fish. The fishermen feel disappointed that there are many ships with ship sizes that should not be near the coast and requested support from the Food Security, Marine and Agricultural Agency (DKPKP) of DKI Jakarta Province to curb them because fishermen around Jakarta Bay also need fish income every day.

Fishermen revealed that sometimes fishermen from outside the island use fishing gear that also catches small fish, and when not needed, small fish are discarded. According to the fishermen, these small fish are sometimes not eaten by seabirds.

Inputs and suggestions from this discussion included the need to disseminate information through leaflets on the addition of tools to release seabird bycatch, steps to release seabird bycatch, information on the location of migratory birds to determine protection zones and routes, the involvement of local community groups (Pokmaswas) or marine police in monitoring marine and coastal resources, and the support of fishermen in disseminating information about seabirds to fishermen outside the Jakarta Bay area. After the activity was completed, some information about seabird occurrence from fishermen and navy personnel was sent through WhatsApp short messages and social media owned by Burung Laut Indonesia. Our meeting notes are created using the graphical note taking made by Abdurrahman Saleh (Figure 21).



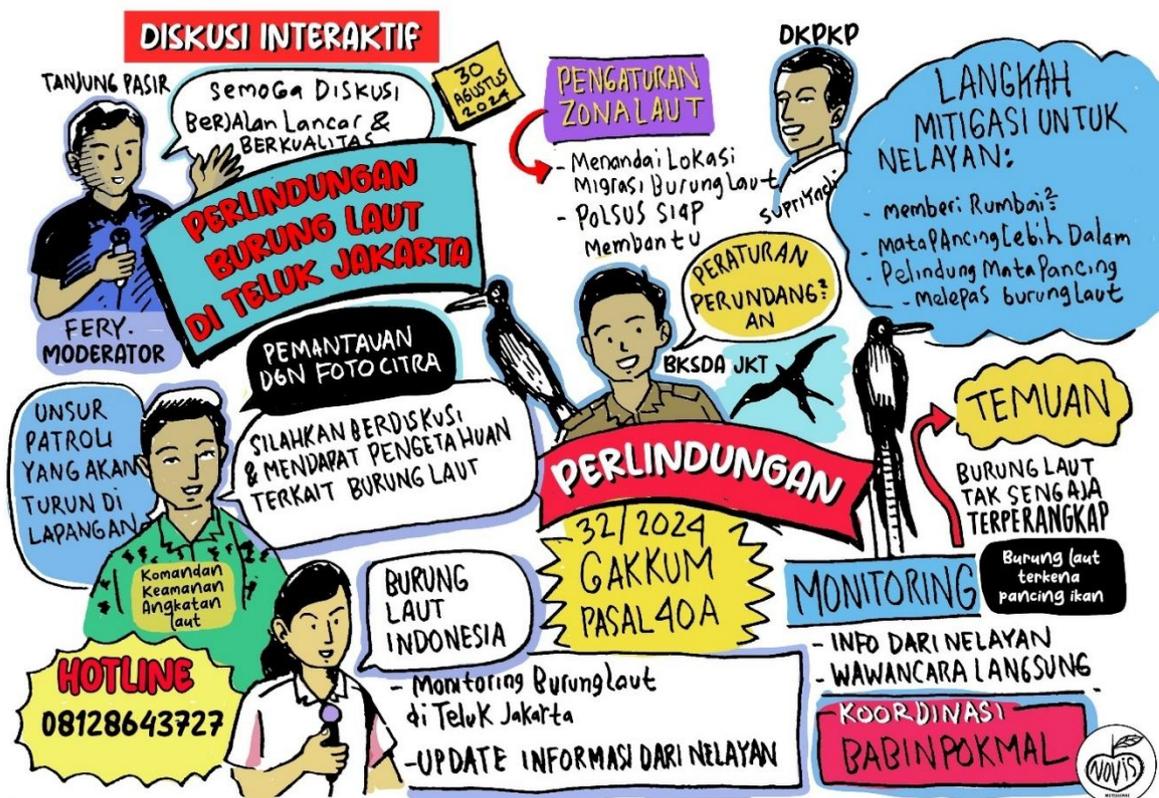
Figure 18. Presentation by Burung Laut Indonesia (left) and BKSDA Jakarta (right) on field results and protected seabirds © Boas Emmanuel.



Figure 19. Responders from the Navy, the Food Security, Marine and Agricultural Agency (DKPKP) of DKI Jakarta Province and representatives of the fishermen © Boas Emmanuel



Figure 20. Group photo with the local government and the fishermen © Boas Emmanuel



Objective 4: Capacity building for the local people around Jakarta Bay

Capacity building in the form of awareness was given to elementary and junior high schools located on Untung Java Island, which is very close to the roosting area of the Christmas Frigatebird and the Pulau Rambut Wildlife Sanctuary. This activity was conducted on July 27, 2024. The participants of SD 01 Pagi consisted of 53 children (36 girls, 17 boys) in grades 4, 5 and 6. Meanwhile, SMPN 285 participants consisted of 79 children (32 girls; 47 boys).

Burung Laut Indonesia has often conducted educational activities in elementary schools, but the participants were those who had not participated before. The activity started with an introduction of Burung Laut Indonesia and its activities, the participants were divided into groups and asked to draw the seabirds, the species of seabirds that they can see on the poster. Most groups drew the frigatebirds, even though the Burung Laut Indonesia team explained more about the other seabirds. In addition, the Burung Laut Indonesia team gave them the opportunity to choose their own colors, but most participants followed the colors on the poster. We can see that this is so that they are more familiar with the original colors of the birds they are drawing, so that when they see them directly in nature, they will not forget them. After they finished, their work was displayed on the wall and the participants practiced using their work to observe seabirds using an observation tool called binoculars. Each participant tried to use the binoculars, from putting the binoculars on their neck, to finding the bird they were looking at, to finding the focus to make the bird clearer. Participants also tried the camera to capture the birds for documentation. Most of the participants were amazed to see the results of the

documentation, which was so clear that they could see the results of their work up close. At the end of the activity, each participant received a poster and a key chain with a picture of a seabird (Figure 22).

The educational activity at the junior high school was the first time, so this activity was only an introduction. And the education was done by watching a documentary about Cikalang Christmas made by Burung Laut Indonesia in 2021. After the viewing activity, Burung Laut Indonesia and the participants held a discussion activity. Most of the participants have seen seabirds many times, but not many know the local names. They also shared that they often join their father's boat and often see seabirds around Jakarta Bay. To help the children understand seabirds and their names, posters and keychains were given to the participants (Figure 23, Figure 24).

After this activity, the Burung Laut Indonesia team made a publication on Burung Laut Indonesia's Instagram in the story and feed sections. The results of this publication provided a huge reach. The two stories created by Burung Laut Indonesia reached 245 and 252 views respectively. What made it even better was that more than 60% were not followers of Burung Laut Indonesia, so it can be concluded that the reach was very wide, including those who did not know about Burung Laut Indonesia's activities before (Figure 25).



Figure 22. Activities with the children in elementary school © Davidia Intan

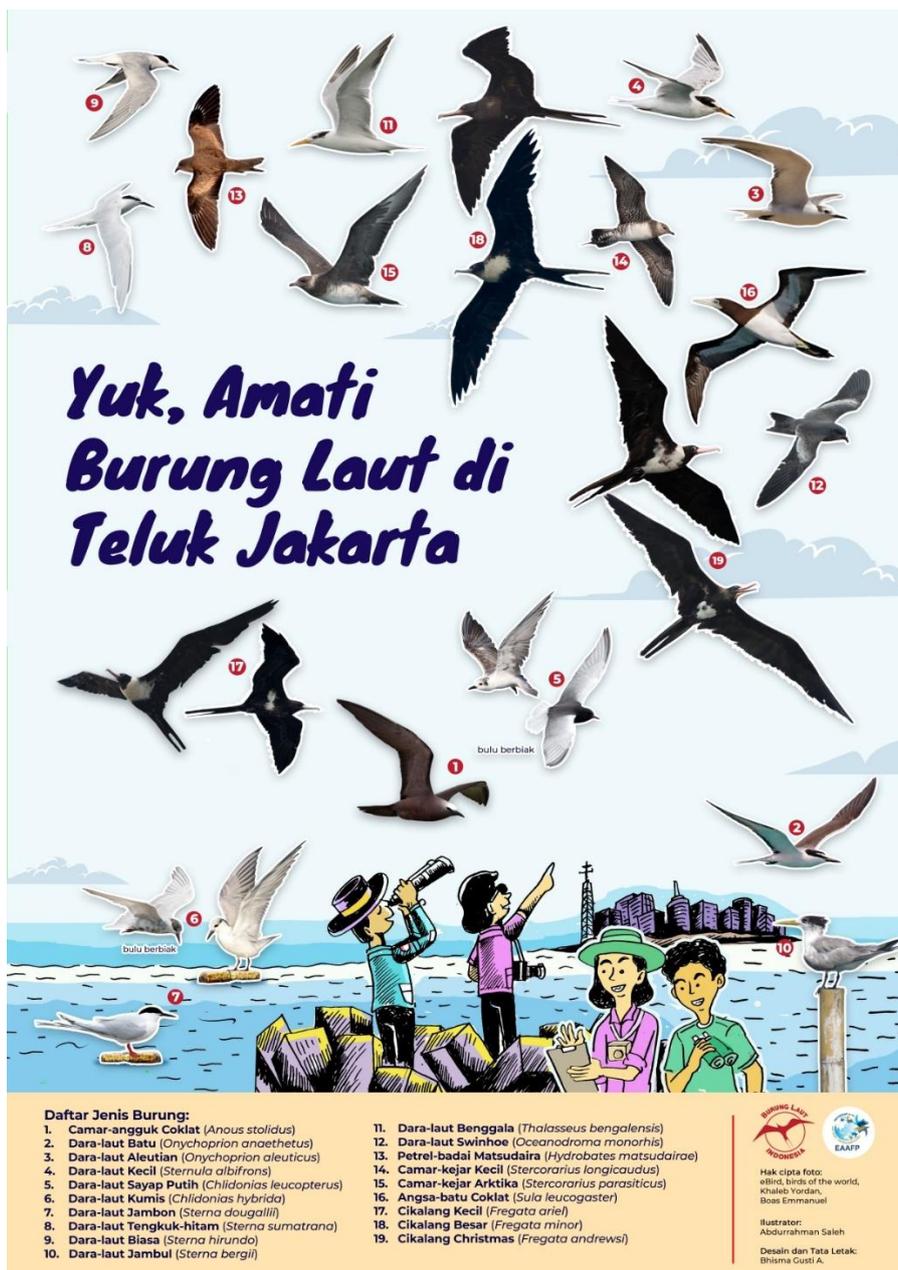
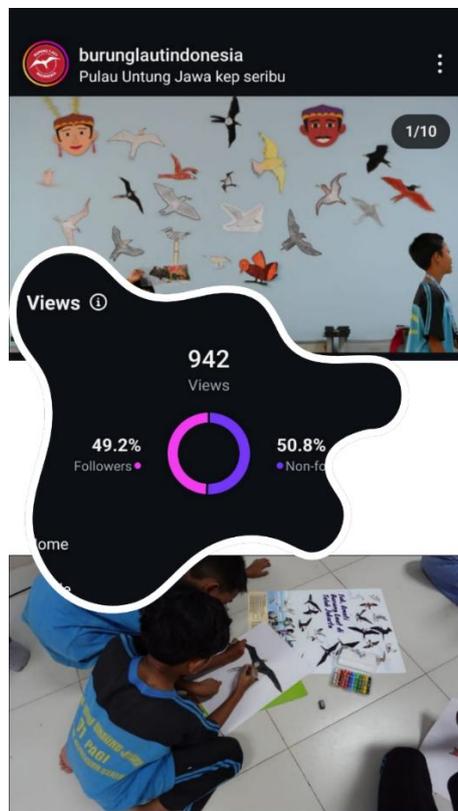
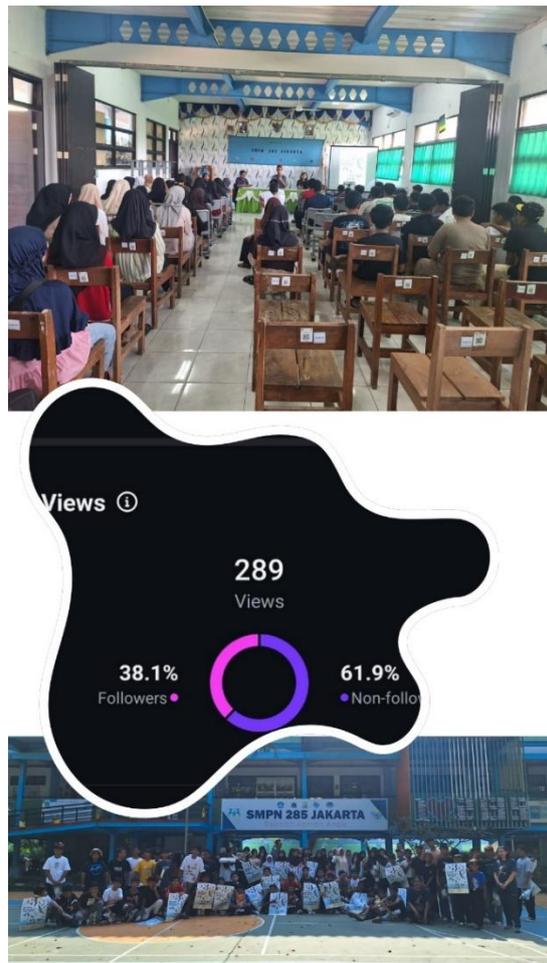
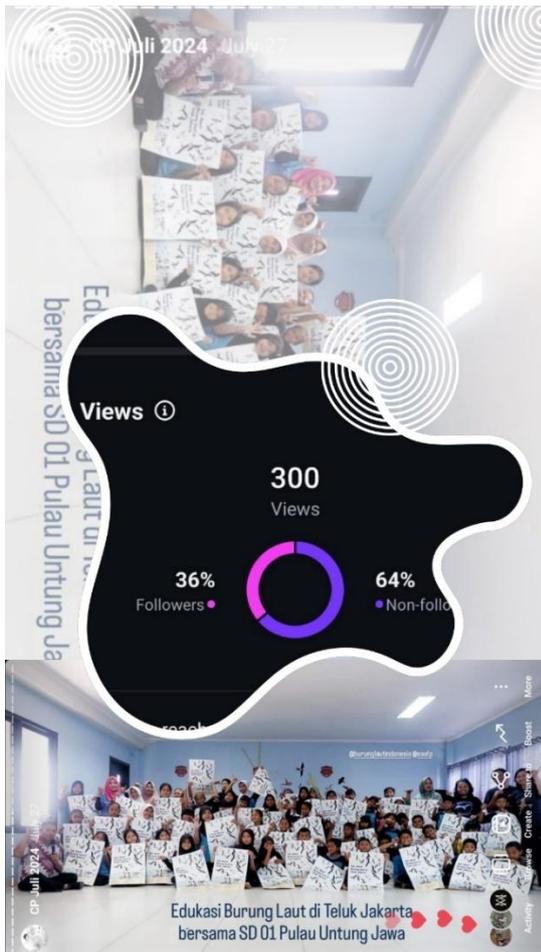


Figure 23. Poster for the children



Poster 24. Seabird keychain for the children ©Davidia Intan



Poster 25. Impact from the social media about the education program

1.4 COMMUNICATION, EDUCATION, PARTICIPATION, AND AWARENESS (CEPA)

Please provide details on any CEPA-related activities associated with your project.

Refer to pages 18 to 22 of this project report, which covers the Capacity Building for Local Communities around Jakarta

1.5 RECOMMENDATIONS AND SUSTAINABILITY

The results of this project are felt by the team to be different from previous projects because this project can involve so many stakeholders and participants who are quite diverse. In previous monitoring activities, the number of participants did not reach 77 people as in this project, usually only the seabird team itself (only 5 people). In this project, there were more people from different backgrounds, such as university birding groups, photographers, representatives from local government (Conservation of Natural Resources - Jakarta), NGOs, journalists and the general public. The impact is not only that they are more familiar with seabirds, but also the impact on social media.

This activity also targeted more stakeholders. If the previous activity only targeted the local government (BKSDA Jakarta) and the fishermen group, but in this activity successfully involved the Marine Affairs and Fisheries (KKP), the Food Security, Marine and Agricultural Agency (DKPKP) of DKI Jakarta Province, the Indonesian Navy (TNI AL) Tanjung Pasir, the National Partnership for Migratory Bird and Habitat Conservation (KNKBBH), and the fishermen group. The fishermen group also increased by one group in this activity.

The results of this activity are very much in line with the EAAFP Strategic Plan. Although BLI is only a local group, where funding is obtained only by submitting proposals. So the strategy for the future is to make observations with independent funds and to increase information through social media (IG or Facebook).

Burung Laut Indonesia hopes that the Christmas Island Frigatebirds can be included in the Seabird Working Group - key species so that monitoring and conservation activities of the Christmas Frigatebird in Jakarta Bay can continue.

2. BUDGET REPORT

Please provide a table for the expenditure breakdown. See example below.

Activiy	Total Expenses (USD)	EAAFP Funding (USD)	Burung Laut Indonesia (USD)
Renting Boat	964,30	964,30	0,00
Local transportation	1435,70	1221,40	214,30
Meals (field)	514,30	514,30	0,00
Snack (field)	235,70	235,70	0,00
Snack for student school	57,10	57,10	0,00
Accomodation (4 people)	100,00	0,00	100,00
Tallysheet (print)	8,60	0,00	8,60
Fee (speaker, moderator, graphical note taker, desainer)	939,30	682,20	257,10
Printing (Tshirt, backdrop, poster, keychain)	1200,90	843,80	357,10
Drawing equipment (education for student)	10,00	10,00	0,00
Bank Charge	14,98	14,98	0,00
TOTAL	5.480,88	4.543,78	937,10

ANNEXES

- List of Participants**

Burung Laut Indonesia invited the community as volunteers to participate in this project as a way to introduce the seabird species and they will continue the same activities in their locations.

During the six monitoring activities, 77 people (49 men, 28 women) (Figure 6, Figure 7) participated in this activity with backgrounds consisting of bird watching groups (Universitas Islam Negeri Syarif Hidayatullah and Universitas Negeri Jakarta), photographers, representatives from local government (Conservation of Natural Resources – Jakarta), NGOs, journalists and the general public. The most participants who participated in this activity in October 2023 in celebration of World Migratory Bird Day 2023 (Figure 8).

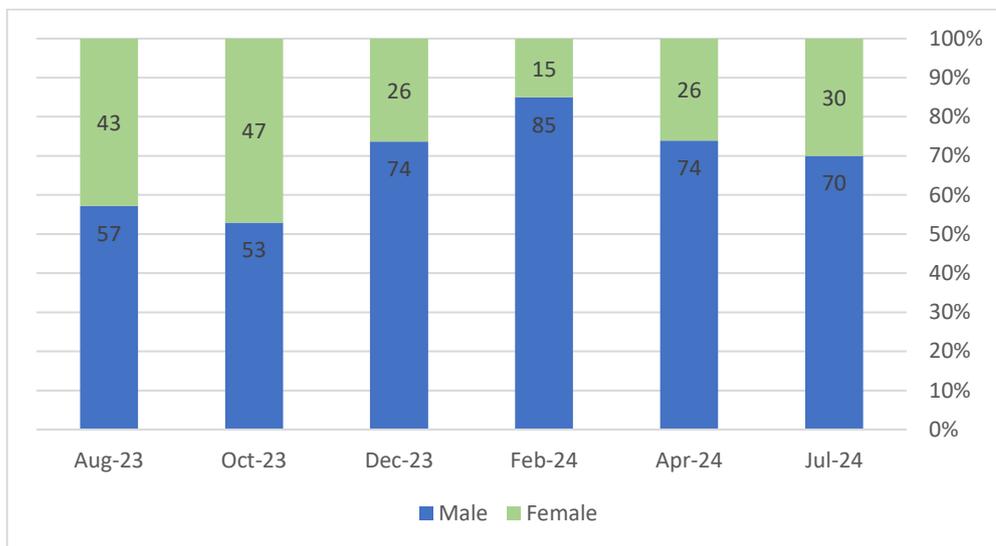


Figure 6. The participants joined during the monitoring in Jakarta Bay.





Figure 7. Poster to attract volunteers to participate in seabird monitoring activities in Jakarta Bay



Figure 8. Documentation of participants in Indonesia's seabird monitoring activities, not only the general public (left), but also the local government (right) © Burung Laut Indonesia

Burung Laut Indonesia Team: Fransisca Noni Tirtaningtyas, Aronika Kaban, Davidia Intan, Khaleb Yordan, Boas Emmanuela

Field Team:

<i>Abdul Malik</i>	<i>Gloria Martie</i>	<i>Paulus Wibowo</i>
<i>Abdurrahman Saleh</i>	<i>Hamman As-Shikiy M</i>	<i>Racmad Setyadi</i>
<i>Boat crew member</i>	<i>Hudzaifah Fakhroni</i>	<i>Ragil</i>
<i>Adam Ks</i>	<i>Jefta Natanael</i>	<i>Razaqa</i>
<i>Agung Dewantara</i>	<i>Jihan Alifya Faiqah</i>	<i>Rizki Aznurizal</i>
<i>Akbar</i>	<i>Kapten Kapal</i>	<i>Rizki Prima</i>
<i>Akia Kevin</i>	<i>Karina Dewi P</i>	<i>Rizky Ardiansyah</i>
<i>Akmad Kamaludin</i>	<i>Keisya Khoerunnisa</i>	<i>Rony Dj</i>
<i>Andreas S Jaukani</i>	<i>Kevin</i>	<i>Roudotun Aliyah</i>
<i>Anneliese Nelviana</i>	<i>Khaleb Yordan</i>	<i>Rumman Axidana Sulcha</i>
<i>Ardhea Hary C</i>	<i>Lutfiah Ulfa</i>	<i>Salshanur Adhelia</i>
<i>Ari Noviyano</i>	<i>M. Akbar Saputra</i>	<i>Saolisa Rida Fitri</i>
<i>Aronika Kaban</i>	<i>M.Miftahur K</i>	<i>Sayyidah Azkiya</i>
<i>Boas Emmanuel</i>	<i>Melisa Qanita</i>	<i>Shanatarata</i>
<i>Cecep Sulaeman</i>	<i>Michael G</i>	<i>Sheikha Fakhnin</i>
<i>Davidia Intan</i>	<i>Miranda</i>	<i>Sri Cicih</i>
<i>Dody</i>	<i>Mirzael</i>	<i>Tonny Wijaya</i>
<i>Abdurrahman Doge</i>	<i>Monica Rahmadhani</i>	<i>Virgie</i>
<i>Edwin Octosa</i>	<i>Muhamad Rizqi G</i>	<i>Wawan Whp</i>
<i>Endra Agus</i>	<i>Muhammad Azriel</i>	<i>Wibowo S</i>
<i>Farra Lie</i>	<i>Muhammad Bilal</i>	<i>Wulandhari</i>
<i>Fatihafsah</i>	<i>Nadiya Fahia</i>	<i>Yasin Humied</i>
<i>Felix Halim</i>	<i>Nani Rahayu</i>	<i>Yessi Marcellya N</i>
<i>Ferry Hasudungan</i>	<i>Nanuk</i>	<i>Yohannes L</i>
<i>Fivi Lutfiani</i>	<i>Octavianti</i>	<i>Yudi Prasdjo</i>
<i>Fransisca Noni T</i>	<i>Pandu Sabilah</i>	<i>Yulia Purwani</i>

Timeline activities in Jakarta Bay

No	Activity	2023					2024							
		Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
1	Monitoring the population numbers of Christmas Frigatebird in Jakarta Bay	■		■		■		■		■			■	
2	Monitoring the threats in Christmas Frigatebird in Jakarta Bay	■		■				■	■			■		
3	Build the habitat and species management capacity with the local government													■
4	Capacity building for the local community around Jakarta Bay												■	

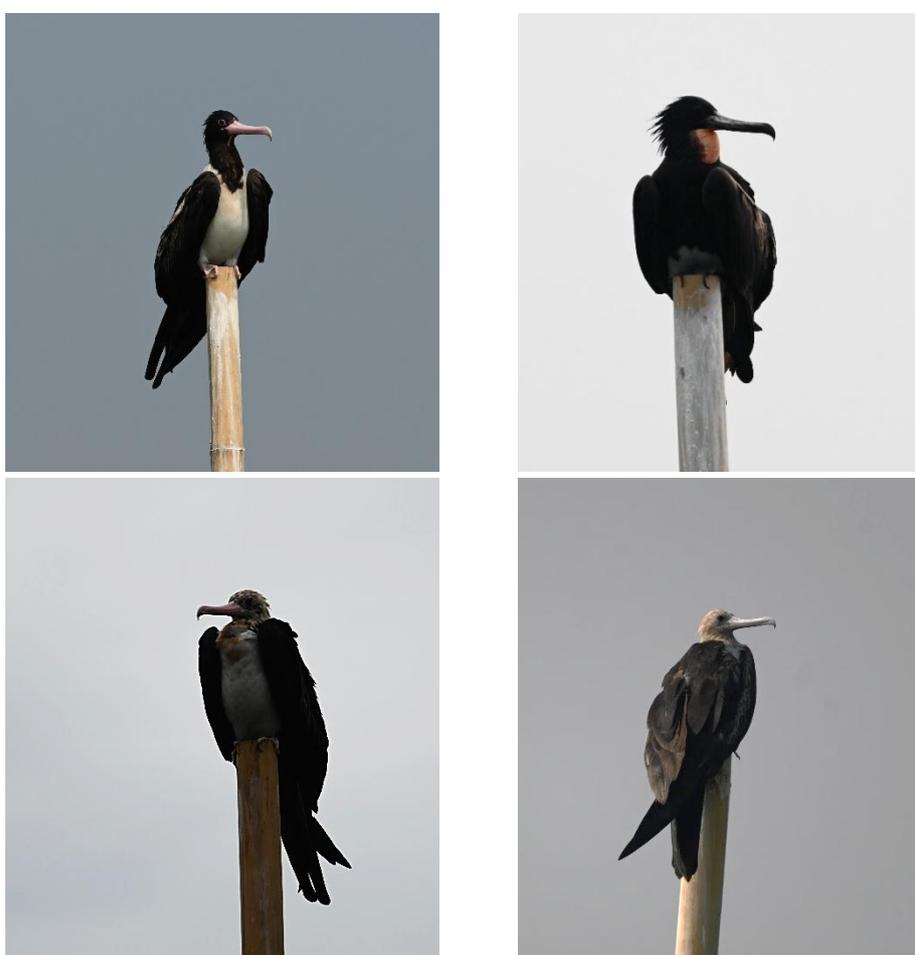
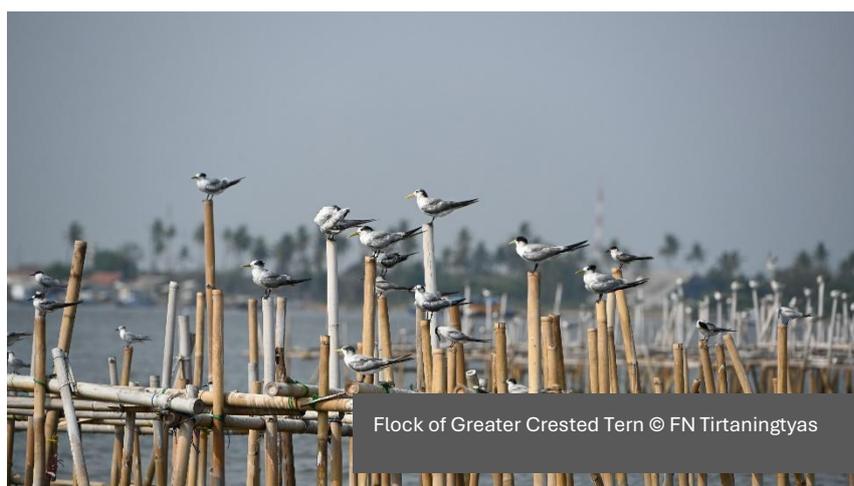


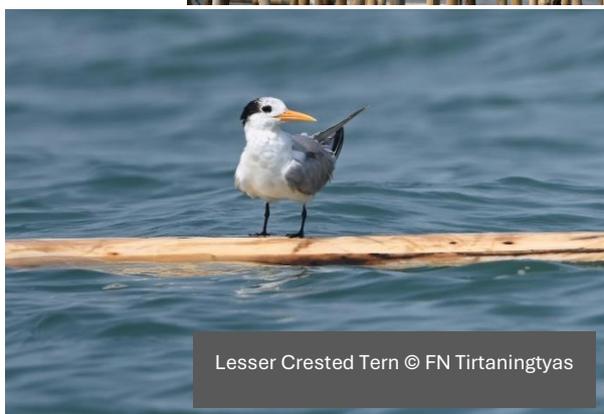
Figure 1. The Christmas Frigatebird in Jakarta Bay © FN Tirtaningtyas



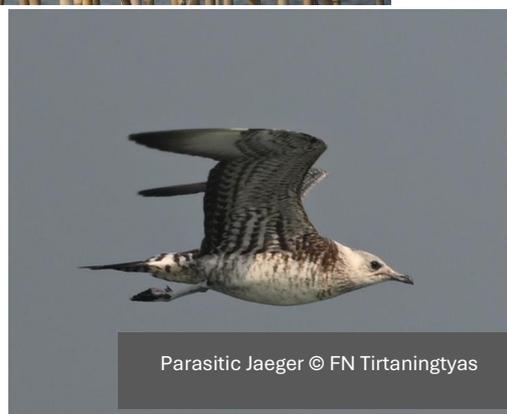
Figure 2. Flock of Frigatebird in Jakarta Bay © FN Tirtaningtyas



Flock of Greater Crested Tern © FN Tirtaningtyas



Lesser Crested Tern © FN Tirtaningtyas



Parasitic Jaeger © FN Tirtaningtyas

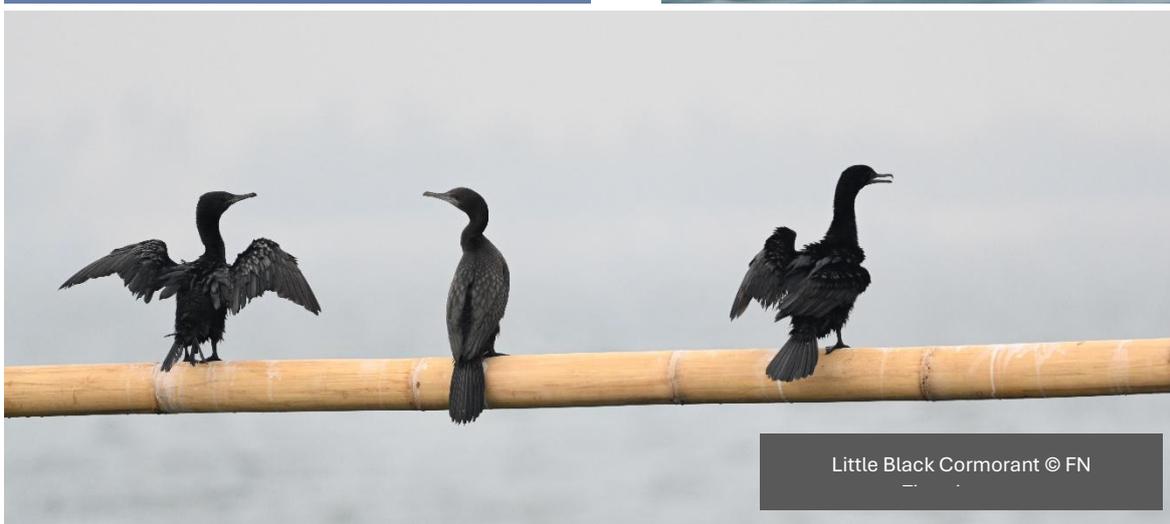
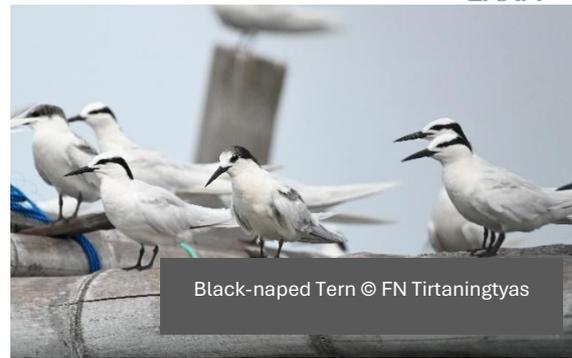
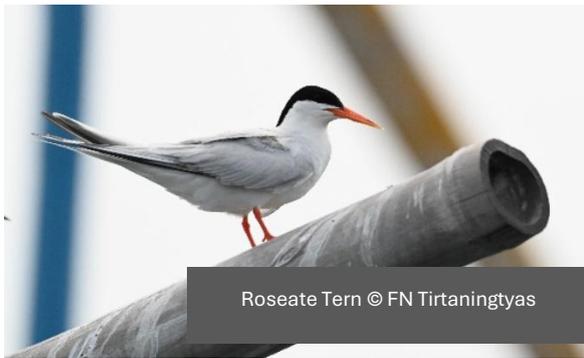


Figure 3. Other seabirds in Jakarta Bay





Figure 5. Team, volunteers (photographers, student, etc), and local government monitoring the seabirds in Jakarta Bay © Boas Emmanuel



Figure 6. Team, volunteers (photographers, student, etc), and local government monitoring the seabirds in Jakarta Bay © Boas Emmanuel