



## Conservation of Spoon-billed Sandpiper in Gulf of Mottama and Tanintharyi Coastal of Myanmar



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April 2022

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## Executive Summary

Participation of local community in the conservation is crucial for long-term conservation management. Two local Conservation Groups (LCGs) newly established in The Tanintharyi region improved their conservation skills through five consecutive bird watching trainings. Two LCGs from the area of Gulf of Mottama are also trained to elaborate their bird watching, patrolling and conservation skills. Vinyl billboards were installed in the public areas of Myeik and Boke Pyin to raise the awareness on the conservation of migratory shorebirds during their wintering season. This year, a total of nine national surveyors conducted annual wintering census survey of Spoon-billed Sandpiper and migratory shorebirds at the Gulf of Mottama and Tanintharyi coastal accompanied by the LCGs members.

For the Gulf of Mottama, total of 44,870 wetland depended birds of 45 species were recorded in the Gulf of Mottama from 16-21 January 2022. The survey team recorded 17 and estimated 80 critically endangered Spoon-billed Sandpiper (SBS), based on the SBS proportion in 173 flock counts of over 34,914 birds extrapolated to an estimated 160,000 birds of small waders in the area. These birds were encountered by the team at low tide feeding and widespread across the vast mudflat habitats. Only one flagged Spoon-billed Sandpiper and two flagged RN or Little stints were observed. None could be identified individually. The flagged Spoon-billed Sandpiper is likely marked in China (yellow) while the flagged, Red-necked stints are marked in N Western Australia (blue) and one in Kamchatka Russia (yellow and black) which is the same bird recorded in last January. Of other globally endangered species such as Great Knot 165 individuals and eight Nordmann's Greenshank were observed, as well as nine globally near-threatened species such as Black-tailed Godwit (3,723 individuals), Bar-tailed Godwit (3 individuals), Eurasian Curlew (313 individuals), which all decreased significantly in numbers, Red-necked/Little Stint (4,138 individuals) Curlew Sandpiper (2,703 individuals) decreased. The most abundant species were Lesser Sand plover (24,712) which significantly increased. Former hunters of the Local Conservation Groups (LCGs) joined the survey and guided the survey team onto the small wader flocks. They were trained and informed about the survey techniques, biology and significance of the species in a regional, national and global context.

Three sites located at the North of Myeik mudflat, recorded ten globally threatened species such as Nordmann's Green Shank, Great Knot, Chinese Egret, Black-headed Ibis, Bar-tailed Godwit, Black-tailed Godwit, Eurasian Curlew, Curlew Sandpiper, Red-necked/Little Stint and Red-breasted Parakeet.

Three sites located at the Bokepyin mudflat, recorded twelve globally threatened species such as single Spoon-billed Sandpiper, Black-tailed Godwit, Bar-tailed Godwit, Eurasian Curlew, Nordmann's Greenshank

## 1. Introduction

The Spoon-billed Sandpiper is a long-distance migrant, breeding on the coastal tundra of far eastern Russia, and migrating 8,000 km south along the East-Asian Australasian Flyway, including key staging posts in the Yellow Sea. The species winters on intertidal mudflats in South and South-east Asia, particularly Myanmar, China, and Bangladesh. The Spoon-Billed Sandpiper (*Calidris pygmaea*) is categorized as Critically Endangered on the IUCN Red List of Threatened Species. In 2010, it was assessed that the global population of this species was declining by 26% per year, with a global population estimate of approximately 100 pairs (Zockler et al. 2010).

In Myanmar, five wintering sites of Spoon-billed Sandpiper are located at Nanthar Island, Irrawaddy Delta, Gulf of Mottama, Myeik, and Bokepyin mudflat along with coastal Myanmar. Since established conservation efforts in 2010 onward, designated three areas (Nanthar Island, Meinmahla Kyun Wildlife Sanctuary, and Gulf of Mottama) designated as Flyway Network Site and Ramsar Site respectively include continued regular monitoring of population status.

Particularly Gulf of Mottama is hosting perhaps half of the global population of critically endangered Spoon-billed Sandpiper and other globally threatened Great Knot, Red Knot, Black-tailed Godwit, Bar-tailed Godwit, Eurasian Curlew, Nordmann's Green Shank, Asian Dowitcher. The Tanintharyi coastal area (Myeik and Bokepyin) have recorded 2-3 Spoon-billed Sandpipers, estimate about 2000 Great Knot and a minimum 60 number of Nordmann's Greenshank were confirmed (Zockler et al 2019). Moreover, over 1% of the flyway population of Eurasian Curlew, Bar-tailed Godwit are wintering here. Near-threatened Asian Dowitcher as well Beach Thick-knee and 'vulnerable' Chinese Egret are at the site which is outstanding as Flyway Network or Wetland of International under the Ramsar Convention. Not only the presence of large numbers of waterbirds but also large areas of natural mangrove forest is highly productive for the fishery as vital resources the for local community.

The global population of the Spoon-billed Sandpiper population is still declining (Aung et al 2018) and needs regular monitoring in all the key wintering sites across the flyway, particularly Myanmar is important, the Gulf of Mottama hosts over 120 individuals. Since the results of 2015 overall Spoon-billed Sandpiper and waterbird populations are still declining despite conservation efforts, thus the need for further monitoring of the population survey is crucial for further analysis. Tanintharyi (Bokepyin and Myeik) have less than 4 SBS recorded but are important for many globally threatened waterbirds such as Nordmann's Greenshank. The establishment of the Local Conservation Group (LCG) is essential for long-term monitoring of waterbirds and awareness outreach activities. Particularly, Tanintharyi coastal has a lack of LCG and weak of awareness of the waterbirds. By conducting the CEPA, local communities can be attention to the wetlands and waterbirds conservation, thus can help for future Flyway Network Site and Ramsar site designation process.

During the implementation of this project, Nature Conservation Society-Myanmar conducted Communication, Education, Participation, and Awareness (CEPA) outreach activities such as the establishment of LCG, capacity building, awareness talks, and an annual wintering census survey of Spoon-billed Sandpiper at the Gulf of Mottama and Tanintharyi coastal with LCG members. In the villages near the Gulf of Mottama, two bird-watching trainings were conducted for the members of LCGs in Koe Te Zu village, Bilin Township in October 2021, and Ahlat village, Paung Township in December 2021, respectively. Annual wintering census surveys of Spoon-billed Sandpiper were conducted at the Gulf of Mottama and Tanintharyi coastal areas in January 2022.

## 2. Objectives

- To monitor the population status of Spoon-billed Sandpiper at the key wintering sites in Myanmar especially Gulf of Mottama and Tanintharyi coastal areas
- To strength conservation efforts through establishing Local Conservation Groups(LCG)
- To raise awareness about conservation activities through capacity building and local people participation

## 3. Project area

Gulf of Mottama(GoM), one of the six flyway network sites in Myanmar, was also designated as a Ramsar Site since 2017. e This area supports a large number of species including marine mammal, fish, invertebrates and up to 150,000 migratory waterbirds especially during the non-breeding season. The migratory waterbirds include 12 globally threatened species including perhaps 60% of the global population of the Critically Endangered Spoon-billed Sandpipers. GoM also supports various livelihoods for the thousands of people by providing fish for local and regional consumption.

Tanintharyi coastal areas cover by mangrove forests which is the largest remaining natural forest in Myanmar coastal, and its sandflat and mudflat areas are one of the important wintering areas of many migratory waterbirds including critically endangered Spoon-billed Sandpipers.

## 4. Project activities

### 4.1. Establishment of Local Conservation Groups(LCGs) in Tanintharyi Coastal Areas

Since conservation goals are achieved only by the local people's participation, two LCGs were established in Tanintharyi Region in June and July 2021. The main objective of establishing LCGs is to enhance local people's participation in the conservation of mangrove forests and migratory waterbirds in Tanintharyi coastal areas. The first LCG is comprised of 13 interested local people from Thit Yar Wa Village, Myeik Township, and the second LCG with ten people from Ohn Taw Kone village, Boke Pyin Township. Before the agreement for establishing LCGs, a series of focus group discussions were made between NCS-Myanmar and local people, and the topics included the current status of mangrove forests and migratory waterbirds, the purposes of establishing LCGs, people's participation in the management of their own natural resources, etc. After that, the interested person to be a member of the LCG were invited to form a new LCG and their terms and responsibilities were explained.

### 4.2. Capacity building for the members of LCGs at Tanintharyi coastal areas

Two basic bird-watching training was conducted at five villages for LCG members and local youth who are interested in bird-watching and biodiversity conservation during October 2021. A total of 60 participants joined the training: 17 participants at Kan Pyin Village, 9 participants at Thit Yar Wa village, 11 at Ohn Taw Kone Village, 12 participants at Ni Par Village, and 11 at Lake U Chaung Village respectively. During each training, basic bird watching practices, shorebirds identification, and wetland conservation were presented using PowerPoint Slides. Also, bird-watching trips were organized for each training so that locals can understand the bird species richness in their region. New Binoculars were provided to the local conservation group for regular bird monitoring, bird watching, and patrolling. IEC materials including Spoon-billed Sandpipers, pamphlets on wetland conservation, and T-shirts stickered with Spoon-billed Sandpipers sketches were disseminated during the training. Moreover, set up (20) information signboards about the migratory birds' conservation at the key villages in Myeik and Bokepyin Townships.

#### 4.3. Capacity building for the members of LCGs at Gulf of Mottama

Two bird watching trainings were conducted for the members of LCGs in Ahlat village, Paung Township in December 2021 and in Koe Te Zu village, Bilin Township in October 2021 respectively. Total of 20 LCG members have joined the trainings. For each training, presentations on shorebirds conservation, and basic bird watching practices were given and two bird watching trips were arranged. During the trainings, T-shirts with a sketch of Spoon-billed Sandpiper and Fact sheets of shorebirds and wetlands conservation were provided to each participant. Total of four binoculars was also provided to two LCGs for bird watching and patrolling. After the capacity building training, LCG members are aware of the monitoring of Spoon-billed Sandpiper and enable to use field equipment including binoculars, telescope, and patrol logbook. They also could learn about the migratory waterbirds including population status, RedList categories, and their migration theory. In addition, some LCG members joined NCS's annual shorebird monitoring trip at the Gulf of Mottama in January 2022.

#### 4.4. Annual wintering census survey of Spoon-billed Sandpiper at Tanintharyi Coastal areas

Two methods were used for the annual wintering census survey; tidal cycle point count method and transect method. Tidal cycle point count method was useful to record the variety of birds in the coastal area in survey sites. It provides a uniform way of counting birds in between high tide and low tide across the location in the survey sites. Counting birds on the tide cycle was made the whole day at the survey sites. Points are set up at a distance of 200 m between each point, and the count duration was 30 minutes on each point. Observation and bird count at each site were conducted on one day at each survey site. For the transect method, surveys were conducted by walking along transects (each transect was 50m long) and birds on either side of the route were counted. Surveys were conducted by two observers from 2 Jan 2022 to 4 Jan 2022 in Thit-Yawa coastal area, Myeik Township (Table 1, Figure 1) and from 6 Jan 2022 to 8 Jan 2022 in Bokeyyin coastal area in the Tanintharyi Region (Table 2, Figure 2). Only one individual Spoon-billed Sandpiper was recorded during our six days surveys in the Tanintharyi Region (Figure 3) and daily records were as follows;

##### **Thit-Yawa (North of Myeik)**

A total of coastal bird population **4970** individuals were recorded in the Thit-Yawa coastal area at the survey point (2<sup>nd</sup> Jan 2022). Of these included **six** globally threatened water bird species and **one** globally threatened terrestrial bird species were recorded in the survey point. These are **two** endangered water bird species Nordmann's Greenshank (**EN**) (**18** individuals) and Great Knot (**EN**) (**250** individuals), **four** near threatened water bird species Black-headed Ibis (**NT**) (**22** individuals), Black-tailed Godwit (**NT**) (**one** individual), Bar-tailed Godwit (**NT**) (**five** individuals), and Eurasian Curlew (**NT**) (**210** individuals), only **one** globally threatened terrestrial bird species Red-breasted Parakeet (**NT**) (**65** individuals) were recorded in the Thit-Yawa survey point.

##### **Ga-Pyone-Chaung (North of Myeik)**

A total of coastal bird population about **1323** individuals were observed in the Ga-Pyone-Chaung survey point (3<sup>rd</sup> Jan 2022). Of these included **six** globally threatened water bird species and **one** globally threatened terrestrial bird species were found in the survey point. These are Nordmann's Greenshank (**EN**) (**nine** individuals), Great Knot (**EN**) (**14** individuals), and Chinese Egret (**VU**) (**15** individuals), Black-headed Ibis (**NT**) (**19** individuals), Bar-tailed Godwit (**NT**) (**25** individuals), and Eurasian Curlew (**NT**) (**38** individuals), and **one** globally threatened terrestrial bird species Red-breasted Parakeet (**NT**) (**150** individuals) were observe in the Ga-Pyone-Chaung survey point.

### Pana-Taung (Boat trip) (North of Myeik)

A total of coastal bird population about **309** individuals were recorded in the survey point Pana-Taung survey by boat trip (North of Myeik) (4<sup>th</sup> Jan 2022). Of these included only **one** globally threatened water bird species Eurasian Curlew (NT) (**four** individuals) were found in the Pana-Taung survey point.

Table 1: List of recorded bird species in North of Myeik mudflat area during the survey from 2nd to 4th January 2022

No	Date			2-Jan-22	3-Jan-22	4-Jan-22
	Aproximate centre of survey - Latitude		IUCN Status	12.593313	12.613835	12.638325
	Aproximate centre of survey - Longitude			98.637998	98.631121	98.643687
	Day			1	2	3
	Common Name	Scientific Name				
1	Black-tailed Godwit	<i>Limosa limosa</i>	NT	1		
2	Bar-tailed Godwit	<i>Limosa lapponica</i>	NT	5	25	
3	Whimbrel	<i>Numenius phaeopus</i>	LC	6	29	16
4	Eurasian Curlew	<i>Numenius arquata</i>	NT	210	38	4
5	Terek Sandpiper	<i>Xenus cinereus</i>	LC	175	12	
6	Ruddy Turnstone	<i>Arenaria interpres</i>	LC	2		
7	Common Redshank	<i>Tringa totanus</i>	LC	165	49	4
8	Common Greenshank	<i>Tringa nebularia</i>	LC	5	14	
9	Nordmann's Greenshank	<i>Tringa guttifer</i>	EN	18	9	
10	Red-necked Stint	<i>alidris ruficollis</i>	NT	185	8	
11	Great Knot	<i>Calidris tenuirostris</i>	EN	250	14	
12	Curlew Sandpiper	<i>Calidris ferruginea</i>	NT	8		
13	Lesser Sand Plover	<i>Charadrius mongolus</i>	LC	2500	65	
14	Greater Sand Plover	<i>Charadrius leschenaultii</i>	LC	79	35	
15	Pacific Golden Plover	<i>Pluvialis fulva</i>	LC	2	25	
16	Red-wattled Lapwing	<i>Vanellus indicus</i>	LC		2	
17	Grey Plover	<i>Pluvialis squatarola</i>	LC	75	12	
	<b>Total Waders</b>			<b>3686</b>	<b>337</b>	<b>24</b>
	<b>Estimated total small waders (includes unidentify spp)</b>					
1	Common Shelduck	<i>Tadorna tadorna</i>	LC			
2	Little Cormorant		LC	1	6	25
	<b>Total Wildfowl</b>			<b>1</b>	<b>6</b>	<b>25</b>
1	Brown-headed Gull	<i>Larus brunnicephalus</i>	LC	57	5	130
2	Little Tern	<i>Sterna albifrons</i>	LC	25		
3	Lesser Crested Tern	<i>Thalasseus bengalensis</i>	LC	255		
	<b>Total Gulls and Terns</b>			<b>337</b>	<b>5</b>	<b>130</b>
1	Little Egret	<i>Egretta garzetta</i>	LC	5	5	16
2	Chinese Egret	<i>Egretta eulophotes</i>	VU		15	

No	Date			2-Jan-22	3-Jan-22	4-Jan-22
	<b>Aproximate centre of survey - Latitude</b>		IUCN Status	12.593313	12.613835	12.638325
	<b>Aproximate centre of survey - Longitude</b>			98.637998	98.631121	98.643687
	<b>Day</b>			<b>1</b>	<b>2</b>	<b>3</b>
3	Grey Heron	<i>Ardea cinerea</i>	LC	8	1	1
4	Great White Egret	<i>Ardea alba</i>	LC	48	78	45
5	Pacific reef Egret	<i>Egretta sacra</i>	LC	1		3
6	Intermediate Egret	<i>Ardea intermedia</i>	LC	4		2
7	Pond Heron spp.	<i>Ardeola sp</i>	LC	10	2	5
8	Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	LC	+	+	+
9	Black-headed Ibis	<i>Threskiornis melanocephalus</i>	NT	22	19	
10	Black-capped Kingfisher	<i>Halcyon pileata</i>	LC			2
11	Collared Kingfisher	<i>Todiramphus chlori</i>	LC			1
	<b>Total other dependent waterbirds</b>			<b>98</b>	<b>120</b>	<b>75</b>
3	Crested Goshawk	<i>Accipiter trivirgatus</i>	LC		1	
4	Osprey	<i>Pandion haliaetus</i>	LC		1	
5	White-bellied Sea-eagle	<i>Haliaeetus leucogaster</i>	LC			2
7	Brahminy Kite	<i>Haliastur indus</i>	LC	2	2	16
	<b>Total raptors</b>			<b>2</b>	<b>4</b>	<b>18</b>
	<b>Total wetland dependent species</b>					
	Oriental Pied Hornbill	<i>Anthracoceros albirostris</i>				2

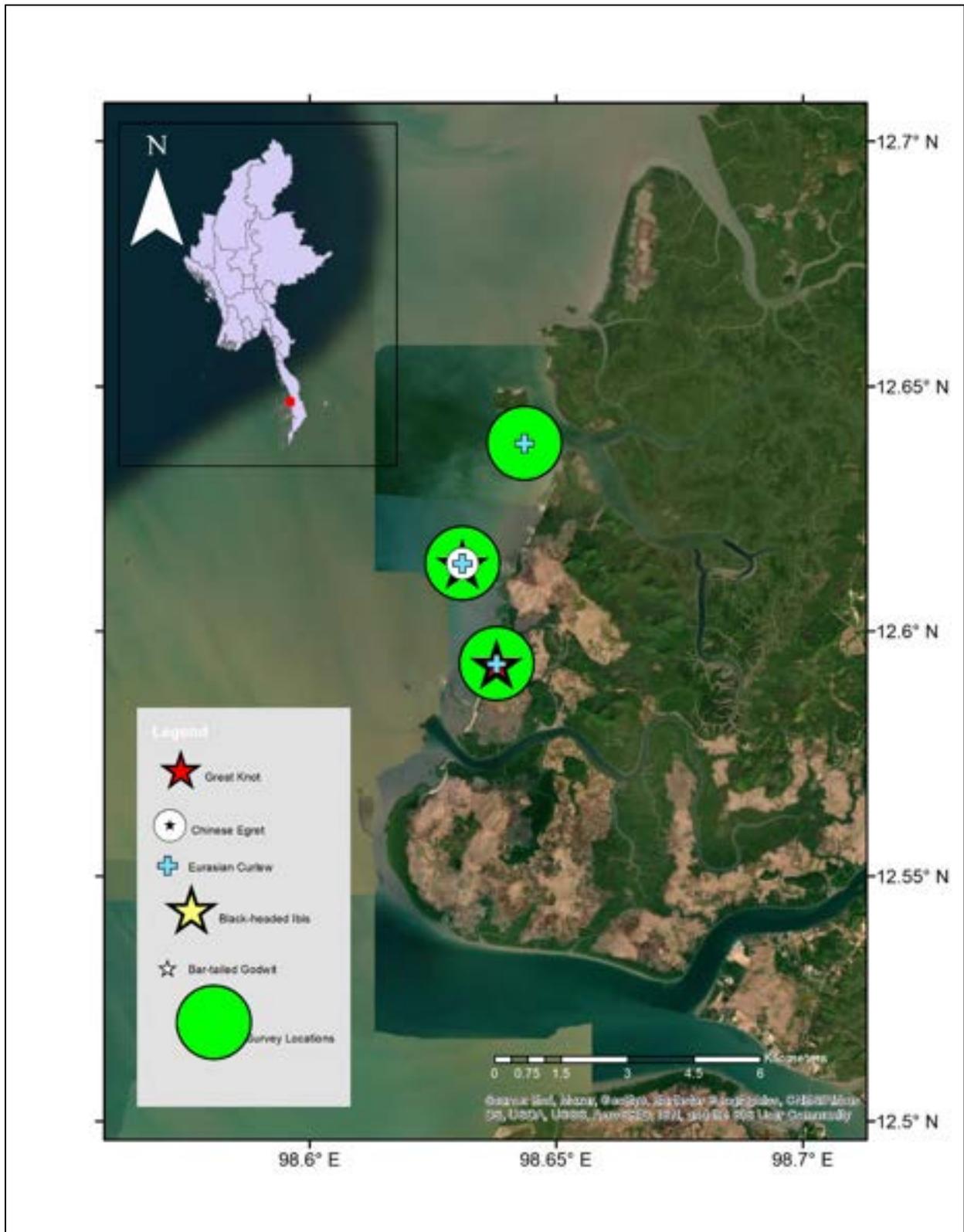


Figure 1: Survey locations map North of Myeik and its coastal area recorded globally threatened species

### Persit-Kone and Nepa (West side of Bokepyin)

A total of coastal bird population about **5574** individuals were recorded in the Persit-Kone and Nepa survey point (6<sup>th</sup> Jan 2022). Of these included **five** globally threatened water bird species and **two** globally threatened terrestrial bird species were observed in survey point. These are Spoon-billed Sandpiper (**CR**) (**one** individual), Great Knot (**EN**) (**316** individuals), Black-headed Ibis (**NT**) (**one** individual), Bar-tailed Godwit (**NT**) (**142** individuals), and Eurasian Curlew (**NT**) (**365** individuals) were recorded in the survey point.

### Bokepyin to Michaung-Chaung (Boat trip)

A total of coastal bird population about **3879** individuals were recorded from the Bokepyin to Michaung-Chaung survey by boat trip (7<sup>th</sup> Jan 2022). Of these included **six** globally threatened water bird species and **two** globally threatened terrestrial bird species were found in the survey boat trip. These are Nordmann's Greenshank (**EN**) (**35** individuals), Great Knot (**EN**) (**350** individuals), Lesser Adjutant (**VU**) (**two** individuals), Black-tailed Godwit (**NT**) (**19** individuals), Bar-tailed Godwit (**NT**) (**100** individuals), and Eurasian Curlew (**NT**) (**500** individuals) were observed in the Pana-Taung survey by boat trip.

### Leik-U-Chaung and Shanpie (West side of Bokepyin)

A total of coastal bird population about **1209** individuals were recorded at the Leik-U-Chaung and Shanpie survey point (8<sup>th</sup> Jan 2022). Of these included **five** globally threatened water bird species and **one** globally threatened terrestrial bird species were recorded in the survey point. These are Great Knot (**EN**) (**two** individuals), Chinese Egret (**VU**) (**six** individuals), Black-tailed Godwit (**NT**) (four individuals), Bar-tailed Godwit (**NT**) (eight individuals), and Eurasian Curlew (**NT**) (**45** individuals) was found in the Leik-U-Chaung and Shanpie survey point.

*Table 2: List of recorded bird species in Bokepyin mudflat area during the survey from 6th to 8th January 2022*

No	Date			6-Jan-22	7-Jan-22	8-Jan-22
	<b>Aproximate centre of survey - Latitude</b>		IUCN Status	N 11.278627	N 11.268284	N 11.340544
	<b>Aproximate centre of survey - Longitude</b>			E 98.745798	E 98.726619	E 98.721634
	<b>Day</b>			<b>1</b>	<b>2</b>	<b>3</b>
	Common Name	<i>Scientific Name</i>				
1	Black-tailed Godwit	<i>Limosa limosa</i>	NT		19	4
2	Bar-tailed Godwit	<i>Limosa lapponica</i>	NT	142	100	8
3	Whimbrel	<i>Numenius phaeopus</i>	LC	58	35	12
4	Eurasian Curlew	<i>Numenius arquata</i>	NT	365	500	45
5	Terek Sandpiper	<i>Xenus cinereus</i>	LC	28	310	
6	Common Sandpiper	<i>Actitis hypoleucos</i>	LC	2	6	2
7	Common Redshank	<i>Tringa totanus</i>	LC	34	15	151
8	Red-necked Phalarope	<i>Phalaropus lobatus</i>	LC	8		

No	Date		IUCN Status	6-Jan-22	7-Jan-22	8-Jan-22
	<b>Aproximate centre of survey - Latitude</b>		IUCN Status	N 11.278627	N 11.268284	N 11.340544
	<b>Aproximate centre of survey - Longitude</b>			E 98.745798	E 98.726619	E 98.721634
	<b>Day</b>			<b>1</b>	<b>2</b>	<b>3</b>
9	Common Greenshank	<i>Tringa nebularia</i>	LC	40	40	105
10	Nordmann's Greenshank	<i>Tringa guttifer</i>	EN		35	
11	Spoon-billed Sandpiper <sup>1</sup>	<i>Calidris pygmeus</i>	CR	1		
12	Red-necked Stint	<i>Calidris ruficollis</i>	NT	215	8	
13	Great Knot	<i>Calidris tenuirostris</i>	EN	316	350	2
14	Curlew Sandpiper	<i>Calidris ferruginea</i>	NT	12		
15	Dunlin	<i>Calidris alpina</i>	LC	5		
16	Lesser Sand Plover	<i>Charadrius mongolus</i>	LC	315	325	
17	Greater Sand Plover	<i>Charadrius leschenaultii</i>	LC	25	20	
18	Pacific Golden Plover	<i>Pluvialis fulva</i>	LC	5		
19	Red-wattled Lapwing	<i>Vanellus indicus</i>	LC	2		
20	Grey Plover	<i>Pluvialis squatarola</i>	LC	74	18	68
	<b>Total Waders</b>			<b>1647</b>	<b>1781</b>	<b>397</b>
	<b>Estimated total small waders (includes unidentify spp)</b>					
1	Little Cormorant		LC	13	45	14
	<b>Total Wildfowl</b>			<b>13</b>	<b>45</b>	<b>14</b>
1	Brown-headed Gull	<i>Larus brunnicephalus</i>	LC	2500	1298	125
2	Gull-billed Tern	<i>Gelochelidon nilotica</i>	LC	350	39	4
3	Little Tern	<i>Sterna albifrons</i>	LC		4	
4	Lesser Crested Tern	<i>Thalasseus bengalensis</i>	LC	85	56	
5	Greater Crested Tern	<i>Thalasseus Begii</i>	LC	25	70	
	<b>Total Gulls and Terns</b>			<b>2960</b>	<b>1467</b>	<b>129</b>
1	Little Egret	<i>Egretta garzetta</i>	LC	25	106	57
2	Chinese Egret	<i>Egretta eulophotes</i>	VU			6
3	Great White Egret	<i>Ardea alba</i>	LC	58	68	22
4	Intermediate Egret	<i>Ardea intermedia</i>	LC	4	7	3
5	Pond Heron spp.	<i>Ardeola sp</i>	LC	5	8	10
6	Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	LC		+	+

No	Date		IUCN Status	6-Jan-22	7-Jan-22	8-Jan-22
	<b>Aproximate centre of survey - Latitude</b>			N 11.278627	N 11.268284	N 11.340544
	<b>Aproximate centre of survey - Longitude</b>			E 98.745798	E 98.726619	E 98.721634
	<b>Day</b>			<b>1</b>	<b>2</b>	<b>3</b>
7	Black-headed Ibis	<i>Threskiornis melanocephalus</i>	NT	1		
8	Lesser Adjutant	<i>Leptoptilos</i>	VU		2	
9	Black-capped Kingfisher	<i>Halcyon pileata</i>	LC		2	
10	Collared Kingfisher	<i>Todiramphus chlori</i>	LC	8	6	4
11	Brown-winged Kingfisher	<i>Pelargopsis amauroptera</i>	NT	2	2	
12	White-throated Kingfisher	<i>Halcyon smyrensis</i>	LC	1		
	<b>Total other dependent waterbirds</b>			<b>104</b>	<b>201</b>	<b>102</b>
1	White-bellied Sea-eagle	<i>Haliaeetus leucogaster</i>	LC		2	
2	Crested serpent Eagle	<i>Spilornis cheela</i>	LC	2		2
3	Brahminy Kite	<i>Haliastur indus</i>	LC	8	25	12
	<b>Total raptors</b>			<b>10</b>	<b>27</b>	<b>14</b>
	<b>Total wetland dependent species</b>					
	Oriental Pied Hornbill	<i>Anthracoceros albirostris</i>				8

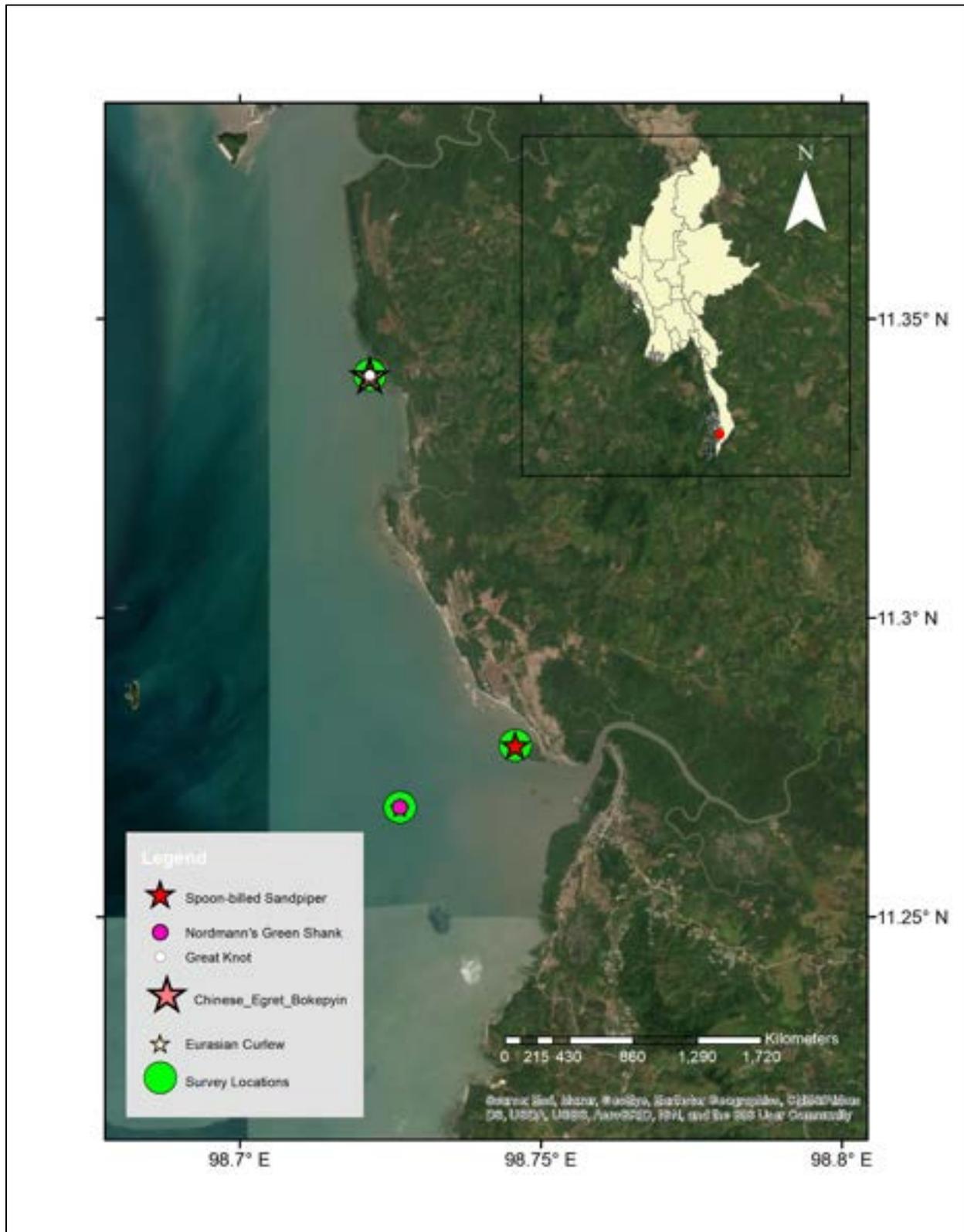
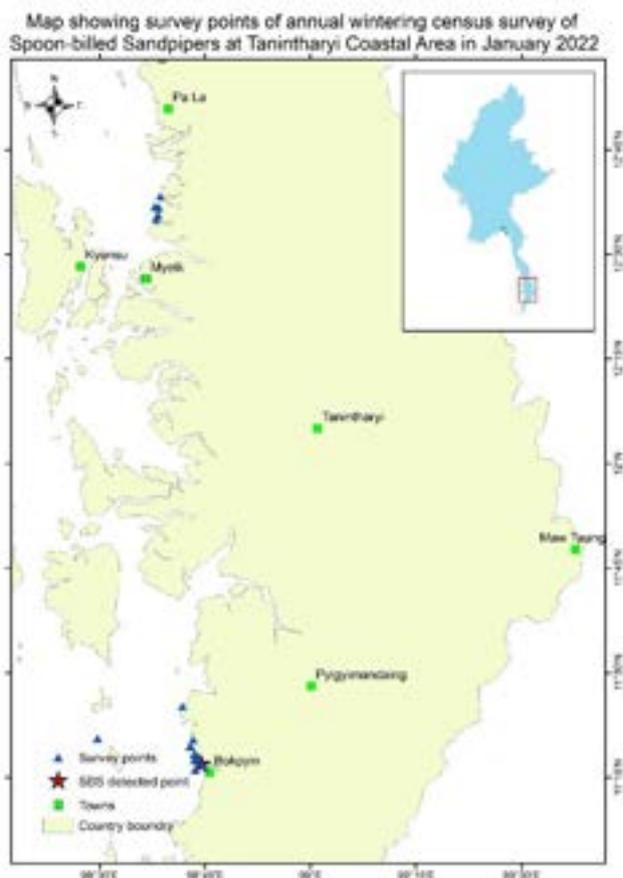


Figure 2: Survey locations map Bokepyin and its coastal area recorded globally threatened species



*Figure 3: Location of survey points and SBS detected point along the coastal areas of Tanintharyi Region*

#### 4.5. Annual wintering census survey of Spoon-billed Sandpiper at Gulf of Mottama

Before conducting the ground survey, previous survey results were reviewed particularly for the same survey area in 2021, to monitor the shorebird population with the suitability habitat assessment with Landsat 8 and Sentinel II from USGS. Apart from west coast of GOM, all other mudflat areas visited last year were revisited this year again, Areas near the main channel changed considerably within the last year (see Figure 4). The survey team of eight observers conducted the annual wintering census survey of Spoon-billed Sandpiper in the key wintering areas of the Gulf of Mottama from 16-21 January 2022. They were accompanied by local fishermen of the LGCs, who join the team for the thirteenth winter survey in 2022. This year survey team was departed from Koe Tae Su village and had to walk to the boat sites for about 15 minutes due to low tide not enough to reach the village. The team spent a night near the boats on 15 January 2022 and waited for the tide to go to the core area. In the early morning of 16 January 2022, we leaved the boat sites and started to move. Unfortunately, our boats could move only a few meters due to the tide was not enough to float our boats. So, we spent this day by observing the birds near the channel. On the second day on the 17 January 2021, the water level was high enough during the morning high tide and the boat started to move closed to the cored area of Gulf of Mottama. Then we started the flock count surveys on 17<sup>th</sup> January 2022 and proceeded the surveys until 21<sup>st</sup> January 2022. The survey was timed to cover the highest spring tide because the boats could access all of the intertidal sandflats only during the high spring tide period and because shorebirds are likely to be concentrated at spring tides and gather in large flocks. This way we were less likely missing large flocks and counted the total numbers of small shorebirds

(Aung *et al.* 2016, 2017, 2018, 2019, 2020, 2021). Other sites Nanthar Island, Irrawaddy Delta, Myeik and Bokepyin mudflat also surveyed at the same location of the previous years.

The Gulf of Mottama is challenged to count shorebirds at the vast intertidal mudflats. For the Gulf of Mottama, the survey team was transported to as many parts of the study area as possible in shallow-draft fishing boats, which were grounded on the mud in the intertidal zone at low tide to allow observation of birds from the boat and on foot. In this way, the observers were able to conduct scan surveys throughout the daylight period of tidal cycles and at a wide range of elevations relative to the high and low water marks. Following a protocol outlined in Aung *et al.* (2018), the surveyors were separated into seven-eight directions. Surveyors walked across the mudflat during low tide, diverging from the place where the boat was grounded, and also viewed birds from the boats, especially when the tide was high. Surveyors used spotting scopes and binoculars to record number of waterbirds during each scan and also estimated total number of shorebirds, especially during high tide.

A total of 47,490 waterbirds of 45 species were recorded in the Gulf of Mottama between 16-21 January 2022. Of these, the large majority of over 46,600 shorebirds of 24 different species were identified. The estimated number of small waders was about 160,000 in the survey areas. This year, increased number of identified small numbers compared with the previous years although the Spoon-billed Sandpipers were not detected very much About 2,000 birds comprise of gulls, terns herons and egrets, which all decreased.

The most abundant species in 2022 were Black-tailed Godwit (NT), Kentish Plover and Lesser Sand Plover, Whiskered and White-winged Terns and, but again the latter two terns in smaller numbers than in 2019 and previous years (see Table 3). Black-tailed Godwit, Kentish Plover, Broad-billed Sandpiper, Pallas' Gull, Whiskered and White-winged Terns and Red Shank were decreased. The Black-tailed Godwit though has decreased previous year (Aung *et al.* 2021) that reason would be the habitats changed. However, this year Lesser Sand Plover is increased significantly compared with the previous four years.

*Table 3: Summary results of the key common shorebird species during the 2022 mid-winter count period in the Gulf of Mottama in comparison with 2010,2019,2020 and 2021 (Zöckler *et al.* 2014, Aung *et al.* 2019, 2020, 2021), increasing species marked in green , declining in red*

Species	Scientific name	No.2022	No. 2021	No.2020	No. 2019	No.2010
Lesser Sandplover	<i>Charadrius</i>	24,712	6,340	14,508	16,385	18,032
Red-necked/Little Stint	<i>Calidris</i>	4,138	3,884	4,760	7,690	6,353
Curlew Sandpiper	<i>Calidris</i>	2,703	2,235	4,512	3,003	6,762
Kentish Plover	<i>Charadrius</i>	2,399	7,107	3,727	10,997	8,131
Pallas' Gull	<i>Larus</i>	149	2,988	2,835	84	2,473
Whiskered/White-winged tern	<i>Chlidonias hybrida</i>	1127	5,925	2,435	8,088	10,345
Black-tailed Godwit	<i>Limosa limosa</i>	3,723	14,392	2,310	5,625	3,405
Broad-billed Sandpiper	<i>Calidris</i>	831	856	2,138	1,909	4,000
Redshank	<i>Tringa totanus</i>	1,648	5,378	1,331	809	4,617

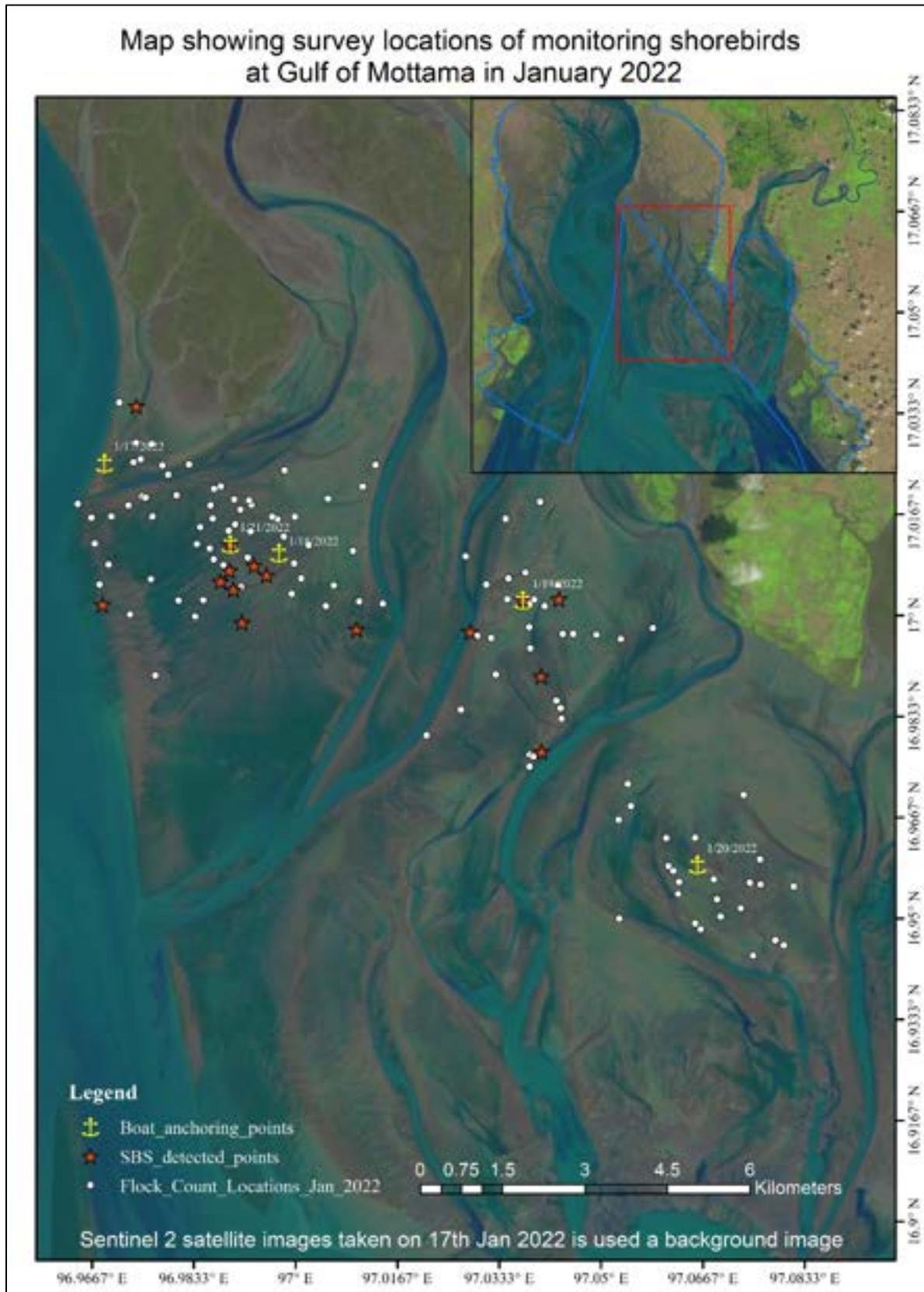
Also, 18 raptors (birds of prey) of 4 species were recorded during the survey. But the globally threatened Spotted Eagle wasn't observed for the third consecutive year.

Table 4: Globally threatened species recorded in the 2022 survey period in the Gulf of Mottama compared to 2021, 2020 and 2019. \*For Spoon-billed Sandpiper a separate more extensive analysis is below. Species marked in green were increasing and in red declining.

Species		IUCN	Total No. 2022	Total No. 2021	Total No. 2020	Total No. 2019
Spoon-billed Sandpiper*	<i>Calidris pygmaea</i>	CR	80	42	114	112
Great Knot	<i>Calidris tenuirostris</i>	EN	165	84	32	153
Nordmann's Green Shank	<i>Tringa guttifer</i>	EN	8			
Greater Spotted Eagle	<i>Aquila pomarina</i>	VU		-	1	-
Black-tailed Godwit	<i>Limosa limosa</i>	NT	3,723	14,392	5,625	2310
Bar-tailed Godwit	<i>Limosa lapponica</i>	NT	3	24	4	21
Eurasian Curlew	<i>Numenius arquata</i>	NT	313	1,264	597	280
Asiatic Dowitcher	<i>Limnodromus</i>	NT		2	-	49
Red Knot	<i>Calidris canutus</i>	NT		478	-	-
Painted Stork	<i>Mycteria leucocephala</i>	NT	13	55	1	-
Black-headed Ibis	<i>Threskiornis melanocephalus</i>	NT	12	13	32	-

#### 4.5.1. Spoon-billed Sandpiper (SBS)

The survey team observed only a total of 17 SBS from 4 different locations in the survey period from 16-21 Jan 2022 (see Fig 4). There is still some possible overlap in numbers, but observations of time and observer during the day were exchanged on return to the camp so that double counting was minimized.



*Figure 4: Distribution of Spoon-billed Sandpiper sightings in Jan 2022. Yellow anchors signs are depict camp sites or boat anchor points from where surveys have been undertaken on foot. White points represent flock count sites and red stars sites with SBS observations*

#### 4.5.2. Estimated total number of SBS and other small wader species in the Gulf of Mottama

Table 5 shows the average proportion of small waders in small wader flocks in the Gulf of Mottama during the survey period based on 173 flocks by seven different observers totaling over 34,914 small waders of eight or nine species (Red-necked Stint and Little Stint were summarized to one species group for this estimation). Other small waders only occurring in very few samples were not included.

*Table 5: Average flock proportions of small waders in the Gulf of Mottama in January 2021 (n= 173)\* , proportional observations for 2019,2020 and 2021= figures in brackets refer to 2021(Aung et al 2019, 2020)*

English Name	Scientific Name	Flock count total*	Mean proportion in %			
			2022	2021	2020	2019
Spoon-billed Sandpiper	<i>Calidris pygmaea</i>	17	0.05	0.07	0.19	0.18
Little /Red necked Stint	<i>Calidris ruficollis/minuta</i>	4138	11.85	15.59	18.06	22.37
Curlew Sandpiper	<i>Calidris ferruginea</i>	2703	7.74	17.75	16.32	6.55
Broad-billed Sandpiper	<i>Calidris falcinellus</i>	831	2.38	5.30	7.66	5.32
Kentish Plover	<i>Charadrius alexandrinus</i>	2399	6.87	18.41	12.53	31.41
Lesser Sand Plover	<i>Charadrius mongolus</i>	24712	70.78	42.00	44.17	32.20
Greater Sand Plover	<i>Charadrius leschenaultii</i>	89	0.25	2.77	0.69	1.63
Little Ringed Plover	<i>Charadrius dubius</i>	25	0.07	2.83	0.39	0.34
<b>Total of all flocks</b>		<b>34,914(28,123)</b>	<b>(2021)</b>			
<b>Total of SBS calculated in flock @160,000</b>		<b>80(42)</b>	<b>(2021)</b>			

Applying the flock count-generated proportion of 0.05% for 2022 which is again lower to 0.07 and 0.19 in 2021 and 2020, we can extrapolate the total population in the Gulf of Mottama in the winter 2021 of only 80 of Spoon-billed Sandpiper among the total flock of small waders was about at about 160,000. The LCGs were checking the wider survey areas for small wader flocks and enabled a complete coverage and estimation of small wader flocks. In last week of February 2022, two surveyors went to west coast, opposite of the core area where only one Spoon-billed Sandpiper was recorded and did not observe the large number of flocks.

#### 4.5.3. Flagged birds

In total only one flagged Spoon-billed Sandpiper was recorded; it was Yellow (flagged on migration most likely in Tiaozini, Jiangsu Province, China). Two flagged stints were recorded during the surveys; one was blue on the right (flagged on migration in Northwestern Australia) and another one yellow(upper) and black(lower) on right leg (flagged on the breeding grounds in Kamchatka, Russia). All flags were not photographed, and it was not possible to read the marked combination.

Table 6. Daily counts of bird list at the Gulf of Mottama from 16-21 January 2022

				Koe Te Su Chaung Wa	Wun Bike Thaung	Kyar si Aung Aut	Kyun Thar Yar Aut	Kyauk pyin Thaung	Between Wun Bike Thaung & Kyar Si Aung Aut	
No	Date	Name of Survey Area		16-Jan- 22	17-Jan- 22	18-Jan- 22	19-Jan- 22	20-Jan- 22	21-Jan- 22	Total
	Aproximate centre of survey - Latitude	17.03173	IUCN Status (2017) ver 3.1	17.20873	17.02514	17.01031	17.00253	16.95889	17.01180	
	Aproximate centre of survey - Longitude	97.02844		96.99328	96.96870	96.99728	97.03722	97.06577	96.98930	
	Day			1	2	3	4	5	6	
	Common Name	Scientific Name								
1	Black-tailed Godwit	<i>Limosa limosa</i>	NT		2340	506	661	211	5	3723
2	Bar-tailed Godwit	<i>Limosa lapponica</i>	NT		1			2		3
3	Whimbrel	<i>Numenius phaeopus</i>	LC		199	370	197	120	42	928
4	Eurasian Curlew	<i>Numenius arquata</i>	NT		147	15	95	46	10	313
5	Ruff	<i>Calidris pugnax</i>	LC		19					19
6	Terek Sandpiper	<i>Xenus cinereus</i>	LC		6	9	26	14	1	56
7	Common Sandpiper	<i>Actitis hypoleucos</i>	LC	13						13
8	Nordman's Greenshank	<i>Tringa guttifer</i>	EN					8		8
9	Common Redshank	<i>Tringa totanus</i>	LC	28	465	233	619	161	142	1648
10	Marsh Sandpiper	<i>Tringa stagnatilis</i>	LC	1	3		1	2	1	8
11	Common Greenshank	<i>Tringa nebularia</i>	LC	6	31	15	11	14	14	91
12	Sanderling	<i>Calidris alba</i>	LC		4	1	2	1		8
13	Spoon-billed Sandpiper <sup>1</sup>	<i>Calidris pygmeus</i>	CR		3	4	6		4	17
14	Little Stint/Red necked Stint	<i>Calidris minuta</i>	LC	2	312	1082	604	1252	886	4138
15	Great Knot	<i>Calidris tenuirostris</i>	EN		59	37	30	38	1	165
16	Red Knot	<i>Calidris camutus</i>	NT							0
17	Curlew Sandpiper	<i>Calidris ferruginea</i>	NT		307	1041	253	379	723	2703

	location	Name of Survey Area		Koe Te Su Chaung Wa	Wun Bike Thaung	Kyar si Aung Aut	Kyun Thar Yar Aut	Kyauk pyin Thaung	Between Wun Bike Thaung & Kyar Si Aung Aut	Total
No	Date			16-Jan-22	17-Jan-22	18-Jan-22	19-Jan-22	20-Jan-22	21-Jan-22	
	Aproximate centre of survey - Latitude	17.03173	IUCN Status (2017) ver 3.1	17.20873	17.02514	17.01031	17.00253	16.95889	17.01180	
	Aproximate centre of survey - Longitude	97.02844		96.99328	96.96870	96.99728	97.03722	97.06577	96.98930	
	Day			1	2	3	4	5	6	
18	Broad-billed Sandpiper	<i>Calidris falcinellus</i>	LC		94	192	123	58	364	831
19	Pied Avocet	<i>Recurvirostra avosetta</i>	LC		10					10
20	Little Ringed Plover	<i>Charadrius dubius</i>	LC	22	2		1			25
21	Kentish Plover	<i>Charadrius alexandrinus</i>	LC	3	123	169	1057	602	445	2399
22	Lesser Sand Plover	<i>Charadrius mongolus</i>	LC		3557	3711	4578	6589	6277	24712
23	Greater Sand Plover	<i>Charadrius leschenaultii</i>	LC		15	16	39	13	6	89
24	Pacific Golden Plover	<i>Pluvialis fulva</i>	LC	49	799	20	409	155	1504	2936
25	Grey Plover	<i>Pluvialis squatarola</i>	LC				1	13	13	27
	Total Waders			124	8496	7421	8713	9678	10438	44870
	Estimated total small waders (includes unidentify spp)				30000	63000	60000	7950		160950
1	Ferruginous pochard				3					3
	Total Wildfowl				3					3
1	Black-headed Gull	<i>Larus ridibundus</i>	LC			4	1			5
2	Pallas's Gull	<i>Larus ichthyaetus</i>	LC		105	10	6	18	10	149
3	Brown-headed Gull	<i>Larus brunnicephalus</i>	LC	1	543	141	25	11	199	920
4	Huglin Gull					1				1
5	Gull-billed Tern	<i>Gelochelidon nilotica</i>	LC	1	27	4	44	28		104

	location	Name of Survey Area		Koe Te Su Chaung Wa	Wun Bike Thaung	Kyar si Aung Aut	Kyun Thar Yar Aut	Kyauk pyin Thaung	Between Wun Bike Thaung & Kyar Si Aung Aut	Total
No	Date			16-Jan-22	17-Jan-22	18-Jan-22	19-Jan-22	20-Jan-22	21-Jan-22	
	Aproximate centre of survey - Latitude	17.03173	IUCN Status (2017) ver 3.1	17.20873	17.02514	17.01031	17.00253	16.95889	17.01180	
	Aproximate centre of survey - Longitude	97.02844		96.99328	96.96870	96.99728	97.03722	97.06577	96.98930	
	Day			1	2	3	4	5	6	
6	Caspian Tern	<i>Hydroprogne caspia</i>	LC		19	12	6	2	6	45
7	Little Tern	<i>Sterna albifrons</i>	LC	1	4	2	4	1		12
8	Whiskered Tern	<i>Chlidonias hybrida</i>	LC	120	80	25		26	137	388
9	White-winged Tern	<i>Chlidonias leucopterus</i>	LC	15	121	39	466	96	2	739
	<b>Total Gulls and Terns</b>			<b>138</b>	<b>899</b>	<b>238</b>	<b>552</b>	<b>182</b>	<b>354</b>	<b>2363</b>
1	Little Egret	<i>Egretta garzetta</i>	LC	10	20	3	12	6		51
2	Grey Heron	<i>Ardea cinerea</i>	LC	12	37	9	6	29	10	103
3	Great White Egret	<i>Ardea alba</i>	LC		9	3	8	20	2	42
4	Pond Heron spp.	<i>Ardeola sp</i>	LC	3						3
5	Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	LC	4	4	4				12
6	Black-headed Ibis	<i>Threskiornis melanocephalus</i>	NT					12		12
7	Painted Stork	<i>Mycteria leucocephala</i>	NT		1				12	13
	<b>Total other dependent waterbirds</b>			<b>29</b>	<b>71</b>	<b>19</b>	<b>26</b>	<b>67</b>	<b>24</b>	<b>236</b>
1	Black Kite	<i>Milvus migrans</i>	LC	6						6
2	Eastern Marsh Harrier	<i>Circus spilonotus</i>	LC	6						6
3	Pied Harrier	<i>Circus melanoleucos</i>	LC	6						6
	<b>Total raptors</b>			<b>18</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18</b>
	<b>Total wetland dependant species</b>			<b>309</b>	<b>9469</b>	<b>7678</b>	<b>9291</b>	<b>9927</b>	<b>10816</b>	

## 5. Conclusion

In total sighting the number of Spoon-billed sandpiper were not different compared with last year, still decreasing although the other unidentified shorebirds population numbers are increased this year up to approximately 160,000. It is not entirely clear if this only relates to a smaller team and less survey activity or reflects a real decline or a shift in distribution of Spoon-billed Sandpiper at the core area of the Gulf. The latter is still possible but less likely as our trained LCGs and NCS small team have been scanning the entire Ramsar site during the winter period 2021-2022.

The number of 80 Spoon-billed Sandpiper is still lower than most previous years even though up again from last year's low and very concerning. As this declining trend is also observed in other areas the decline is not reflecting on the quality of the habitat in the area, even though other species have declined. The Gulf of Mottama is still very crucial for the Spoon-billed Sandpiper but with a continuous northward shift in the wintering area the prime position might be shared with more northern sites in Vietnam and China.

Observations of SBS have declined since 2010 (Aung et al 2018) and continued in recent years. This year's records might also point to an accelerated decline, which affects most small waders which have declined from at least 150,000 in 2010 (Zöckler et al 2014, Aung et al 2018) to only 56,000 – 60,000 maximums. It might also reveal some potential changes in the habitat. It is also planned to look more closely at the pollutants that potentially threatened feeding shorebirds in the Gulf. It is reassuring that the site is now fully protected as Ramsar site and also has been managed and mitigated from almost all hunting activities. Local conservation groups have been established and trained and have become a stable component in safeguarding the future of the Ramsar site.

The Tanintharyi coastal, Myeik and Bokeyyin mudflat area is still hosting the wintering shorebirds and outstanding criteria to designate as Flyway Network Site or Ramsar Site. Although, need to conduct more awareness activities for community participation in the process of designation steps and government endorsement.

## 6. Acknowledgement

We thank East Asian Australasian Flyway Partnership (EAAFP), Manfred-Hermsen Foundation (MHF), Asian Water bird Conservation Fund and Shenzhen Mangrove Wetlands Conservation Foundation supported the financial support for annual wintering census surveys of Spoon-billed Sandpiper at Gulf of Mottama and Tanintharyi coastal areas in Myanmar. We would like to thank all the members of LCGs for participating in both capacity building trainings and annual wintering census surveys.

Annex 1: Photos of outreach activities and fieldwork surveys



Photo 1: Survey sites selection through investigating the mudflat and sandflat map at Gulf of Mottama



Photo 2: Survey team conducting the shorebirds surveys at Gulf of Mottama in January 2022

Photo annex



Photo 3: The observers making daily recorded bird lists on the boat at Gulf of Mottama



Photo 4: Group photo of survey team at Gulf of Mottama in January 2022

Photo Annex



Photo 5: Trainer of basic bird watching course teaching the LCGs members the basic practices of bird watching in Koe Te Zu village, Bilin Township in October 2021 at Gulf of Mottama



Photo 6: Trainer of basic bird watching course teaching the LCGs members the basic practices of bird watching during the field trip in Koe Te Zu village, Bilin Township in October 2021 at Gulf of Mottama

Photo Annex



Photo 7: One trainee using the telescope, and the trainer and a trainee use the bird guide for bird identification watching during the field trip in Koe Te Zu village, Bilin Township in October 2021 at Gulf of Mottama



Photo 8: Group photo of LCGs trainees, trainer and staff of NCS-Myanmar taken during bird watching training in Koe Te Zu village, Bilin Township in October 2021 at Gulf of Mottama

Photo Annex



Photo 9: Trainer of basic bird watching course teaching the LCGs members the basic practices of bird watching in Alatt village, Paung Township in December 2021 at Gulf of Mottama



Photo 10: Trainer of basic bird watching course teaching the LCGs members the basic practices of bird watching during the field trip in Alatt village, Paung Township in December 2021 at Gulf of Mottama

Photo Annex



Photo 11: Two binoculars were provided to the leader of LCG in Alatt village, Paung Township in December 2021 at Gulf of Mottama



Photo 12: Group photo of LCGs trainees, trainer and staffs of NCS-Myanmar taken during bird watching training in Alatt village, Paung Township in December 2021 at Gulf of Mottama

Photo annex



Photo 13: Group photo of LCG members from Thi-Yarwa village, Myeik Township, Tanintharyi Region



Photo 14: Group photo of LCG members from Ohn Taw Kone village, Boke Pyin Township, Tanintharyi Region

## Photo annex



Photo 15: Bird watching training at Kan Pyin Village, Myeik Township, Tanintharyi Region



Photo 16: Bird watching training at Ohn Taw Kan Village, Boke Pyin Township, Tanintharyi Region

Photo annex



Photo 17: Bird watching training at Ni Par Village, Boke Pyin Township, Tanintharyi Region



Photo 18: Bird watching training at Ni Par Village, Boke Pyin Township, Tanintharyi Region

Photo annex



Photo 19: Installation of notice signboards in Myeik



Photo 20: Installation of notice signboards in Myeik

Photo annex

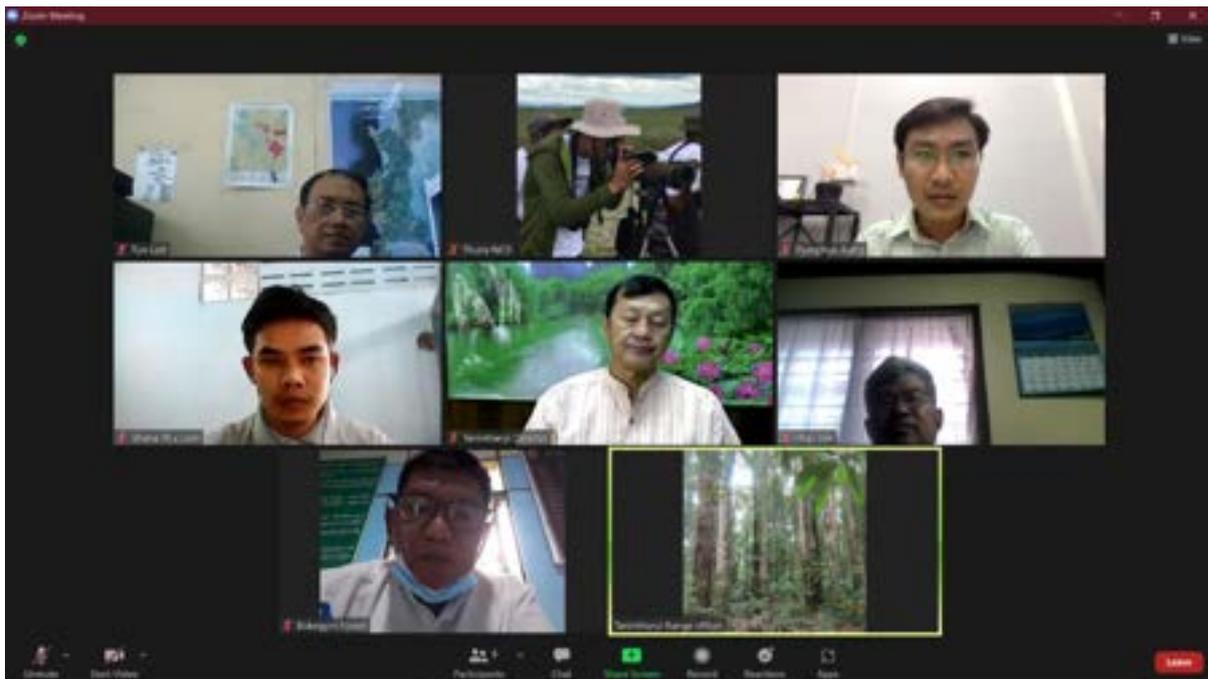


Photo 21 : Discussion between NCS and Officers from Forest Department for shorebird conservation, Tanintharyi Region via Zoom on 30 November 2021



Photo 22: Installation of notice signboards in Myeik

Photo annex



Photo 23: Installation of notice signboards in Boke Pyin



Photo 24: Installation of notice signboards in Boke Pyin

## Annex 2: List of members of new established two Local Conservation Groups

Village : Kanpyin, Thityarwa village tract, Myeik.

No	Position	Name	Father name	NRC no	Date of birth	work	Address
1	Leader	U Aung Htay	U Hla Kyai	6/MAY(N)137369		Farm/casual	Kanpyin village
2	Secretary	U Twel Tar Oo	U Min Naing Oo			Fishery	Thityarwa
3	Finance	Daw Shwe Thazin Soe	U Than Shwe	6/MMN(N)200987	28.06.98		Kanpyin
4	Member	U Myo Ko Naing	U Tit Naing				Kanpyin
5	Member	U Zin Minn Htike	U Kyaw Yin	6/MMN(N)200881			Kanpyin
6	Member	U Than Minn Wai	U Soe Wai				Kanpyin
7	Member	U Toe Tat Linn	USoeNyiNyiHein	6/MMN(N)241391	8.5.01	Student	Kanpyin
8	Member	U Hein Pyie Ag	U Aung Htay	6/MMN(N)251691	21.12.03	Student	Kanpyin
9	Member	U Wai Yan Myo	U Mg Myo	6/MMN(N)252262	11.2.05	Student	Kanpyin
10	Member	U Hein Tun	USoeNyiNyiHein				Kanpyin
11	Member	U Than Shein	UPhoLwin	6/MAY(N)076329		Farm	Kanpyin
12	Member	U Nyi Nyi Toe	UHtayWin	6/MMN(N)252289	15.1.03		Kanpyin
13	Member	U Linn Yu Lwin	UPoLwin	6/MMN(N)157119		Farm	Kanpyin

## Owntawkan village, Bokepyin

No	Position	Name	Father Name	NRC No	Date of birth	Work	Address
1	Leader	Min Min Naing	U Lin Sein	6/BaPaNa(N)025740	24-9-86		Owntawkan
2	Secretary	Aye Khing	U Min Aung	6/BaPaNa(N)038437	12-7-1346		Lakeouchaung
3	Finance	Ko Ko Lwin	U Aung Than	6/KaThaNa(N)034679	16-7-84		Owntawkan
4	Member	Naing Zaw Oo	U Mg Lin Tun	6/BaPaNa(N)040979	29-7-95		Owntawkan
5	Member	Myo Htay	U Mg Myint	6/BaPaNa(N)024366	4-4-1347		Owntawkan
6	Member	Paing Soe Thu	U Than Soe	6/BaPaNa(N)049398	2-1-99	Fisheries	Lakeouchaung
7	Member	Myint Soe	U Kun Shwe	6/BaPaNa(N)004469	5-3-62	Fisheries	Owntawkan
8	Member	Tin Tun	U Lun Tin	6/KaSaNa(N)093936	25-6-60	Fisheries	Owntawkan
9	Member	Kaung Myat	U	6/BaPaNa(N)042324			Bokepyin
10	Member	Aung Lwin Oo	U Kyaw Bin	6/BaPaNa(N)139946	15-8-91	Fisheries	Owntawkan