Ramsar Information Sheet

Published on 22 November 2024

Philippines

Sibugay Wetland Nature Reserve

Designation date	8 January 2024
Site number	2552
Coordinates	07°33'16"N 122°38'42"E
Area	175 551,12 ha

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary

The Sibugay Wetland Nature Reserve is a wetland complex surrounded by nine municipalities and 64 coastal barangays in Zamboanga Sibugay, Philippines. The bay hosts thousands of migratory waterbirds using the wetland as a staging site during the migratory season. The mudflat is an important stopover and wintering site for migratory shorebirds within the East Asia Australasian Flyway including the endangered great knot (Calidris tenuirostris), Far Eastern curlew (Numenius madagascariensis), the vulnerable Chinese egret (Egretta eulophotes), the endemic Philippine duck (Anas luzonica), and nine near-threatened species, namely black-tailed godwit (Limosa limosa), bar-tailed godwit (Limosa lapponica), Eurasian curlew (Numenius arquata), grey-tailed tattler (Heteroscelus brevipes), Asiatic dowitcher (Limnodromus semipalmatus), red knot (Calidris canutus), red-necked Stint (Calidris ruficollis), curlew sandpiper (Calidris ferruginea), and Malaysian plover (Charadrius peronii).

The reserve also hosts the critically endangered hawksbill turtle (Eretmochelys imbricata), the endangered green sea turtle (Chelonia mydas), and the vulnerable olive ridley sea turtle (Lepidochelys olivacea). The wetland also serves as a refuge for two of the largest flying foxes in the world by providing roost sites: the Philippine endemic and endangered golden-crowned flying fox (Acerodon jubatus), and the large flying fox (Pteropus vampyrus). The existing colony of flying foxes, composed of these two species and the near-threatened island flying fox (Pteropus hypomelanus), is believed to be the largest colony in the country.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency: Department of Environment and Natural Resources- PENRO Zamboanga Sibugay

Postal address: PENRO Zamboanga Sibugay
Poblacion, Ipil, Zamboanga Sibugay
7001 Philippines

National Ramsar Administrative Authority

Institution/agency: Department of Environment and Natural Resources-Biodiversity Management Bureau

Postal address: Ninoy Aquino Parks and Wildlife Center, North Avenue, Diliman, Quezon City 1100, Philippines

2.1.2 - Period of collection of data and information used to compile the RIS

From year: 2018

To year: 2023

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish): Sibugay Wetland Nature Reserve

Unofficial name (optional): Sibugay Coastal Wetlands

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image
<1 file(s) uploaded>

Former maps: 0

Boundaries description

Sibugay Wetland Nature Reserve is situated in Region 9, (Zamboanga Peninsula), within the political jurisdiction of the province of Zamboanga Sibugay. It is bounded by the Municipality of Naga on the north, Talusan and Olutanga on the south, Payao on the east and Tungawan on the west. The wetland covers nine municipalities encompassing sixty-four coastal barangays. The site is about 55 km from the Municipality of Ipil, the Provincial Center. The wetland also serves as resting (roosting) sites for fruit bats (Flying fox) in three identified areas.

2.2.2 - General location

a) In which large administrative region does the site lie? Zamboanga Sibugay, Region 9, Philippines

b) What is the nearest town or population centre? Ipil Municipality

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes ○ No ◉

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes ○ No ◉

2.2.4 - Area of the Site

Official area, in hectares (ha): 175551.12

Area, in hectares (ha) as calculated from GIS boundaries: 175684.927

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Marine Ecoregions of the World (MEOW)	Central Indo-Pacific Realm in the Eastern Philippines Ecoregion

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

<no data available>

☑ Criterion 2 : Rare species and threatened ecological communities

Optional text box to provide further information	Sibugay Wetland Nature Reserve supports the vulnerable Philippine duck (Anas Luzonica) and three (3) globally threatened migratory waterbirds, namely the endangered great knot (Calidris tenuirostris) and Far Eastern curlew (Numenius madagascariensis), and the vulnerable Chinese egret (Egretta eulophotes). The threatened marine species it hosts include the critically endangered hawksbill turtle (Eretmochelys imbricata), the endangered green sea turtle (Chelonia mydas), and the endangered basking shark (Rhincodon typus). The site is also home to the Philippine endemic golden-crowned flying fox (Acerodon jubatus) and the large flying fox (Pteropus vampyrus), both evaluated as endangered by the IUCN. Additionally, the vulnerable mangrove species, Avicennia lanata, thrives within the site.

☑ Criterion 4 : Support during critical life cycle stage or in adverse conditions

Optional text box to provide further information	Sibugay Wetland Nature Reserve is a vital stopover or non-breeding site for migratory waterbirds, including the endangered great knot (Calidris tenuirostris) and Far Eastern curlew (Numenius madagascariensis), and the vulnerable Chinese egret (Egretta eulophotes). The site serves as a refuge during their migratory journey from the northern regions to avoid harsh winter conditions. The wetland also serves as a refuge for two of the largest flying foxes in the world by providing roost sites: the Philippine endemic and endangered golden-crowned flying fox (Acerodon jubatus), and the large flying fox (Pteropus vampyrus). The existing colony of flying foxes, composed of these two species and the near-threatened island flying fox (Pteropus hypomelanus), is believed to be the largest colony in the country

☑ Criterion 5 : >20,000 waterbirds

Overall waterbird numbers	Average of 43,318 waterbirds
Start year	2019
End year	2021
Source of data:	Asian Flyway Network Waterbird Census 2019-2020; Asian Waterbird Census 2019-2021
Optional text box to provide further information	2019: A total of 31,999 waterbirds were tallied composed of 30 species representing 8 families. 2020: 71,003 waterbirds, with 37 species 2021: 26,952 waterbirds, with 41 species Little egret (22,109 in 2020), whiskered tern (16,715 in 2020), gull-billed tern (10,400 in 2019), and intermediate egret (8,610 in 2020) were the most common species recorded in the wetlands.

☑ Criterion 6 : >1% waterbird population

Optional text box to provide further information	Five waterbird species have exceeded the 1% share of the East Asian-Australasian Flyway Network (EAAFN) population. Specifically, the site receives 1.2% of the total EAAFN population of the endangered Far Eastern curlew (Numenius madagascariensis), 3.5% to 8.15% of the great white egret (Egretta alba), 1.1% to 2.2% of little egret (Egretta garzetta), 1.2% to 8.6% of intermediate egret (Egretta intermedia), and 5.5% to 10.4% of gull-billed tern (Gelochelidon nilotica).
Optional text box to provide further information	The Sibugay Wetland Nature Reserve is home to a mixed colony of three flying fox species, namely the endangered large flying fox (Pteropus vampyrus) and the Philippine endemic golden-crowned flying fox (Acerodon jubatus), and the island flying fox (Pteropus hypomelanus). Their combined population reaches half a million individuals, according to Oporto et al. 2021 as cited in iucnredlist.org.

3.2 - Plant species whose presence relates to the international importance of the site

The vulnerable mangrove species Avicennia lanata, as listed on the IUCN Red List, is thriving in Sibugay Wetland Nature Reserve.

3.3 - Animal species whose presence relates to the international importance of the site

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
Others																	
CHORDATA / MAMMALIA	*Acerodon jubatus*	☑	☑	☐	☐	☐	☐	☐	☐	223	2022-2023	2.23	EN	☑	☐		Endemic to the Philippines
CHORDATA / REPTILIA	*Chelonia mydas*	☑	☐	☐	☐	☐	☐	☐	☐	2	2022-2023		EN	☑	☑		Nesting in several coastal areas within the wetland.
CHORDATA / REPTILIA	*Eretmochelys imbricata*	☑	☐	☐	☐	☐	☐	☐	☐	2	2022-2023		CR	☑	☑		Nesting in several coastal areas within the wetland.
CHORDATA / MAMMALIA	*Pteropus vampyrus*	☑	☑	☐	☐	☐	☐	☐	☐	131330	2022-2023	26.27	EN	☐	☐		Found within the Indo-Malay and Philippine biogeographic regions; the largest colonies are in Zamboanga Sibugay, Philippines according to IUCN.
Fish, Mollusc and Crustacea																	
CHORDATA / ELASMOBRANCHII	*Rhincodon typus*	☑	☐	☐	☐	☐	☐	☐	☐	3	2018-2022		EN	☐	☑		An Indo-Pacific species that uses the wetland as its foraging ground
Birds																	
CHORDATA / AVES	*Actitis hypoleucos*	☐	☐	☐	☐	☐	☑	☐	☐	131	2019-2021		LC	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Amaurornis phoenicurus*	☐	☐	☐	☐	☐	☑	☐	☐	1	2020		LC	☐	☐		Resident waterbird with SWNR as its habitat.
CHORDATA / AVES	*Anas luzonica*	☑	☐	☑	☐	☐	☑	☐	☐	200	2019-2021	1.43	VU	☐	☐		Endemic to the Philippines. Highest record was 419 (5.99%) during AWC in 2020.
CHORDATA / AVES	*Ardea alba*	☐	☑	☑	☐	☐	☑	☐	☐	3865	2019-2021	3.86	LC	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site. Highest record was 8,116 (8.12%) during AWC in 2020.
CHORDATA / AVES	*Ardea cinerea cinerea*	☐	☐	☐	☐	☐	☑	☐	☐	64	2019-2021			☐	☐		Resident waterbird with SWNR as its habitat.
CHORDATA / AVES	*Ardea purpurea purpurea*	☐	☐	☐	☐	☐	☑	☐	☐	104	2019-2021		LC	☐	☐		Resident waterbird with SWNR as its habitat.

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
CHORDATA / AVES	*Ardeola speciosa speciosa*	☐	☐	☐	☐	☐	☑	☐	☐	42	2019-2021		LC	☐	☐		Resident waterbird with SWNR as its habitat.
CHORDATA / AVES	*Arenaria interpres*	☐	☐	☐	☐	☐	☑	☐	☐	14	2019-2021		LC	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Bubulcus coromandus*	☐	☐	☐	☐	☐	☑	☐	☐	525	2019-2021		LC	☐	☐		Resident waterbird with SWNR as its habitat.
CHORDATA / AVES	*Butorides striata striata*	☐	☐	☐	☐	☐	☑	☐	☐	10	2020-2021		LC	☐	☐		Resident waterbird with SWNR as its habitat.
CHORDATA / AVES	*Calidris acuminata*	☑	☐	☐	☐	☐	☑	☐	☐	18	2021		VU	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Calidris canutus*	☐	☑	☐	☐	☐	☑	☐	☐	133	2020-2021		NT	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Calidris ferruginea*	☐	☑	☐	☐	☐	☑	☐	☐	26	2021		NT	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Calidris ruficollis*	☐	☑	☐	☐	☐	☑	☐	☐	13	2020		NT	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site. Highest count recorded was 1649 observed on February 4, 2018.
CHORDATA / AVES	*Calidris tenuirostris*	☑	☑	☐	☐	☐	☑	☐	☐	648	2019-2021		EN	☐	☑		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Charadrius alexandrinus*	☐	☐	☐	☐	☐	☑	☐	☐	86	2019-2021		LC	☐	☐		Resident waterbird with SWNR as its habitat.
CHORDATA / AVES	*Charadrius dubius*	☐	☐	☐	☐	☐	☑	☐	☐	41	2020-2021		LC	☐	☐		Resident waterbird with SWNR as its habitat.
CHORDATA / AVES	*Charadrius leschenaultii*	☐	☐	☐	☐	☐	☑	☐	☐	50	2019-2021		LC	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Charadrius mongolus*	☐	☐	☐	☐	☐	☑	☐	☐	72	2021		LC	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Charadrius peronii*	☐	☑	☐	☐	☐	☑	☐	☐	50	2019		NT	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Dendrocygna arcuata*	☐	☐	☐	☐	☐	☑	☐	☐	22	2019, 2021		LC	☐	☐		Resident waterbird with SWNR as its habitat.
CHORDATA / AVES	*Egretta eulophotes*	☑	☑	☐	☐	☐	☑	☐	☐	8	2020-2021		VU	☐	☑		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Egretta garzetta garzetta*	☐	☑	☑	☐	☐	☑	☐	☐	12764	2019-2021	1.28	LC	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site. Highest record was 22,109 (2.21%) during AWC in 2020.
CHORDATA / AVES	*Egretta intermedia*	☐	☑	☑	☐	☐	☑	☐	☐	5372	2019-2021	5.37	LC	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site. Highest record was 8,610 (8.61%) during AWC in 2020.
CHORDATA / AVES	*Gallinula chloropus orientalis*	☐	☐	☐	☐	☐	☑	☐	☐	224	2019-2021		LC	☐	☐		Resident waterbird with SWNR as its habitat.
CHORDATA / AVES	*Gelochelidon nilotica*	☐	☑	☑	☐	☐	☑	☐	☐	7964	2019-2020	7.18	LC	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
CHORDATA / AVES	*Himantopus himantopus*	☐	☐	☐	☐	☐	☑	☐	☐	575	2019-2021		LC	☐	☐		Resident waterbird with SWNR as its habitat.
CHORDATA / AVES	*Himantopus leucocephalus*	☐	☐	☐	☐	☐	☑	☐	☐	199	2021		LC	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site.
CHORDATA / AVES	*Ixobrychus sinensis*	☐	☐	☐	☐	☐	☑	☐	☐	1	2021		LC	☐	☐		Resident waterbird with SWNR as its habitat.
CHORDATA / AVES	*Limicola falcinellus*	☐	☑	☐	☐	☐	☑	☐	☐	25	2021		LC	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Limosa lapponica*	☐	☑	☐	☐	☐	☑	☐	☐	15	2019-2021		NT	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site.
CHORDATA / AVES	*Limosa limosa*	☐	☑	☐	☐	☐	☑	☐	☐	41	2019-2021		NT	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site. Highest count recorded was 1920 (1.6%) observed from September to October 2019.
CHORDATA / AVES	*Numenius arquata*	☐	☑	☐	☐	☐	☑	☐	☐	63	2019-2021		NT	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Numenius madagascariensis*	☑	☑	☑	☐	☐	☑	☐	☐	226	2019-2021	1.28	EN	☐	☑		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Numenius phaeopus*	☐	☑	☐	☐	☐	☑	☐	☐	237	2019-2021		LC	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Nycticorax nycticorax*	☐	☐	☐	☐	☐	☑	☐	☐	2	2021		LC	☐	☐		
CHORDATA / AVES	*Pluvialis fulva*	☐	☑	☐	☐	☐	☑	☐	☐	341	2019-2021		LC	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Pluvialis squatarola*	☑	☐	☐	☐	☐	☑	☐	☐	18	2019-2020		VU	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Sterna hirundo*	☐	☑	☐	☐	☐	☑	☐	☐	2466	2020-2021		LC	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Tachybaptus ruficollis philippensis*	☐	☐	☐	☐	☐	☑	☐	☐	149	2020-2021		LC	☐	☐		Resident waterbird with SWNR as its habitat.
CHORDATA / AVES	*Tringa brevipes*	☐	☑	☐	☐	☐	☑	☐	☐	79	2020-2021		NT	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Tringa erythropus*	☐	☐	☐	☐	☐	☑	☐	☐	10	2010		LC	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Tringa nebularia*	☐	☐	☐	☐	☐	☑	☐	☐	154	2019-2021		LC	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Tringa stagnatilis*	☐	☐	☐	☐	☐	☑	☐	☐	350	2020		LC	☐	☐		Resident waterbird with SWNR as its habitat.
CHORDATA / AVES	*Tringa totanus*	☐	☐	☐	☐	☐	☑	☐	☐	4228	2019, 2021		LC	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site
CHORDATA / AVES	*Xenus cinereus*	☐	☐	☐	☐	☐	☑	☐	☐	1	2019-2021		LC	☐	☐		Journeys along East Asian-Australasian Flyway; uses the SWNR as a stopover site

1) Percentage of the total biogeographic population at the site

About 16,715 individuals of whiskered tern (Chlidonias hybrida) were recorded at the site in January 2020 while about 419 individuals of the endemic Philippine duck (Anas luzonica) were observed during the same period.

3.4 - Ecological communities whose presence relates to the international importance of the site

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
mangrove	☑	Mangrove swamp forest	A threatened species, Avicennia lanata (Avicennia marina), is present in five of nine municipalities covered by the wetland.

Optional text box to provide further information

The mangrove cover of the wetland is about 6,157.51 hectares. Naturally growing and planted species of Rhizophora, Avicennia, and Sonneratia serve as roosting (resting) and breeding sites for flying foxes as well as for herons and egrets observed in the wetland.

4 - What is the Site like? (Ecological character description)

4.1 - Ecological character

The Sibugay Wetland Nature Reserve is within the Central Indo-Pacific Realm in the Eastern Pacific Ecoregion. It is a wetland complex comprised of permanent shallow marine waters, subtidal aquatic beds, coral reefs, some rocky marine shores, sand and pebble shores, estuarine waters, intertidal mud and sand flats, and intertidal forest with mangrove swamps. About 16 river systems drain into the wetland, including major waterbodies such as Tupilac River in Tungawan, Silingan River in the municipality of R.T. Lim, Sanito River in Ipil, Bacalan River in Naga, Kabasalan River in Kabasalan, Sibugay River in Siay, and Kulasian River in Payao.

Towards inland areas are patches of Nipa (Nypa fruticans) that serve as protection against flooding, soil erosion, and storm surges. Soil carried from flooding and erosion is deposited close to river mouths that form part of the coastal mudflats. These tidal flats serve as foraging grounds for migratory waterbirds within the East Asian-Australasian Flyway during their northern and southern migration. Banded waterbirds like great knot (Calidris tenuistrostris), Far Eastern curlew (Numenius madagascariensis), red knot (Calidris canutus), red-necked stint (Calidris ruficolis), ruddy turnstone (Atrenaria interpres), bar-tailed godwit (Limosa lapponica), common red shank (Tringa totanus), lesser sand plover (Charadrius mongolus), and greater sand plover (Charadrius leschenaultii) have been recorded in the area. These mudflats are also rich in shellfishes, which local communities gather for food and livelihood. Additionally, the wetland provides local communities with other livelihoods through aquaculture and mariculture where they grow species of commercial fish, crustaceans, and shellfishes. Tourism activities have been introduced in the wetland where visitors can experience wildlife watching, and river and mangrove cruises.

4.2 - What wetland type(s) are in the site?

Marine or coastal wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
A: Permanent shallow marine waters		1		
C: Coral reefs		4	5672.73	
G: Intertidal mud, sand or salt flats		3		
I: Intertidal forested wetlands		2	6157.51	

Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type
1: Aquaculture ponds		4	

(ECD) Habitat connectivity: Nesting/Roosting, Feeding Ground

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/MAGNOLIOPSIDA	*Rhizophora apiculata*	native species
TRACHEOPHYTA/MAGNOLIOPSIDA	*Rhizophora mucronata*	native species
TRACHEOPHYTA/MAGNOLIOPSIDA	*Sonneratia alba*	native species

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
CHORDATA/AVES	*Chlidonias hybrida*	16715	2020	1.1	migratory species

Optional text box to provide further information

If we base the minimum population range of the whiskered tern on the IUCN red list of 300,000 individuals the 1% threshold will be about 3,000 individuals and the recorded population of the species from 2019 to 2023 will be as follows:
2019 = 4,330 (1.44%)
2021 = 8,083 (2.69%)
2022 = 3,114 (1.04%)
2023 = 4,361 (1.45%)

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
A: Tropical humid climate	Af: Tropical wet (No dry season)

The climate of the province is moderately normal (climate type III). Annual rainfall varies from 1,599 - 3,500 mm (63.0 - `137.8 in.). Temperature is relatively warm and constant throughout the year ranging from 22° – 35°Celcius (72° – 95° Fahrenheit). The province is situated outside the country's typhoon belt.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres): 1

a) Maximum elevation above sea level (in metres): 15

- Entire river basin ☐
- Upper part of river basin ☐
- Middle part of river basin ☐
- Lower part of river basin ☑
- More than one river basin ☐
- Not in river basin ☐
- Coastal ☐

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

Zamboanga Sibugay has watershed areas that serve as its primary source of water. Among the major river system that flows to the wetland locally known as Sibuguey Bay are Sibugay River, Kabasalan River, Bacalan River, Tupilac River, Silingan River, Tiayon River, Sanitor River, Kulasian River and Gondolan River.

4.4.3 - Soil

- Mineral ☑
- Organic ☑
- No available information ☐

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes ◉ No ○

Please provide further information on the soil (optional)

The predominant soil type of the province is clay. The stone content and soils in the slope area have low fertility due to leaching and low organic material content. Perennial crops are extensively grown in many areas. Antipolo Clay Loam is the most common type of soil all over the component municipalities

4.4.4 - Water regime

Water permanence

Presence?	
Usually seasonal, ephemeral or intermittent water present	No change

Source of water that maintains character of the site

Presence?	Predominant water source	
Marine water	☑	No change
Water inputs from surface water	☑	No change

Water destination

Presence?	
Marine	No change

Stability of water regime

Presence?	
Water levels fluctuating (including tidal)	No change

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology:

The water regime of Sibugay Wetland Nature Reserve is composed of fresh water inputs coming from several major river systems that drains towards Sibuguey Bay, the main wetland area, where brackish and saline water are found.

(ECD) Connectivity of surface waters and of groundwater	Inland>Brackish>Marine
(ECD) Stratification and mixing regime	Upland (watersheds), Estuarine (mixing), Marine (bay)

4.4.5 - Sediment regime

- Significant erosion of sediments occurs on the site ☐
- Significant accretion or deposition of sediments occurs on the site ☑
- Significant transportation of sediments occurs on or through the site ☐
- Sediment regime is highly variable, either seasonally or inter-annually ☐
- Sediment regime unknown ☐

Please provide further information on sediment (optional):

There are about 16 waterbodies that flows to the wetland site resulting to deposition of eroded materials which in time results to siltation in the area.

(ECD) Water turbidity and colour	Average Total Suspended Solids of the wetland is 6 mg/L while is colour <5 TCU
(ECD) Water temperature	Average water temperature is 31 degrees centigrade

4.4.6 - Water pH

- Acid (pH<5.5) ☐
- Circumneutral (pH: 5.5-7.4) ☑
- Alkaline (pH>7.4) ☐
- Unknown ☐

4.4.7 - Water salinity

- Fresh (<0.5 g/l) ☐
- Mixohaline (brackish)/Mixosaline (0.5-30 g/l) ☐
- Euhaline/Eusaline (30-40 g/l) ☐
- Hyperhaline/Hypersaline (>40 g/l) ☐
- Unknown ☑

(ECD) Dissolved gases in water

Average Dissolved Oxygen in the wetland is 6 mg/L.

4.4.8 - Dissolved or suspended nutrients in water

- Eutrophic ☐
- Mesotrophic ☐
- Oligotrophic ☐
- Dystrophic ☐
- Unknown ☑

Please provide further information on dissolved or suspended nutrients (optional):

Average phosphate concentration in the wetland is <0.003 mg/L).

(ECD) Dissolved organic carbon	NI
(ECD) Redox potential of water and sediments	NI
(ECD) Water conductivity	NI

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the site itself: i) broadly similar ◉ ii) significantly different ○

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	High
Wetland non-food products	Other	Low

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Storage and delivery of water as part of water supply systems for agriculture and industry	High
Erosion protection	Soil, sediment and nutrient retention	High
Climate regulation	Local climate regulation/buffering of change	High
Climate regulation	Regulation of greenhouse gases, temperature, precipitation and other climactic processes	High
Hazard reduction	Flood control, flood storage	High

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	High
Recreation and tourism	Picnics, outings, touring	High
Spiritual and inspirational	Aesthetic and sense of place values	High
Scientific and educational	Educational activities and opportunities	High
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	High

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganizms, the genes they contain, and the ecosystems of which they form a part	High
Soil formation	Sediment retention	High
Soil formation	Accumulation of organic matter	Medium
Nutrient cycling	Carbon storage/sequestration	High
Nutrient cycling	Storage, recycling, processing and acquisition of nutrients	Medium
Pollination	Support for pollinators	High

Other ecosystem service(s) not included above:

Coastal resources within Zamboanga Sibugay plays an important role in the economic development of the province wherein most people in the community depends on their livelihood and food supply. Coastal areas of the province are rich in coastal and marine resources to include fishes, crabs, shells and other. In fact, the municipality of Siay is known for its marine products like crabs, its boneless "danggit" and "asoos" while other munucipalities are in the farming of lobster, crabs groupers,

Within the site: 150,000

Outside the site: 500,000

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes ○ No ○ Unknown ◉

4.5.2 - Social and cultural values

i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland ☐

ii) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland ☐

iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples ☑

Description if applicable

The rehabilitation and preservation of the mangroves particularly in the municipality of Siay by the Peoples Organizations in the community resulted to the increase in fish production in the area. The expanded mangrove cover provided the habitat for the largest roosting colony of threatened flying foxes in the country as well as breeding site for other waterbirds.

iv) relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland ☐

4.6 - Ecological processes

<no data available>

5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Public ownership

Category	Within the Ramsar Site	In the surrounding area
Public land (unspecified)	☑	☐
Local authority, municipality, (sub)district, etc.	☑	☐

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Cooperative/collective (e.g., farmers cooperative)	☐	☑

Provide further information on the land tenure / ownership regime (optional):

Planted mangroves are under the Community-Based Forest Management Agreement of the local community with the national government.

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:	The Department of Environment and Natural Resources (DENR) together with the Local Government Units of the provinces of Zamboanga Sibugay, Municipality of Siay, Kabasalan, RT Lim, Ipil, Olotanga, Tulusan, Tungawan, Naga, and Payao, and the Coalition of Municipal Fisherfolk Associations in Zamboanga Sibugay (COMFAS) are responsible for managing the Sibugay Wetland Nature Reserve.
Provide the name and/or title of the person or people with responsibility for the wetland:	Georgina L. Fernandez, Chief Conservation and Development Section, Provincial Environment and Natural Resources Office, Zamboanga Sibugay, DENR Region IX
Postal address:	Poblacion, Ipil, Zamboanga Sibugay 7001
E-mail address:	penrozsris18@gmail.com

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Human settlements (non agricultural)

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Housing and urban areas	Low impact	Medium impact	☑	☐

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Water releases	Low impact	Low impact	☑	☐

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Marine and freshwater aquaculture	Low impact	Low impact	☑	☐

Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Roads and railroads	Low impact	Medium impact	☑	☐
Shipping lanes	Low impact	Medium impact	☑	☐

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Hunting and collecting terrestrial animals	Medium impact	High impact	☑	☐
Logging and wood harvesting	Medium impact	High impact	☑	☐
Fishing and harvesting aquatic resources	Medium impact	High impact	☑	☐

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Recreational and tourism activities	Medium impact	High impact	☑	☐

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Dams and water management/use	Low impact	Medium impact	☑	☑
Vegetation clearance/ land conversion	Low impact	Medium impact	☑	☑

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Household sewage, urban waste water	Medium impact	High impact	☑	☐
Agricultural and forestry effluents	Low impact	Medium impact	☐	☑
Garbage and solid waste	Low impact	Medium impact	☑	☑

Geological events

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Earthquakes/tsunamis	High impact		☑	☐

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Habitat shifting and alteration	Low impact	Medium impact	☑	☐
Storms and flooding	High impact		☑	☐

Please describe any other threats (optional):

The municipalities in Zamboanga Sibugay Province that are susceptible to flooding are Siay, Kabasalan, Talusan, Tungawan, R.T. Lim and Ipil. Some portions of the rest of the remaining municipalities also experience flooding and landslides during heavy rains.

5.2.2 - Legal conservation status

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Other non-statutory designation	MPA- BANGAAN ISLAND	http://oneocean.org>bangaan; www.coast.ph	whole
Other non-statutory designation	MPA-BULUAN ISLAND	http://oneocean.org>buluan	whole

5.2.3 - IUCN protected areas categories (2008)

Ia Strict Nature Reserve ☐

Ib Wilderness Area: protected area managed mainly for wilderness protection ☐

II National Park: protected area managed mainly for ecosystem protection and recreation ☐

III Natural Monument: protected area managed mainly for conservation of specific natural features ☐

IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention ☐

V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation ☐

VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems ☐

<no data available>

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Partially implemented

Habitat

Measures	Status
Land conversion controls	Proposed
Re-vegetation	Implemented
Improvement of water quality	Partially implemented
Faunal corridors/passage	Partially implemented

Species

Measures	Status
Threatened/rare species management programmes	Proposed

Human Activities

Measures	Status
Communication, education, and participation and awareness activities	Implemented
Regulation/management of recreational activities	Implemented
Regulation/management of wastes	Implemented
Harvest controls/poaching enforcement	Partially implemented
Fisheries management/regulation	Partially implemented

5.2.5 - Management planning

Is there a site-specific management plan for the site? No

Has a management effectiveness assessment been undertaken for the site? Yes ○ No ◉

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning processes with another Contracting Party? Yes ○ No ◉

Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site:

There is a visitor facility in Siay which is operated by the municipality of Siay and funded by the provincial government of Zamboanga Sibugay.

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No, but a plan is being prepared

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Animal species (please specify)	Implemented
Birds	Implemented
Plant community	Implemented
Water quality	Implemented
Soil quality	Proposed
Animal community	Proposed

Previously, monitoring of flying foxes (Acerodon jubatus, Pteropus vampyrus, Pteropus hypomelanus) were done quarterly but starting this year due to limited budget allocation monitoring will be on a semi-annual scheme. It is suspected that the three identified roosts within the wetland are related to each other and synchronized monthly monitoring is needed In order to determine the movement pattern of the species as well as to determine their feeding sites as these are the next habitats that needs to be protected since most hunting occurs in this feeding sites.

Monitoring of waterbirds are done only during the scheduled AWC. We have observed in the wetland area that some species visit the area on different months hence it would be a good for database establishment to start the monitoring on a monthly basis during migration season then once certain patterns have been observed, modifications can be done in the monitoring frequency.

Other species that needs to be monitored more frequent are marine turtles, whale shark and other marine mammals. Soil assessment needs to be done in the wetland and there is a need to establish additional sampling stations within the wetland. To date there are only seven established stations for monitoring. Sampling schedule also depends on the availability of the laboratory of the Environmental Management Bureau to accommodate the samples for analysisn as well as the available parameters that the laboratory can cater to.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Department of Environment and Natural Resources 2020-2022 PENRO Zamboanga Sibugay Environment and Natural Resources (ENR) Medium Term Plan. 262pp

Department of Environment and Natural Resources 2019-2028 Provincial Foreshore Development and Management Plan. 118pp

Department of Environment and Natural Resources 2023-2028 Zamboanga Sibugay Biodiversity Strategy and Action Plan. 111pp

DENR 2012-2014 Participatory Coastal Resource Assessment (PCRA) Reports

DENR PENRO Sibugay 2018-2023 Annual Waterbird Census Reports

DENR PENRO Sibugay 2022 Marine Turtle Reports

DENR PENRO Sibugay 2022 Flying Fox Reports

DENR Administrative Order No. 2019-09 “Philippine Red List of Threatened Wild Fauna”

Jakosdalem. P.G.C., Oporto, D.O., Fernandez, G.L., Paguntalan, L.J., Dela Cruz, M.F., Reintar, A.R.T., (2020). ASEAN Flyway Network Waterbird Census and Wetland Assessments 2019-2020: Sibugay Bay Wetland

Kennedy, R.S., Gonzalez, P.C., Dickinson, E.C. Miranda Jr., H.C. and Fisher, T.H. (2000). A Guide to the Birds of the Philippines. New TYork: Oxford University Press.

Zamboanga Sibugay, Sangguniang Panlalawigan Ordinance No. 20222-613 (2022)

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)
<10 file(s) uploaded>

ii. a detailed Ecological Character Description (ECD) (in a national format)
<no file available>

iii. a description of the site in a national or regional wetland inventory
<no file available>

iv. relevant Article 3.2 reports
<no file available>

v. site management plan
<no file available>

vi. other published literature
<6 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:


Roosting site of flying fox in Siay, Sibugay - host to the largest flying fox roost in the Philippines. Mix roost of Acerodon jubatus, Pteropus vampyrus & Pteropus hypomelanus. (*PENRO Sibugay, DENR9 (Leo B. Alejo), 2019*)


Mangroves at Talusan area - protecting the community and supporting their fishery needs. (*PENRO Sibugay, DENR9 (Leo B. Alejo), 2018*)


Vast Mudflat of Sibugay Wetland Nature Reserve (*PENRO Sibugay, DENR9 (Noel Hinotan), 2018*)


Shell gathering - a typical activity of the local community during low tide. (*PENRO Sibugay, DENR9 (Leo B. Alejo), 2019*)


Mangroves (*Biodiversity Management Bureau (Jeffrey Jaymes A. Mesias), 2019*)


Shellfishes (*Biodiversity Management Bureau (Jeffrey Jaymes A. Mesias), 2019*)


Waterbirds (*Biodiversity Management Bureau (Jeffrey Jaymes A. Mesias), 2019*)


Nursing Acerodon jubatus (*PENRO Sibugay, DENR9 (Johnrey J. Gracianorey , 2018*)


Great Knot with 4TW inscription on yellow flag banded banded in Roebuck Bay, North-West Australia (*PENRO Sibugay, DENR9 (Dante Oporto), 2021*)


Red-necked Stint banded at Komuke marsh, Koguchi, Kumanoue, Monbetsu, Hokkaido pref., Japan (*PENRO Sibugay, DENR9 (Dante Oporto), 2020*)


Ruddy Turnstone with J8 inscription on white flag was banded at Han Pao, Changhwa County, Taiwan on August 7, 2018. Resighted in Sibugay Wetland Nature Reserve from 2018-2021. (*PENRO Sibugay, DENR9 (Jino Salvador)), 2020*)


First reported resighting of Red Knot with AC inscription on yellow flag banded in Chongming Dao, Shanghai, China on April 18, 2014. Documented in the wetland from 2018-2022. (*PENRO Sibugay, DENR9 (Dante Oporto), 2020*)


Collage photos of SWNR at your service (*PENRO Sibugay, DENR9 , 2018-2022*)

6.1.4 - Designation letter and related data

Designation letter
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Date of Designation 2024-01-08