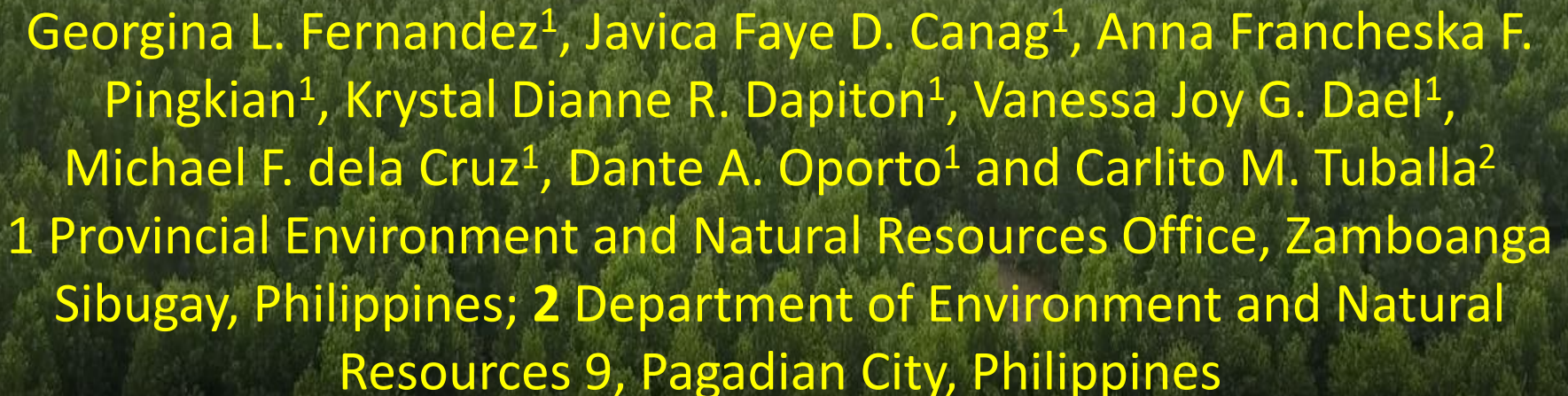
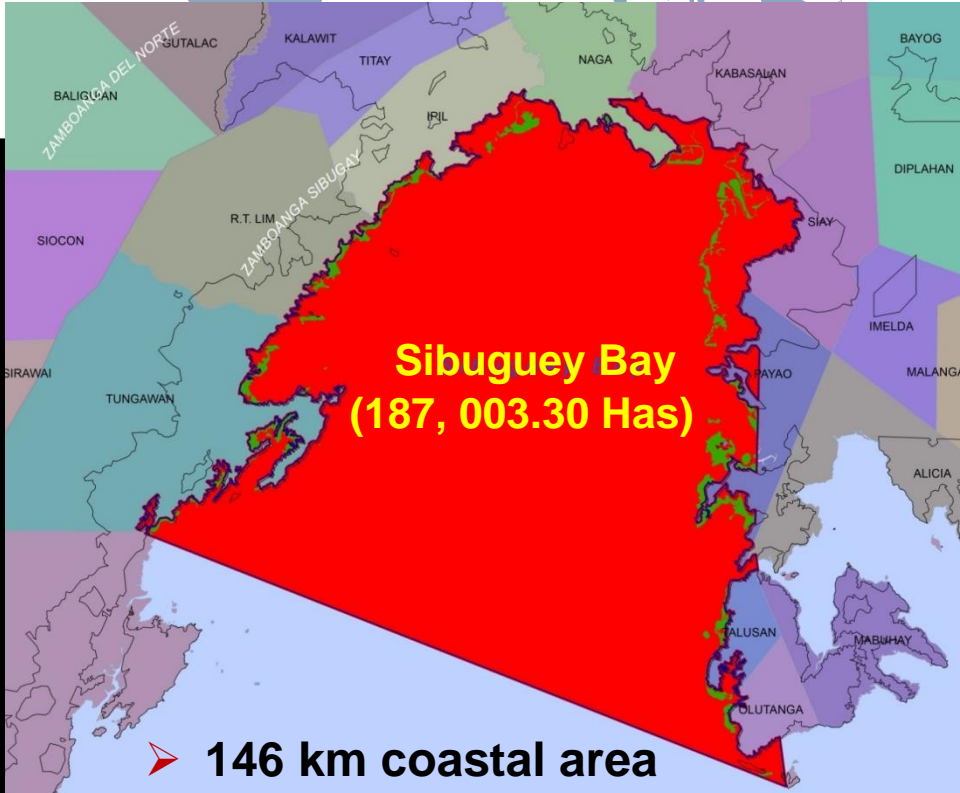
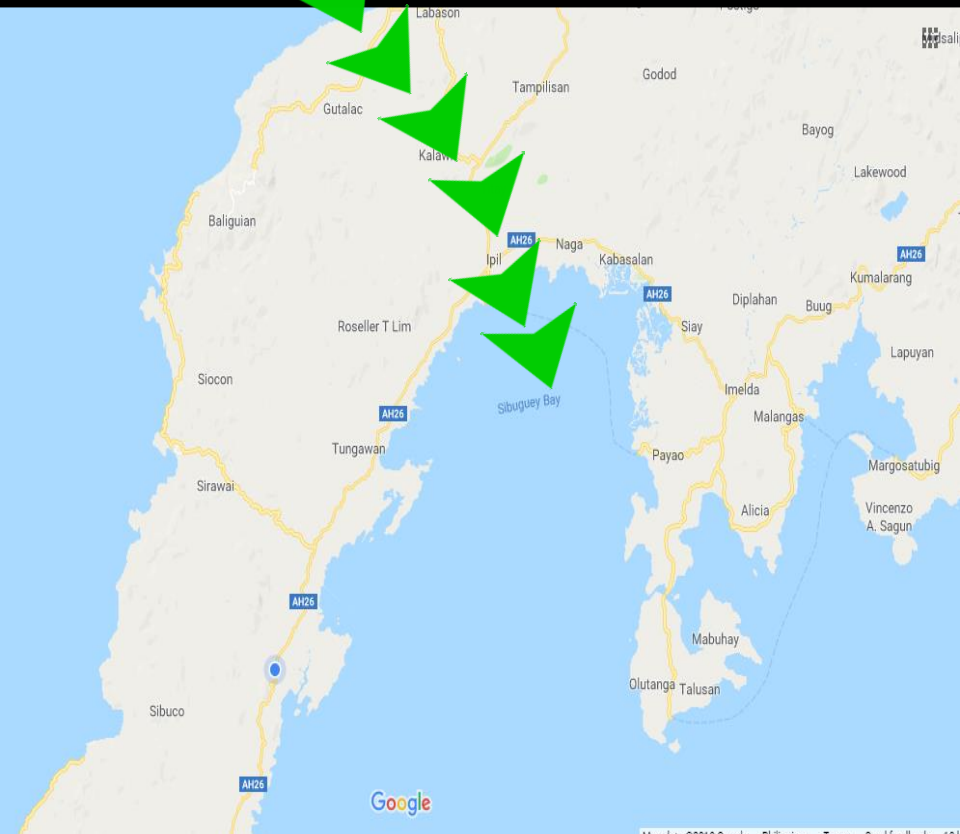
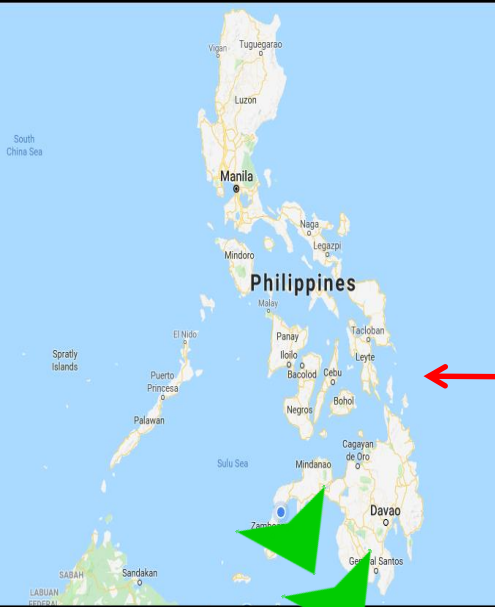


**The Intertidal Mudflats and Coastal Wetlands of  
Zamboanga Sibugay, Philippines –  
Lessons learned from a forgotten ecosystem**



**Georgina L. Fernandez<sup>1</sup>, Javica Faye D. Canag<sup>1</sup>, Anna Francheska F. Pingkian<sup>1</sup>, Krystal Dianne R. Dapiton<sup>1</sup>, Vanessa Joy G. Dael<sup>1</sup>, Michael F. dela Cruz<sup>1</sup>, Dante A. Oporto<sup>1</sup> and Carlito M. Tuballa<sup>2</sup>**  
**1** Provincial Environment and Natural Resources Office, Zamboanga Sibugay, Philippines; **2** Department of Environment and Natural Resources 9, Pagadian City, Philippines



- **146 km coastal area**
- **9 Municipalities**
- **63 Barangays**

7°45'18"N, 122°47'12"E  
accuracy: 3m



Altitude  
11.5 m

01/31/2018 Altitude  
8:49 AM 67 m

7°45'6"N, 122°47'8"E  
accuracy: 3m



01/31/2018  
9:41 AM



# PENRO ZS, DENR-9 TEAM



7°45'7"N, 122°47'8"E  
accuracy: 3m

Altitude  
70 m

01/31/2018  
9:50 AM





Wetlands – Food for people



# Wetlands – Livelihood opportunities



Mangrove  
plantation



# Wetlands – Livelihood opportunities



Crab Fattening

# Wetlands – Livelihood opportunities



Grouper Culture

# Wetlands – Livelihood opportunities



Oyster  
Culture





# Wetlands – Livelihood opportunities



# Wetlands – Livelihood opportunities



Aquaculture



# Wetlands – Livelihood opportunities



Jobs for people - Ecotourism

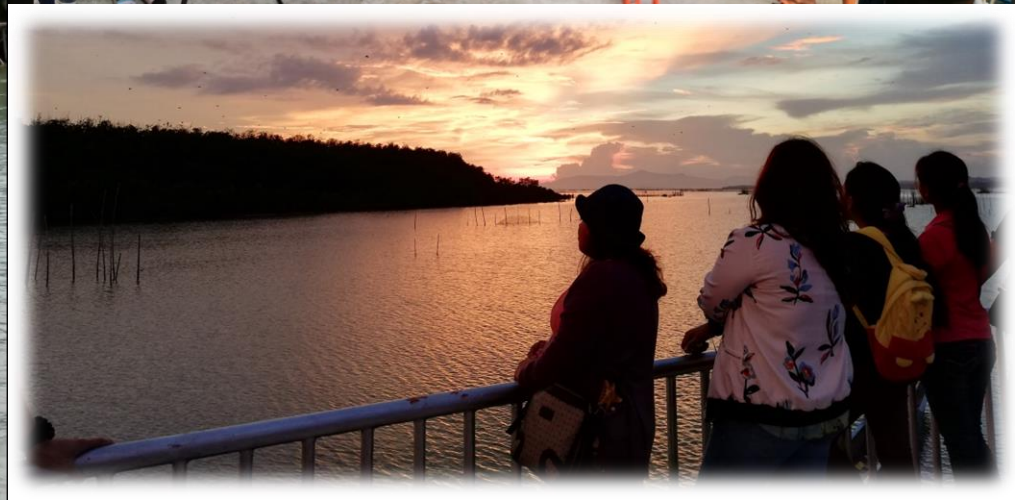








## Capacity building



An aerial photograph of a mangrove forest. A wide, brown river flows from the top left towards the bottom left. A narrow, straight canal runs vertically through the center of the forest, separating it into two halves. The trees are a dense, vibrant green. The text 'Wetlands – Protects life' is overlaid in yellow at the top, and 'Mangrove plantation (+ 30 years)' is overlaid in white at the bottom.

Wetlands – Protects life

Mangrove plantation (+ 30 years)





Wetlands –  
Refuge for  
threatened  
species



**Marine Turtles (5 species)**



© Kristen Martyn

# Whale Shark (Butanding)



# Sea Cow (Dugong)



# Saltwater Crocodile



# Flying Foxes



BCMS-PAWD9





# Wetlands – Feeds thousands of birds







Ruddy Turnstone with E-11 inscription on its blue flag

Approximate distance travelled is 3,494.50 km (Bohai Bay, China)



Great Knot with black over yellow flag engraved with 5K

Approximate distance travelled is 6,270 km (Russia)



Great Knot with blue and yellow flag combination

Approximate distance travelled is 3,518 km (Bohai Bay, China)



Red-necked Stint with black and white flag combination

Approximate distance travelled is 2,637 km (Chongming Dao, Shanghai, China)



**Legend**

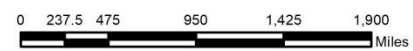
Yellow line	Russia	6,270 km
Green line	Chongming Dao, Shanghai, China	2,637 km
Red line	Nan Pu, People Republic of China	3,518 km
Blue line	Republic of China	3,494.50 km
Green dot	Cities	
Blue line	Rivers	
Blue area	Lakes	
Yellow area	Continents	



**Flyway of Great Knot, Red-necked Stint and Ruddy Turnstone from different countries (China & Russia) to Sibuguey Bay, Philippines**



1:60,000,000



Coordinate System: World Robinson  
Central Meridian: 100°0'0"E

**(Awaiting confirmation from the Australasian Wader Studies Group)**



Black over white  
flag on its upper  
right leg



With ring and  
yellow flag on its  
left leg



Black over white  
flag engraved with  
U72



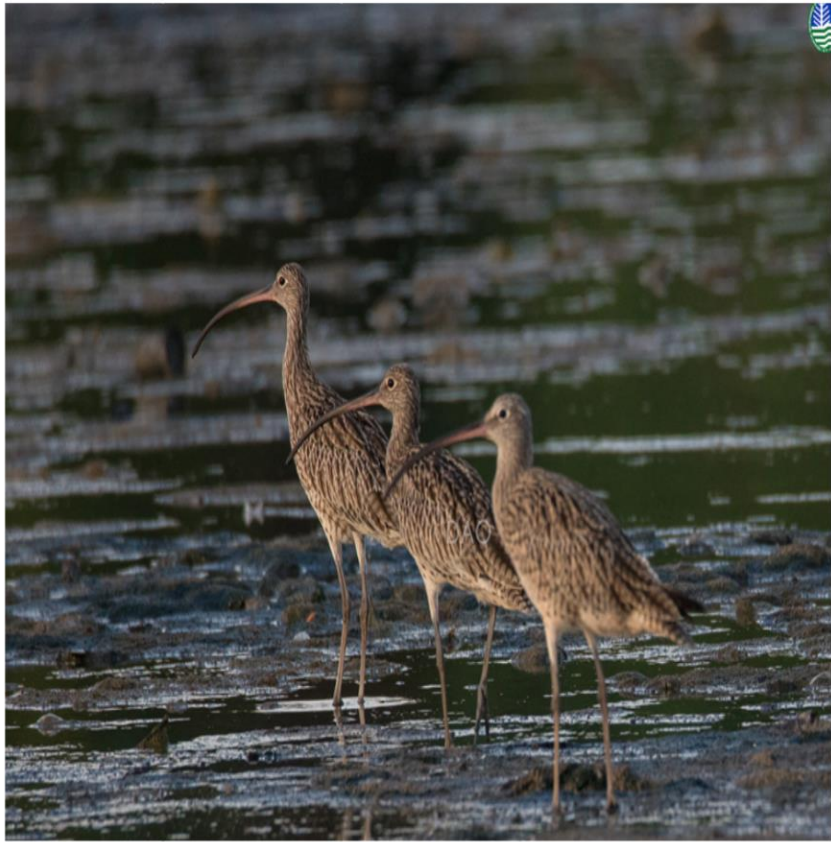
White flag on its  
right leg  
engraved with D9



Black over yellow  
flag engraved with  
Z8



Yellow flag on its  
right leg



**Far Eastern Curlew**  
*(Numenius madagascariensis)*  
**Endangered**



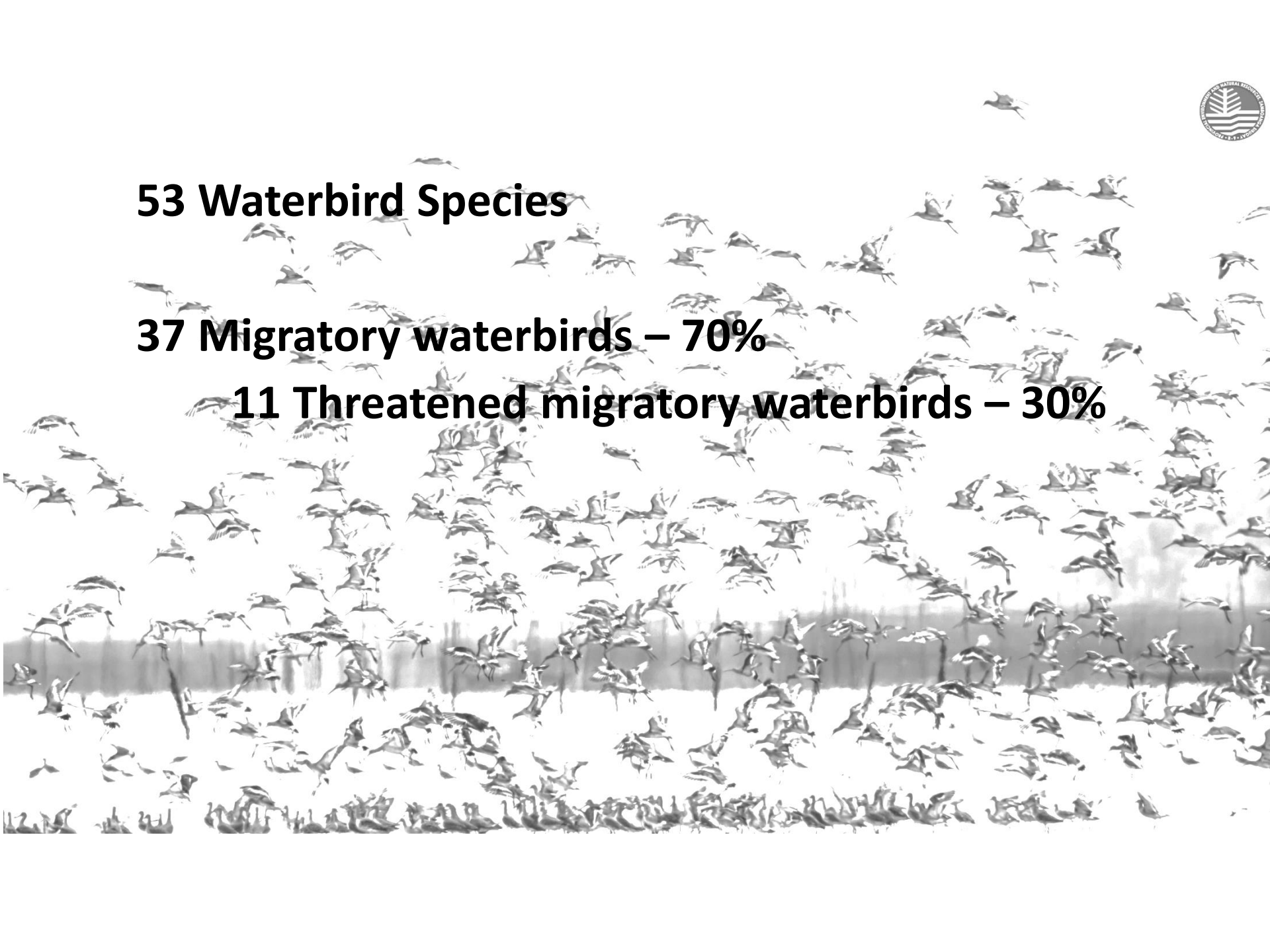
**Great Knot**  
*(Calidris tenuirostris)*  
**Endangered**



**53 Waterbird Species**

**37 Migratory waterbirds – 70%**

**11 Threatened migratory waterbirds – 30%**









## 7 Declared Ramsar sites in the Philippines

### Philippines / Philippines / Filipinas (7 Ramsar Sites, 244,017 hectares)

* Agusan Marsh Wildlife Sanctuary	12/11/1999	Caraga	14,836 ha	08°17'N 125°53'E
* Las Piñas-Parañaque Critical Habitat and Ecotourism Area (LPPCHEA)	15/03/2013	Manila	175 ha	14°30'N 120°59'E
* Naujan Lake National Park	12/11/1999	Mimaropa	14,568 ha	13°10'N 121°11'E
* Negros Occidental Coastal Wetlands Conservation Area (NOCWCA)	20/10/2016	Western Visayas	89,608 ha	10°16'N 122°46'E
* Olango Island Wildlife Sanctuary	01/07/1994	Central Visayas	5,800 ha	10°16'N 124°03'E
* Puerto Princesa Subterranean River National Park	30/06/2012	Mimaropa	22,202 ha	10°10'N 118°55'E
* Tubbataha Reefs Natural Park	12/11/1999	Mimaropa	96,828 ha	08°57'N 119°52'E

\*Sibugay Wetlands is the proposed 8<sup>th</sup> Ramsar Site



EAAF007

Olango Island Wildlife Sanctuary

EAAF062

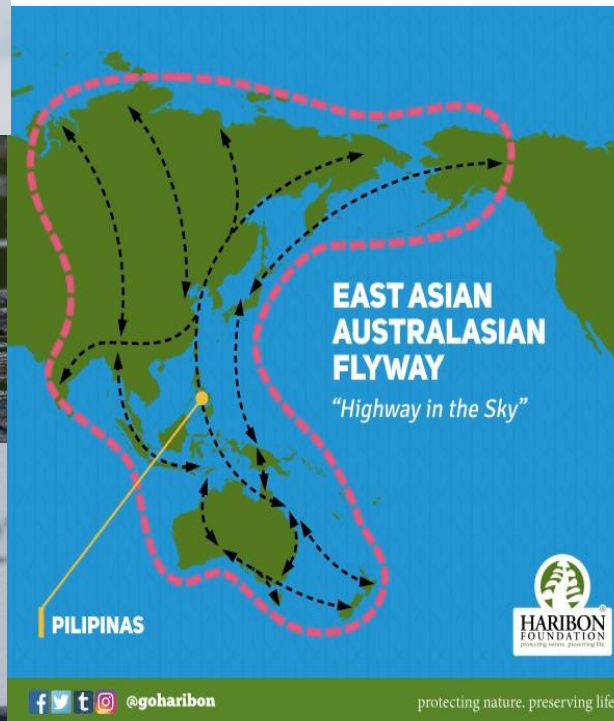
Naujan Lake National Park

EAAF123

Tubbataha Reefs Natural Park

EAAF135

Negros Occidental Coastal Wetlands Conservation Area



**PROPOSED 5<sup>TH</sup>**  
**FLYWAY SITE**  
**IN THE**  
**PHILIPPINES**  
**UNDER THE**  
**EAST ASIAN-**  
**AUSTRALASIA**  
**N FLYWAY**  
**PARTNERSHIP**  
**NETWORK**

**Maraming Salamat  
(THANK YOU)**