2020 State of Palau's Birds





2020 State of Palau's Birds 11th Annual Report of the National Program for Monitoring Forest and Coastal Birds



Palau Bird Records Committee 2020 Migratory Bird Highlights









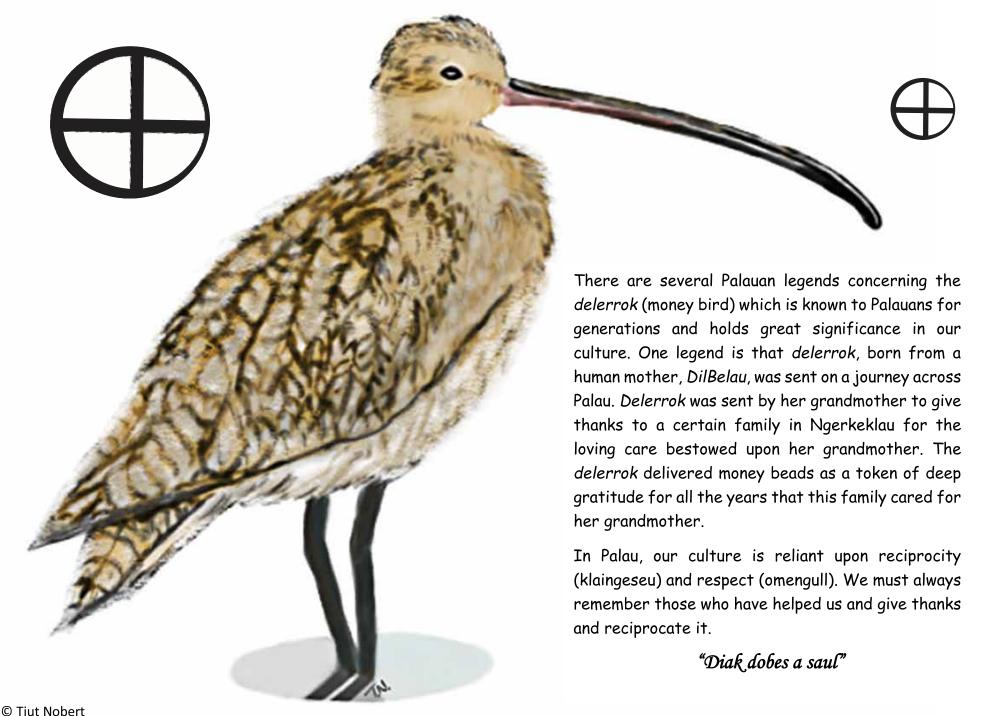






The *Delerrok* or Far Eastern Curlew is an endangered migratory bird that is protected in Palau. The International Union for Conservation of Nature (IUCN) considers the Far Eastern Curlew to be an endangered species. The *Delerrok* breeds in eastern Russia. Korea and China are important stopover sites for its northward and southward migrations. Up to 75% of its population winters in Australia. In 2015, the population estimate was 32,000 (Wetlands International 2015). In 2015, Australia listed the species as critically endangered. *Delerrok* is a large wader (63 cm) with a greyish brown and buff streaked body, and a very long downcurved bill (19cm). The *delerrok* breeds on open mossy or transitional bogs, moss-lichen bogs, wet meads, and the swampy shores of small lakes. During the non-breeding season, it is found along the coast at estuaries, mangrove swamps, saltmarshes, and intertidal flats, especially those with extensive seagrass (Zosteraceae) meadows. It often roosts in saltmarshes, behind mangroves, or on sandy beaches (del Hoyo et al. 1996). Its diet on breeding grounds includes insects such as the larvae of beetles, flies, and amphipods. Berries are consumed during autumn migration. In non-breeding areas, it feeds on marine invertebrates, preferentially taking crabs and small mollusks but also feeding on other crustaceans and polychaetae worms (del Hoyo et al. 1996). *Delerrok* nests from early May to late June; often in small colonies of 2-3 pairs with an average clutch size of 4 eggs. It may not breed until it is 3 to 4 years old (del Hoyo et al. 1996, Rogers 2006). In 2020, the maximum number of *delerrok* seen at one time was 3 at the Northern Peleliu Lkes IBA.

A Legend of the Delerrok (Far Eastern Curlew - Money Bird)



Education Campaign for Migratory Birds of Palau

The Belau National Museum is the recipient of the Global Environment Facility (GEF) Small Grants Program entitled Education Campaign for Migratory Birds in Palau. This 2-year project aims to increase awareness of migratory birds and to garner support for the protection of the Northern Peleliu Lkes. The Belau National Museum (BNM) established a partnership with Palau Conservation Society and Kaudiais (Peleliu local group) to assist with the awareness campaign. We are grateful to the honorable governor of Peleliu, Temmy Shmull, for his support in this education campaign.



On March 2, 2020, the Belau National Museum entered into a memorandum of agreement (MOA) with Palau Conservation Society. Pictured sitting from left to right is BNM Director Olympia Morei-Remengesau and PCS Executive Director Bola Majekobaje. Standing from left to right is Heather Ketebengang (PCS Communication and Outreach Program Manager) and Dr. Ann Kitalong (BNM Natural History Manager)



On June 24, 2020, the Belau National Museum entered into a memorandum of agreement (MOA) with Kaudiais. Pictured sitting from left to right is BNM Director Olympia Morei-Remengesau and Kaudiais President Vernie Ngiraked. Standing from left to right is Dr. Ann Kitalong (BNM), Naito Soaladaob (BNM), Peleliu State Speaker Eufrasia Remeliik, Milang Eberdong (BNM), Lynn Ngirachedeng (Kaudiais), Doreen Yoshiwo (Kaudiais), Meisai Chin (Kaudiais), and Heather Ketebengang (PCS).

September 10, 2020-Northern Peleliu Lkes

On September 10, 2020, the Belau National Museum with its partners, Palau Conservation Society, Peleliu State, Ministry of Education, and Kaudiais launched an Educational Campaign for the Northern Peleliu Lkes. The campaign's goal is to build State (Peleliu) and National awareness on the migratory birds and important habitats in Palau, especially, the Northern Peleliu Lkes. The team met with over 60 students and teachers at Peleliu Elementary School. Heather Ketebengang, PCS Communication and Outreach Program Manager, gave a presentation about the importance of the Northern Peleliu Lkes. The sixth, seventh, and eighth graders and their teachers went to the Northern Peleliu Lkes to learn first-hand about the birds. They learned how to identify bird species using binoculars and spotting scopes. Students received an educational booklet about shorebirds, coastal birds, and forest birds from the Northern Peleliu Lkes that teachers can integrate into the science curriculum. On September 10, we observed the highest diversity and abundance of species. The Black-headed Gull and Terek Sandpiper were only observed on September 10th.



September 11, 2020 Northern Peleliu Lkes

On September 11, 2020, the Belau National Museum, Palau Conservation Society, and Ebiil Society went on the 2nd trip to the Northern Peleliu Lkes to monitor the bird population and species diversity. The Lkes sandflats are visited annually by at least 3,000 birds, 90% of all the migratory shorebirds visiting Palau. These sandflats were designated an Important Bird Area (IBA) by Birdlife International in 2016. Lkes is a safe haven for migratory birds to feed and rest. Lkes is a unique, quiet, and isolated hotspot for Oceania. Ebiil Society's Executive Director, Ann Singeo, plans to integrate migratory bird monitoring into their programs. On September 11, we observed 22 Gray-tailed Tattlers, the highest number observed in 2020.



September 25, 2020 Northern Peleliu Lkes

On September 25, 2020, the Belau National Museum staff, BNM's Board of Trustee members: President Bernie Keldermans, Secretary/Treasurer Roberta Louch, member Fuana Rengulbai, Palau Conservation Society, GEF Small Grants Programme (SGP) National Coordinator Kiblas Soaladaob and two SGP Board Members Carol Ngiraidis and Rebecca Sebalt went on the 3rd trip to the Northern Peleliu Lkes. The Bureau of Marine Resource kindly provided additional transportation. We observed the Bar-tailed Godwit, the Far Eastern Curlew (Delerrok), and the Great Knot, which are three (3) globally endangered birds. BNM's field ornithologist Milang Eberdong explained the importance of the Northern Peleliu Lkes. All had an opportunity to look at these birds through binoculars and spotting scopes.



October 10, 2020 Northern Peleliu Lkes

On October 10, World Migratory Bird Day (WMBD), the Belau National Museum and partners embarked on the 4th trip to the Northern Peleliu Lkes. The aim of WMBD is to raise awareness on the importance of the conservation of migratory bird and their habitats. WMBD calls for global conservation of migratory birds through international cooperation. The 2020 theme was "Birds Connect our World" to highlight the importance of conserving and restoring the ecological connectivity and integrity of ecosystems that support the natural movements of migratory birds that are essential for their survival and well-being. Several birds had color coded flags on their legs that indicated they flew from China, Russia, Taiwan and perhaps New Zealand to rest and feed at the Northern Peleliu Lkes. These winged ambassadors require our good stewardship and protection to ensure their well-being and safety during their long migratory journeys around the globe. On October 10th, we observed the highest number of the endangered Great Knot (6).



October 22, 2020 Northern Peleliu Lkes

On October 22, the Belau National Museum and Palau Conservation Society went on the 5th trip to the Northern Peleliu Lkes to monitor the bird population and the species diversity. We observed 31 Bar-tailed Godwits, the highest number observed in 2020. The Osprey (*Otilechkelat*) was only observed on October 22nd. Pictured below with long beaks are the Godwits. The Black-tailed Godwit (far left) has a long straight beak and smoky grey feathers with no streaks. The 3 Bar-tailed Godwits (center to far right) have a noticeably upturned bill, a more obvious eyebrow (supercilium), and streaked feathers.



November 23, 2020 Northern Peleliu Lkes

On November 23, 2020, the Belau National Museum and Palau Conservation Society went on their 6th trip to the Northern Peleliu Lkes to monitor the bird population and species diversity. Three generations of birders joined us: BNM Board of Trustee Member Fuana Rengulbai, her son, Destin Penland, and her grandson, Jack Penland. We observed 6 Sanderlings, the highest number observed in 2020. Pictured just below, are 5 Sanderlings, small grayish birds with bright white chest and underbelly. The background photo shows 2 Far Eastern Curlews, or *delerrok* (left), taking flight, and a Eurasian Curlew (far right) in flight. Note the clean white underwing of the Eurasian Curlew compared to the patterned underwing of the Far Eastern Curlew.



2020 Flagged Shorebirds in Palau

In October 2020, several banded migratory birds were photographed at the Northern Peleliu Lkes Sandflats. The bands (or leg flags) are color-coded for the location where they were first banded. They often have a flag with a unique ID number on it as well. These bands/flags are used to identify individual birds and help keep track of the movement of the bird and its life history. Information gained from these sightings of banded/flagged birds helps us understand their biology and can help in protecting them and their habitats. If you ever see a banded/flagged bird, please contact the Bird Records Committee at palaubirdrecords@gmail.com, or call the Belau National Museum Natural History Department- 488-2265 ext. 30, or Palau Conservation Society- 488-3993 (ask for Heather). Taking note of where, when, and the time you saw the bird, including its description (if possible) will be helpful. You will be assisting in research and conservation by reporting these birds.



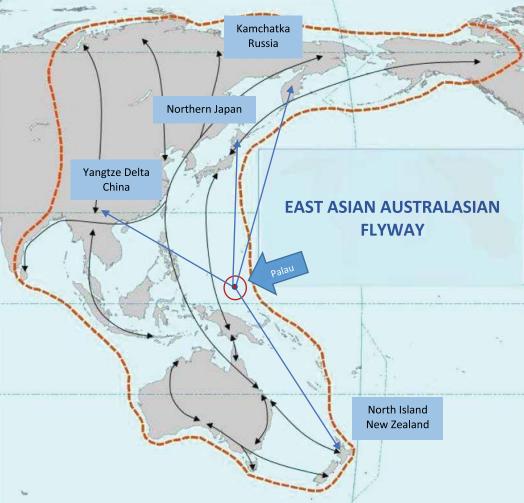
Bird: Red-necked Stint Banded: Kamchatka, Russia Flags: Black over Yellow Resighted: Northern Peleliu Lkes



Bird: Red-necked Stint Banded: Eastern Hokkaido, Japan

Flags: Blue (left leg)

Resighted: Northern Peleliu Lkes





Bird: Red-necked Stint
Banded:
Flags: White (may be engraved)
Resighted: Northern Peleliu Lkes



Bird: Greater Sand Plover Banded: Yangtze Delta, China Flags: Black over White (right) Resighted: Northern Peleliu Lkes

2020 Northern Peleliu Lkes IBA Shorebird Counts

Date			10-Sep-2020	11-Sep-2020	25-Sep-2020	10-Oct-2020	22-Oct-2020	23-Nov-2020
Total Individual Count per day			1,826	1,157	787	1,225	693	944
Total Species Count per day		21	19	14	17	19	17	
Species Common Name	Scientific Name	Local Name	Individual Species Count					
Greater Sand Plover	Charadrius leschenaultii		200	80	120	218	65	200
Ruddy Turnstone	Arenaria interpres		300	150	185	200	100	150
Gray Plover	Pluvialis squatarola		60	10	30	100	65	90
Pacific Golden Plover	Pluvialis fulva	derariik	200	10	25	70	10	40
Whimbrel	Numenius phaeopus	okak	500	430	182	250	165	302
Far Eastern Curlew	Numenius madagascariensis	delerrok	3	3	3	3	3	4
Eurasian Curlew	Numenius arquata						1	1
Great Knot	Calidris tenuirostris		4	2	3	6	5	5
Bar-tailed Godwit	Limosa lapponica		3	3	4	9	31	15
Black-tailed Godwit	Limosa limosa		3	3	2	5	6	4
Godwit sp.	Limosa sp.	A THEORY	12	8	5		25	10
Red-necked Stint	Calidris ruficollis	\$	400	400	210	338	201	70
Common Greenshank	Tringa nebularia		50	17	2			40
Gray-tailed Tattler	Tringa brevipes		8	22	6	12	7	5
Sanderling	Calidris alba	The same of the same of		1		2	4	6
Stint sp.	Calidris sp.						1	
Common Sandpiper	Actitis hypoleucos	bengobaingukl	6	10	10	3	1	
Osprey*	Pandion haliaetus	otilechkelat					1	
Curlew Sandpiper	Calidris ferruginea		1			1	1	1
Sharp-tailed Sandpiper	Calidris acuminata		40	3			1	
Black-headed Gull	Chroicocephalus ridibundus		2					
Eastern Yellow Wagtail*	Motacilla tschutschensis		1	1				
Marsh Sandpiper	Tringa stagnatilis		30	2				1
Pectoral Sandpiper	Calidris melanotos			2	The same			
Gull-billed Tern	Gelochelidon nilotica		1			1		
Little Tern	Sternula albifrons		1			2		
Lesser Sand Plover	Charadrius mongolus			7. 76.11		5		
Terek Sandpiper	Xenus cinereus		1		5 10 10			

^{*}migratory bird, not considered shorebird. Shorebirds are birds that frequent the shore.







Global Big Day is the biggest birding day of the year. It usually falls on the 1st or 2nd Saturday of May. This 24-hour global birding event is organized by the Cornell Lab of Ornithology through eBird, an online database of bird observations. Birdwatchers from around the world spend the day counting birds and submitting the results on eBird. This year, Global Big Day was held on May 9. Over 50,000 people in 175 countries participated and submitted 125,000 checklists and recorded 6,565 bird species. This broke the world record for the number of participants and checklists submitted in a single day. Palau ranked #2 in the Pacific Ocean region.

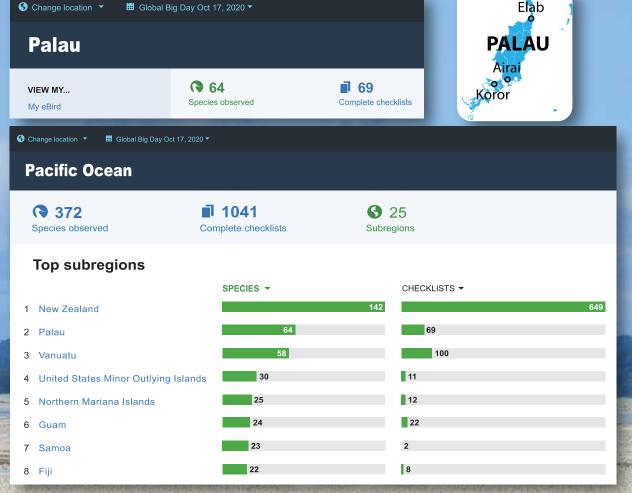


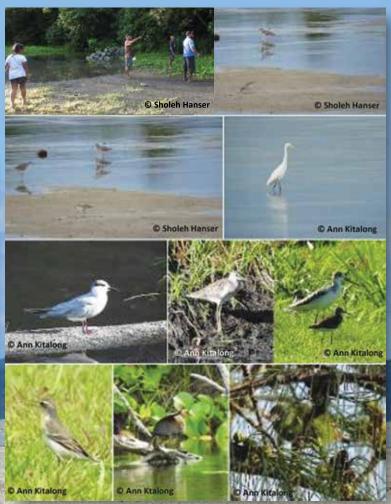
Although 9 people participated in the Global Big Day event in Palau, 6 of them submitted a total of 42 checklists on eBird, reporting a total of 59 species (2 more than last year). Palau ranked number 2 in the Pacific Ocean region for total number of species from a country (New Zealand was #1). Out of the 59 species of birds recorded on this day, 10 were endemic to Palau and 20 were migratory species. The photo collage of birds on the right are highlights of birds observed on Global Big Day 2020 in Palau.



Global Big Day Oct 17, 2020 ▼

Each year, the eBird website sponsors October Big Day- a 24-hour birding event where birdwatchers from around the world spend the day counting and reporting the birds on eBird. This year, October Big Day was celebrated on October 17. Over 32,000 birders from 170 countries submitted about 80,000 checklists reporting 7,163 bird species in a single day. Palau ranked number 2 in the Pacific Ocean region for total number of species from a country (New Zealand was #1).

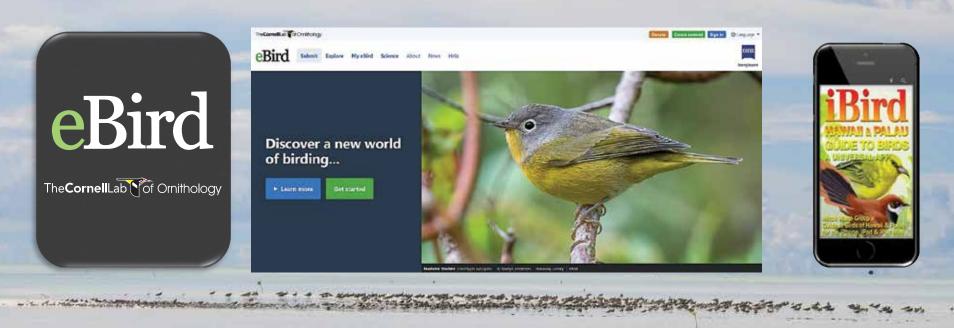




In Palau, 7 individuals participated in the October Big Day event submitting 69 checklists for a total of 64 species from 11 States. Out of the 64 species of birds, 15 were endemic while 25 were migratory species. The above charts show Palau's achievements from eBird for the 2020 October Big Day. The photo collage on the right-hand side of the page feature birdwatchers and some of the birds observed during October Big Day 2020 in Palau.

The Palau eBird Crowdsourcing Project

The *eBird* website (<u>www.ebird.org</u>) is a global crowdsourced database of field observations of bird activity submitted by field ornithologists and experience birdwatchers. It is operated by Cornell University in coordination with BirdLife International. Although the data are submitted by experienced citizen-scientists, the website's database can be explored by anyone with an interest in birds. The *iBird* app for Palau that complements the *eBird* crowdsourcing project is available from https://itunes.apple.com.



The cumulative number of submissions from Palau to the *eBird* website from citizen-scientists has exceeded over 7,000 checklists with 149 bird species. A total of 860 checklists were submitted for the year 2020 with over 100 bird species from 24 *eBirders*. These checklists consist of migratory and resident bird species.



eBird Submit Explo	re My eBird Science About N	lews Help	
O Change location ▼ ■ All s	wars *		
Palau			
Overview Illustrated Checklist	♠ 149 Species observed	7772 Complete checklists	∩ 169 eBirders

© Joseph Gugliemelli

eBird TRAINING

On August 2020, the Belau National Museum Natural History staff conducted an eBird refresher training with Ngeremlengui State (Bird Sanctuary Program) conservation officers and staff; and Aimeliik State ASCA PAN Coordinator and the conservation officers (Ngerderar team). The goal of this training was to set up an eBird account for their program (if they didn't already have one), familiarize the new staff with the eBird website, especially what and how to enter the data into the website, and demonstrate how to use tools on eBird to analyze the bird data.













Sholeh Hanse

FOREST & COASTAL BIRD TRAINING

In 2020, the Belau National Museum's field ornithologist, Milang Eberdong (under the National Program for Monitoring Forest and Coastal Birds), conducted several on-site training for the conservation officers of Aimeliik (ASCA) and Ngeremlengui State (Ngermeskang Bird Sanctuary). The trainings covered data collection, bird monitoring methods, and bird identification. The trainings built capacity among the conservation officers to collect and analyze the bird data in their States. Officers are now able to monitor the health of their State forests, and the overall health of Palau's forests.













LONG ISLAND TRAINING AND AWARENESS

The National Program for Monitoring Forest and Coastal Birds continues to provide training opportunities. In 2020, on-site training sessions held monthly at the Long Island Conservation Park included field personnel of the Rock Islands Southern Lagoon UNESCO World Heritage Site, Belau National Museum staff, and residents. Although the park was closed for 4 months due to Covid restrictions, data collection continued with BNM's field ornithologist and a couple of Conservation Officers with the approval of the governor. These monthly sessions help to broaden awareness of resident bird species, especially endemic forest birds. The event at Long Island is open to visiting birdwatchers, eco-tourists, and local bird enthusiasts; young or old, all are welcome.



Background photo by Ann Kitalong

Birdwatchers gather at Long Island Park on the first Saturday of every month (6:00 AM)

All other photographs by Milang Eberdong

Rock Island Southern Lagoon (RISL) Bird Monitoring

Koror State Department of Conservation and Law Enforcement (DCLE) monitored the bird and bat populations in the Rock Island Southern Lagoon (RISL) from January 2020 to December 2020. The data was analyzed by Koror State Department of Conservation and Law Enforcement (DCLE) and Ann H. Kitalong. A total of <u>35</u> species were recorded. Seven sites were monitored monthly (Euidelchol, Jellyfish Lake, Ngchus, Ngeanges, Ngemelis, Ngeremdiu, and Ulong) and 7 sites were monitored semi-annually (Babelomekang, Kmekumer, Mecherchar, Ngerchong, Ngeruktabel, Ngerukuid, and Ulebsechel).





The highest species richness was found at Euidelchol (35 species), Ngeremdiu (33 species) and Jellyfish Lake (33 species). The average numbers of indicator species (standard deviation (std), and total observations (n) were highest in the following locations:

Indicator Species	Location 1	mean(std,n)	Location 2	mean(std,n)	Location 3	mean(std,n)
Micronesian Imperial Pigeon	Jellyfish Lake	5.0 (3.0,21)	Ngemelis	4.3 (3.1,24)	Ulong	3.9 (2.5,29)
Palau Fruit Dove	Ngchus	14.2 (5.6,24)	Ulong	12.9 (4.9,29)	Ngeremdiu	12.5 (5.0,31)
Palau Bush Warbler	Ngemelis	6.8 (1.3,24)	Ngchus	5.2 (1.7, 24)	Jellyfish Lake	4.9 (2.2,21)
Micronesian Megapode	Ulong	5.4 (2.1,29)	Ngemelis	4.1 (1.9, 24)	Ngeanges	3.2 (1.2,31)



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Long Island Birders: Jedediah Brodie, Niko Brodie, Pasqual Bultedaob, Marbou Burton, Milang Eberdong, Gretchen Engbring, John Engbring, Laurel Engbring, Sholeh Hanser, Hiromi Ito, Jay Jay Jeffrey, Heather Ketebengang, Ann Kitalong, Chase Otong Meyar, Joel Miles, Yoko Morisaki, Eltel Mtoched, Emily Mtoched, Klumech Mtoched, Grant Murdie, Emerson Obak, Olympia Morei-Remengesau, Skyler Ruben, Naito Soaladaob, Marciana Telmetang, Phillip Terrenciano, Tyler Ucherkemur, Telbakes Yano

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"He will cover you with his feathers, and under his wings you will find refuge..." Psalm 91:4





