

Final Report of
Migratory Shorebirds Conservation Training for Local Stakeholders in Indonesia

Background

Indonesia recorded as important non-breeding site for some migratory waterbirds species in East Asia-Australasia Flyway (EAAF) : Far Eastern Curlew (IUCN RedList, 2016), Spotted Greenshank (IUCN RedList, 2016), Asian Dowitcher (IUCN RedList, 2016), etc. Yet, information, data, and conservation activity for migratory waterbirds in Indonesia are still minimum. Wildlife conservation in general is still sound foreign especially for non-scientific people in Indonesia. With total 17.504 island and total 19.181 km shoreline (KKP, 2019), Indonesia only have two Flyway Network Site (FSN) which located in Sumatra (Sembilang National Park) and Papua Island (Wasur National Park).

Many migratory waterbirds important sites in Indonesia are not protected and does not have a management party. Therefore threats such as hunting, habitat change, and other human disturbance frequently recorded in Indonesia. Hunting which never considered as a potential threat in a flyway scale before, might have a bigger impact than other threats (Eduardo *et al*, 2020), especially in developing country such as Indonesia. We recorded migratory waterbirds hunting activity (2020) and migratory waterbirds hunting activity trace (2021) in the form of abandon fishing-net that installed like mist-nets during bird banding activity during our migratory waterbirds survey at North-Sumatra. The hunter caught the birds randomly without consider the species, or species status because of their ignorance. Conservation action on migratory waterbirds: bilateral migratory bird agreements, education and awareness, and the enforcement of hunting control, are needed and offer hope for the future safeguarding of waders (migratory waterbirds) and their wetland habitats in East Asia (including Indonesia) (Parish, D. 1987).

Conservation activity for migratory waterbirds in Indonesia are still little and mostly located in Java and Sumatra Island, as well as the conservation agents (birdwatcher, scientist, ornithologist, etc.) are concentrated in Java and Sumatra Island. Therefore data and information about migratory waterbirds in sites outside Java and Sumatra are so little. In early 2020 we've got information from Kathrine Lung, researcher from Hong Kong who did a satellite tagging to Far Eastern Curlew species. From the satellite, they tracked that during their migratory journey, Far Eastern Curlew spend their non-breeding session on the coast of Borneo Island : East Coast of East & North Kalimantan (North Penajam Paser Regency, Kutai Kartanegara Regency, and Tarakan City). Yet we cannot find any researcher, birdwatcher, or even amateur birder to reach the sites and did a survey. All sites are non-protected area, and until today we still can not confirm the presence of Far Eastern Curlew or any other migratory waterbirds on those sites.

The need of conservation agent: birdwatcher, bird researcher, early scientist, collage students, and government's agent to do a routine survey and conservation action are needed to widen a conservation action to protect the migratory waterbirds and their habitat. Limited knowledgeable stakeholders (government agent, scientist, conservationist, students, and locals) limit the conservation activities and awareness on migratory waterbirds; also potentially increasing threats on

migratory waterbirds. With no coordinated monitoring and hunting assessment for migratory waterbirds conservation, it will be hard to control threats and protect the birds (Eduardo *et al*, 2020).

Objective

- Increase local stakeholder number who understand and have capacity in migratory waterbird conservation through conservation training; these stakeholders are representative of important sites in Indonesia, targeting to be the conservation agent for migratory waterbirds in their hometown or area.
- Instill stewardship of migratory waterbirds conservation and their habitat among local stakeholders in the important sites in Indonesia through habitat management and community-based conservation training
- Increase the data, people awareness, and expand the record of migratory waterbirds in Indonesia through migratory waterbirds conservation and identification training, especially key species: Spotted Greenshank, Far Eastern Curlew, Spoon-billed Sandpiper, and Great Knot.

Activities' Design and Timeline

Training will be done in two days with minimum 10 participants represent: the government agencies, site managers of FSN, young & early scientist, and local people/communities.

We are dividing the activities into online and offline activity; the offline activity will be the on field training (migratory shorebirds census and conservation for young scientists, citizen science, and local stakeholder). The targeted participant minimum are 10 persons; and the online activities are Online Talkshow and Online Training, both of those activities have a different goal, the aim of Online Talkshow is to be an awareness to 'why is it important for studying, conserve, and watching the shorebirds; we choose Talkshow to create a 'live' engagement with the audience so we can deliver our campaign as well as possible; the second online activities is the shorebirds conservation training. The Online Training will run in two days with minimum 10 participants from all over Indonesia.

Training material that will be delivered in this training are:

- Introduction of migratory waterbirds, EAAF, important sites in Indonesia, and Flyway Network Site (FSN)
- Community based conservation program
- Migratory waterbird's habitat management and stakeholder's role
- Migratory waterbird monitoring, identification technique, and priority species (Spoon-billed Sandpiper, Spotted Greenshank, Far Eastern Curlew, and Great Knot)
- Citizen science activity (collaborate with Indonesia birdwatching app: burungnesia)
- Centering the shorebirds data by using the birdwatching app: Burungnesia.

Speaker list*:

- Iwan Febrianto
- Imam Taufiqurrahman
- Ragil Satriyo Gumilang (YLBA)
- Swiss Winasis (founder of Burungnesia)

Project Timeline

The timeline is flexible due to field condition, the conservation training will run between September to November 2022 on the highest tide (for field training : monitoring and identification)

Time	Activity
June - August 2022	Meeting, coordination, and event planning
August 2022	Activities' location survey
13 November 2022	Online Talkshow: "Why Shorebirds Matter?"
29-30 November 2022	Online Training : Conservation Training for Local Stakeholders
3 December 2022	On Field Training: Shorebirds Identification & Conservation for Citizen Science and Young Scientists

Results and Discussion

Untuk mencapai goal dan objektif yang diharapkan, kami membagi kegiatan ini menjadi 3 aktivitas Talkshow (sebagai 'pemanasan'; memberikan informasi mengenai burung air dan burung pantai bermigrasi di Indonesia, mengapa penting melakukan sensus dan studi mengenai kelompok burung ini; memberikan informasi mengenai rangkaian kegiatan yang akan dilakukan; memperkenalkan aplikasi 'burungnesia' sebagai platform digital pengamat burung di Indonesia).

Burungnesia: A digital platform (android application) such as e-bird for birdwatchers in Indonesia. In this project we do collaboration with burungnesia to achieve this goal: collected and increasing the amount of data on encounters of shorebirds and migratory waterbirds in Indonesia.

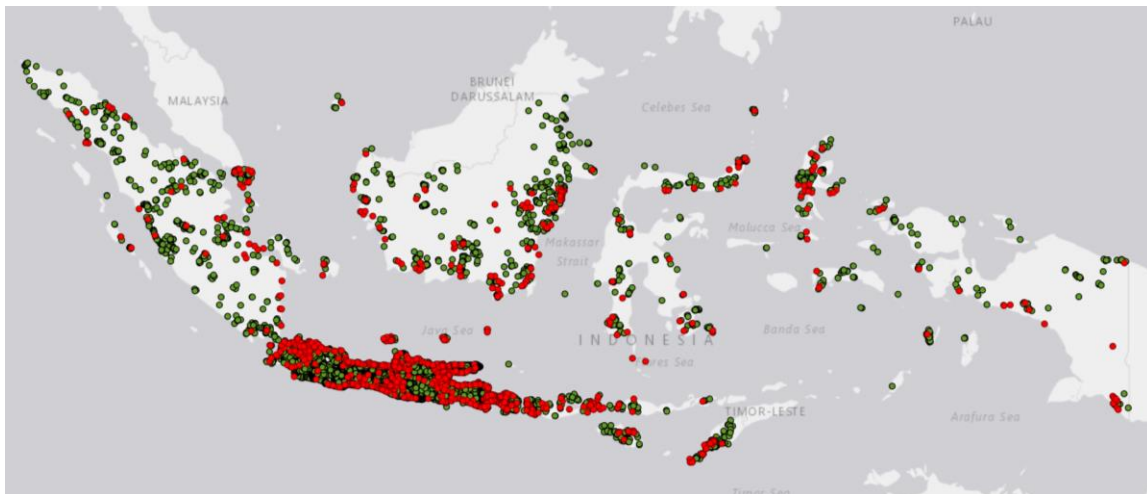


fig.01: Shorebirds spot and distribution in Indonesia which recorded in Burungnesia app during 2016 – 2022



fig.02. the example of data and information from burungnesia app

As presented in fig.01 and fig.02; through burungnesia app we can see the shorebirds distribution and population in Indonesia, and through this training we will encourage the stakeholders to submit their data and information they have got and information they might get in the future. With those data we will be able to analyze population, distribution, threats, potencies, and potential area for migratory waterbirds in Indonesia. This data is very important as a basis to determine policy, management action and, suitable conservation action.

a. Talkshow : Why Shorebirds Matter?

As a warm up activity, this talkshow with title: *“Why shorebirds matter?”* were targeting a local stakeholders and citizen science, as a basic information about waterbirds and shorebirds in Indonesia.

Moderator of this activity : Ragil Siti Rihadini.

This is an online activity with four (4) speakers:

- Ferry Hasudungan
- Ragil Satriyo G.
- Iwan Febrianto
- Swiss Winasis

With 40 of participant registered, this activity aimed to introduce a basic information as titled: why shorebirds matter. We decided to do this talk show as a warm up activity because we understand, waterbirds and shorebird's theme are unfamiliar in Indonesia; even in birdwatchers' communities. Therefor we run this talk show as a promotion for the birdwatcher to start paying attention to the presence of waterbirds, especially migratory shorebirds.

Link of the talk show video: <https://www.youtube.com/watch?v=WAKLNOswUGI&t=792s>

b. Conservation Training for Local Stakeholder

We planned to run this activity offline, but due to unapproved proposal to the other funding resources, we modified this activity with still focusing on achieving all the objectives. We do this activity online so we can reach as much as participant from all around Indonesia.

The training run in two days, from 29 to 30 of November 2022 with 24 participant from all around Indonesia. Participant are from site management, local government, local NGO, and young scientist (college students); the list of the participant can be seen in the table 01.

Table 01: List of Conservation Training for Local Stakeholders

No	Name	Organization	City/Area	Email
1	Agus Prabowo, SST	Balai Taman Nasional Berbak dan Sembilang	Papua	fathanaya@gmail.com
2	Ahmad Nuryani, S.PKP	BKSDA Kalimantan Timur	East Kalimantan	ahnurya@gmail.com
3	Ahmad Zulfikar Abdullah	Endemic Indonesia Society	Yogyakarta	azabirding@gmail.com
4	Akhmad David Kurnia Putra	Balai Taman Nasional Aketajawe Lolobata	North Maluku	adavidkp@gmail.com
5	Ardi Ismanto	BBKSDA NTT	East Nusa Tenggara	atsura.0905@gmail.com
6	Aswi Andriasari Rofiqoh	Universitas Soedirman	Central Java	aswi.ar@unsoed.ac.id
7	Bahtera Ardi, S.Hut	Balai Pengendalian Perubahan Iklim Wilayah Sulawesi	Sulawesi	bahteraardi@gmail.com
8	Budi Kusuma Wardana	BKSDA Jakarta	Jakarta	budiwardana2011@gmail.com
9	Dede Dicky Permadi	BKSDA Jakarta	Jakarta	dedepermadi19@gmail.com
10	Deni Mulyana, S.Hut	BKSDA Jakarta	Jakarta	Sumedang1983@gmail.com
11	Dhani Silvia Wati, S.Hut	BKSDA Kalimantan Timur	East Kalimantan	dhanysilvia24@gmail.com
12	Hasnia, S.Sos	BBKSDA NTT	East Nusa Tenggara	hasniaamir1@gmail.com
13	Kristina Maria Rapeliga, A.Md	BALAI BESAR KSDA NTT	East Nusa Tenggara	meiynkristin@gmail.com
14	La Hisa	Balai Taman Nasional Wasur	Papua	hescowasur83@gmail.com
15	Musmulyadi	Taman Nasional Wasur	Papua	musmulyadiadi8@gmail.com
16	Mutia Hanifah	Unas	Jakarta	mutiahanifahpny@gmail.com

17	Mutiara Risna	Balai Taman Nasional Berbak dan Sembilang	Palembang, Sumatra	peh.muttiara@gmail.com
18	Niki Putri Utami, S.Hut	Balai KSDA Jambi	Jambi, Sumatra	nikiputriutami@gmail.com
19	Risma Wahdania	Mapala unmus	-	rishmawahdania@gmail.com
20	Sherly Iskandar, SP	Balai TN Berbak dan Sembilang	Palembang, Sumatra	peh.sherly@gmail.com
21	Sri Wahyuni	Ukm mapala unmus	-	ssswhyuni.12@gmail.com
22	Teguh Hartono	Balai KSDA Jambi	Jambi, Sumatra	teguhhartono2@gmail.com
23	Widianto, S.P., M.I.L	Balai Taman Nasional Berbak dan Sembilang	Palembang, Sumatra	widiantosp80@gmail.com
24	Yeni Tris Styaningrum, S.Hut	Balai Besar KSDA NTT	East Nusa Tenggara	yenitris1974@gmail.com

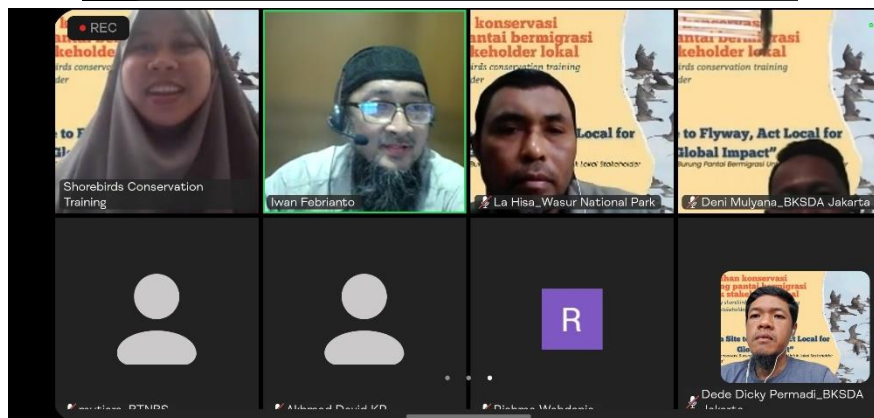
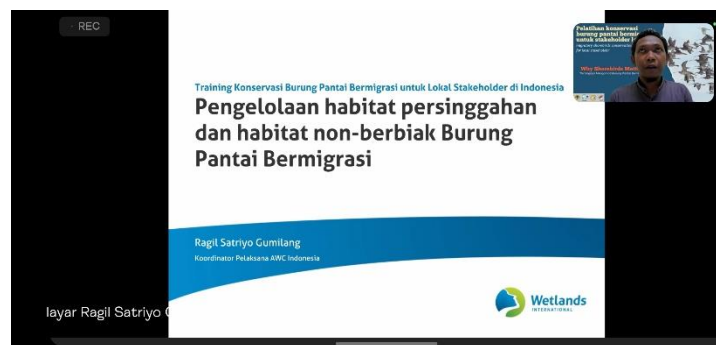


Fig.03: screenshot of online Migratory Shorebirds Conservation Training for Local Stakeholders.

There are four (4) material presented during those two days training, and there were three sessions in each material:

1. Presentation from the speaker

Each presenter presents their material in 30 minutes. You can access the material in this link: https://drive.google.com/drive/folders/1w_9ncop-SsKkl-w74YJOdxRbqpXELohQ?usp=share_link

2. Forum Group Discussion

Each speaker will give the participant a case and then they divided into 3-4 groups (breakout room) with one facilitator in each room. We gave them 40 minutes to discuss the case and randomly we asked them to present the result of their discussion.

3. Q and A session

We gave 30 minutes for this session.

On the first day (29 of November 2022) we present two materials:

- Shorebirds, Flyway, and How to Identify them by Iwan Febrianto
- Canter the data of migratory waterbirds census using Burungnesia, by Swiss Winasis

On the second day (30 of November 2022) we present two materials:

- Community and Research Based Migratory Waterbirds Conservation, by Imam Taufiqurrahman
- Migratory Waterbirds Habitat Management, by Ragil Satriyo Gumilang

c. Shorebirds Identification and Conservation for Citizen Science and Young Scientists



Fig.04. The trainer, Iwan Febrianto, were briefed the participant before start the field training.

This field training was run in 3rd of December 2022, with total 30 participants registered; and 24 participants attended from local NGO, local stakeholders and young scientists (college students). Training located in Surabaya, precisely in fish-pond area of Wonorejo, Rungkut Surabaya. We finally choose this location after considering the access and the area with many birdwatcher but lack data, information and knowledge about waterbirds.

Table 02: List of Participant of Shorebirds Identification and Conservation for Citizen Science and Young Scientists

No	Name
1	Rizkyanti Aulia
2	Muchammad Yusril Irtizaq Nurichsan
3	Azizan Akmal Ristiawan
4	Muhammad Akil Wasilah Nurzaman

5	Muhammad Hisyam Abdurrahman
6	Nabila Azzah Danitry
7	Maharani Nur Fatimah R.W
8	Hanna Nur Rufaida
9	Haykal Rafiansyah Ayub
10	Rengga Tiffani
11	Satria Pramudya Wisnu Syahputra
12	Rangga Dwi Ramadhana
13	Moch. Ilham Abdillah
14	Shabina Fikri Nurshafwan
15	Muhammad Syifa Priatna
16	Farra Dibha Nur Hakiki
17	Ladiva Nirmala Ulvan
18	Rakha Rafi Rahman
19	Laura Azzahra
20	Cindy Rian Wulansari
21	Mahendra Ekalukmana Firmansyah
22	Nisfi Puji Rosanti
23	Alya Anggraini Effendi

We started the training with pre-test to understand participants' knowledges and abilities about migratory shorebirds, from most of the participants are not familiar with waterbirds especially migratory shorebirds.

This training started by divide the participants into two large group; before start the field training the trainer will give them short explanation about waterbirds and migratory shorebirds, migration journey, flyway, important (threatened) species, and how to easily identify waterbirds and shorebirds species.

During the field training, while they watch and try to identify the birds, the facilitator asked the participants some question and explained the answers (also have discussion when the facilitator needed to explain more about the answer).

After two hours of field training, the participant will divide into small groups for the post-test. From the post test result, the participants were understanding the basic knowledge about waterbirds, migration, migratory shorebirds, and shorebirds identification.

We provided all the post-test and pre-test data in this link: https://drive.google.com/drive/folders/1r0bdMCor60_AZx1jTj8KFRBfM2Wu8NYa?usp=share_link

You can watch the video of training activity in this link:

<https://www.youtube.com/watch?v=IQ9L5WV4-K8>