

NORTHEAST ASIA SEABIRD CONSERVATION COMMITTEE

2021 report to PSG Executive Council

To: Pacific Seabird Group Executive Council

From: Yasuko Suzuki and Jean-Baptiste Thiebot, Committee Co-chairs

Date: 04 February 2022

Below, we summarize NEASCC activities in 2021 as shared by committee members.

Meetings

Committee meeting

We held a committee meeting on February 22, 2021 (Pacific time) in conjunction with 2021 PSG annual meeting to discuss recent and future research and conservation projects. Due to its virtual format, researchers and conservationists from more countries than previous years were able to attend. There were a total of 29 attendees from 7 countries and regions.

Presentations on various topics were made as below;

- Seabird sensitivity map for off-shore wind farms in Japan (Yutaka Watanuki)
- Recent updates on nationally protected seabirds in China and what does it mean to seabird conservation in the Pacific (Simba Chan)
- Introduction of the seabirds of Qingdao, Shandong Province, China (Xu Keyang)
- The restoration of Chinese Crested Tern and conversation of seabirds in Zhejiang of China (Zhongyong Fan, Yiwei Lu)
- Conservation plans for Chinese Crested Tern and Little Tern in Taiwan (Chung-Hang Hung)
- Seabird assessment of Tubbataha Reefs, Palawan, the Philippines in 2020 (Angelique Songco)
- Pilot study of gillnet bycatch mitigation measures under controlled condition (Yasuko Suzuki)

Other topics briefly discussed include;

- Establishment of a subgroup under NEASCC, specifically focused on issues

around offshore wind farms developing in East Asia.

- A funding opportunity by WWF
- A newsletter by East Asian-Australasian Flyway Partnership to feature NEASCC
- Nomination of a new co-chair (Jean-Baptiste Thiebot to replace Daisuke Ochi)

Windfarm subgroup meetings

The objective of this subgroup, lead by Jean-Baptiste Thiebot and Yutaka Watanuki, is to develop a regional network to share information on the development of offshore wind farms in East Asia: the projects, the progresses, the concerns of impacts for seabirds, and ways to best inform regional authorities on sites to preferentially avoid. Ultimately, the goal would be to produce a map of seabird sensitivity to offshore wind farms in East Asia, based on seabird colony locations and numbers, the conservation concerns of species, and their temporal and spatial use.

Two meetings of the “offshore wind farms” subgroup have been held, on March 31st and December 17th. During the first one, members presented an update on the development of offshore wind farms in Japan (Yutaka Watanuki), South Korea (Chang-Yong Choi) and Taiwan (Chung-Hang Hung and Scott Pursner), and the current use of a method to produce coarse-scale sensitivity maps in Japan (Yutaka Watanuki). During the second meeting, Katsura Mikami (Japan) presented a more detailed work on how to predict areas where gulls fly at M-zone altitudes (at risk from the turbines), using GPS tracking data (horizontal and vertical locations) and environmental variables. The results produce maps at a very fine scale, and predictions can be extrapolated across sites. These predictions will inform the Environment Agency about the areas that should be avoided for the construction of offshore wind farms. Further meetings will be planned to continue gathering information across species and sites, and to ultimately produce a useful sensitivity map for the whole region.

Surveys and research

Chinese Crested Terns restoration (China)

Unfortunately, Covid-19 once again prevented any travel to China to assist our colleagues at the Zhejiang Museum of Natural History in their efforts to restore Chinese Crested Terns.

Terns had a successful nesting season at the managed crested tern colony site on Tiedun Dao this past year, and the team led by Zhongyong Fan and Yiwei Lu (ZMNH China) were able to band 198 crested tern chicks on Tiedun Dao, including 7 Chinese Crested Tern chicks. 22 Chinese Crested Tern chicks fledged from the Tiedun Dao colony this year.

Additional good news regarding Chinese Crested Terns in China is that 72 Chinese Crested Terns were seen at Dagu Estuary in Qingdao, Shandong, China on October 5,

2021, an unprecedented post-breeding aggregation of this species that is a real testament to the progress that is being made in Zhejiang, Taiwan, and South Korea in restoring this species.

Finally, a Chinese Crested Tern documentary by famous wildlife filmmaker Chieh-Te Liang was released last month. The film tells the story of how dedicated individuals in Taiwan, Zhejiang, and South Korea have worked together to bring the species back from the brink of extinction. I hope that this 90-min documentary can be shown as part of the program at this year's PSG virtual annual meeting.

Reported by Dan Roby

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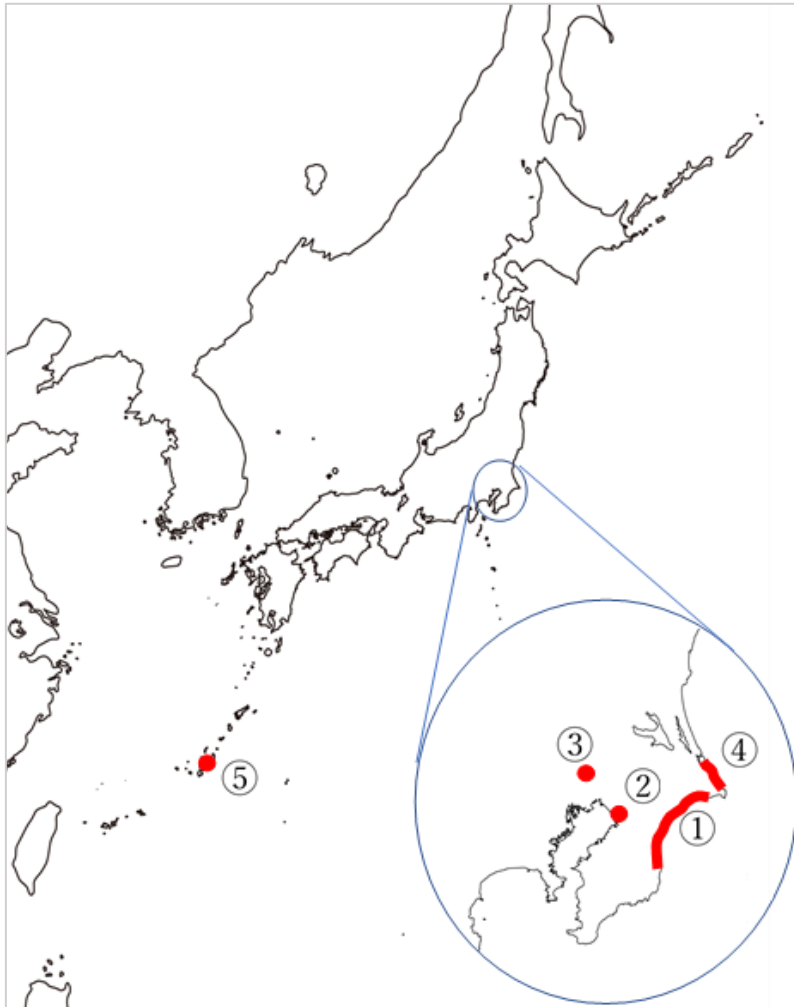
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Little terns breeding survey (Japan)

The "Water Birds Study Group Japan" is continuously conducting breeding surveys of Little Terns.

The results of the 2021 survey are as follows (see Figure below).

- (1) Kujukuri Beach, Chiba Pref.: 0 Nest (Since 1990, breeding had been carried out somewhere on the 66-km long beach. But we could not confirm breeding in 2021 for the first time. The cause is unknown)
- (2) Chiba City, Chiba Pref.: 10+ nests (Although many chicks fledged from more than 100 nests in 2020, most of the chicks were predated by cats. Due to this, we think that the number of nests diminished in 2021.)
- (3) Nagareyama City, Chiba Pref.: 54 nests (Although the nesting site created in 2020 is small, there are no humans or predators, so the breeding success rate was high.)
- (4) Kashima Nada Beach, Ibaraki Pref.: around 100 nests (decreased to about half the number of nests in 2020)
- (5) Okinawa City, Okinawa Pref.: around 500 nests (almost the same number of nests as in 2020).



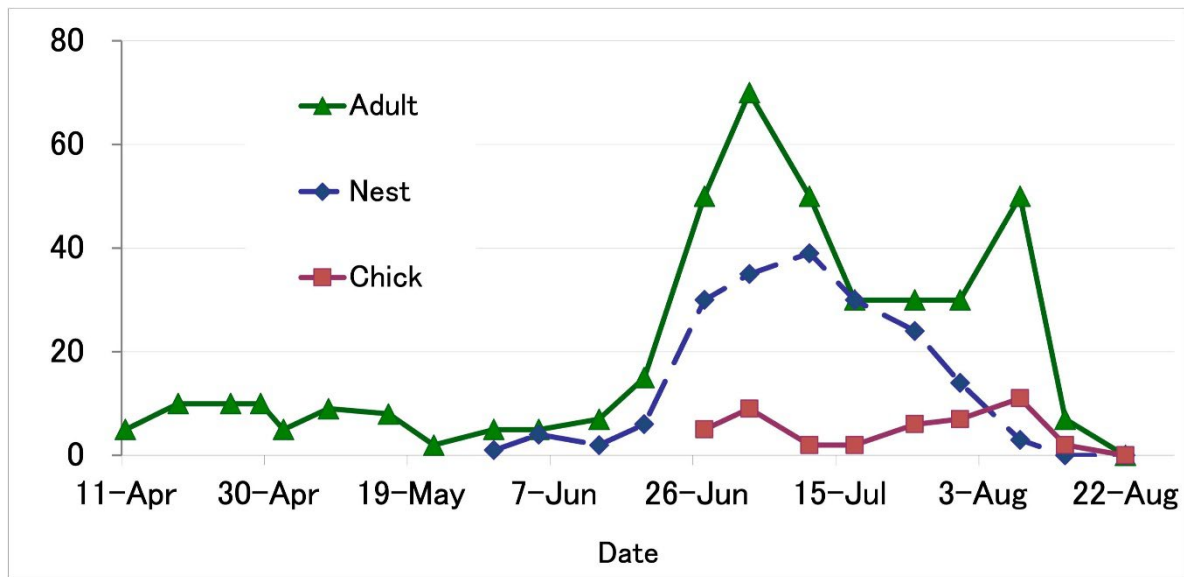
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Little tern breeding survey on artificial sites (Japan)

The 'Little Tern Project' (NGO) aims to reinforce little terns' breeding populations by establishing an artificial nesting site in Tokyo Bay, on the concrete rooftops of the largest sewerage treatment facility of Tokyo, Morigasaki (Ohta district in Tokyo).

In 2021, a maximum of 70 adult Little Terns visited this site (see figure below), and the total number of nests was 91, the number of hatchlings was 40 birds (estimated), and the number of young birds that left the nest was 5 birds (estimated).

Predation by crows and Common Kestrels is the main threat on this breeding site.



Reported by Toshimitsu Nuka

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http://www.bird-research.jp/1_staff/nuka-paper.html

Current seabird research programs (Japan)

A team lead by Yutaka Watanuki (Graduate School of Fisheries Sciences, Hokkaido University, Japan) continued two projects; monitoring of diet and breeding of Black-tailed Gulls (BTGU), Rhinoceros Auklets (RHAU) and Japanese Cormorants (JCOM) breeding at Teuri Island (32 years) and studying annual movement and physiological status indexed by Hg loads, stress, stable isotopes of Streaked Shearwaters breeding at Awashima Island. The latter project is funded by JSPS (Japan Society for the Promotion of Science).

They also started two new projects. One is to explore feasibility of using satellite images to find seabirds foraging flocks at sea around Teuri Island. This is a challenging preliminary project funded by JSPS. The other is to develop a technique to identify species and estimate density and movements of seabirds along the coast using radar. This is for an efficient environmental assessment before spatial planning of offshore windfarm within a range from the land, and funded by Japan's Environmental Agency.

Along with the last project they will develop a seabird sensitivity map for offshore windfarm all over Japan using habitat modelling based on spatial use of BTGU and RHAU measured with GPS tracking at some colonies. Environmental Agency of Japan collaborating with Japan Seabird Group updated seabird's colony data base.

The Bio-logging Society of Japan led by Katsufumi Sato (Atmosphere and Ocean Research Institute of Tokyo University) started the project for building a new tracking

database specially for electronic data from fish, sea turtles, seabirds and marine mammals collected within Japan's EEZ.

Reported by Yutaka Watanuki
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Gillnet bycatch research (Japan)

Nobuhiko Sato (Hokkaido University) and Yasuko Suzuki (BirdLife International) continued an experimental study on gillnet bycatch mitigation techniques in collaboration with Tokyo Sea Life Park in 2021. At a Common Murre and Tufted Puffin aviary with a dive pool at the aquarium, three methods below were tested; 1) green LED light, 2) common murre alarm call, and 3) above-water device with “looming eyes” pattern. Behaviour responses to the mitigation methods and control were recorded by multiple video cameras, and data review/analysis are currently underway.

We also started a project with local fishers for at-sea data collection of gillnet fisheries in the town of Haboro and its neighbouring areas in NW Hokkaido in 2021. Teuri Island, a breeding site of four alcids and two cormorant species (four of them are listed in Japan's Red Data Book), is located in this region. Bycatch in gillnet has long been suspected as one of major causes of population decline in some of the species. Thus, establishing the baseline of bycatch rate and effective mitigation measures are critical in this region.

Reported by Yasuko Suzuki
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Seabird migration and wintering sites (Japan)

Jean-Baptiste Thiebot (National Institute of Polar Research) worked with the Yamashina Institute for Ornithology to unravel the migration pathway and overwintering sites of the Black-naped terns breeding at Okinawa Islands, southern Japan. The birds were fitted with geolocators (GLS) and a total of nine tracks were reconstituted. The birds undertook their migration across the Philippine Sea, sometimes with a stopover in the northern Philippines, to coastal regions of Borneo and Sulawesi Islands. From October to March the birds were distributed across their wintering areas, and individuals seemed to use the same wintering area across years. In April they were moving back north, mostly through the Makassar Strait. The return migration followed a very similar route as in autumn, and by late May, the terns were

back in the region of their breeding colonies. These data will serve to identify which areas may bring additional threats to these migrating populations across their annual distribution; the results have been published in the Journal Of Ornithology.

Rhinoceros auklets were also studied from Hokkaido (Japan) and tracked with GLSs to study their winter movements (collaboration between Hokkaido University and the National Institute of Polar Research). About a decade of migration tracks have now been collected, consistently highlighting the importance of the Sakhalin Island (Russia) in the autumn and the Korean Peninsula during winter for auklets from three different colonies. These data will be key to inform local management authorities about the risks of induced mortality for these populations, from oiling (offshore platforms and oil transit terminals on Sakhalin Is.) and small-scale fisheries and the development of offshore wind farms along the SW coasts of South Korea. These results have not been published yet.

Reported by Jean-Baptiste Thiebot,
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Opportunities and challenges

- Geographical scope and objectives of the committee: as the first virtual meeting in 2021 allowed more participants to join the committee, discussion on potentially changing the name and goals of the committee is needed to be more inclusive. We plan to discuss it during 2022 committee meeting.
- Future meeting format: depending on the geographical scope and interest level by the committee, consideration for hybrid format (in-person and virtual) for future committee meetings needs to be made. This is important as some committee members have time and/or financial constrain to travel to PSG meetings. It will be included in 2022 committee meeting agenda.