Spoon-billed Sandpiper Task Force

News Bulletin No 25 · Nov 2021

Nikolay Yakushev

The Spoon-billed Sandpiper Task Force (SBS TF) News Bulletin is a regular, half-yearly update of activities of the SBS Task Force of the East Asian Australasian Flyway Partnership (EAAFP). The News Bulletin is edited by Christoph Zöckler with assistance of Elena Lappo and Sayam U. Chowdhury. Layout by Matthias Fanck.

Mission:
The East Asian Australasian Flyway Partnership (EAAFP) Spoon-billed Sandpiper Task Force (SBS TF) aims to coordinate the conservation activities identified in the Convention on Migratory Species (CMS) Single Species Action Plan for the species, which was commissioned by BirdLife International. The activities in the Action Plan are regularly reviewed and updated by all Flyway Members and a growing network of active supporters and groups in the Flyway countries, and beyond.

The Task Force originates from the establishment of the Spoon-billed Sandpiper Recovery Team (SBS RT) in 2004, when several partners active in the conservation of this globally threatened wader met in Edinburgh. With the growing level of activity, the finalization of the Action Plan in 2008 and a growing network of partners, organisations and supporters the Spoon-billed Sandpiper Task Force (SBS TF) was formed at the East Asian Australasian Flyway Partnership (EAAFP) meeting in Korea in February 2010. In December 2010, the Spoon-billed Sandpiper Task Force (SBS TF) was officially endorsed as one of the first species Task Forces by the Partnership under the EAAFP Shorebird Working Group. Implementing organisation for the SBS TF is BirdLife International through its partner Birds Russia. It is chaired by the Government Partner of Russia. Task Force members consist of the EAAFP Government Partners of key range states for the species and international conservation organisations. These are: the Russian Federation, Japan, People's Republic of China, Democratic People's Republic of Korea, Republic of Korea, Vietnam, Union of Myanmar, Cambodia, Thailand, Malaysia, Indonesia, Sri Lanka, Bangladesh and India, the Wildfowl and Wetland Trust (WWT), Wetlands International, a representative of the EAAFP Shorebird Working Group, the Mangrove Conservation Fund (MCF), Fauna Flora International (FFI) and experts and conservation organisations from principal range states and other partners. We are grateful to the Manfred-Hermsen-Stiftung, Bremen, the RSPB and NABU, MCF and the International Conservation Fund of Canada (ICFC) for their continued support of the SBS Task Force and Spoon-billed Sandpiper projects across the range states.

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Foreword from the Editor

Dr Christoph Zöckler · Manfred Hermsen Foundation, SBS TF Coordinator · Nov 2021

While writing these lines the global community is having its crucial meeting on combating global climate change in Glasgow. Many think of this as the most defining global meeting ever, and it seems that compared to these big global issues, our little bird might seem particularly insignificant at the moment. And I can forgive everybody for thinking this way. Yet, in a strange and as yet unclear way our little bird is of course equally affected, or maybe even more than most other species on this planet. Maybe global climate change might be the major factor in the continuing decline of the Spoon-billed Sandpiper, and possibly for most other Arctic breeding waders? We have some inclination but don't know for sure. However, I think after this year's extreme weather events in pretty much every part of the world, nobody seriously denies anymore that the global climate is changing and will become the most important issue, overriding all our other problems in the future.

We are also at the end of the second year of the pandemic and it seems no end is in sight. All national teams have done the field work again without foreigners, and as in 2020, all teams have managed this very well. BirdsRussia managed to complete all tasks and it looks like the local breeding population has not further declined at our core monitoring site. There may be a slight increase. Not only the local community in Meinypil'gyno, but also the governor of Chukotka continue their support for our conservation work. This is nicely symbolised by the 'Iron Spoon-billed Sandpiper', now erected near the village. Also our Chinese teams conducted survey work along the Jiangsu coast without any foreign assistance. But they noticed a further decline. Yuri Gerasimov and team though demonstrated that COVID is not the only challenge when conducting field work. Early snow melt and flooding hampered their efforts to survey on the West coast of Kamchatka. Climate change is increasingly impacting our conservation work and Yuri's account bears witness to that.

The pandemic is still not over and meeting in person across the flyway is still impossible. Yet the continuing decline requires more urgent action and more frequent discussions among the flyway partners. We need a fresh look at all the potential issues affecting our sandpiper. The task will not be easy and requires, more than ever, global team work and cooperation. We have been receiving huge global support and we are very grateful for all our donors and supporters for continuing to support our conservation work despite the economic hardship and disruption the pandemic may have caused.

We have not saved Spoonie yet! A Call for Action

Nigel Clark[1], Evgeny Syroechkovskiy[2], Christoph Zöckler[3] and Sayam U. Chowdhury[4]

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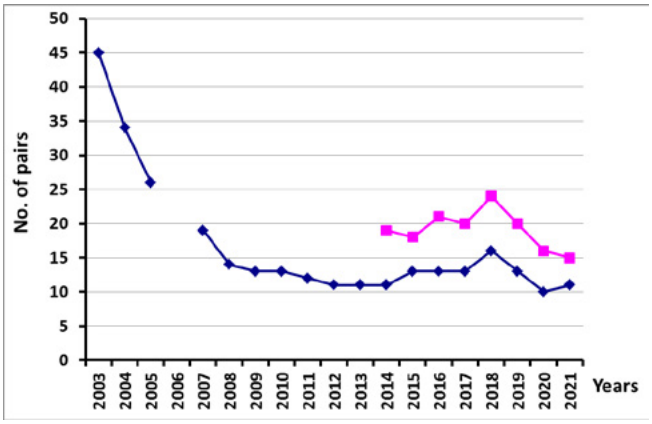
Back in 2010 when the first publication charting the decline of SBS was published in a major journal (Zöckler et al. 2010), it looked like we were staring extinction in the face with it almost certain that there would be no SBS left by the end of the decade. This acted as a wakeup call for the conservation community and a decade of intense work has ensued.

The rate of decline in the first decade of the 20th century was 26% per year or to put it more starkly - we were losing half the population every two years. At this rate of decline it does not matter how many birds you think that are left, by the time you undertake conservation action the population will have crashed. The conservation community had just come to the realisation that there was nothing more that could be done for the Slender-billed Curlew and this added impetus to the flight to save SBS. A number of innovative and bold conservation actions were taken since then. Hunting mitigation in Bangladesh, Myanmar and China, halting further reclamation and habitat destruction in China, expanding the protected area network in Myanmar and China, Head-starting in the breeding grounds at Meinypil'gyno and extensive searches to locate breeding, stopover and wintering sites for the species to name a few. Over the next few years wherever birds were located conservation action was taken to try and protect them and it soon became clear that this was having a major effect on the rate of decline. The effect of all the work throughout the flyway was to reduce the rate of decline from 26% to 7-10%. This is a phenomenal achievement that we can all be proud of, but sadly it is not enough.

Had we turned the corner and saved the species? Data collected on the breeding grounds at Meinypil'gyno from 2012 to 2018 showed some recovery in the local breeding population with the boost given to the local population from the Head-starting scheme that was started in 2012. However, there appears to be a sudden drop which started in 2019 and the population in the core monitoring area at Meinypil'gyno is now (2021) being as low as it was in 2014 (Tomkovich et al. this newsletter).



SbS population estimates in the main monitoring area (blue line) and the whole surveyed area near Meinypilgyno (pink line) in 2003–2021. Note: one pair is added in 2019 being likely missed in that year.

This is not the only data that we have on population change. Surveys in Jiangsu where almost half of spoonies are thought to moult in autumn show a worrying apparent decline. Between 2018 and 2021 the local population estimate from structured surveys has halved (Leung et al. 2021, this newsletter). Numbers appear to be declining in many of the wintering areas too. In the gulf of Mottama, Myanmar the population has halved between 2009 and 2016 (Aung 2018) and continued to decline in recent years. In some areas in Gulf of Mottama, Nan Thar and others the declines are over 40% between 2020 and 2021. There are similar declines becoming evident in regularly monitored sites in Bangladesh as well (S. U. Chowdhury pers. obs.). Counts in almost all wintering areas have declined. These could be part of a northward shift but likely part of a more general decline (see also Zöckler et al. 2021 in Newsletter No 24).

Saving the Spoon-billed Sandpiper from extinction is a team effort of many in the breeding area and all along the flyway. The authors of this Call for Action are to be seen in the back here: from left Evgeny Syroechkovskiy (with Elena Lappo), Sayam U. Chowdury, Christoph Zöckler, Nigel Clark

Many of these declines are not statistically significant, however when taken together they paint a picture of a population that is still in major crisis and we will lose Spoonie if we do not redouble our efforts to find the causes of continuing decline and act immediately. This requires action NOW or it will be too late for the species and Spoonie will join species like the Dodo into the record books and our children will not be able to see a real Spoonie. We cannot let that happen and we need a new plan of action!

Just saying that we need to do more will not be enough. We need to have a new look at all the potential issues that we have identified and the conservation action that we have taken so far. We need to identify what has worked and what has not and where we still have gaps in knowledge. This will be the basis for the new action plan and we will have to implement it with the sense of urgency that is needed to have as much effect as the work over the last decade so that we can finally change a declining population into an increasing one.

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Breeding Spoon-billed Sandpiper population in the Meinypil'gyno area showing signs of recovery in 2021

Pavel S. Tomkovich, Egor Yu. Loktionov, Nikolay N. Yakushev, Ivan A. Shepelev, A. P. Ivanov, D. S. Nizovtsev, Evgeny E. Syroechkovskiy

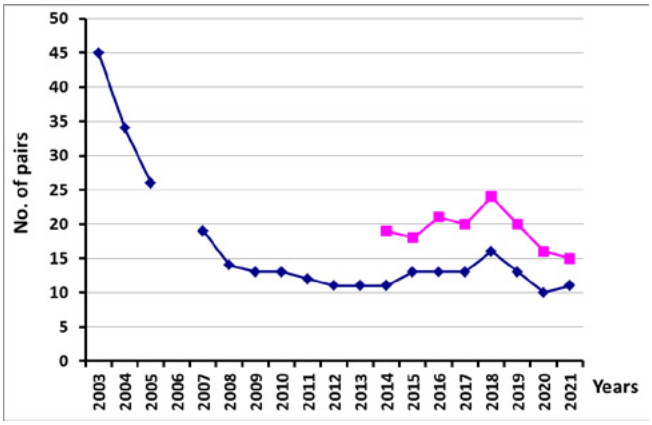
For the second year activities of BirdsRussia in Southern Chukotka were undertaken without foreign participants in 2021 because of restrictions for movements between countries due to the coronavirus pandemic. Weather was typical for the coastal tundra near Meinypil'gyno Village in June, but rather cool in July as a result of many days with overcast, fog and light rain. Exit for water from the Meinypil'gyno lake-river catchment area into the Bering Sea was blocked by storms and ice in the preceding autumn. This situation together with rapid melting of heavy snow early in the season resulted in an exceptionally high flood this year.

Monitoring

First local Spoon-billed Sandpiper arrived on 1 June. Based on calculations based on dates of both finding of nests and hatching of chicks, first eggs were laid on 10 June, which means it was an average timing of egg-laying during the recent decade. Displacements of SbS male territories between years 2020 and 2021 were ranging from 30–3.740 meters (mean 867, n=10). Some of them were unusually long movements resulting from the high spring flood and the distant movement of one male (White 1H) into the moraine hills. This increased the search efforts of the team for finding SbS pairs and their nests.

SbS female 'Lime 78' killed by an Arctic Skua, 8 June 2021
Egor Loktionov

We counted 11 pairs of SbS that initiated breeding in the main monitoring area in 2021 (see Figure). Implementation of a loudspeaker playing back recorded SbS song helped to attract and find some of the SbS males and subsequently their nests this year. It is noteworthy that three pairs were found in the part of the moraine hills which always seemed to be not suitable for SbS and were poorly surveyed in the former years. Without finding of these three pairs the number of breeding SbS in the main monitoring area would appeared to have further declined in 2021, as it happened in the area ca. 25 km south-west of Meinypil'gyno, where only 3 breeding pairs were recorded this year. Within the whole surveyed area 15 breeding pairs were documented in 2021, which is one pair less than in 2020. In reality not 15 counted pairs but only 14 of them were nesting because Egor Loktionov witnessed the moment on 8 June when



SbS population estimates in the main monitoring area (blue line) and the whole surveyed area near Meinypilgyno (pink line) in 2003–2021. Note: one pair is added in 2019 being likely missed in that year.

Invitation of female by male to a nest scrape *Pavel Tomkovich*

an Arctic Skua attacked and killed female Lime 78 on the ground. She was heavy with her first egg to be laid one or two days later.

The proportion of adult SbS that returned to the local population in 2021 (86.4%) turned to be higher than in the previous years. One of the new pairs was formed this year by both head-started birds (male White 5Y and female White NC) that returned to the natal area for the first time. Apart of the breeding pairs unusually many non-breeding SbS were observed this year arriving in early June, most of which were new recruits into the population, hatched mostly in 2019 – 4 birds marked in the wild and 4 head-started birds. All of them were males when sexed according to their behaviour. Surprisingly, two old females (Lime 34 and White A7) were recorded in early June only once each in the areas of their former breeding. Later they could have bred in the local population but unnoticed, or could have moved to other neighbouring local populations, or remain somewhere as non-breeders. This makes us thinking that surroundings of Meinypil'gyno may still have some areas of unknown breeding locations of some pairs and that birds may move between the sites.

Headstarting

In total 19 nests and two additional broods were found in 2021. Thirty eight eggs from 10 nests were collected for headstarting (HS). Among other nests 56% (5/9) survived to chick hatching which is quite similar to the average cumulative value obtained in the recent 8 years.

From above:

The 2-years-old head-started male 'White 5Y' recruited to the local population in Meinypil'gyno being paired with female 'White NC' in 2021

The 3-days-old head-started SbS chick H2 indoors

The 16-days-old head-started SbS chick T2 in the aviary

From above:

The head-started male 'White 1H', which shifted his breeding territory by a record distance (>3.5 km) from the previous year

The 16-days-old head-started SbS chick E1 in the aviary

The 16-days-old head-started SbS chick C2 in the aviary

All photos by Nikolay Yakushev except on top left by Pavel Tomkovich

Nest cameras set up near nests of other species of waders revealed that Arctic Skuas were the main nest predators in 2021. The survival of nests of waders varied among species. For the first time all nests of Red Knots (n=5) survived to hatching, while the nest success turned to be rather low in the Pacific Golden Plover (46.7%, n=15) and Lesser Sand Plover (44.4%, n=9). However, during a 2-day-long storm on 1–3 July most early broods of waders were destroyed, which luckily did not influenced relaid SbS pairs, whose chicks were hatching later.

Due to the decline of nests available for HS less selectivity was possible for collecting eggs in mid-June. It resulted in a longer period of hatching for collected eggs and subsequently several releases of chicks were needed instead of one as in previous years. This had increased pressure on the HS team. In spite of the fact that the team was strengthened by an additional assistant the work load increased again. In order to allow for several releases in the future and because of the long-lasting period when chicks stay both indoor and in the aviary an additional assistant will be needed in the team in 2022.

Twenty nine chicks hatched in incubators on 5–15 July from 38 eggs during HS activities undertaken by the aviculturists, and 28 fledged young SbS in the age of 19–26 days were subsequently released in three groups on 26, 29 July and 6 August. Unfortunately, during post-release monitoring two young birds were found killed presumably by a falcon. This year we often saw falcons – mostly Peregrines and less Gyrfalcons and Merlin only twice were recorded almost daily in the first half of August. Several times we flashed falcons from the ground in the immediate vicinity of the release site of SbS.

Almost all SbS in the local population near Meinypil'gyno are colour-marked by now. Only one new adult nesting female was revealed and colour-marked in 2021. Additionally 18 wild chicks and 29 headstarted chicks were flagged this year. Among several SbS that were marked in Chukotka and observed on the flyway during September and October 2021 two birds newly flagged in Chukotka, both of them head-started ones, are known to us. They were White A0 recorded in the Nakdong Estuary, Republic of Korea, on 11 September 2021, and White U2 observed in Tiaozini, China on 22 September and 22 October 2021. We hope that many more young birds survived and will increase the breeding population of this enigmatic species in subsequent years.

We presume that pandemic restrictions along the flyway may be the reason for the few observations of freshly marked SBS in China and other areas this autumn.

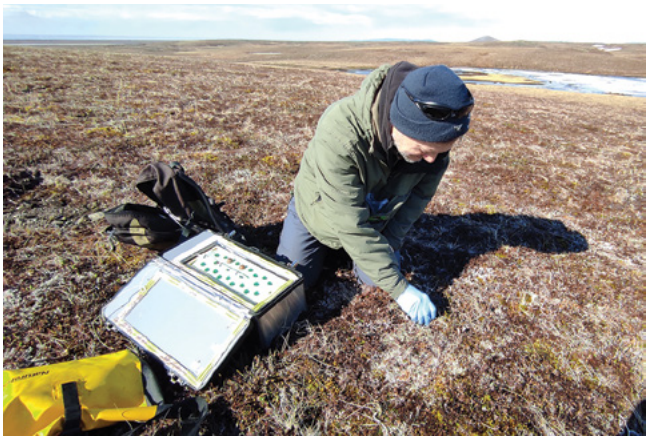
Wear and tear of main equipment

As years pass and all equipment gets old, we had lost one quadbike this year. Old Yamaha Grizzly 550, purchased with support of RSPB, which had served us excellently for over a decade is no longer repearable. Also the aviary is getting too old and falling apart, which means that a new one is needed to be purchased to avoid a situation when it may collapse at an inappropriate moment. Extra funds to usual amounts of expedition budget should be raised before the next year to make sure the team could work efficiently in 2022.

Why decline and recovery?

The reasons for a sharp decline two years ago and recent gradual recovery of the Meinypil'gyno SBS population are still unclear for us. We can speculate that unfavourable conditions at the key stopover site, Tiaozini in Jiangsu, China, which had shaped in 2018–2019 due to natural changes on mudflats and increasing pressure of human activities, might be the reason for the decline. Timely and effective creation of a new artificial

Egor Loktionov in reading leg flags of SbS Pavel Tomkovich



Ivan Shepelev is collecting eggs of SbS for artificial incubation on 15 June 2021 Nikolay Yakushev

high-tide roost in Tiaozini was a result of conservation work of the SBS Conservation Alliance of China. This recent improvement of conditions at this stopover site might have been the reason for improvement of the situation in Meinypil'gyno, though it would be still important to study it more thoroughly. The hypothesis of influence of a potential unfavorable weather (primarily wind) conditions above the Sea of Okhotsk during spring migration of SbS also still needs to be checked. We assume that creation of a second alternative high tide roost in Tiaozini, somewhere in a more northerly part of it, might make conditions at this stopover more stable and predictable, allowing SBS to use larger part of tidal mudflats in the area. We hope this can be arranged at the new World Heritage Site in an observable future.

BirdsRussia is grateful to the donors of the project MCF, NABU, Birdlife-Asia, WWT and MHS for their constant support as well as for the support of Meinypil'gyno citizens, particularly Svetlana and Roman Belogorodsev.

Daily routine of recording parameters of incubators and SbS egg development. Ivan Shepelev is on duty Nikolay Yakushev

From the Archives

Discovery of SBS capital – Meinypil'gyno – 20 years ago …

Evgeny Syroechkovskiy and Elena Lappo

After our first visit to Chukotka in search of SBS in the year 2000 we had many concerns about the species. We needed a long-termed monitoring site not far from Anadyr. When planning the survey in 2001 we made a detailed analysis of maps – thinking of the next potential site to study. While running our finger over the map of Chukotka coast we found a site with a name, which each of us had failed to pronounce. By that time we spent 22 summers in the Russian Arctic but never seen such a difficult geographical name – Meinypil'gyno.

A unique lagoon with huge spits, ideal for breeding habitats for our Spoony, were never visited by any ornithologists. In addition to that, one of the local citizens interested in Nature – Andrey Golub, had sent us a photo of feeding SBS from the village surrounding … all good signs.

It was an economic difficult time in Chukotka and helicopters were not flying as regular as now. It took us several weeks, with great support by Evgeny and Natalia Shevchenko and Alexander Kuznetsov in Anadyr, to get first to Beringovskiy and then join the ship expedition, aiming for a recent ship wreck, the 120 meters long cargo ship "Ryazan'" that had crashed in a storm near Navarin – not too far from Meinypil'gyno half a year before.

Our group of 8 with backpacks was dropped by boat at the outer spit. A barrel of petrol was just dropped from the ship into the water. It did not sink. Petrol is lighter than water. We rolled the barrel across the spit and started waving hands and shouting, hoping to get a lift. Some hours later one of the local fishermen helped us to put our feet first time on Meinypil'gyno territory. Our team in 2001 included Alexander Kondratiev,

Grandparents of modern SBS from Meinypil'gyno 2001

Photo left: Evgeny Syroechkovskiy, Photo right: Chris Schenk

Our Caterpillar vehicle in 2001 *Evgeny Syroechkovskiy*

Evgeny Syroechkovskiy, Elena Lappo, Sonya Rosenfeld, Axel Bräunlich, Chris Schenk, Remo Probst and Mikhaela Pavlichev. That year we met our friends from the settlement who helped us all these years for the first time: Svetlana and Roman Belogorodsev, and their son Aleksey; Andrey and Elena Golub, who kindly hosted us at their flat, and Vasiliy Unku who was the head of administration of the settlement at the time and helped with logistic.

The funds for this survey were not for SBS. Nobody was supporting such an apparently insignificant conservation activity in those days. Funding from the Japanese Association for Wild Geese protection under the leadership of Masayuki Kurechi helped us to discover this important SBS location. Searching for White-fronted Geese we had covered a lot of ground. Lots of walking and great caterpillar tours by the most experienced caterpillar driver Roman Belogorodsev made us realise – this was the highest concentration of SBS breeding ever described. We estimated as possibly 60-80 pairs. SBS were everywhere around us. Good old times!

Since then, nearly every year an international team led by BirdsRussia runs the monitoring of wild SBS population and in 2012 started the Headstarting programme.

Over a hundred conservationists from 15 countries have participated in these studies and over 400 clients of Heritage Expedition from many different countries all over the world were able to see SBS in Meiny.

All this was possible due to generous support of BL-Asia, MCF, MHS, NABU, Ramsar Network Japan, RSPB, WCS, WWT, Heritage Expeditions and numerous other donors from Russia and all over the world.

Successes and failures of Spoon-billed Sandpiper migration studies in Kamchatka in 2021

Yuri N. Gerasimov, E. R. Dukhova, V. M. Kovaleva, Yu. R. Zavgarova

Kamchatka branch of BirdsRussia in cooperation with Kamchatka Department of Pacific Geographical Institute of Far-Eastern Branch of Russian Academy of Science has been running Spoon-billed Sandpiper (SBS) monitoring in Kamchatka for 8 years, since 2014.

Every year we monitor the stopover of young SBS at the Sea of Okhotsk side of Kamchatka in the southern part of the peninsula near Sobolevo. We combine this work with mass ringing and color marking of all waders on migration, the largest wader ringing event in the Russian Far East.

In 2021, we also started to evaluate spring stopover migration of waders in the same area assessing if we can catch SBS and attach satellite transmitters to learn more about potential new breeding locations in Chukotka. Following the recommendation of SBS TF Scientific Advisor Dr. Nigel Clark and WWT (and we are also grateful to them for the financial support of our field work this year) we planned to visit a location in West Kamchatka to explore if catching in spring is realistic. Originally, we wanted to visit a more northern location at the estuary of Moroshechnaya river in West Kamchatka, where we had observed SBS migration in the 1990s. But it turned out to be too expensive and complicated. The only realistic opportunity was to try at our standard autumn SBS stopover site Ustievoe, near Sobolevo.

***Figure 1**. Flooding of the Kol' River. Pipeline Road to Sobolevo, 16 April 2021*

Overall spring period is very difficult to work in Kamchatka. Mid-end of May is peak of snow melt and spring floods, which in some years are really severe and may prevent reaching the site by car. Many roads have no bridges or bridges have perished. Alternatively, starting in April using snowmobiles, but with warming climate snow is melting earlier every year and we can't stay waiting for SBS to arrive for over a month and had little success in spring 2021.

In August 2021 we managed our monitoring efforts at the same location as in previous years.

Spring investigation

The winter of 2020/2021 was very snowy in Western Kamchatka, and spring and snow melt was very early. This made our original plan to start before main snowmelt not working. Already in mid-April, moving along the gas pipeline private road (this is the only way to reach study site by car) became impassable and security for the gas pipeline closed the road (Figure 1).

We decided to monitor the migration of birds near the beginning of the road along the gas pipeline in order to travel to Sobolevo as soon as the road was open, starting from April 28, although not very suitable for monitoring wader migration with no sites for waders to stop. However, this point is convenient for observing the migration of waterfowl, especially seaducks.

We recorded peak migration of waders, mainly Dunlins, on May 21. Unfortunately, weather was very windy, rainy and foggy this day and we could see only flocks flying past nearby us. We could count only 1200 Dunlins and 300 Red-necked Stints. For comparison, on 22 May 2018 on the Bolshaya Vorovskaya River Lagoon we counted 66.100 Dunlin and 4.600 Red-necked Stints flying past.

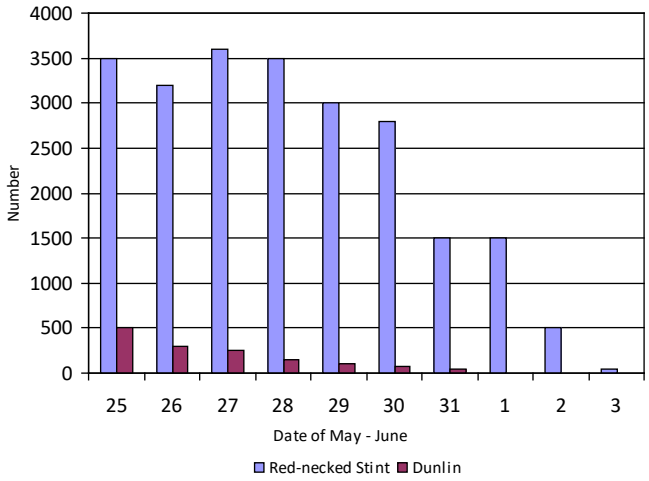


Figure 2. *Number of Red-necked Stints and Dunlins on the mudflats of Bolshaya Vorovskaya River Lagoon*

By May 17, we realised that our expectations were hopeless and decided to use a plane to fly to Sobolevo, which prevented us from carrying most of our field equipment. Due to the huge demands we were able to buy tickets to Sobolevo only for May 25. Fortunately we were also able to borrow field equipment in Sobolevo.

On May 25 we began observations in Ustevoye. At this time, the migration of Dunlin was almost completed, but the migration of Red-necked Stints had reached its maximum.

As we know, the migration of Spoon-billed Sandpipers often goes together with the migration of Red-necked Stints. From May 25 to June 1, 1,500–3,500 Red-necked Stints stayed on the river lagoon during low tide. On June 2, the number of Red-necked Stints significantly decreased, and on June 3, only a few dozen Stints of this species remained on the estuary. We had the opportunity and enough time to search for Spoon-billed Sandpipers among the Red-necked Stints. However, all our attempts ended in failure – SBS were not among them in spring.

Starting from the evening of May 25 until the end of the period of our work, we used mistnets to catch waders. To attract waders, we used play back calls, mainly of Spoon-billed Sandpiper. The number of mist nets and their location corresponded to our work in August, when we could catch up to 2000 waders in this point. However, for 10 days of catching (May 25 – June 3) we were only able to catch 19 waders (1 Dunlin and 18 Red-necked Stints). Attracting birds by play back did not work at all in spring.

Low efficiency of mist netting allowed us to spend enough time to visually search for Spoon-billed Sandpipers on mudflats using scope. However, we did not seen any Spoon-billed Sandpipers among flocks of Red-necked Stints. Therefore, our hope that in spring SBS would use same stopover sites as in autumn was not supported by our field observations.

Our spring investigations demonstrated that during the maximum migration of Red-necked Stints (up to 3,500 in one day) no Spoon-billed Sandpipers were among them and catching waders was not effective.

Summer catching

We started our summer expedition at August 5, catching waders from the evening of August 5 until the morning of August 31.

In total, we caught, banded and flagged 1423 waders including 756 Dunlins, 524 Red-necked Stints, 51 Mongolian Plovers, 13 Western Sandpipers, 6 Bar-tailed Godwits, 4 Grey-tailed Tattlers, 3 Great Knots, 3 Common Snipes, 3 Long-toed Stints, 1 Broad-billed Sandpiper, 1 Ringed Plover, 1 Rudy Turnstone, 1 Terek Sandpiper and 2 Spoon-billed Sandpipers. This year we caught Common Snipes, Bar-tailed Godwits and Ringed Plover for the first time among 14.500 waders caught in this place since 2014 (Figure 3).

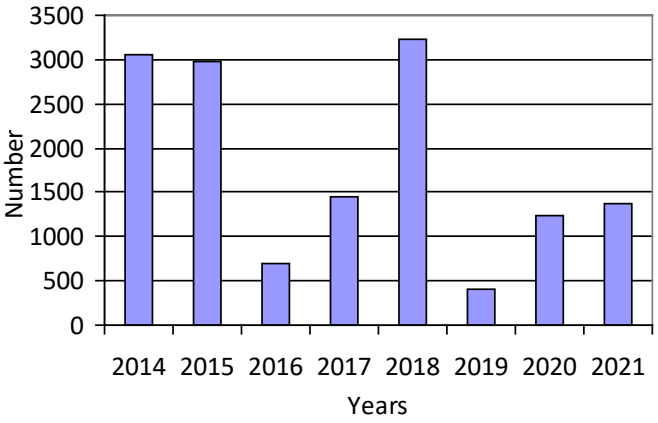


Figure 3. *Number of waders ringed and flagged on Bolshaya Vorovskaya River Lagoon*

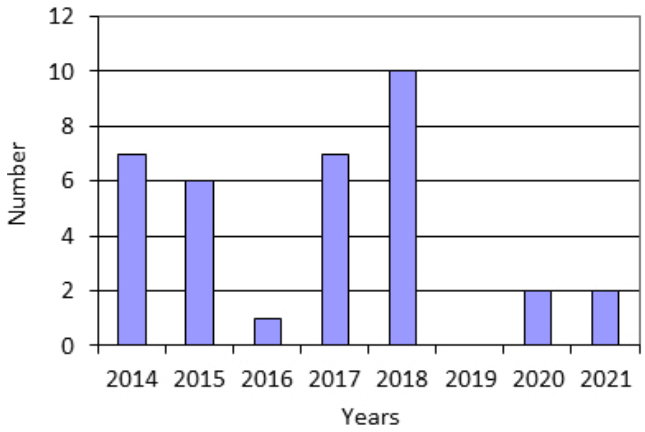


Figure 4. *Number of Spoon-billed Sandpipers flagged on Bolshaya Vorovskaya River Lagoon*

In 2021, first Spoon-billed Sandpiper (UE) with weight of 23.7 g (including flag) was caught 21.30 on 16 August; second bird (UK) with weight of 28.6 g (including flag) was caught 7.40 on 25 August.

Weather conditions in August 2021 with little rain and wind were very good for catching. However, we think that such good weather condition also contributed to the absence of large concentrations of waders on the lagoon. It was smaller than

Figure 5. *Broad-billed Sandpiper*

Figure 6. *Common Snipes*

usual. The absence of wind allowed the waders to migrate towards Sakhalin every evening.

After 8 years of research, we are trying to determine some patterns of the influence of weather conditions on our catching results for Spoon-billed Sandpipers.

This year, the total number of SBS caught at the mouth of this river over the past eight years reached 35 individuals. As can be seen from in Figure 4, the number varies significantly from year to year from 0 to 10. The dates were approximately the same each year, with the exception of 2019, when we had no birds caught.

We don't know how much the results of our work depend on the breeding success of SBS in any particular year. However, we have noticed that deviations from standard weather conditions both in the direction or their deterioration (2016) and in the direction of unusually favorable weather conditions (2021) can reduce the number of SBS as well as other species of sandpipers.

Currently we are thinking about the opportunities to visit other locations in Kamchatka in spring 2022, assessing other sites for catching SBS. Though our experience of this year proved that this may be a more difficult task than we originally thought.

Figure 7. *SBS UE 16.08.2021*

Figure 8. *SBS UK 25.08.2021* *All photos by Yuri Gerasimov*

Spoon-billed Sandpiper autumn fieldwork on the southern Jiangsu coast

Katherine Leung and Chang Qing
on behalf of the Jiangsu team

Photo 1. *Shorebird ringing expedition team 2021, 10 October 2021* *Chang Qing*

In 2013 the Jiangsu Key Laboratory for Biodiversity and Biotechnology, School of Life Science of Nanjing Normal University (NNU) joined the SBS surveys at southern Jiangsu coast with the SBS Task Force and Spoon-billed Sandpiper in China (SBS in China). Since 2015 the team joined the Saving the Spoon-billed Sandpiper Project, partnering with the BTO, RSPB and WWT to carry out field work in autumn involving surveys for population estimation, ringing and satellite tagging expeditions. Same as 2020 autumn, due to COVID-19, we were again missing our foreign teammates this year. Nevertheless, the autumn field work for Spoonies continued successfully.

In 2020 autumn, our team collaborated with NGO SBS in China to conduct surveys involving a team of photographers and volunteers, who contributed as citizen scientists. Besides direct observation and counting of individuals, each surveyor checked carefully and recorded whether or not a bird was marked (usually with engraved leg flag) every single time a Spoonie is encountered (we called this a "check"), and tried to read the code on the flag if present (we called this a "read") regardless whether the individual has been recorded earlier during the course of the survey period. The purpose of such scan sampling and reading surveys is to allow estimation of the local Spoonie population using close-population mark-resighting method described in detail in Chang et al. (2021). See this short video explaining how this method works to estimate the number of taxis in London by reading the number plate on the vehicle: https://www.youtube.com/watch?v=tyX79mPm2xY

This method has been used for autumn local population estimate in Tiaozini since 2017. This September, we followed the same method and recorded nineteen individual flags at Tiaozini (Table 1) and accumulated about 90 successful "reads" over the course of a four days survey, few new flags were being found at the latter stage of the survey period (Figure 1).

Based on these observations, the total number of marked individuals that were actually present can be estimated (i.e., N). N was then divided by the proportion of Spoonies that have marks (i.e., F), which is calculated by the mark present/absent

Table 1. *Marked individual Spoon-billed Sandpiper recorded during 2021 autumn survey in southern Jiangsu*

Marked individuals recorded during survey in 2021	Missing from September - October 2020
Wild caught adult from Meino (Lime):	
Tiaozini: 34, 48	Tiaozini: 22, 78, 88
Yangkou: 45*	Yangkou: 77
Dongling: 90	Dongling: 76
Wild caught chick from Meino (Lime):	
Tiaozini: 24, M4, U3, 8M	Tiaozini: 7J, 7L, 7X, 9C, E3, P3
Yangkou: 36*, J0	Yangkou: 8X
Dongling: 27, 7M, LN*	
Head-started chick from Meino (White):	
Tiaozini: 3V, 5Y, NC, U2*	Tiaozini: 1T, CJ
Wild caught juvenile from Kamchatka (Yellow):	
Tiaozini: VE, YE	Dongling: YJ
Wild caught adult from Jiangsu (Yellow):	
Tiaozini: 53, AU, EU, HU, KY, XU	Tiaozini: EJ, TU
	Yangkou: CU
Wild caught adult from wintering ground (Orange):	
Dongling: K6*	-

* - Individuals recorded in 2021 but not in 2020

"checks" each time a Spoonie is encountered (i.e., m/c). A Lincoln-Petersen estimate of the number of Spoonie at each site can then be calculated (i.e., N/F) (Table 2).

We usually found that the estimated local population size would be more than double of the peak counts during the survey period. This is very reasonable given we could not simultaneously detect and count all the Spoonies present in the vast coastal area. The Lincoln-Petersen estimate provided a scientifically reliable way to keep track of the population trend which should remain accurate even if there are changes in surveyors and survey effort. Adding this year's results on to the graph in Chang et al. (2021), shows a reduction at Tiaozini between 2020 and 2021 (Figure 2), indicating that the significant decline of about half in the local population between 2018 and 2019 has no signs of any recovery yet. Estimated local population size has also declined between 2020 and 2021 at the other two sites, Yangkou and Dongling. The combined total for all three sites in 2021 was 189 birds, compared with 240 birds in 2020. Although not statistically significant, this 21% decline in one year is of concern.

As per the satellite imagery study in Chang et al.

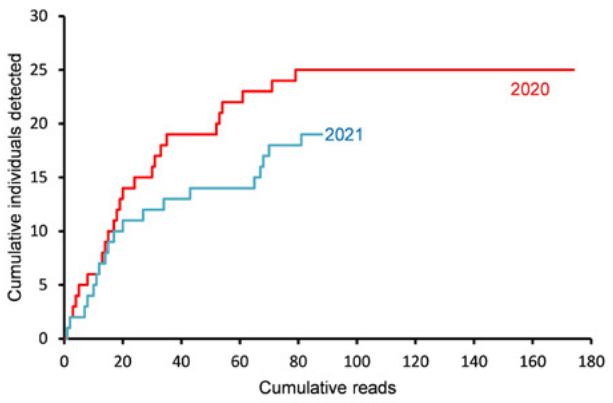


Figure 1. *Cumulative number of individually-marked Spoon-billed Sandpipers recorded at Tiaozini in September of 2020 and 2021 in relation to the cumulative number of reads of individually-marked birds, arranged in chronological order*

Table 2. *Lincoln-Petersen estimates of the numbers of Spoon-billed Sandpipers at Tiaozini, Yangkou and Dongling from surveys in September 2020 and 2021*

Parameter	Tiaozini	Yangkou	Dongling
Results for September 2020			
Number of marked individuals observed	25	4	4
Estimated number of marked individuals present N	25.6	-*	-*
Total number of valid "checks" c	1100	178	585
Number of valid "checks" of marked birds m	187	27	37
Estimated proportion with marks m/c=F	0.170	0.152	0.063
Lincoln-Petersen local population estimate N/F	151	26	63
Results for September 2021			
Number of marked individuals observed	19	3	5
Estimated number of marked individuals present N	21.4	-*	-*
Total number of valid "checks" c	707	107	523
Number of valid "checks" of marked birds m	128	20	48
Estimated proportion with marks m/c=F	0.181	0.187	0.092
Lincoln-Petersen local population estimate N/F	118	16	54

* - The number of individually marked birds could not be estimated by the closed-population mark-resighting method for Yangkou and Dongling in either year because of small sample sizes. We therefore assumed that the number of marked birds present was the same as the number observed.

(2021), we continue to observe changes in the topography of the mudflats at Tiaozini this year with reduction of the upper tidal zone as the intertidal channel continue to shift towards the seawall at the south. Although mechanical control of the invasive Spartina has been taken place in Tiaozini and Yangkou, the outcomes were not satisfactory and Spartina remains a major threat to the Spoonie habitat. Persistent and effective control of the expansion of Spartina is urgently needed at all three important Spoonie sites along the southern Jiangsu coast to prevent further deterioration of the habitats available. Besides, stable and undisturbed high tide roosting sites in close proximity to the feeding intertidal habitats are still in shortage, especially at Yangkou and Dongling. Despite the increased conservation efforts in recent years, there still seems to be a lot needing to be done to maintain and improve the Spoonie habitats in southern Jiangsu coast.

In October, our team also carried out shorebird ringing expedition for a week. Despite no Spoonie was captured this time, we ringed and applied engraved leg flags on more than 350 individuals of

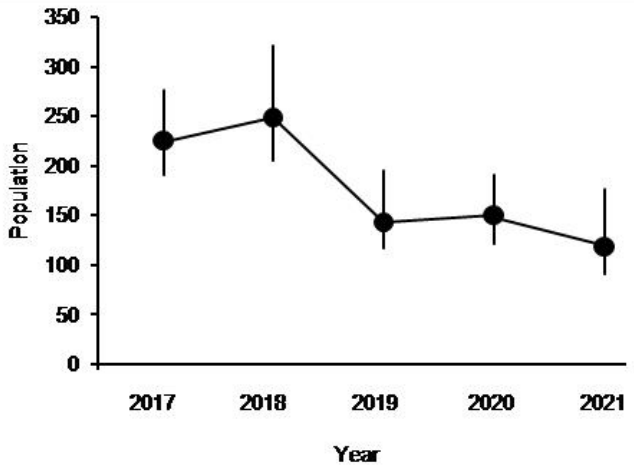


Figure 2. *Lincoln-Petersen estimates of the numbers of Spoon-billed Sandpipers at Tiaozini in September-October 2017 - 2021. Vertical lines are 95% confidence intervals. Estimates for 2017 - 2020 are from Chang et al. (2021)*

***Photo 2**. Re-invasion of* Spartina *on Yangkou mudflats two years after mechanical control in 2019, 6 September 2021* *Katherine Leung*

***Photo 3**. Manually clearing the aerial parts of* Spartina *at Tiaozini, 31 August 2021* *Chang Qing*

16 shorebird species. Resightings of these marked individuals will allow us to better understand local movement and habitat use of shorebirds in southern Jiangsu to facilitate effective habitat conservation strategy.

We would like to thank all the volunteer surveyors who took part in the scan surveys in 2020 and 2021; we thank SBS in China for coordinating the volunteer surveyors in 2021; we thank Jiangsu Academy of Forestry, Yancheng National Nature Reserve, Nantong Museum and Jiangsu Bird Watching Society for their hard work in participating in the ringing expedition since 2015; we thank our foreign teammates, especially Nigel Clark, Rhys Green and Guy Anderson for providing valuable advices on the scan survey and ringing expedition.

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Photo 4. *Shorebird ringing expedition team worked overnight until dawn at Yangkou, 10 October 2021* *Zhou Weiming*

Photo 5. *Lime 45 at Yangkou, adult female marked in Meino in July 2017 which has successfully bred in Meino this summer, 20 September 2021* *Katherine Leung*

Photo 6. *White U2 at Tiaozini, a head-started juvenile born this summer, 23 September 2021* *Katherine Leung*

Photo 7*. Orange K6 at Dongling, first resighting since it was marked at Leizhou, S China in December 2020, 18 September 2021. See also "Latest News" on p. 33* *Katherine Leung*

Photo 8. *Yellow XU at Tiaozini, one of the 13 Spoonies marked by the ringing expedition team in September 2018 has been recorded annually at Tiaozini in autumn since then, 9 October 2021* *Zhou Weiming*

A Spoon-billed Sandpiper *Calidris pygmaea* came to Saitozaki, Fukuoka, Japan – People and Habitat Close to Residential Area

Asaka Osanai[1], Takuro Hattori[1,2], Minoru Kashiwagi[2]

[1] Fukuoka Wetland Conservation Research Group (FWCRG), [2] Ramsar Network Japan

Figure 1: *Spoon-billed Sandpiper on the Saitozaki Beach taken on 6 September 2021*

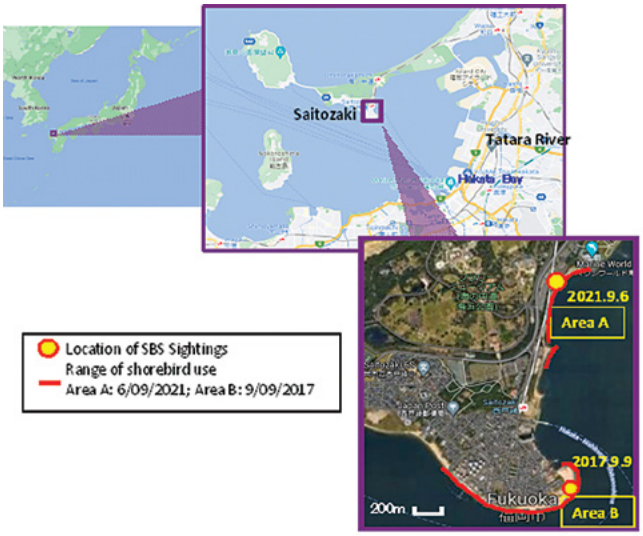


Figure 2: *Location of Saitozaki Beach and the points of SBS observation*

A juvenile Spoon-billed Sandpiper (SBS) was observed at Saitozaki Beach of Hakata Bay, Fukuoka City, Kyushu, Japan, on 6 September 2021. It has been four years after the last observation here on 9 September 2017.

Along the coast of Hakata Bay, there were records of single sightings with more than 10 individuals before 2000. However, after the beginning of this century, the number of SBS single sightings decreased to less than several birds at maximum, and, recently, number of years with no observation have been increasing.

Saitozaki Beach is located toward the end of a sand spit in the northern part of Hakata Bay, shown in Fig. 2. A major river, Tatara River, flows into the southern part of the Bay. After heavy rain in the region large number of drifts from Tatara River may gather around Saitozaki Beach.

Condition of Observation Area A

The SBS was observed in a small shallow waterpool mixed with sand and mud at low tide in Area A of Saitozaki Beach as shown in Figure 3. This Area A is a strip of sand beach of about 500 m mingled with boulder stones of various sizes. Rain fall on the nearby parking area of an Aquarium is guided to be disposed to this area of the beach, that the seawater in this area is mixed with rain freshwater when it rains. Seaweeds, such as Sea Lettuces *Ulva lactuca*, catch the surface of the stones. Various crustacians including sand-burrowing Amphipods *Haustorioidis japonicus*, Beach flea *Talitoidia*, Ragworms *Hediste* spp., crabs and shrimps are identified together with various shellfish. Species of shorebirds found on Area A are SBS, Red-necked Stint, Sanderling, Dunlin, Common Sandpiper, Grey-tailed Tattler, Great Knot, Terek Sandpiper, Marsh Sandpiper. The SBS individual was feeding on beach fleas and sand-burrowing amphipods together with Red-necked Stints and Dunlins.

Condition of Area B

On 9 September 2017, an SBS was observed to be feeding at a sandy beach in Area B. It was about 1 km from the sand beach where the SBS was found in 2021. The organism fed by the SBS was identified as sand-burrowing Amphipods *Haustorioidis japonicus* by an analysis of the faeces from a SBS individual, successfully collected on that day in 2017.

In 2017, sand-burrowing amphipods were abun-

Figure 3: *Area A*

dant on the coastline of Area B, while in this year, in 2021, the size of individual amphipods was much smaller and their concentration much lower. The amphipod concentration was very high in Area A. It was observed that the shorebirds stayed longer on this area. This suggests that the shorebirds move between the two areas on the beach.

Threats in Saitozaki Beach

Saitozaki Beach has a sandy shoreline of about 1 – 2 km suitable for small shorebirds to feed. High tide roosts of the shorebirds are mostly revetments or sandy beaches nearby. Ratio of utilisation by small shorebirds are estimated to be 80% on the sandy beaches above the wave, and 20%

Figure 4: *Sand-burrowing Amphipods* Haustorioidis japonicus

H. japonicus *collected at the feeding area A on 6 September 2021*

on artificial construction such as revetments and boulder stones. On Area B, breeding of Little Terns and Kentish Plovers has been confirmed.

However, human interference on this beach is impacting shorebirds at an undeniable level located close to a residential area. Moreover, combined with the spread of COVID-19, more people seem to like outdoor recreation activities, such as barbecue party, fishing, etc. Entangled fishing lines have already caught bills or legs of other species. There are cases that birds abandon nesting because of intrusion of people, unleashed dogs, and others into the nesting area.

Recognising the necessity of awareness raising, our group, FWRCG, has been working with local people in other coastal areas of Hakata Bay. Now, as an urgent necessity, we are planning activities to provide an opportunity to learn and conserve shorebirds, and to build signboards to raise awareness to those people who are using the beach, establishing co-operation with local community, local elementary school and the municipal government of Fukuoka City.

Figure 5: *Threats to Shorebirds in Saitozaki:*
Left: Great Knot and discarded fishing lines.

Right: Water scooter close to feeding Red-necked Stints

A note from Japan to the readers of the SBS Newsletter by Minoru Kashiwagi, EAAFP SBS Task Force:

The archipelago of Japan is on the eastern end of the flyway of Spoon-billed Sandpiper along the eastern coast of Eurasian Continent. Accumulated data of hunting, banding, and sightings of this species can be traced back to 1870s. There are more records of southward migration than northward migration. Though the number is small, there are also records of wintering. During southward migration, most of the records are juveniles when identified.

This year, 2021, report of southward migration season gave me a little hope. It was because I received reports of more than five sightings despite discouraging information in the last year. Some of the sighting records I received are a bird having a flag "1N", another bird at a reclamation site, and one bird sighted at a site of an almost-residential-area, etc. The last case, in Hakata Bay, Fukuoka City, Kyushu Island may explain a type of situation for SBS in Japan.

Coastal area of the bay used to have sightings of plural birds every year in the first decade of 2000s. However, the situation turned worse. And this is a sighting our eager colleagues had to wait for four years. I would be happy if you share the situation of SBS and the efforts of our colleagues in Japan.

SBS in Arts

"Arctic birds in the land of the Spoonbill"

Elena Lappo
on behalf of SBS TF team

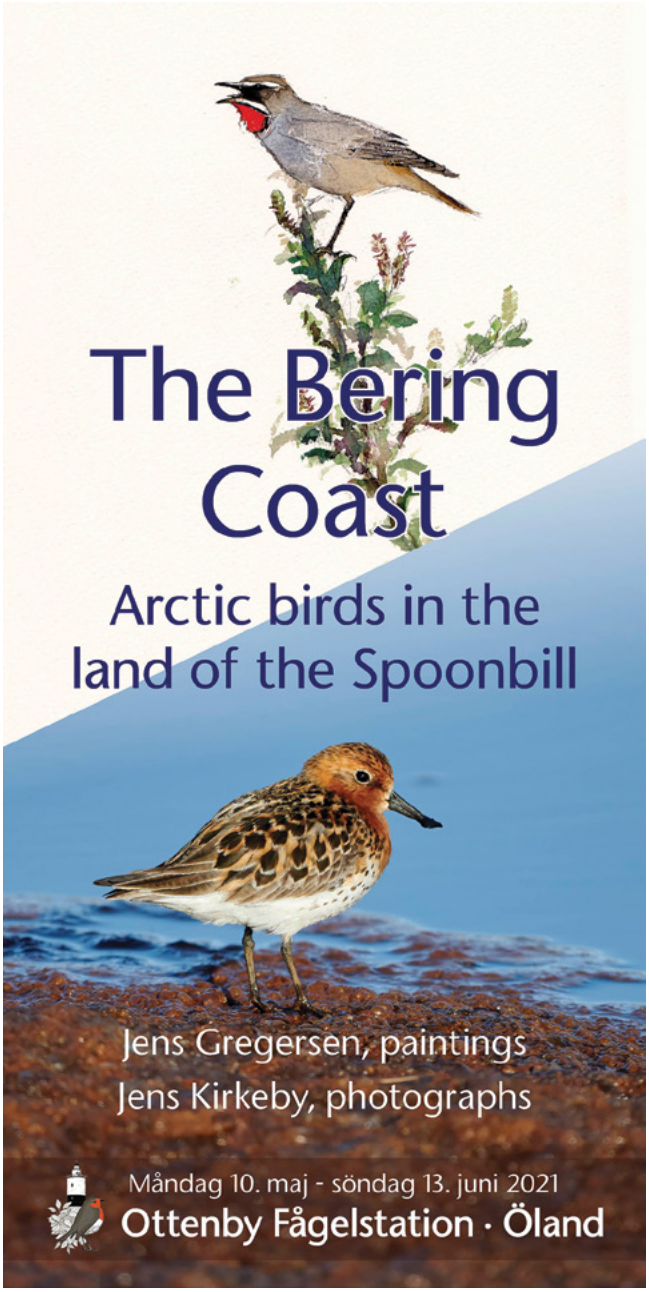
Missing his one more spring journey to the Arctic, Jens Gregersen, famous Danish artist, respected member of our Chukotka expeditions, together with his friend and colleague Jens Kirkeby, photographs, organised an exhibition "The Bering Coast. Arctic birds in the land of the Spoonbill" . The exhibition with many photos and Jens' paintings, all about Beringia took place in May, in Sweden, at the Island of Öland (close to the Ornithological Station at Ottenby south Öland).

Jens is one of the core members of Scandinavian SBS support group, our friend and participant

A pair of SBS in Alkatwaam in 2019, drawing by Jens Gregersen

of many Chukotka expeditions. He made a significant input into discovering new breeding locations of SBS. Jens is the main expert of SBS at his favorite site at Russkaya Koshka where he organised many expeditions in cooperation with BirdsRussia. For more information about art and conservation activities of Jens Gregersen see SBS Newsletter No 11, January 2014 https://eaaflyway.net/wp-content/uploads/2017/12/SBS_TF_newsletter_no11_jan2014.pdf, pp. 29-31.

We like to congratulate Jens and his colleague Jens Kirkeby for their Art Exhibition!



Poster of the exhibition

Jens Gregersen drawing in the tundra

Drawing and Painting in the Arctic

Over the years, I have been travelling in Chukotka eight times with teams of ornithologists from Russia. The expeditions were organized by BirdsRussia and the ornithologist Dr. Evgeny Syroechkovskiy from Moscow. Since 2000 Evgeny Syroechkovskiy has worked with his monitoring program of Arctic birds in Chukotka. It became clear that a lot of species were declining in their breeding areas. Especially the situation for the Spoon-billed Sandpiper was alarming. Over the years, the focus on the Spoon-billed Sandpiper grew, as it vanished from most of its breeding range.

Every year the Russians arranged expeditions to unknown areas, often with the participation of experienced ornithologists from England and Germany. The expedition life could be rough with a lot of walking and transport in caterpillars, boats and helicopters.

For me the expeditions since 2006 have been one long fantastic journey in Chukotka, mainly along the coastline from Kresta Bay to Meinypil'gyno. I got the opportunity to come to the Arctic for drawing and painting, and fortunately fieldwork and drawing go well together.

In 2014, I released a book about my Arctic travels – "Arktisk Sommer" – about my tours since 1999, from Greenland, Canada and Alaska, to Russian Franz Josef Land, Petchora, Taimyr, Kolyma and Chukotka.

In this exhibition, I show examples of my work in painting of my favorites – birds and landscapes, mainly from the so-called Beringia.

Jens Gregersen, Vorsø, April 2021

SBS with chicks, painting by Jens Gregersen

The Iron SBS

Elena Lappo
on behalf of SBS TF team

The three parts of the story about the migration of the Iron SBS

1. The monument was originally made by Vadim Kuleshov for the Chukotka Exhibition at The Third Annual Eastern Economic Forum (EEF) in 2018 in Vladivostok.

https://eaaflyway.net/wp-content/uploads/2017/11/SBS-Newsletter-Mar-2018-13032018-Web.pdf, Page 28-29

2. After EEF the Iron SBS "migrated" to Anadyr and rested for 2 years in the Chukotka Heritage Museum. Last autumn it was transferred to Meinypil'gyno by barge of El'chin Agaev.

https://www.eaaflyway.net/wp-content/uploads/2020/11/SBS-Newsletter-Nov-2020-web.pdf, page 32

3. This year the Iron monument of SBS on a human hand named "Save the Life" was erected in the tundra near Meinypil'gyno close to the place where our team found the first nest of SBS in 2001. The creation of the monument was done on the initiative of Chukotka Governor Roman Kopin and the Head of Administration of Anadyr district Sergei Savchenko with the help of Department of Culture, Sport and Tourism, with the financial and technical help of Victor Belashov and Vasiliy Unku.

https://www.facebook.com/prochukotku/posts/1488054581560883

The Iron Spoon-billed Sandpiper finally moved to Meinypil'gyno
Svetlana Belogorodseva

Coming soon: EcoChukotka, a new board game

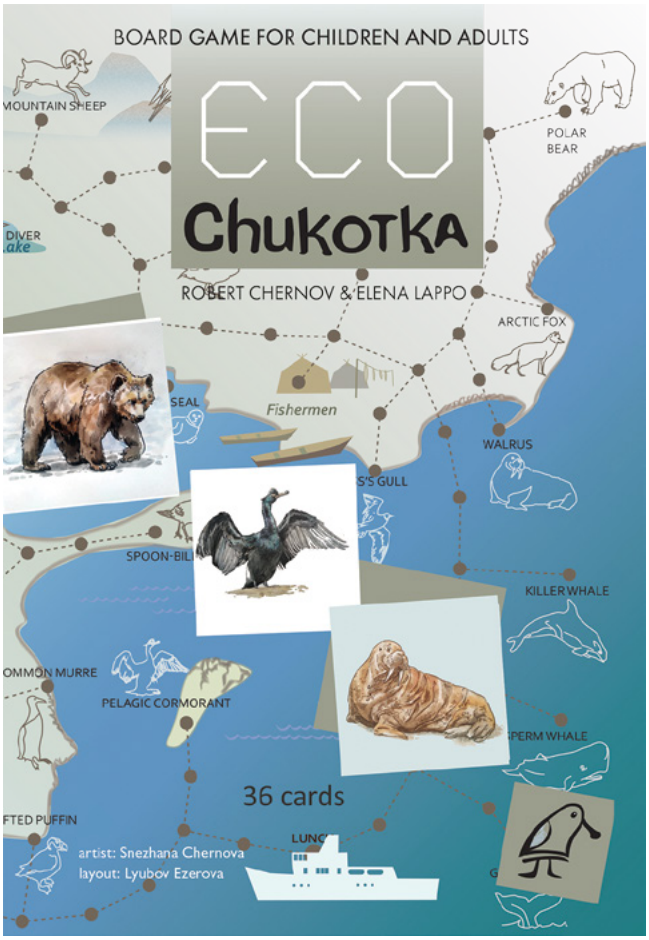
Elena Lappo
on behalf of SBS TF team

SBS is one of the main Heroes in the first Russian Board game on Chukotka wildlife

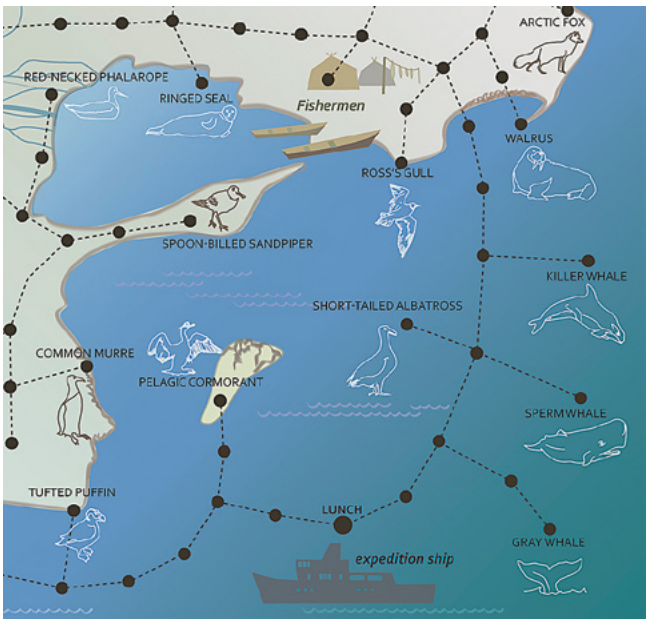
I was inspired to start planning this board game during landings of Heritage Expedition with Rodney Russ in Koryak coast where we were searching for the new unknown breeding sites of SBS.

My colleague Dr. Robert Chernov from the Institute of Geography had some experience in making board games related to Geography when he had some time in the expeditions in Arctic and Antarctic. He developed the rules for the game and the map of fictional lagoon, and his teenage daughter Snezhana draw the sketches of birds and mammals.

The rules are easy – you come ashore and start throwing the dice, coming following various routes collecting scores by picking up the cards with images of birds and mammals (the highest scores are of course for the SBS!). But the images appear on the map step by step, not all at the same moment … so you do not know where to go first… And you will have some adventures on the way … This game is for both: children and adults, who have never been in Chukotka and those who live there and want to learn more about its nature. It is also reviving great memories about beautiful Chukotka and our expeditions when playing.



Playing EcoChukotka in Meinypil'gyno Nadezhda Dorofeeva



The hero in the middle: Spoon-billed Sandpiper

Latest News

China

Jiangsu coast

On October 22, David Qian, Wenjie Xue and we observed 20+ Spoon-billed Sandpipers at Tiaozini's northern high-tide roost well before high tide. Among them there were 7 marked individuals: Lime 24, Lime E3, Lime P3, Lime 7L, Lime 8M, White 5Y and White NC. It was a very windy day and the Spoonies were feeding sooo actively in the roost, probably on aquatic insects! Lime E3 and 7L were both not seen during the September survey. Lime 24, Lime 8M, White U2 were still present. *Ziyou Yang and Katherine Leung*

White 5Y, Tiaozini HTR *Jinqui Shen*

Lime 24 struggling with wind, Tiaozini HTR *Ziyou Yang*

Leizhou coast, Guangdong

On October 23rd, Tao He from Zhanjiang Mangroves Nature Reserve observed already six Spoonies at Tujiao, including Yellow 0X and two more flagged individuals he didn't manage to read. On 2 November he also observed Lime 2L, White 6A, Yellow 0X and Orange K6 the day before. All of them are old pals of Tujiao, but White 3C has not been seen in China before and it might be still on its way to wintering grounds further south! It is a head-started bird from 2017 and was seen two times in South Korea: last time on 21 Sep 2021 and six times over the past four winters in Bangladesh.

White 3C at Tujiao, Leizhou Peninsula, 2 Nov 2021 *Ziyou Yang*

White 3C at Meinypil'gyno, June 2020 *Egor Loktionov*

Orange K6, Tujiao, Leizhou, see Photo 7 on p. 22 *Tao He*

Yellow 0X, Tujiao *Tao He*

Thailand

BCST is reporting on the first arrival at the known wintering grounds. The first arrived in Pak Thale on 29 September and at Khok Kam on 30 Oct. Video: #EP.2 https://www.facebook.com/255844671121201/videos/865788310965346 (facebook.com)

One bird was near Chonburi at Khlong Tamru Salt pans and at a new site at the Gleua Café, Chachoengsao, which BCST staff discovered 21 October. Video available at https://www.facebook.com/100000036910881/videos/pcb.4951752701502578/231961048841522

By 29th October there were two birds.

Two SBS at Chachoengsao saltpans , Chonburi.

BCST is talking with land owners to secure the site for migratory birds in the future.

Kaset Sutasha

Two Spoonies near Chachoengsao, 29 October 2021 *Suebsawat Sawat-Chuto*

The last Page

A map of the "Land of the Spoon-billed Sandpiper" drawn by Danish Artist and long-term Arctic traveller Jens Gregersen

Here is a nice YouTube trailer on the "Land of the Spoon-billed Sandpiper": https://www.youtube.com/watch?v=N0rKc_qcTis. If the link is not working in your country please search for the title at YT