

# YSLME MPA NETWORKING WORKSHOP

14-16 January 2019 • Dalian, Liaoning, PR China

## Jiangsu Coast: supporting more than Spoon-billed Sandpiper

**Jing Li**

Spoon-billed Sandpiper



# Spoon-billed Sandpiper in China

- Conserve the migratory shorebirds on Yellow Sea
- Local NGO since 2008
- Special focus: Spoon-billed Sandpiper and intertidal of Jiangsu province





肖诗白



汤正华

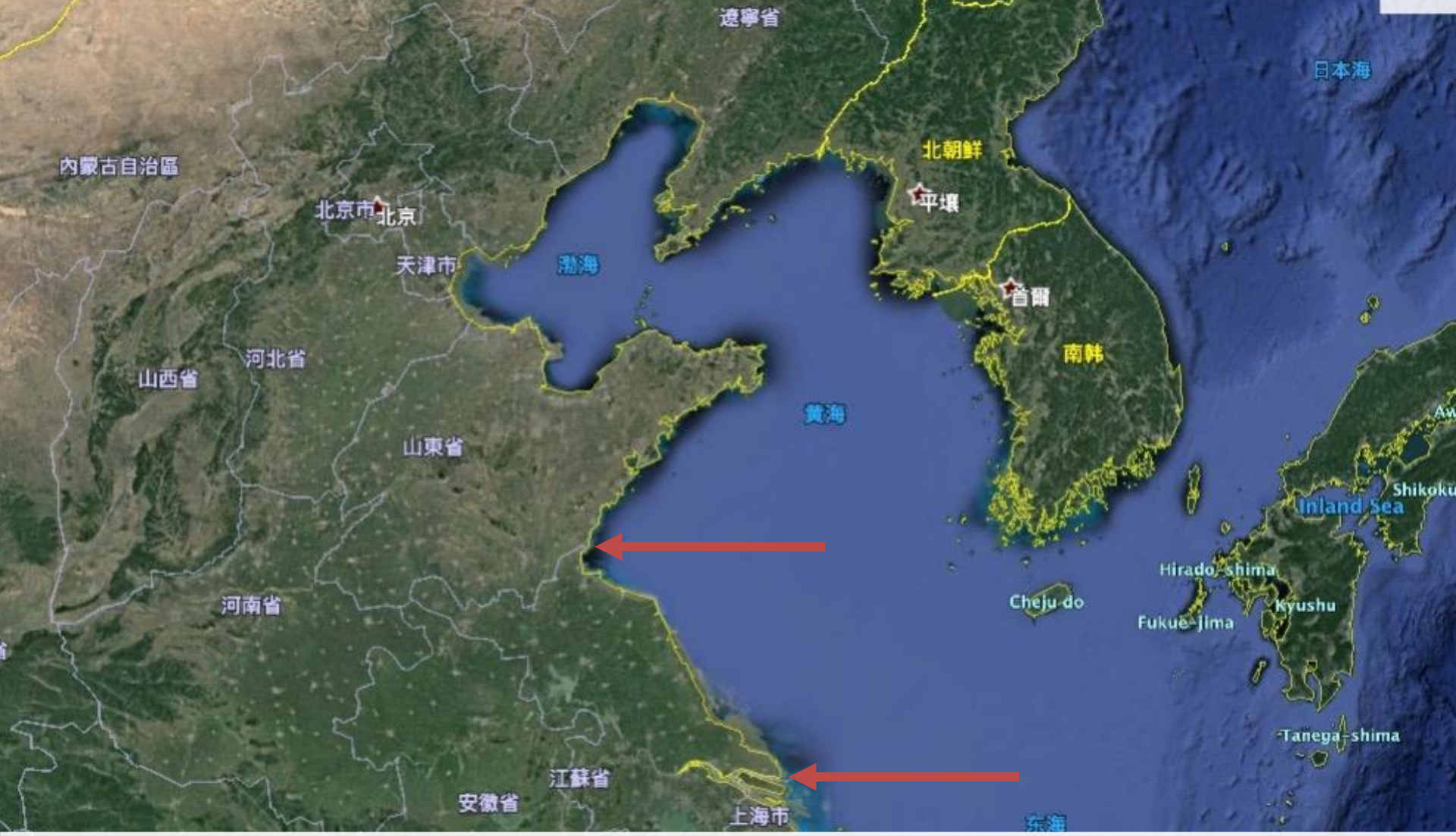


李东明









Jiangsu locates in the south Yellow Sea





黄海

青島市

臨沂市

Lian Yungang

連雲港市

Lian Yun Gang/连云港  
since 2008

濟州市

Tiaozini

Yan cheng City

Nantong City

since 2010



WNH

Dong Ling

江蘇省 南京市

常州市

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Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Image Landsat / Copernicus

Google Earth

蘇州市

上海市 上海

影像拍攝日期: 2015/12/14

33°54'09.25" 北 122°56'31.44" 东 海拔 -54 米

視角海拔高度 810.56 米



Spoon-billed Sandpiper

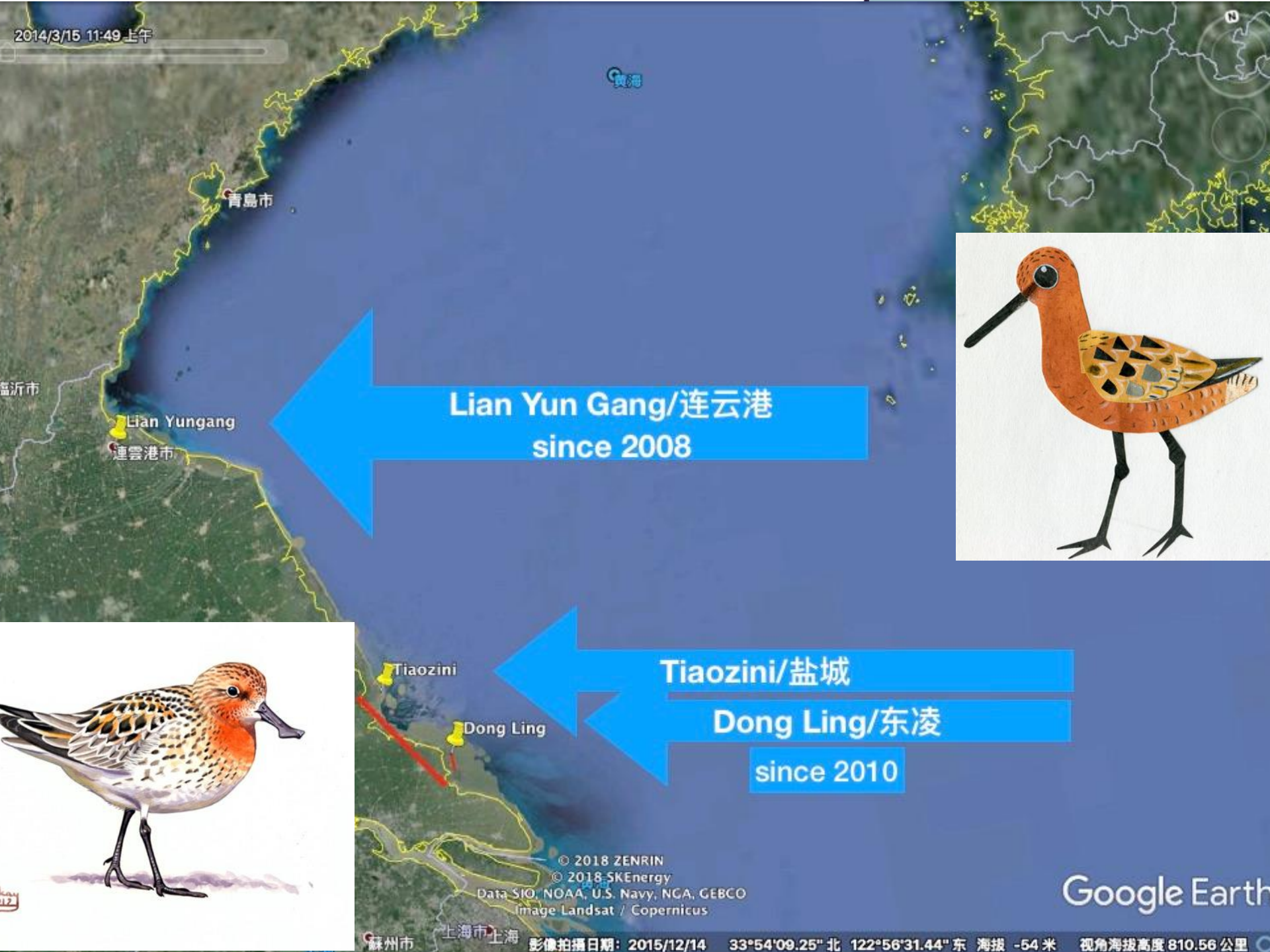
Asian Dowitcher

*P. Tomkovich*

2019/5/5 © Luke Tang





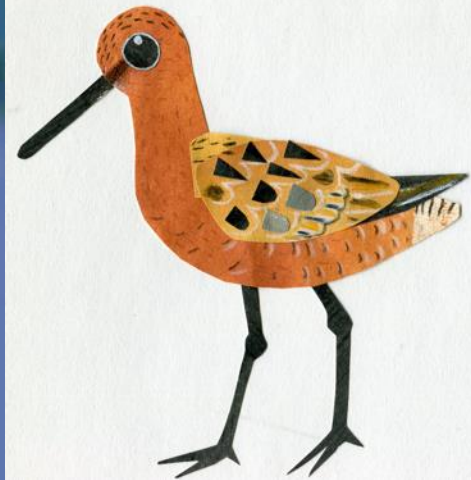


Lian Yun Gang/连云港  
since 2008

Tiaozini/盐城

Dong Ling/东凌

since 2010



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Data SIO, NOAA, U.S. Navy, NGA, GEBCO  
Image Landsat / Copernicus



# Preference different for the three sites

## Lian Yun Gang

Species	1% criteria
Asian Dowitcher	22,432 97% *
Great Knot	15,000 4% *
Black-tailed Godwit	19,810 20%

## Tiaozini+Rudong County

Species	1% criteria
Spoon-billed Sandpiper	225 50%
Nordmann's Greenshank	1100 90% plus

18 out of 43 recorded Species exceeded 1% of their EAAF population



		2011		2012		2013		2014		2015		2016	
		MAX	Month	MAX	Month	MAX	Month	MAX	Month	MAX	Month	MAX	Month
<b>Spoon-billed Sandpiper</b>	CR	<b>103</b>	Oct	<b>53</b>	Sep	<b>85</b>	Oct	<b>144</b>	Sep	<b>101</b>	Oct	<b>101</b>	Oct
<b>Nordmann's Greenshank</b>	EN	4	Sep	<b>146</b>	Oct	<b>251</b>	Nov	840	Sep	940	Oct	450	Oct
<b>Bar-tailed Godwit</b>	NT	1000	Aug	1438	Aug	804	Sep	<b>2000</b>	May	1500	May	<b>4000</b>	Aug
<b>Great Knot</b>	EN	1100	Aug	660	Aug	<b>5124</b>	Jul	1400	Jul	<b>6820</b>	Jul	<b>8526</b>	Jul
<b>Eurasian Curlew</b>	NT	569	Dec	900	Dec	3495	Nov	7800	Oct	4000	Nov	6130	Nov

Yang Z, Lagassé BJ, Xiao H, Jackson MV, Chiang C-Y, Melville DS, Leung KS, Li J, Zhang L, Peng H-B, Gan X, Liu W-L, Ma Z, Choi C-Y. Moult schedule of Spoon-billed Sandpiper *Calidris pygmaea* and Nordmann's Greenshank *Tringa guttifer* at a critical staging site in China's Yellow Sea. (Manuscript under review)

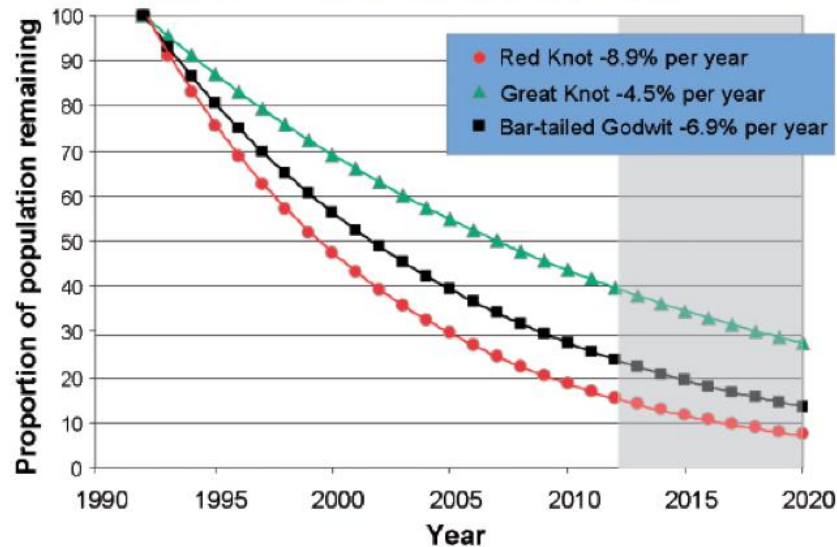


# Facts: declined wader population



死去的勺嘴鹬 | 李静

Projected population losses in three shorebird species given current rates of decline of 5-9% per year



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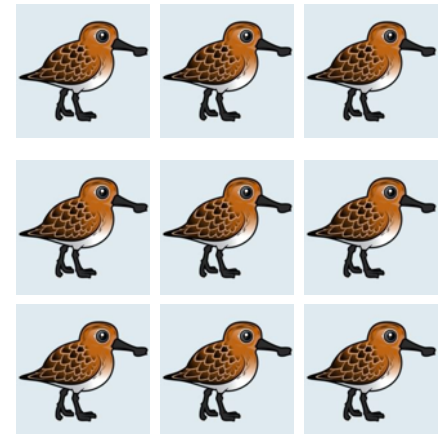
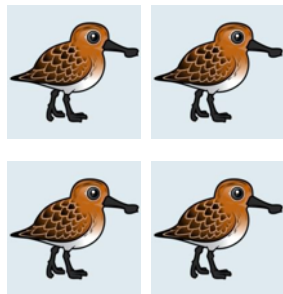




- Quick transit
- Part in north Yellow Sea, e.g. Lime 01 \*

- Second Year wondering in Yellow Sea \*
- Around 20

- Moulting sites for adults
- Arriving at different months
- Max count 225







1 out of 2000





In 2019, a total of 110 flag sightings for 37 different individuals were reported by waterbird surveyors and citizen photographers.

In 2018, it was 65 sightings out of 33 individuals.



## Other Key findings outside Jiangsu

- A staging sites in North Korea by sat tracked 07 SBS
- The wintering grounds along the coast of Guangdong and Guangxi Province, with concentration in Leizhou Peninsula
- First record of SBS in Indonesia by Sat tracked 07 SBS

# Asian Dowitcher in migration





嵐山區

绣针河口 Xiuzhen RM

龙王河口 Longwang RM

兴庄河口 Xingzhuang RM

青口河口 Qingkou RM

临洪河口 Linhong RM

連雲區

三組

二組

連雲港市

南門口

埭子口 Lie'zi'kou RM





- Endemic in the Flyway
- Last population estimation was ten years ago
- A high concentrated population during northward migration in Lian Yun Gang Coast **22,432 on May 13, 2019**



## Results

### Waterbird species and abundance

Overall, we recorded at least 47 species of waterbirds, including globally threatened Spotted Greenshank *Tringa guttifer*, Great Knot *Calidris tenuirostris*, Far Eastern Curlew *Numenius madagascariensis* and Relict Gull *Ichthyaetus relictus*. Thirty of the 47 species were shorebirds; a conservative estimate of the shorebird numbers was 109,028 individuals, accounting for almost 98% of all waterbirds recorded. The maximum single-day count of ten species exceeded 1% of their EAAF population (Table 1).

**Table 1.** Species whose maximum single-day count exceeded 1% of their EAAF population

Species	Number	% EAAF population	Date recorded
Black-tailed Godwit <i>Limosa limosa</i>	3,500	2.2%	10 May
Bar-tailed Godwit <i>Limosa lapponica</i>	2,121	1.3%	12 May
Terek Sandpiper <i>Xenus cinereus</i>	1,400	2.8%	10 May
Asian Dowitcher <i>Limnodromus semipalmatus</i>	22,432	97.5%	13 May
Sharp-tailed Sandpiper <i>Calidris acuminata</i>	11,059	6.9%	12 May
Dunlin <i>Calidris alpina</i>	31,796	3.2%	12 May
Broad-billed Sandpiper <i>Calidris falcinellus</i>	5,530	5.5%	12 May
Pied Avocet <i>Recurvirostra avosetta</i>	4,260	4.3%	12 May
Grey Plover <i>Pluvialis squatarola</i>	3,802	2.9%	12 May
Lesser Sand Plover <i>Charadrius mongolus</i>	3,110	15.6%	12 May

Yang et al. 2019 Waterbird surveys at Lianyungang, Jiangsu Province in China, discovered a significant number of Asian Dowitchers *Limnodromus semipalmatus* (unpublished)

# Records in last 5 years at Lian Yun Gang

Date	Date	Number of Asian Dowitcher	habitat
2019	April 20	414	Qingkou River mouth
2018	May 7	7,730	Qingkou River mouth
2017	May 13	3,000	Qingkou River mouth
	April 16	500	
2016	May 7	3,000	Qingkou River mouth
2015	Spring data NA	NA	
2014	May 16	980	Qingkou River mouth
	April 10	1001	
2013	May 12	2800	Qingkou River mouth

Why there is big data gaps over years ?



## Conserving unprotected important coastal habitats in the Yellow Sea: shorebird occurrence, distribution and food resources at Lianyungang

Ying-Chi Chan<sup>a,b\*</sup>, He-Bo Peng<sup>a,b</sup>, Yong-Xiang Han<sup>c</sup>, Sheena Suet-Wah Chung<sup>b</sup>, Jing Li<sup>d</sup>, Lin Zhang<sup>d</sup> & Theunis Piersma<sup>a,b</sup>

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<sup>b</sup>Department of Coastal Systems, NIOZ Royal Netherlands Institute for Sea Research and Utrecht University, P.O. Box 59, 1790 AB Den Burg, Texel, The Netherlands

<sup>c</sup>Lian Yun Gang Xu Gou Primary School, Lian Yun Gang 222042, China

<sup>d</sup>Spoon-billed Sandpiper (Shanghai) Environmental Protection Technology Co., Ltd., Shanghai 201100, China

\* Corresponding author (GELIFES), University of Groningen, P.O. Box 11103, 9700 CC Groningen, The Netherlands, P.O. Box 30.001, 3000 PB Dordrecht, The Netherlands, P.O. Box 22369300, e-mail address: [ychan@gelifes.nl](mailto:ychan@gelifes.nl)

We recorded 18 shorebird species of numbers exceeded 1% of the Flyway populations, which is the second-highest among the >300 shorebird sites in East Asia.

### Abstract

Coastal wetlands are

Chan Y.-C., Peng H.-B., Han Y.-X., Chung S.S.-W., Li J., Zhang L. & Piersma, T. (2019) Conserving unprotected important coastal habitats in the Yellow Sea: shorebird occurrence, distribution and food resources at Lianyungang. *Global Ecology and Conservation* 20. doi: [10.1016/j.gecco.2019.e00724](https://doi.org/10.1016/j.gecco.2019.e00724)





Regular counts by one  
people since 2008



High tide roost lost starting from 2014







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# 2019 Autumn: more to discover

- Asian Dowitcher: Ration youngsters & Adults
- Black-tailed Godwit: largest flag records ever
- Great Knot: flags and a population of 14680
- The 15 km travel distance for staging
  - Three estuaries
  - One high tide roost





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No.	Identification	Nominated	Buffer (~)	Total (ha.)
1	Dandong-Yalu River Estuary National Nature Reserve, Liaoning	26,999	45,429	72,428
4	Dalian Haibin-Lushunkou National Park, Liaoning	12,103	16,670	28,773
5	Liaohe River Estuary National Nature Reserve, Liaoning	47,913	32,087	80,000
6	Shi River Estuary, Shanhaiguan, Qinhuangdao, Hebei	127	0	127
7	Beidaihe-Geziwo/Xin River Estuary, Hebei	7,887	0	7,887
8	Golden Coast Nature Reserve, Beidaihe New District, Hebei	25,213	3,801	29,014
9	Luannan-Zuidong Coastal Wetland, Hebei	6,806	4,219	11,025
10	Caofeidian Wetland, Hebei	5,007	5,074	10,081
11	Nandagang Wetland in Cangzhou, Hebei	4,603	2,897	7,500
12	Yellow River Delta National Nature Reserve, Shandong			
13	Jiangsu Dafeng National Nature Reserve, Dongsha Experimental zone of Jiangsu Yangtze River Estuary as well as the Tiaozini area (YS-1)			
14	The middle section of Jiangsu Yancheng National Wetland Park			
15	Dongtai-Rudong Coast, Jiangsu	21,548	0	21,548
16	Qidong Yangtze River Estuary Nature Reserve, Jiangsu	14,959	5,259	20,218
Total area (ha.)		448,973	280,391	729,364
Total area, Phase I		188,643	80,056	268,699
Total area, Phase II		260,330	200,335	460,665

Lian Yun Gang is not in listed in Phrase I nor Phrase II

**Table 1:** Components of proposed Migratory Bird Sanctuaries along the Coast of Yellow Sea-Bohai Gulf of China (Phases I and II).

Nominate Lian Yun Gang into 2<sup>nd</sup> list

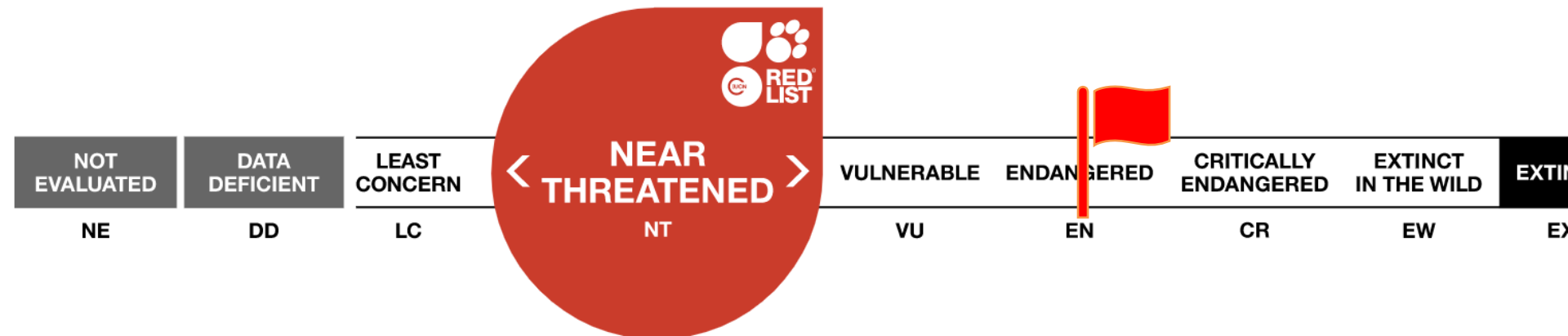


# Asian Dowitcher

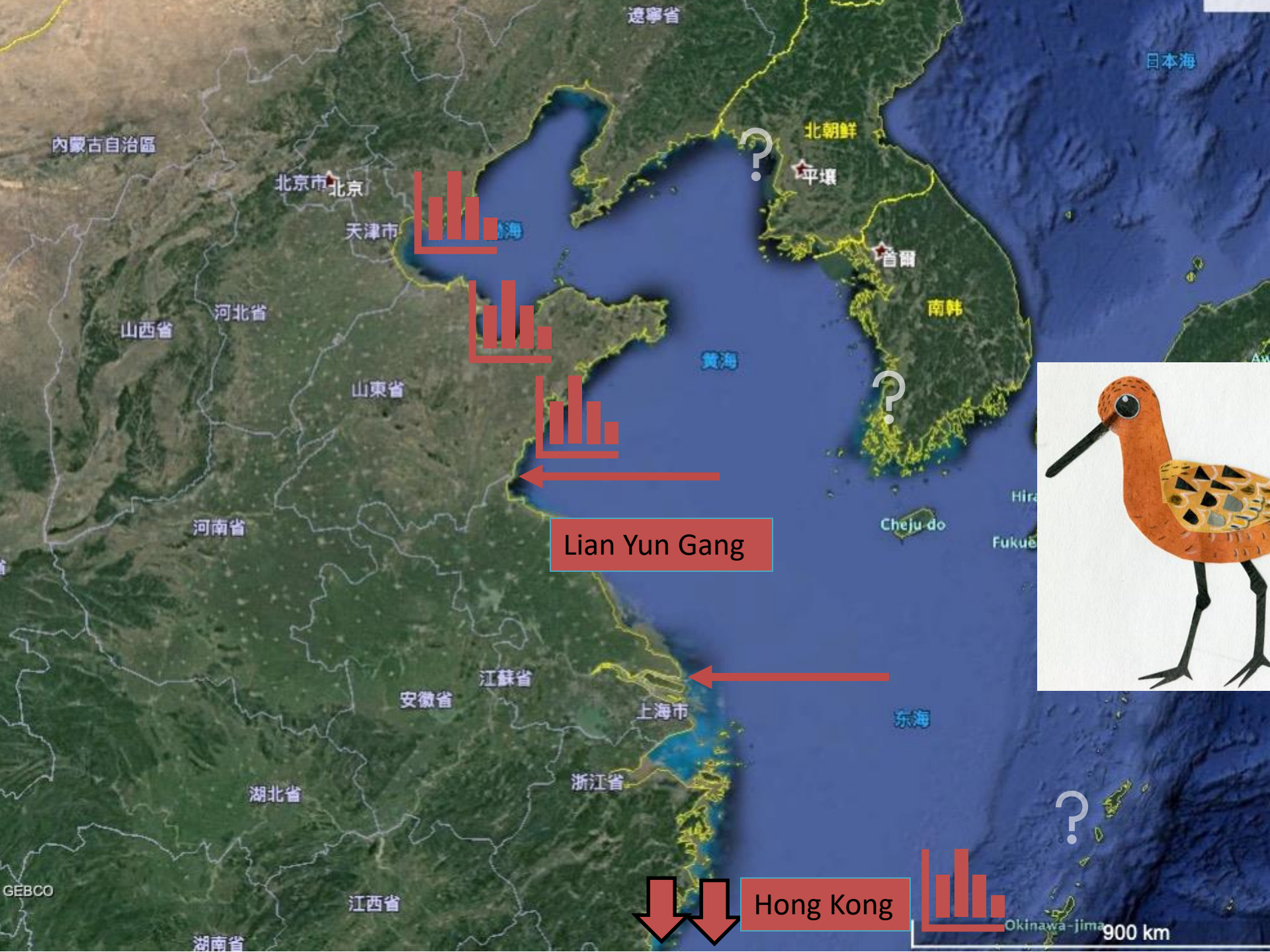
*Limnodromus semipalmatus*

## CITATION

BirdLife International 2016. *Limnodromus semipalmatus*. *The IUCN Red List of Threatened Species* 2016: e.T22693351A93397892. <http://dx.doi.org/10.2305/IUCN.UK.2016-3.RLTS.T22693351A93397892.en>. Downloaded on 03 January 2020.



Up list the status of Asian Dowitcher to EN



Lian Yun Gang

Hong Kong



Okinawa-jima 900 km



阿拉善SEE基金会  
SEE FOUNDATION

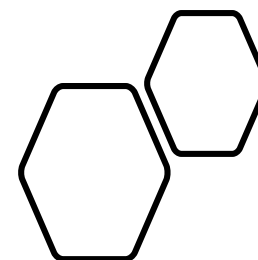
阿拉善SEE太湖中心

阿拉善SEE华东中心



北京林业大学





水滴汇聚成就生物多样性保护

感谢YSLME

给民间NGO更多成长空间

