

Outline

- Shorebirds in Lianyungang, Jiangsu province of China (5 min)
- Problem of shorebird bycatch in southeastern China (5 min)



Coastal wetlands in Lianyungang, Jiangsu Province, China: important yet unprotected habitats for EAAF shorebirds

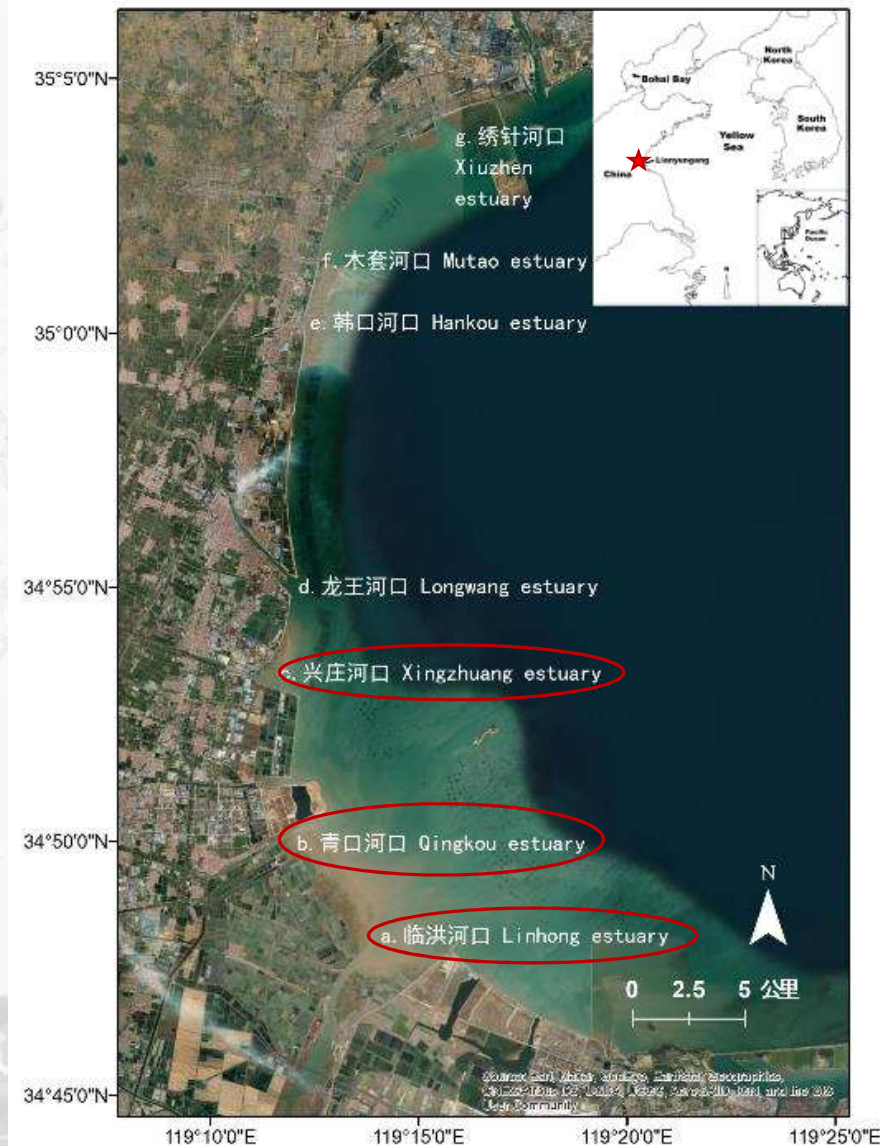


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SANDPIPER
IN CHINA
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©Photo by Wei HU

Where is Lianyungang?

- Lianyungang is a city on the west coast of Yellow Sea.
- Over ten east flowing rivers meet the Yellow Sea at Linhong, Qingkou, Xingzhuang, and several other major estuaries.



Important shorebird records in Lianyungang

- We recorded over 20k+ Asian Dowitchers in Lianyungang for 3 consecutive years from 2019 to 2021.

Over 20k Asian Dowitchers at Lianyungang's Qingkou esuary in May 2019
@Ziyou Yang

22432 Asian Dowitchers , 97.5% of its estimated global population!



Close view of Asian Dowitchers @Luke Tang



Important shorebird records in Lianyungang

- Between 2008 and 2018, over 43 species of shorebirds have been recorded in Lianyungang. The peak number of 22 species exceeded 1% of their estimated flyway population, which is **the highest among over 300 known shorebird sites in East Asia** (Chan et al. 2019).



Species	Asian Dowitcher	Great Knot	Far Eastern Oystercatcher	Nordmann's Greenshank	Sharp-tailed Sandpiper	Pied Avocet	Black-tailed Godwit
Max. single day count in Lianyungang	27,145	14,680	4,760	167	11,059	23,000	9,180
Date recorded	May 12, 2021	Aug 20, 2019	Feb 18, 2022	Aug 10, 2021	May 12, 2019	Sept 03, 2019	Aug 05, 2019
%EAAF population	Nearly 100%	5%	47.6%	11%	6.9%	23%	7%

Aerial view of the Blue Bay project



Lianyungang is
unprotected

- The Blue Bay 'ecological restoration' project may destroy nearly 1/3 of Asian Dowitcher's foraging habitats in Lianyungang

Lianyungang is unprotected • Lack of stable high-tide roosts





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Bycatch in southeastern China, an overlooked anthropogenic threat to EAAF shorebirds



Ziyou Yang, Dan Liang, Tong Mu, Xingli Giam, Yudi Wang, Jing Li, Liu Yang, David Wilcove

Razor clam farming is pervasive in southeastern China

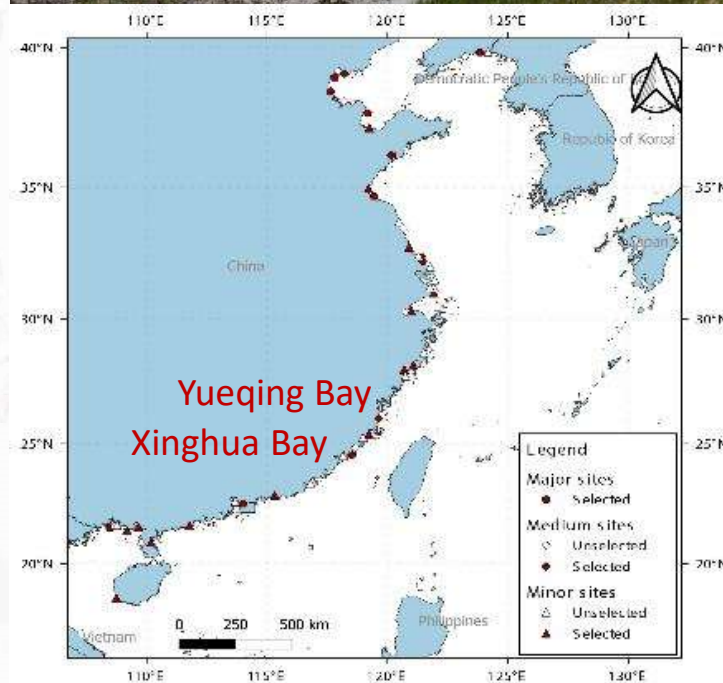
- Since 1980s, Razor clams (*Sinonovacula constricta*) have been extensively farmed on intertidal flats in China's Zhejiang and Fujian provinces.
- Young razor clams are easy food for shorebirds.
- Farmers set up nets to prevent birds from predating on the razor clams.



Razor clam farms in Yueqing Bay, Zhejiang province ©Dan Liang

Shorebird bycatch in southeastern China

- We found extensive netting (covering 8-9 km²) at two sites in Zhejiang and Fujian.
- We conservatively estimated that 23,544 (2.5th – 97.5th percentile values: 16,060 – 34,136) individual shorebirds were caught at Yueqing Bay and Xinghua Bay in April and May 2021 (Liang, Mu, Yang et al. Conservation Biology, in revision).



Thanks for listening!

Work cited

1. Yang Z, Li J, Han Y, Hassell CJ, et al. (2021) Coastal wetlands in Lianyungang, Jiangsu Province, China: probably the most important site globally for the Asian Dowitcher (*Limnodromus semipalmatus*). *Avian Research* 12(38). <https://doi.org/10.1186/s40657-021-00272-7>
2. Chan Y-C, Peng H-B, Han Y, et al. (2019) Conserving unprotected important coastal habitats in the Yellow Sea: shorebird occurrence, distribution and food resources at Lianyungang. *Global Ecology and Conservation* 20:e00724.
3. Liang D, Mu T, Yang Z, et al. Massive shorebird mortalities from razor clam damage prevention reveal conservation and research needs. *Conservation Biology* (In revision)



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