Introduction to the RFI Site Selection Framework

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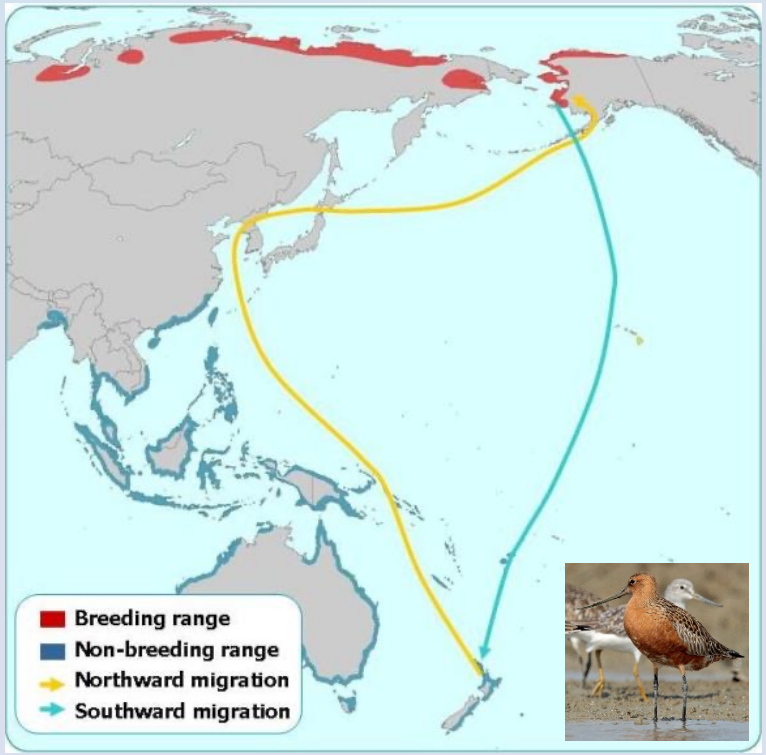
East Asian-Australasian Flyway

- The world's waterbird flyways are one of the most remarkable natural phenomena on earth
- EAAF connects arctic tundra ecosystems with wetland ecosystems in the temperate and tropical zones
- Waterbird species have differing migratory strategies - some migrate in several relatively short steps, but others undertake the journey in a few remarkably long flights

Bar-tailed Godwit satellite-tracking



- On northward migration, Bar-tailed Godwits fly non-stop from Australasia to north-east China, then onwards to their Arctic breeding grounds
- On southwards migration they fly from the Arctic to the non-breeding grounds in Australasia
- These non-stop flights take up to 11 days and nights
- Immediately prior to departure, their fat reserves constitute over half their body weight

The importance of tidal flats

- Bar-tailed Godwit and other shorebirds are only able to migrate such vast distances because of coastal wetlands, in particular tidal mud and sand flats
- These remarkably rich and productive ecosystems provide an abundance of the invertebrates that shorebirds need to rapidly build up their fat reserves
- Tidal flats also provide a wealth of ecosystem services that benefit people

The need for site conservation

- Over recent decades there have been large-scale losses of coastal inter-tidal wetland habitats in the EAAF
- Together with other threats, this has caused major declines in the numbers of many waterbird species, in particular shorebirds that migrate south to Australasia
- Species such as Great Knot and Far Eastern Curlew have been uplisted as threatened on the IUCN Red List
- Site-based projects are key to the survival of these and other migratory waterbirds in the flyway, through the protection, management and restoration of the wetland habitats

East Asian-Australasian Flyway Initiative

- RFI will aim to bring a minimum of 50 priority sites under protection and sustainable management, to improve site condition and develop a coherent site network along flyway
- To deliver identified, measurable co-benefits including ecosystem services, economic development, green infrastructure, climate change mitigation and adaptation
- Coastal sites will be the focus of the initiative, although the approach will be guided by partners and DMC requests and will remain flexible
- Priority sites to be identified in 10 participating focus countries: Bangladesh, Cambodia, Indonesia, Laos, Malaysia, Mongolia, Philippines, China, Thailand and Vietnam

RFI Site Selection Framework

- **Site Selection Framework** being developed to select RFI priority sites for investment throughout the flyway, under both major components of the RFI:

- **Component 1: Investment pipeline**
  Initial list of 100 priority sites to be identified on basis of importance for migratory waterbirds, to be reduced to 50 sites based upon socio-economic factors

- **Component 2: Sustainable financing mechanism**
  Opportunities for interventions at additional priority sites once financing mechanism established

- **Site Selection Task Team** established to develop the Site Selection Framework – members from BirdLife, ADB, EAAFP, Wetlands International, Paulson Institute

Developing a priority site network

To develop a site network along the flyway and to provide investment opportunities for all 10 participating countries, the Site Selection Framework can:

- Conduct an initial national prioritisation of the wetland sites for all participating countries, based upon the importance of the sites for migratory waterbirds
- Include sites from all participating countries in the lists of 100 and 50 priority wetlands
- Include larger numbers of sites on the priority sites lists for the larger participating countries (i.e. China, Indonesia, etc.)

Established site prioritisation mechanisms

Site Selection Framework will follow the long-established and globally accepted criteria used to identify:

- **Ramsar sites**, under The Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat
- East Asian-Australasian Flyway Partnership – **Flyway Network Sites**
- **Important Bird and Biodiversity Areas** (IBA) and **Key Biodiversity Areas** (KBA)

… For waterbirds, same criteria used in all the above

Criterion: Globally Threatened Species

- Site is known or thought regularly to hold significant numbers of one or more Globally Threatened species

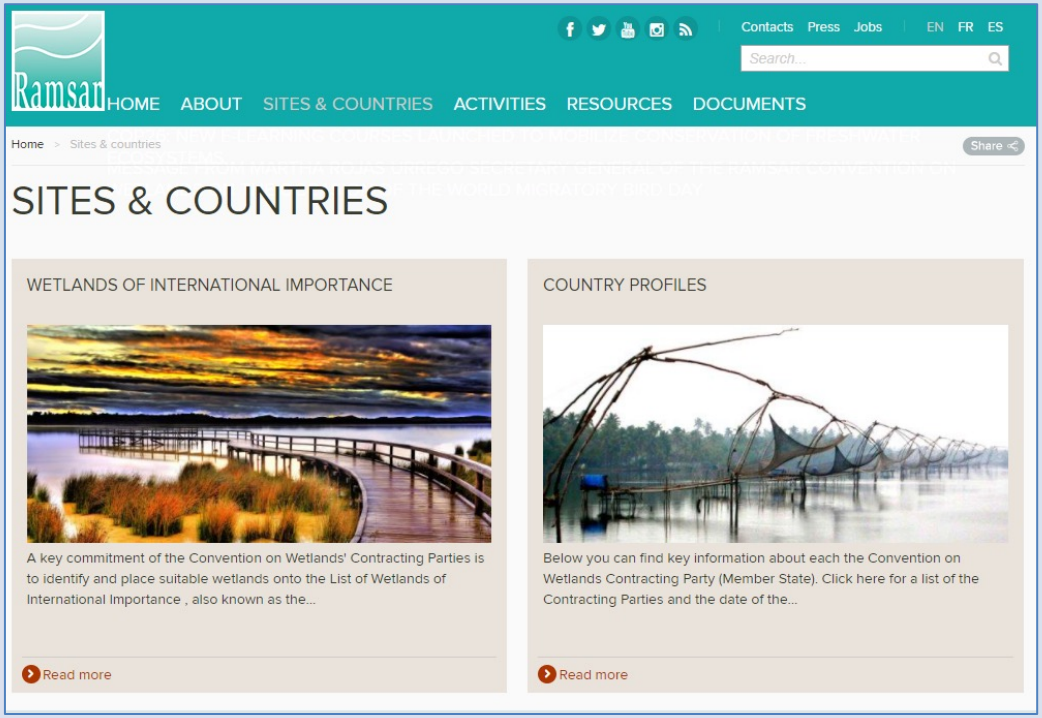
Spotted Greenshank
Tringa guttifer
(Endangered)

Criterion: Congregations

- Site regularly supports 1% or more of the individuals in a population of one or more congregatory waterbird species

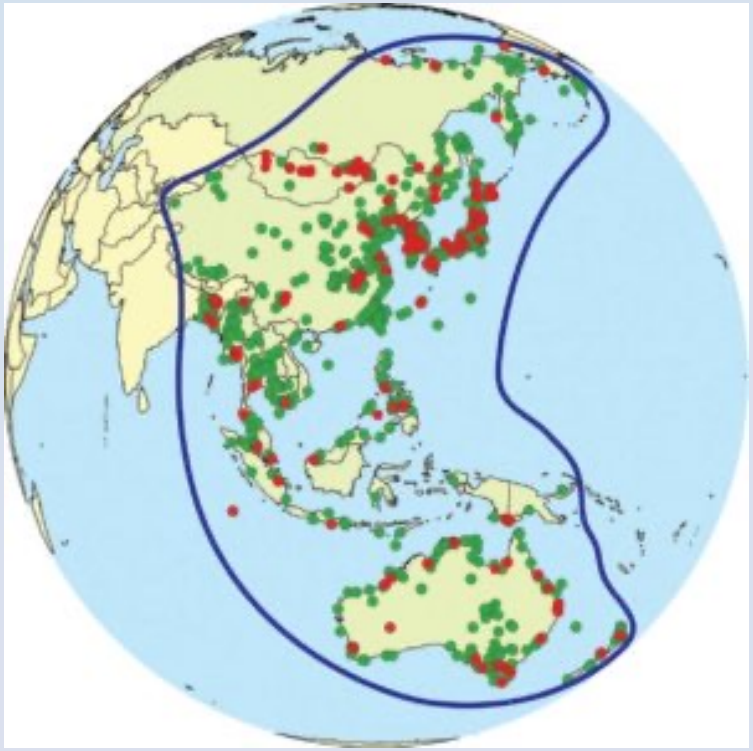
➢ 1% population thresholds provided by Wetlands International in Waterbird Population Estimates

Ramsar Convention on Wetlands



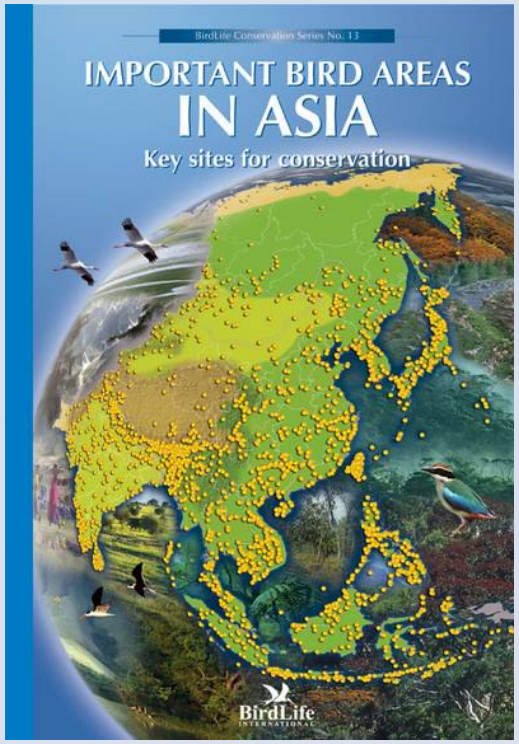
- Ramsar Convention on Wetlands, adopted in 1971, 19 Parties in EAA Flyway including all 10 of the RFI participating countries
- National Parties designate Ramsar sites using standard set of global criteria
- Total of 303 Ramsar sites in EAAF
- 130 Ramsar sites in the 10 RFI countries, including 47 coastal wetland sites

EAAFP Flyway Site Network



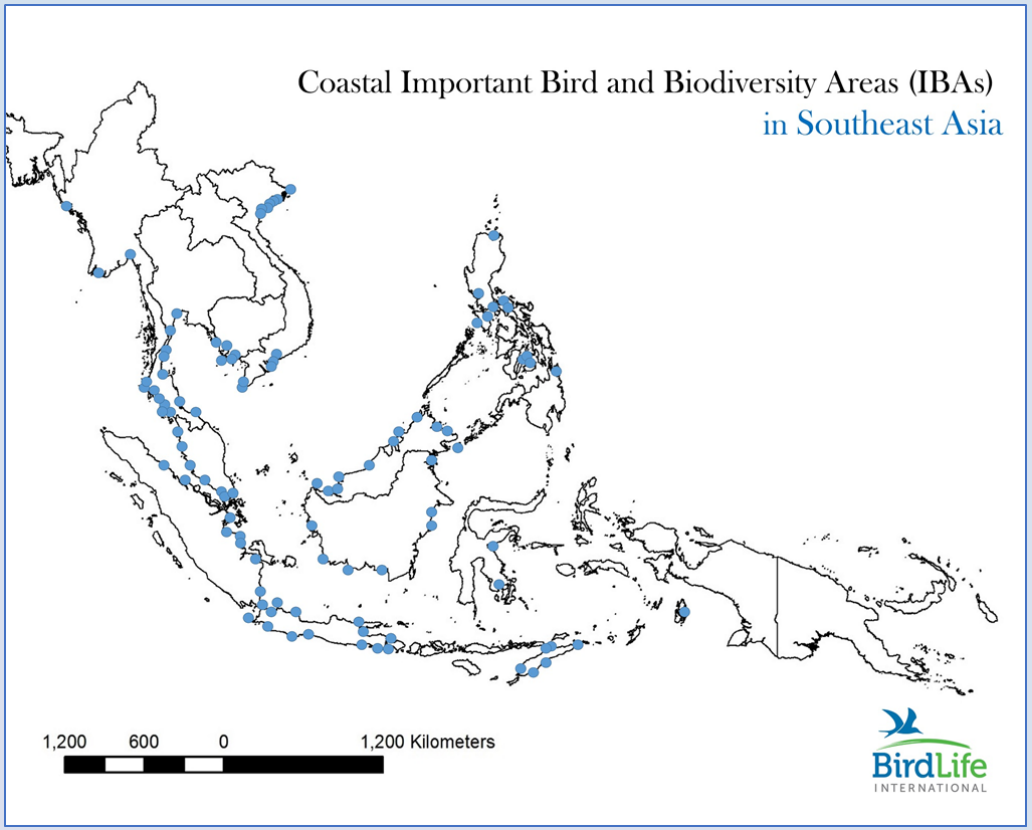
- EAAFP launched in 2006, has 39 Partners including 18 national governments, including 9 of the 10 RFI participating countries
- Total of 150 sites (red circles on map) nominated by Government Partners and designated as Flyway Network Sites, based on Ramsar Convention criteria
- 48 Flyway Network Sites in the 9 RFI countries, including 19 coastal wetland sites
- 1,000 sites (green circles on map) identified as internationally important to migratory waterbirds, based on Ramsar criteria

Important Bird and Biodiversity Areas



- BirdLife International is a global Partnership of national organisations which have identified over 13,000 Important Bird and Biodiversity Areas (IBAs) worldwide since the 1980s
- These include around 1,000 wetland IBAs in Asia, identified using criteria adapted from the Ramsar criteria
- All of the IBAs are part of a wider network of Key Biodiversity Areas (KBAs), vital habitats for all nature

Coastal IBAs in Southeast Asia and China



Site prioritisation analyses

- Websites and publications with data on Ramsar sites, EAAFP Flyway Network Sites, IBAs, KBAs, and nationally protected areas
- EAAFP: *New tools for development of the Flyway Site Network: An integrated and updated list of candidate sites and guidance on prioritization* (Jaensch 2013)
- Paulson Institute (2015) *Blueprint of Coastal Wetland Conservation and Management in China*
- Xia *et al.* (2017) Priority sites and gaps for the conservation of migratory waterbirds in China's coastal wetlands *Biological Conservation*

Sources of site and waterbird data

- Asian Waterbird Census (AWC) count data
- National waterbird monitoring data, e.g. China Coastal Waterbird Census
- Scientific papers, project and monitoring reports
- Birding websites, e.g. eBirds
- Waterbird satellite tracking data
- Remote sensing tidal flat mapping
- Consultations with waterbird and conservation specialists

EAAFP priority setting methodologies

Jaensch (2013) applied the following three site prioritisation methodologies:

- PC1: Derived from the proportion of total size of population which had been recorded at the site, summed across all migratory waterbird populations listed for the site in the project dataset
- PC2: Number of populations at 1% level
- PC3: Number of threatened populations: IUCN Red List categories Critically Endangered, Endangered or Vulnerable

Key sites for threatened species

Spoon-billed Sandpiper
Calidris pygmaea
Critically Endangered

Sites supporting >10% of global population:

- Tiaozini & Rudong, Jiangsu Province, China
- Gulf of Mottama, Myanmar

Other important Spoon-billed Sandpiper sites:

- Leizhou, Guangdong Province, China
- Red River & Mekong deltas, Vietnam
- Inner Gulf of Thailand
- Nan Thar Island, Myanmar
- Sonadia Island & Ganges-Brahmaputra-Meghna delta, Bangladesh

Sites supporting large congregations

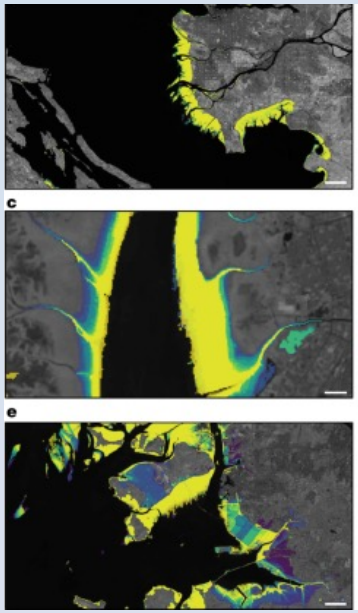
Some sites in EAAF are known to support a high proportion (>50%) of the flyway or global population of a migratory waterbird species:

- Red Knot at Luannan coast, Hebei, China
- Curlew Sandpiper at Luannan coast, Hebei, China
- Bar-tailed Godwit at Yalu Jiang, Liaoning, China
- Asian Dowitcher at Lianyunggang, Jiangsu, China
- Asian Dowitcher at Sembilang, Sumatra, Indonesia

Level of knowledge

- A few coastal wetlands in the EAAF are intensively monitored, e.g. Mai Po in Hong Kong and Luannan coast in mainland China
- Other sites counted regularly, e.g. monthly counts by the China Coastal Waterbird Census
- Many other sites are only counted occasionally, perhaps only once or twice in past 10 years
- Wetlands in some parts of EAAF may never have been visited by ornithologists, e.g. inaccessible regions of New Guinea and Borneo

Sites detected through remote sensing



- Analysis of satellite images has enabled precise mapping of the extent of tidal flats and changes over time (e.g. Murray *et al.* 2019)
- Recent satellite-tracking studies of migratory shorebirds have found that they utilized many wetlands not previously known as important shorebird sites, e.g study of Great Knot by Chan *et al.* (2019)
- How to assess sites with extensive wetland habitats but little waterbird count data in the site selection process?

Ecological connectivity

- The UN Convention on Migratory Species (CMS) recently determined that the conservation needs of migratory species can be best represented in the post-2020 Global Biodiversity Framework through the concept of ecological connectivity

- Recent scientific studies have investigated how the concept of connectivity can be applied to particular migratory species, including in the EAAF, e.g. Yanjie Xu et al. (2019)

Socio-economic criteria

- The Site Selection Framework will initially select around 100 sites, based upon their importance for migratory birds and the other biological factors discussed earlier
- The next stage will be to assess these sites against socio-economic factors, and reduce the list to around 50 sites for investments through the RFI
- This assessment will be based upon consultations with national project focal points and will consider the threats to each site and conservation actions already underway there
- Opportunities for investments will be identified that address the threats, enhance any on-going conservation actions and provide co-benefits to local communities

Overall collation and analyses of site data