

## North-East Asian Subregional Programme for Environmental Cooperation (NEASPEC)

### Project Proposal

#### 1. Overview

1.	<b>Project Title</b>	Conservation and Rehabilitation of Habitats for Key Species for NEA Eco-network with special emphasis on Cranes and Black-faced Spoonbills
2.	<b>Goals</b>	1) To conserve and rehabilitate key sites of White-naped Cranes and Black-faced Spoonbills in the North-East Asia region 2) To promote subregional environmental cooperation and contribute to sustainable development in the region 3) To help the accomplishment of 2010 Biodiversity Target of CBD in the region and promote greater synergies between the various Multilateral Environmental Agreements and mechanisms in the North-east Asia region
3.	<b>Key Expected Outcomes</b>	1) Identification of conservation priorities and key habitats for target species and major stakeholders relevant to implementing conservation measures in the region 2) Production of spatial database created through habitat mapping for more effective management and to aid development of a comprehensive conservation plan for key habitats 3) Improvement of multilateral and multi-level cooperation and achievement of more effective environmental cooperation in the region
5.	<b>Target Groups</b>	Local communities, relevant specialists, site managers, local governments and bureaus, local NGOs and the media
6.	<b>Tentative Timeframe</b>	January – December, 2013 (1 year)
7.	<b>Indicative Budget</b>	USD 175,000
8.	<b>Lead Implementing Countries/Agencies</b>	Korean Society for Environment and Ecology (KESS) , Republic of Korea

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## 2. Background

North-East Asia region has experienced a rate of economic development during the last half century far greater than anywhere else in the world. Consequently, the quality of environment in the region has deteriorated, habitats fragmented and reduced in size by human developments and loss of wildlife species.

Among various affected habitats, rice fields, river estuaries, and intertidal wetlands in North-East Asia are particularly important as they collectively form major corridor for migratory waterbirds in the East Asian-Australian Flyway. These habitat types are recognized as internationally important habitats for endangered birds in the region. IUCN (International Union for Conservation of Nature) has documented the critical status of the Red-crowned Crane *Grus japonensis*, the White-naped Crane *Grus vipio*, the Hooded Crane *Grus monaca*, the Black-faced Spoonbill *Platalea minor*, the Swan Goose *Anser cygnoides* and the Spoon-billed Sandpiper *Eurynorhynchus pygmeus* and their habitats through the IUCN Red List.

We acknowledge the on-going efforts of NEASPEC, the most comprehensive sub-regional intergovernmental body that adopted the Nature Conservation Strategy for White-naped Crane, Hooded Crane and Black-faced Spoonbill. However, these important habitat types in the region have been degraded or lost due to human developments – particularly land claim projects, dam construction and urban expansion, thus generating an urgent need for specific research and co-operation for their rehabilitation and management.

Therefore, the participants of the international workshop on “Conservation and Restoration of the Habitats of Endangered Species in North-East Asia” organized by the Korean Society for Environment and Ecology (KESS) in Jeju, Korea on 10<sup>th</sup> September, 2012 during the 5th World Conservation Congress, highly recognized the need to establish the North-East Asia Ecological Network based on the tools and knowledge for biodiversity conservation approach, and active participation and involvement of related governments to conserve biodiversity.

The proposed project is regarded as the initial stage to develop the North-East Asia Ecological Network (NEA Eco-Net) which is an action-oriented network among key habitats in the region for wildlife and people. The project could become a sub-regional cooperation model with the participation of multilateral and multi-level stakeholders.

## 3. Goals

To overcome these threats and fulfill the needs in the region, the following project goals have been set;

- 1) To conserve and rehabilitate key habitats of White-naped Cranes (WNC) and Black-faced Spoonbills (BFS) in the region.
- 2) To promote subregional environmental cooperation and sustainable development.

- 3) To help the accomplishment of 2010 Biodiversity Target of CBD in the Region and promote greater synergies between the various Multilateral Environmental Agreements and mechanisms in the North-east Asia region.

#### 4. Expected Outcomes and Activities

To achieve these goals, the project will include the following activities;

- 1) **Scoping survey of 10 Key Habitats:** dispatching small reconnaissance teams to conduct site assessments and to discuss develop project ideas at each site for the target species through discussion with local stakeholders. A standardized assessment methodology will be used by the scoping teams to ensure data consistency. As a number of the Key Habitats in each of the six countries in North-East Asia region have been designated as Ramsar Sites (marked with a [\*]), the Ramsar Focal Points in each of the countries will be informed about the project and the reconnaissance team that will be visiting the site, so as to get the site manager's support for the team and their work. Sites containing the key habitats, which span across each of the six countries, for 2013 are as follows;

##### **Republic of Korea**

Han River Estuary and Ganghwa Island

(Breeding site of BFS and wintering site of WNC and Red-Crowned Crane (RCC))

\*Suncheon Bay (Wintering site of Hooded Crane(HC))

##### **Democratic People's Republic of Korea**

Chongdan Migratory Bird Reserve, South Hwanghae Province (Breeding site of BFS)

##### **China**

Zhuang He, Laonying province (Breeding site of BFS)

\* Poyang Lake (Wintering site of WNC)

\* Mai Po Nature Reserve and Deep Bay area (Wintering site of BFS)

Minjiang Estuary (Wintering site of BFS)

##### **Japan**

\* Izumi, Kyushu (Wintering site of WNC and HC)

##### **Mongolia**

\* Valleys of Khurkh and Khuiten Rivers (Breeding site of WNC)

##### **Russia**

\* Muraviovka Park for Sustainable Land Use, Amur region

(Breeding site of WNC and RCC, Stop-over site of HC)

- 2) **Joint monitoring and research** at key habitats in 2 sites - Muraviovka Park in Russia and Poyang Lake - for habitat assessment and biotope mapping;
- 3) **A project web-site set-up** for data collection and information exchange;
- 4) **Publication of the project report** in English and distribution within each of the six countries;
- 5) **End of Year 1 meeting** to summarize progress and set priorities for the target species and their habitats;
- 6) **Cooperation with existing regional and international schemes** for biodiversity conservation such as the EAAF-P, Ramsar Convention, CBD, CMS to develop the NEA Eco-network.

Through these activities, the project expects the following outcomes;

- 1) Identification of conservation priorities and key habitats for target species and major stakeholders relevant to implementing conservation measures in the region
- 2) Production of spatial database created through habitat mapping for more effective management and to aid development of a comprehensive conservation plan for key habitats
- 3) Improvement of multilateral and multi-level cooperation and achievement of more effective environmental cooperation in the region

## **5. Implementation Arrangement**

For successful implementation of the project, the project suggests the following arrangements:

- 1) Establishment of a **Project Management Unit (PMU)** in KESS and employment of 1 full-time staff;
- 2) Establishment of a **Steering Committee** to deal with major decision;
- 3) Establishment of an **Advisory Board** to be made up of representatives from: UNESCAP, EAAF-P, BirdLife International, WWF, ICF and Ramsar Convention Secretariat to deal with function;
- 4) **Developing a comprehensive network of Collaborators** by linking with other regional bodies, organizations, and individuals whom share similar goals in the North-East Asia region. The current network of collaborators is as follows;

### **Republic of Korea**

Dr. LEE Kyong-Jae (Professor, The environment and ecology institute, University of Seoul)

Dr. HAN Bong-Ho ((Professor, The environment and ecology institute, University of Seoul)

**Democratic People’s Republic of Korea**

Dr. Chong Jong-ryul (Professor, The Wild Research Center of Korea University, Tokyo, Japan)

**China**

Dr. Qian Fawen (Deputy Director, National Bird Banding Center of China)  
Bena Smith (Conservation Manager, Regional Wetland Projects, WWF Hong Kong)

**Japan**

Simba Chan (Birdlife International Asia Division)  
Noritaka Ichida (Senior Advisor, Birdlife International Asia Division)  
Kashiwagi Minoru (Co-Representative, Ramsar Network Japan)  
Kurechi Masayuki (President, Japanese Association for Wild Geese Protection)

**Mongolia**

Dr. Natsagdorj Tseveenmyadag (Head of ornithological laboratory, Institute of Biology, Mongolian Academy of Sciences)

**Russia**

Dr. Sergei Smirenski (President, Muraviovka Park for Sustainable Land Use & Professor of Moscow University)

**U.S.A.**

Dr. Malcolm C. Coulter (Co-chair, Stork, Ibis and Spoonbill Specialist Group of IUCN-SSC)  
Dr. George Archibald (Co-founder, International Crane Foundation; Vice-chair of Crane Specialist Group of IUCN-SSC)

**International Institutions**

Dr. Lew Young (Senior regional advisor, Ramsar Convention Secretariat)  
Dr. Sandra Hails (CEPA program officer, Ramsar Convention Secretariat) (To be confirmed)  
Spike Millington (Executive Director, East-Asian Australian Flyway Partnership)  
James Harris (Vice President, International Crane Foundation)

**6. Timeframe (January – December 2013)**

	Jan	Feb	Mar	Apr	May	Jun	Jul.	Aug	Sep	Oct.	Nov	Dec
Scoping survey of 10 key habitats	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	
Joint monitoring &						⊙				⊙		

research programs												
Expedition for developing new joint monitoring & research sites for Year 2		⊙				⊙						
A project website set-up & operation		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Publication of the project report											⊙	⊙
End of Year 1 meeting												⊙

## 7. Budget

(Currency: USD)

ITEMS	DETAILS	AMOUNT	
		NEAPEC	KESS
Operation of PMU	Salary for 1 full time staff and Daily operational expenses		30,000
Scoping survey of 10 key habitats	6,000 * 10 sites	60,000	
Joint monitoring & research programs	1 <sup>st</sup> program to Russia: 8 persons * 3,500 = 28,000 (8-day program including in and out)	43,000	
	2 <sup>nd</sup> program to China: 6 persons * 2,500 = 15,000 (6-day program including in and out)		
Expedition for developing new Joint monitoring & research sites for Year 2	2 persons * 2 times * 2,500 (for China and Mongolia)	10,000	
Participation of other biodiversity-related meetings to enhance cooperation	2 persons * 2 times * 2,500	10,000	
Publication of the project report	Publication of the project report (in English) and distribution within the 6 countries	10,000	
End of Year 1 meeting	3- day workshop including an Advisory Board meeting	30,000	10,000

Miscellaneous		12,000	
<b>Total Amount</b>		<b>175,000</b>	<b>40,000</b>

## Information of Proposed Scoping Survey Site in 2013

### 1. Han River Estuary and Ganghwa Island, Republic of Korea

#### 1.1 Han River Estuary

Location: Located on the midwestern coast of Korean peninsula, the estuary opens to the Yellow Sea and forms the border line between North and South Korea (approximate coordinate: 37°45' N 126°40' E)

Area: 35,643 ha > 26,000ha (Area of tidal-flat influenced by Han-Imjin rivers)

Habitat types: River estuary, Salt-marsh, Brackish marsh, Willow colony, Reed bed, Sand bank, Sand-mud mixed tidal-flat.

Description: The area is the breeding and feeding site of international endangered species like Black-faced Spoonbill *Platalea minoru* and also important stop-over site and wintering ground for White-naped Crane *Grus vipio*, Swan Geese *Anser cygnoides*, and other Anatidae family, and stop-over site of shorebirds. More than 70,000 water birds regularly visit this area (2010). The estuary is closely related with marine ecosystem of Yellow Sea that has tides of 6-9m. Hence large tidal-flat is developed along the estuary, retaining much of its natural wholesomeness. This area is part of important tidal-flat ecosystem of western coast of Korea and needs active conservation efforts.



## 1.2 Ganghwa Island

Location: Located on Ganghwa-Gun(county), Incheon city (approximate coordinate: 37°35' ~ 50N 126°21 ~ 32'E). The island meets Gimpo-Gun in the east, coast of Yeonpyoung in the west, Youngjong islands in the south and Yeonback, Gaepoong-Gun in the north.

Area: 34,000 ha

Habitat types: Tidal-Flat, Salt-marsh, Rice-paddy, and Artificial fishpond.

Description: The tidal-flats of Ganghwa along the coast from Janghwa-li (village) to Yeocha-li, Dongmak, Sundu-li, and Choji-li are different from each other. In spring and autumn, tidal flat of southern Ganghwa serves as stop-over site for shorebirds including Far Eastern Culew *Numenius madagascariensis*, Eurasian Culew *Numenius arquata* and Dunlin *Calidris alpina* that provides vital nutrients for their migration. Rice-paddies and tidal-flats of Ganghwa provide food during the breeding season of Black-faced Spoonbills and the birds spend most of its time in this area until flying to wintering sites of Taiwan. Saunder' Gull and Chinese Egret also depend on the tidal-flat for food. Thousands of geese and small numbers of Red-Crowned Crane (RCC) have been wintering in tidal flat and rice-paddies. 27 individuals of RCC had observed in the winter of 2011 in Ganghwa tidal-flat. Due to the Incheon International Airport built on Youngjong island, south of the Ganghwa island, the southern coastline of Ganghwa has been suffering from rapid geographical change. Rice-paddies and coastal wetlands, feeding area of RCC, have been developed for housing and coastal road.



## 2. Suncheon Bay, Republic of Korea

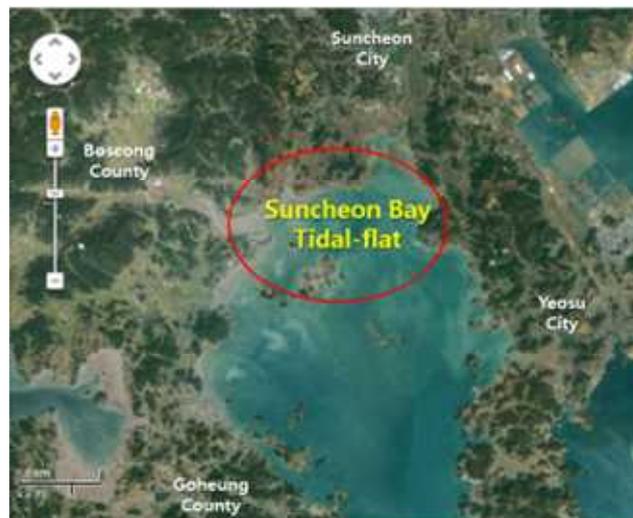
Location: Located on the mid of southern coast of Korea (approximate coordinate: 34°48'N 127°24'E)

Area: 3,550 ha

Habitat types: Tidal-Flat, Salt-marsh, Rice-paddy, and Artificial fishpond

Description: A wide estuarine tidal-flats and intertidal marshes are creating one of the most diverse and beautiful coastal ecosystems in the country. The tidal flats are largely muddy with shallow salt marshes supporting a wide-range of species, including at least 25 threatened birds, e.g. Black-faced Spoonbill, Nordmann's Greenshank, Spoonbill Sandpiper, and Relict Gull. It is the only wintering site for Hooded Crane (HC) *Grus Monacha* and supports over 1% of the population of Common Shelduck, Hooded Crane, Eurasian Curlew, Saunder's Gull, and Kentish Plover. It has important scenic, tourist, and cultural heritage values, and the annual production of fish, seaweed, and mollusks, mainly harvested using traditional techniques, is substantial. Rapid urban expansion is noted as a potential threat.

The Suncheon Bay Natural Eco-park was established in 2004 and a management plan is underway which focuses on the protection of biological resources, pollution abatement, institutional improvement, and public awareness. It has been designated as Korean Wetland Protected Area and Ramsar Site no. 1594.



### 3. Chongdan Migratory Bird Reserve, South Hwanghae Province, DPRK

Nature Protected Area Category and Status: IUCN category IV (Habitat/Species Reserve), Designated as Migratory Bird (Wetland) Reserve

Type of Protected Area: Sea bays straits, intertidal mudflats, freshwater lakes and associated marshes.

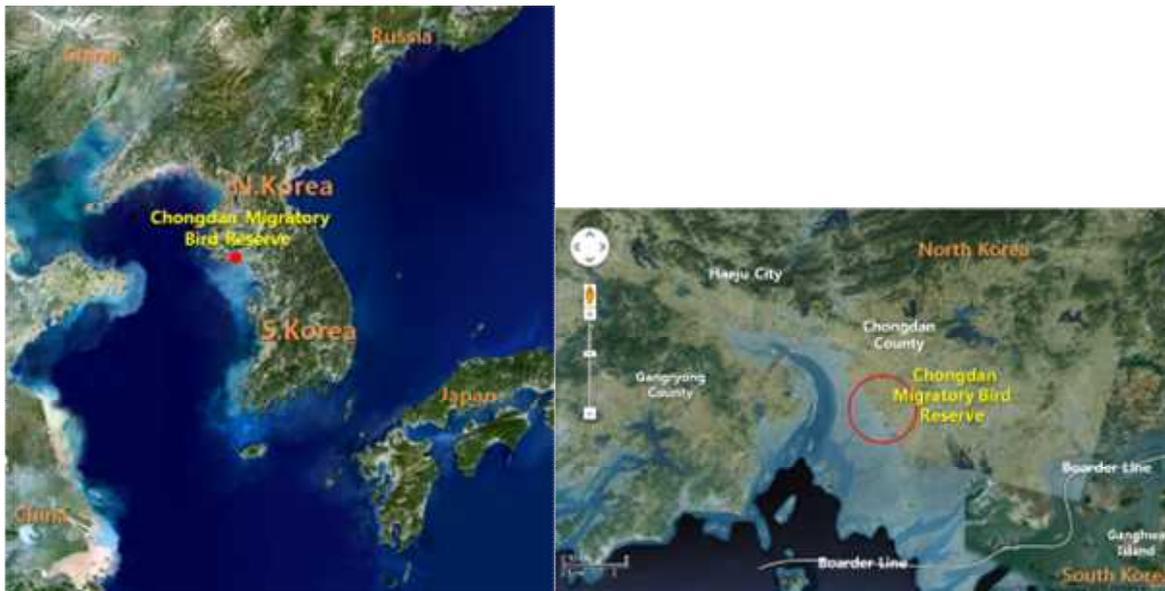
Purpose of Protected Area: To develop the management plan for migratory reserve and strengthen the education on nature conservation for the peoples and protect the birds and their habitat environment.

Inhabiting Target Species: Black-faced Spoonbill

Year Established: 1995

Area: 1,000 ha (Area of Chongdan Field is 2,500 ha)

\* Source from the Nature Conservation Strategy of NEASPEC, 2007



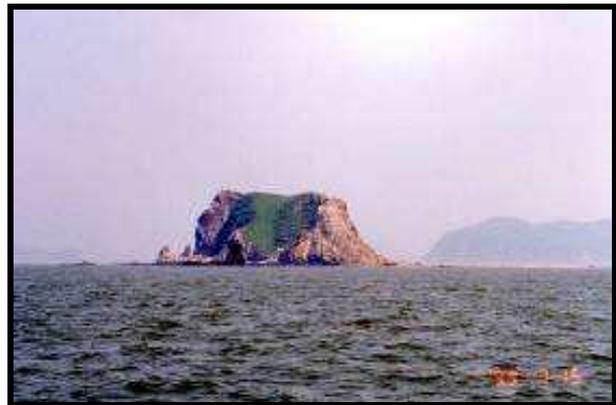
### 4. Zhuanghe coast and Shicheng islands, Laonying province, China

Located on the eastern coast of Liaoning province, about midway between Dalian and Dandong (approximate coordinate: 39 deg35min N 122 deg45 min E). The Zhuanghe coast stretches from the estuary of Biliu He to coastal area of Dayangkou, with an estimated area of 22,070 ha. Shicheng Islands are located east of the Changshan islands, about 10 to 20 km

from the coast of Zhuanghe. The total area of Shicheng Islands is estimated to be about 4,000 ha.

This area is major migratory site of waterbirds. Xingren Tuo Island in Shicheng Islands is the first breeding site of Black-faced Spoonbills discovered in China (in 1999). About 10-20 birds still breed on islands nearby. Chinese Egrets also breed on the Shicheng Islands. Zhuanghe coast has records of Saunders's Gull and Oriental Stork.

Zhuanghe coast has some coastal marshes but they are all facing heavy development pressure such as construction of shrimp ponds and city development. It should be a priority site to survey in different seasons to identify sites important to waterbirds and seabirds, as it has no protection status. Shicheng Islands and Xingren Tuo Island have been designated as protected areas but implementation of protection measures is not strong enough. The islands still face threats from human disturbance including egg collection and uncontrolled tourism. Nearby islands should also be surveyed for possible breeding Black-faced Spoonbill, Chinese Egret and seabird species. In order to protect the Black-faced Spoonbills breeding on the islands, feeding grounds along the coast should also be identified and protected.



## 5. Poyang Lake, China

Description: Poyang was once the largest freshwater lake in China before its water was diverted to the Three Gorges Dam and globally famous for its birdlife. The rich food resources provided by this wetland's emergent and submerged aquatic plant diversity is a major reason that hundreds of thousands of migratory birds travel to Poyang every winter. While winter counts vary from year to year, on average more than 400,000 waterbirds make Poyang their winter home. Thus Poyang is by far the most important wintering area for waterbirds in East Asia, and supports many rare and threatened species (Ji et al., 2007; Qian et al., 2009). For example, over 98% of the world population of Critically Endangered Siberian Cranes *Grus leucogeranus* and over 90% of the world's Endangered Oriental Stork *Ciconia boyciana* (according to the IUCN Redlist) winter at Poyang (Liu et al., 2011). Half of the world's vulnerable Swan Geese *Anser cygnoides* winter here. In two years of winter waterfowl surveys in the middle and lower reaches of the Yangtze River Basin, Poyang Lake supported 12-15 species with more than 1% of regional waterbird populations (Barter et al., 2004; Barter et al., 2005).

Poyang Lake is a very important wintering place for cranes in China and East Asia. Besides Siberian Cranes, almost all of China's wintering White-naped Cranes *Grus vipio*, one-third of China's Hooded Cranes *G. monacha* (Barter et al., 2004; Barter et al., 2005) and perhaps half of China's Eurasian Cranes *G. grus* spend the winter at Poyang Lake.

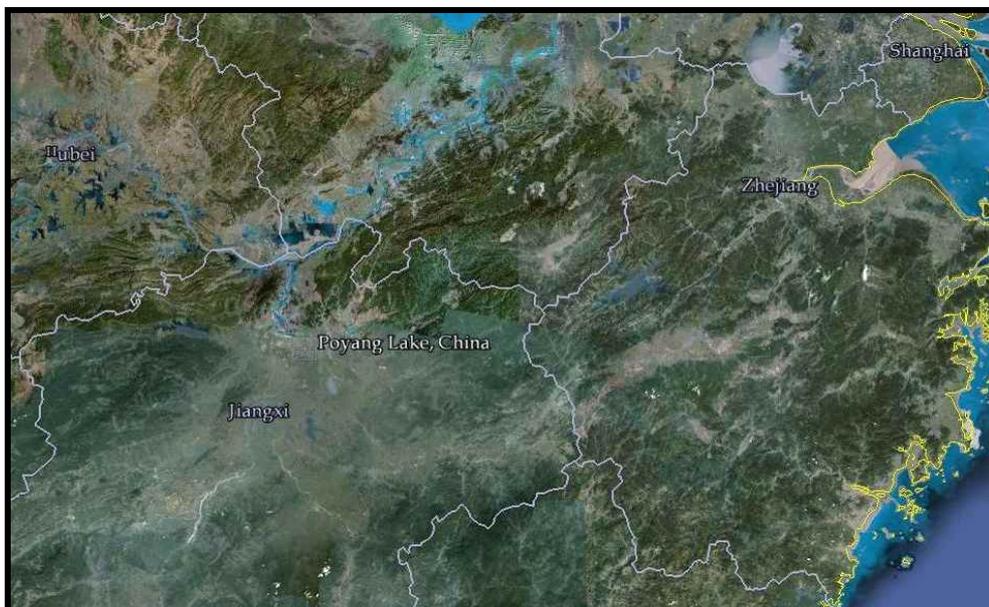
It is important to conduct counts of species on a regular basis at Poyang Lake to get accurate estimates of populations and understand trends for these species through time (Callahan, 1984; Nichols and Williams, 2006). Four crane species regularly winter at Poyang and are large, charismatic waterbirds that are the focus national and international conservation efforts. These efforts include long-term ecological monitoring at Poyang Lake National Nature Reserve and coordinated basin-wide counts performed roughly every two years (Qian et al., 2009; Li et al., 2011). The last basin-wide count of cranes at Poyang Lake occurred in early 2009. Since then, there has been a major flood across Poyang Lake in summer 2010. The flood altered vegetation communities in many parts of the lake basin which, in turn, influenced the foraging habitats and distribution for the Siberian Cranes and other waterbirds. The International Crane Foundation (ICF) and the Poyang Lake National Nature Reserve (PLNR) conducted two surveys in 2011/2012 winter. The objectives of the surveys were to: (1) determine the number of cranes wintering at Poyang Lake; (2) determine locations of these waterbirds; and (3) compare numbers and locations of Siberian Cranes between this winter and previous winter surveys.

Survey area: Poyang Lake (115049'-116046'E, 28011'-29051'N), is located in the southern part of the Yangtze River Basin and northern part of Jiangxi Province. The lake's average width from west to east is 16.9 km, with the narrowest width of 2.8 km at Pingfengkakou where the lake water enters the Yangtze River. There are five major tributaries that drain the

162,000 km<sup>2</sup> watershed and the lake's single outlet empties into the Yangtze River (Liu and Ye, 2000; Shankman et al., 2009).

Poyang Lake is a unique system that becomes a lake during the wet season and is a complex patchwork of river channels, isolated sub-lakes, mudflat and seasonal wet meadows during the dry season (Figure 1). Poyang Lake has the shape of a bottle gourd, and can be divided into two parts at Songmenshan. Its northern part is very narrow, basically a narrow river channel to the Yangtze River, while the southern part is wide. The lake basin inclines from southeast to northwest, and the lake bottom is very flat. The lake's water level and water volume change dramatically between the dry and rainy seasons. The highest water level of 22.58 m A.S.L. (Wu Song Elevation System) at the Hukou Hydrology Station was recorded on 2 August 1998, when the lake surface was 4,066 km<sup>2</sup> (Liu and Ye, 2000). Since 1990, the average lake surface has been 2,110 km<sup>2</sup> in spring, 3,900 km<sup>2</sup> in summer, 3,450 km<sup>2</sup> in fall, and 1,290 km<sup>2</sup> in winter (Huang, 2000). The dramatic fluctuation of water levels between wet and dry seasons creates a wide range of habitats for cranes, waterbirds and other wildlife over the entirety of the lake basin. Due to its un-obstructed connection to the Yangtze River and its vast floodplain, Poyang Lake plays an important role in flood storage, water resource cycling and biodiversity conservation.

Poyang Lake has a humid subtropical monsoon climate, with hot summers, cold and humid winters, and abundant rainfall and sunlight. The average annual temperature is 16-18 °C, and the sum of annual temperatures  $\geq 100^{\circ}\text{C}$  is 5,515 °C. There are 255-282 frost-free days a year. The annual precipitation varies greatly from year to year from 1,340-1,780 mm, with 46% falling from April to June. The annual evaporation is 800-1200 mm, mostly from July to September, resulting in flooding in the summer and drought in the fall. The long-term average water temperature is 18 °C, with the highest water temperature of 29.9 °C in August and the lowest of 5.9 °C in January (Zhu and Zhang, 1997).



## 6. Mai Po Nature Reserve, Hong Kong, S.A., China

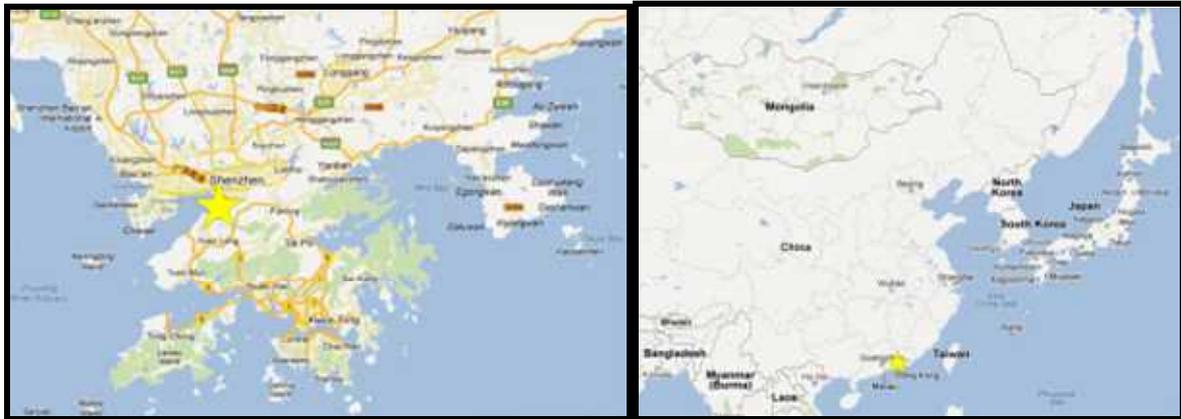
*Description:* The Mai Po Nature Reserve (MPNR) is an area rich in biodiversity that comprises 380 hectares within Inner Deep Bay, the most extensive wetland area left in Hong Kong and one that includes *gei wai*, mangroves, reedbeds and freshwater ponds. MPNR is considered a very small unit in comparison to many other larger wetland sites in Asia, however, the ecological and cultural richness of the site is not to be underestimated. Continuous and aggressive urban development, including land reclamation projects in nearby areas and across the border, makes MPNR all the more crucial to the preservation of wildlife.

On a local and regional level, MPNR is home the last remaining traditionally managed *gei wai* in Hong Kong and probably in the region. The mangrove stand in MPNR and surrounding Inner Deep Bay, the most prominent plant at the site, is the largest found in Hong Kong and the sixth largest protected stand in China. The reedbeds within MPNR are believed to be one of the largest remaining stands in Guangdong Province. The area is a haven for native species, including 26 mammals, 386 birds, 23 reptiles, 9 amphibians, 44 fish, over 400 invertebrates and 186 plants, many of which are protected under Hong Kong law.

From an international perspective, MPNR is of critical importance because it is situated in the heart of the East Asian-Australasian Flyway (EAAF), and used by many tens of thousands of migratory waterbirds to rest, feed and rejuvenate during their migrations between Arctic Russia and Australia.

The MPNR is an integral part of the larger Inner Deep Bay Ramsar Site which was designated as a wetland of international importance in 1995. The Ramsar Site supports 35 globally threatened species, an average of 81,830 waterbirds each winter and regularly supports 6 species of waterbird at more than 1% of their population in East Asia (including 19% of the global population of Black-faced Spoonbill).

*Rationale for inclusion as a site within the NEA Eco-net:* As one of Asia's best known wetlands and a model flyway network site for the conservation of Black-faced Spoonbill, the Reserve offers many learning and exchange opportunities for regional wetland managers, researchers and educationists. Its contribution to the network would primarily be as a base to hold training activities for a variety of interest groups related to the conservation of Spoonbills including research and education activities.



<Figure 1. Location of Mai Po Nature Reserve>



<Figure 2. Photograph showing the general landscape at Mai Po Nature Reserve>

## 7. Minjiang Estuary, Fuzhou, Fujian Province, China

*Description:* The Min Jiang Estuary is situated on the East coast of China. It is a 730,000 ha inter-tidal area at the mouth of the Min Jiang River with surrounding fishponds, sandy shoreline, reeds and mangroves. Its importance to waterbirds is still be uncovered through ongoing survey work, but has become well-known to birders in recent years.

It is an important stopover site for shorebirds that migrate along the Chinese coast in spring and autumn; the importance of which was confirmed by the presence of the critically endangered Spoon-billed Sandpipers (10 individuals in 2009). It is an important wintering site for geese and ducks, including the globally vulnerable species Swan Goose, a wintering site for the globally vulnerable Dalmatian Pelican and the estuary is an important feeding and roosting site for the critically endangered Chinese Crested Tern (up to 8 individuals). Black-faced Spoonbills are known to use the Estuary, but further survey work is needed to quantify their abundance. In consideration of its strategic location, the Estuary has potential to be a stop-over site for the large numbers of Spoonbill that migrate to southern China and SE Asia. The sites value as a wintering site is unknown.

Currently the site is a local Nature Reserve, but expected to be up listed to national status soon. It is designated as an IBA

<<http://www.birdlife.org/datazone/sitefactsheet.php?id=15717>> and WWF Hong Kong is now establishing a wetland demonstration site there.





<Figure 1. Location of Min Jiang Estuary and Photographs showing the general landscape>

### **8. Izumi, Kagoshima Prefecture, Japan**

The wintering ground of cranes at Izumi City, Kagoshima Prefecture is also known as Arasaki, or Izumi-Takaono (app 32deg06min N 130deg17min E). It is the one of the biggest wintering congregations for cranes in Asia: over 10,000 Hooded Crane (about 90% of the global population) and about 3,000 White-naped Cranes (about half of the global population) gather here between late October to early March. However, the area is only about 7,500 ha, with 842 ha designated as wildlife protected area (Izumi-Takaono) and 52 ha as special protected area. The habitat of Izumi is basically farmland on old reclaimed coastal area. The protected area is rented by the government during the wintering season to compensate local farmers and the area will be off-limited to visitors. The special protected area is inside the protected area. It is flooded with shallow water to provide night roost for cranes.

Izumi has a long history of crane conservation. Originally, cranes were observed in many places throughout southern Kyushu during winter. The first written record of wintering cranes was in 1694 when the area was drained from the coastal area. After the Meiji Restoration (1869), with lifting of the protection to the cranes by feudal lords and availability of firearms, cranes were hunted to almost extinct throughout Japan. Around 1890 there were no wintering cranes found at Izumi. Since establishment of some regulations some cranes were seen again in 1895. The number gradually grew to almost four thousand birds just before the Second World War but dropped to only 275 birds in 1947. The plain was designated a Natural Monument on 29th March 1952 and artificial feeding of cranes started by local people at about the same time. The number gradually grows to the present number.

Census of wintering cranes has been practiced by local volunteers and school children in winter for more than 50 years. Tourism for crane watching also contributes to the local economy. However, as the number of cranes increases conflict between crane and farmland nearby also increases, and the highly concentrated wintering population faces the threat of avian disease. There have been plans to disperse some of the wintering cranes from Izumi to

nearby sites in southern Japan and Korean peninsula to establish small pockets of wintering population.



## 9. Valleys of Khurkh and Khuiten Rivers, Mongolia

Geographical coordinates (latitude/longitude, in decimal degrees): This site is composed of two valleys; Khurkh River valley - 48°19'N latitude, 110°22'E longitude, Khuiten river valley - 48°16' N latitude, 110°45' E longitude

Elevation: (in metres: average and/or maximum & minimum): 1000-1100 m

Area: Total area = 20,400 ha (Khurkh River valley - 12,400 ha, Khuiten River valley - 8,000 ha)

Description: This site, which was nominated as a Ramsar Site in 2004, is located on the boundaries of Batshireet, Binder, Bayan-Adraga and Umnu-Delger soums of Khentii aimag. The Khurkh and Khuiten River basin situates in the transition zone between Mongolian

forest and steppe zone. This unrepeatable ecosystem is a habitat of many threatened and endangered species from the southern Siberian taiga, Central Asian steppe, and grassland and forest steppe of Daurian and Manjuria ecoregions. Biogeographically unique features of the area are enriched by many freshwater rivers and valleys along Amur river watershed. Numerous water and marsh birds congregate at two sites of the lake.

Importance: Globally Threatened species occurring at the site comprise Swan Goose *Anser cygnoides* (EN), Lesser White-fronted Goose *A. erythropus* (VU), Eastern Imperial Eagle *Aquila heliaca* (VU), Siberian Crane *Grus leucogeranus* (CR), White-naped Crane *G. vipio* (VU), Hooded Crane *G. monacha* (VU), Red-crowned Crane *G. japonensis* (EN), Saker Falcon *Falco cherrug* (EN) and Great Bustard *Otis tarda* (VU). The site also supports at least 1% of the flyway populations of Great Crested Grebe *Podiceps cristatus*, Swan Goose *Anser cygnoides*, Bean Goose *A. fabalis*, Ruddy Shelduck *Tadorna ferruginea*, White-naped Crane *Grus vipio*, Demoiselle Crane *Anthropoides virgo*, Common Crane *Grus grus*, Northern Lapwing *Vanellus vanellus*, Black Stork *Ciconia nigra* and Whooper Swan *Cygnus cygnus*. A significant number of breeding pairs of White naped cranes *Grus vipio* is found here. Also Common Crane *Grus grus* breeds with density of 1.2-1.6 pairs per km square. The region is a breeding habitat of variety of rare and common bird species that highlights the importance of the inclusion in Ramsar convention. It is also a Ramsar Site.

## **10. Muraviovka Park for Sustainable Land Use, Amur region, Russia**

Geographical coordinates (latitude/longitude): latitude - 49.841525° N and Longitude - 127.698212°E

Elevation (in meters: average and/or maximum & minimum) : Average - 110 m, Maximum - 130 m, Minimum: 108 m

Area: Total area of Ramsar Site - 34 000 ha, Total area of Muraviovka Park - 6 500 ha

Description: Muraviovka Park is located in the middle stream of the Amur River Basin, in southern part of Tambovka District of the Amur Region and is represented by grass wetlands in the lowland, and croplands on 1<sup>st</sup> terrace. There are small lakes (old river channels) and patches of trees and bushes. This wetland supports various over 500 species of plants and over 250 species of birds. Six species of cranes registered in the Park. The Park is critically important as breeding site and stopover for many migratory birds.

Importance: It regularly supports 5,000 or more waterbirds and 1% of the individuals in a population of one species or subspecies of waterbird including Hooded Crane *Grus monacha*, White-naped Crane *Grus vipio*, Siberian Crane *Grus leucogeranus*, and Oriental White Stork *Ciconia boyciana*. Also it supports appreciable number of an endangered or vulnerable population of migratory waterbirds including Baikal Teal *Anas formosa*, Lesser White-

fronted Goose *Anser erythropus*, Bean Goose *Anser fabalis*, Swinhoe's Rail *Coturnicops exquisitus*, and Manchurian Reed Warbler *Acrocephalus tangorum*.



