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

Workshop on Nature Conservation and Transboundary Cooperation

28-29 November 2016, Beijing, China

Concept note

The 2016 Workshop on Nature Conservation and Transboundary Cooperation will review the status of transboundary nature conservation in North-East Asia including outcomes of two NEASPEC projects (Amur tigers and leopards, and key habitats on migratory birds) and will discuss the way forward. This concept note provides an overview of the two NEASPEC projects and presents the provisional plan of the Workshop.

1. *Background*

In 2007, the NEASPEC Nature Conservation Strategy[1] was adopted at the 12th Senior Officials Meeting (SOM), focusing on the conservation of six flagship species in Northeast Asia: Amur Tiger, Amur Leopard, Snow Leopard, Hooded Crane, White-naped Crane and Black-faced Spoonbill. As part of the Strategy, NEASPEC has implemented two projects during 2014-2016:

(i) *Study on transborder movement of Amur tigers and leopards using camera trapping and molecular genetic analysis*

This project aims to strengthen scientific understanding on Amur tigers and leopards and their habitat conditions in order to protect and improve existing transboundary ecological corridors. In this connection, the project has carried out camera trapping and DNA analysis of tigers and leopards through data sharing and joint analysis between institutions in China and the Russian Federation, thereby strengthening scientific cooperation and foundation for the animals.

(ii) *Conservation and rehabilitation of habitats for key migratory birds in North-East Asia*

To improve conservation of key habitats and strengthen international cooperation on the conservation of White-naped Crane, Hooded Crane and Black-faced Spoonbill, this project has undertaken:

a. Scoping surveys in eight sites

[1] http://www.neaspec.org/sites/default/files/Publication_SavingNatureConservation_2.pdf

b. Joint study in two transboundary sites:

- Dauria International Protected Areas (China, Mongolia and the Russian Federation) and
- Korean Demilitarized Zone (Republic of Korea)

c. Capacity building and awareness-raising on habitat management and conservation.

[Table 1] Projects overview

	Conservation of Amur Tiger and Leopard	Conservation of Migratory Bird Habitats
Activity period	April 2014 – November 2016	October 2013 – December 2016
Project area	• China: Heilongjiang and Jilin Provinces • Russian Federation: the Land of the Leopard National Park with its buffer zone, and the Kedrovaya Pad reserve	• 8 study sites in China, Japan, Mongolia, Republic of Korea and the Russian Federation for three migratory bird species (Black-faced Spoonbills, Hooded Crane and White-naped Crane) • 2 Joint study sites at transboundary areas: (i) Dauria International Protected Area and (ii) Korean Demilitarized Zone
Activities	• Camera trapping • Non-invasive sample collection • DNA extraction • Joint study: comparative study of camera trap photos and molecular genetic analysis	• Scoping surveys • Joint study (transboundary habitats) • Capacity building • Public awareness

1.1. [Conservation of Amur Tiger and Leopard] Implementation of the Project 'Study on transborder movement of Amur tigers and leopards using camera trapping and molecular genetic analysis

NEASPEC has been working on the development of a closer and more efficient collaboration mechanism among all stakeholders to effectively monitor the status of Amur tiger and Amur leopard and collaborate across national borders. To follow-up the project on "Establishing Coordination Mechanisms for Nature Conservation in Transboundary Areas in North-East Asia" (2010-2012), NEASPEC has implemented the project on "Study on transborder movement of Amur tigers and leopards using camera trapping and molecular genetic analysis" to provide the essential scientific basis for developing and improving conservation measures including ecological corridors in the transboundary areas. The project activities include the followings:

i. **Field study** to capture camera images and collection of non-invasive samples (e.g. scat and hair) of Amur tigers and leopards

ii. **Molecular genetic analysis** with collected non-invasive samples to identify individual identification, genetic diversity, geographic distribution, etc.

iii. **Joint study** to conduct comparative study of camera images and molecular genetic analysis and identify transborder movements of concerned species

This Project has been implemented in collaboration with the following national partners.

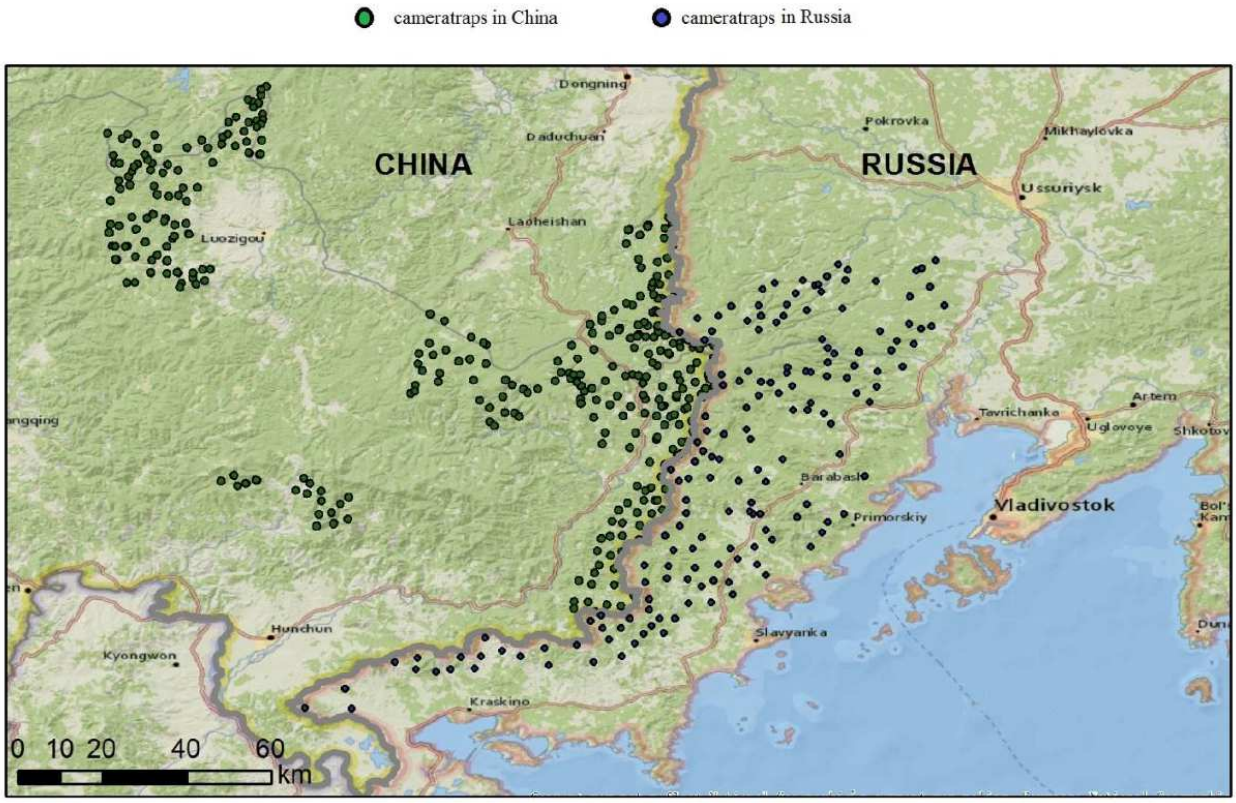
- Feline Research Center of State Forestry Administration (China)
- Wildlife Research Institute of Heilongjiang Province (China)
- Hunchun and Laoyeling Nature Reserves (China)
- WWF-Russia
- Land of the Leopard National Park (Russia)
- Institute of Biology and Soil Science FEB RAS (IBSS) (Russia)
- Seoul National University (ROK)

Table 2 presents the summary of interim outcomes based on the review meeting and reports submitted by partner institutions.

[Table 2] Summary of interim outcomes

		China	Russian Federation
Camera trapping	**Location**	Heilongjiang and Jilin Provinces	Primorsky and Khabarovsky Provinces
	Camera Traps	634 installed at 317 spots	314 installed at 157 spots
	Amur tigers identified	26 individuals (22 adults and 4 cubs)	49 individuals (42 adults and 7 cubs)
	Amur leopards identified	24 individuals (23 adults and 1 cub)	95 individuals (82 adults and 13 cubs)
	Transborder movement	Amur tiger: 19 individuals (8 F, 8 M and 7 unknown sex) Amur leopard: 15 individuals (8 F and 7 M)	
Genetic molecular analysis	**Amur tigers identified**	19 individuals	12 individuals
	Amur leopards identified	9 individuals	16 individuals
	Transborder movement	Amur tiger: no individuals detected Amur leopard: 2 individuals	

[Figure 1] Camera traps distribution in China and the Russian Federation



The final project report is under preparation by WWF-Russia and the draft report will be presented at the 2016 NEASPEC Workshop on Transboundary Nature Conservation in Beijing for review and discussion.

1.2. [Conservation of Migratory Bird Habitats] Implementation of the Project 'Conservation and rehabilitation of habitats for key migratory birds in North-East Asia'

The three NEAPSEC flagship species (Black-faced Spoonbill, Hooded Crane and White-naped Crane) and many threatened migratory bird species migrate along the East Asia-Australasian Flyway (EAAF) which spans across thirty-seven countries including all North-East Asian countries. Habitat loss and degradation is considered one of the biggest threats to the declining migratory birds population, with 37% and 43% of inter-tidal wetlands has been reclaimed in China and the Republic of Korea. Habitat quality and availability also directly affects the connectivity of migratory paths and breeding success of migratory birds.

In view of this challenge, NEASPEC implemented the project on 'Conservation and rehabilitation of habitats for key migratory birds in North-East Asia' aiming to improve the conservation status and strengthen bilateral and multilateral, as well as multi-level cooperation for migratory birds conservation.

Project activities involve the following:

i. **Scoping surveys** of selected key habitats for a precise and comprehensive survey for formulating conservation measures such as cooperation mechanism, monitoring scheme, information sharing etc. Selected sites include:

   Black-faced Spoonbills: (i) Xingrentuo/Yuanbaotuo at Liaoning (China); (ii) Hakata Bay (Japan); and (iii) Incheon (ROK)

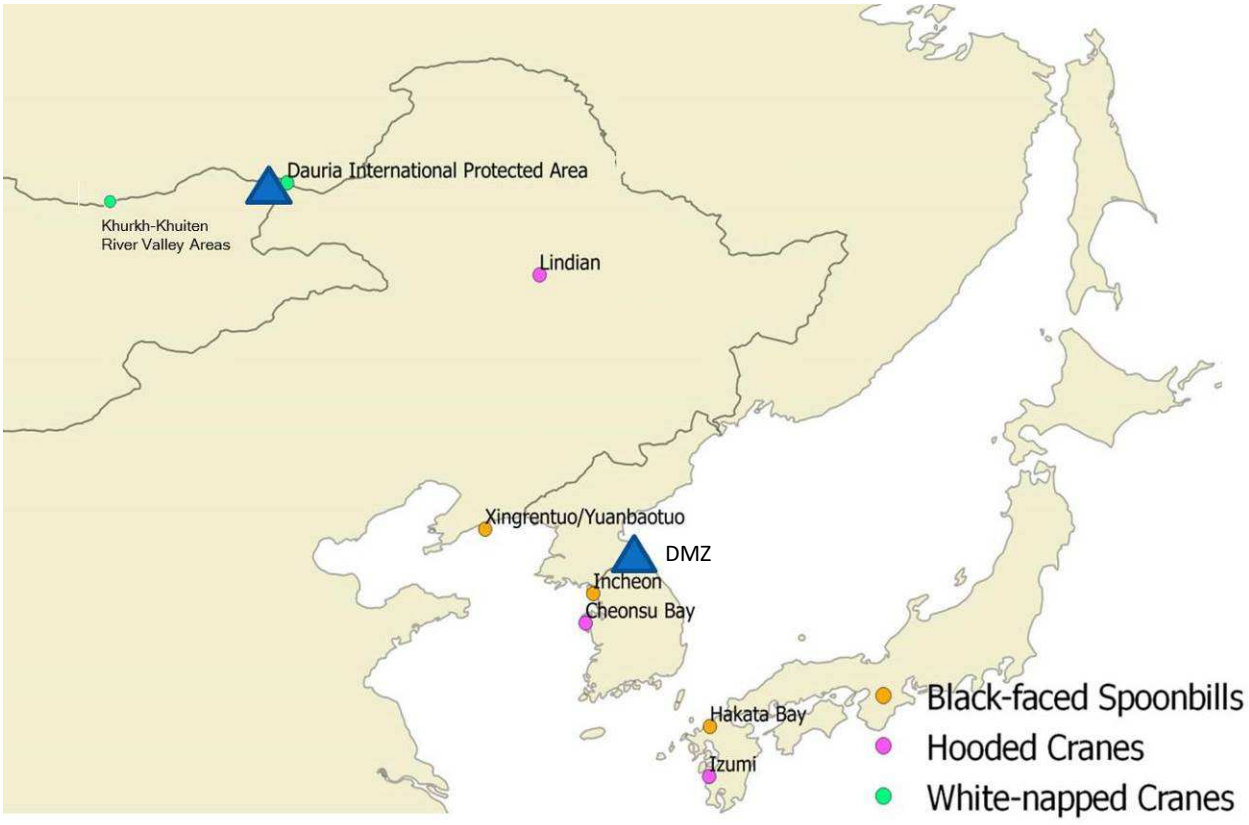
   Hooded Cranes: (i) Lindian (China); (ii) Izumi (Japan); (iii)Cheonsu Bay (ROK)

   White-naped Cranes: (i) Dauria International Protected Area (DIPA) and adjacent territories of Dauria ecoregion (China, Mongolia and Russian Federation), (ii) Khurkh-Khuiten River Valleys and general distribution range in eastern Mongolia

ii. **Joint studies at transboundary areas** to map key zones and generate in-depth knowledge for identifying conservation priorities and transborder collaboration options. The two study areas are: (i) Dauria International Protected Area, and (ii) Korean Demilitarized Zones (DMZ).

iii. **Capacity building and awareness raising** activities carried out during the field works to build capacity and share knowledge among scientists and younger generations, as well as raising local awareness on habitat conservation.

[Figure 2] Scoping surveys and joint studies sites



The project is implemented with the following national focal points:

- Chinese Academy of Forestry, China
- Wild Bird Society of Japan (WBSJ), Japan
- Wildlife Science and Conservation Centre of Mongolia, Mongolia
- Korean Society of Environment and Ecology (KSEE), Republic of Korea
- State Nature Biosphere Reserve "Daursky", the Russian Federation

1.3. ***Field Survey at the Rason Migratory Bird Reserve, DPRK, March 2014.*** In view of the importance of migratory bird habitats in DPRK to the success of habitat conservation, UNESCAP ENEA and Hanns Seidel Foundation carried out a field survey with a team of international experts at the Rason Migratory Bird Reserve. The Reserve is located at east of the Rason Special Economic Zone, which borders China and the Russian Federation, and is adjacent to the Tumen River Estuary. It therefore has a vital role in conservation and transboundary cooperation of the overall Delta habitat. Research and monitoring on migratory birds in the Chinese and Russian territories of the Tumen River Delta indicates that it is a habitat for thousands of migratory birds including globally vulnerable migratory bird species.

This field survey has produced the first makings of baseline information of the habitat and that the Reserve offers high quality stopover and breeding habitat, as well as meeting Ramsar criteria as an 'internationally important wetland' as it supports over a hundred species of birds. As this initial finding suggests that the Reserve offers high quality stopover and breeding habitat, this field survey and its follow-up work will provide the technical basis for international cooperation in conserving this important transboundary habitat.

[Figure 3] Location of the Rason Migratory Bird Reserve