

# Ramsar Information Sheet

Published on 6 August 2018

# **China**Jilin Hani Wetlands



Designation date 8 January 2018 Site number 2350

Coordinates 42°12'52"N 126°31'08"E

Area 3 571,50 ha

# Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

# 1 - Summary

## Summary

Located in the middle part of Longgang Mountain of Changbai Mountain System, Jilin Province, Northeast China, as parts of Longgang volcano group, Jilin Hani Wetlands are inland wetland and aquatic ecosystems with the major wetland types of Non-forested peatlands and forested peatlands. The site is one of the peculiar peat swamp wetlands in China and even in Asia, which mainly protects the alpine wetland ecosystem with peat swamp as its core, the upper reaches of Hani River and wild animals and plants under first-class State protection such as Taxus cuspidata, Ciconia boyciana, Aquila chrysaetos, Martes zibellina, Moschus moschiferus and so on. There are meandering rivers and streams, a large area of forest peat swamp, shrub peat swamp and herb swamp in the reserve, with water quality of Class II and sufficient and stable water source. It is the well preserved area of Jilin Hani National Nature Reserve, providing suitable habitats for rare and threatened species of plants and animals such as Chosenia arbutifolia, Ciconia boyciana, Aythya baeri, Emberiza aureola and Moschus moschiferus etc.

As a peatland with large thickness of single peat layer in Northeastern China and Asia, the site is one of the important carbon pools in the biogeographic region, where development history of peat layer almost ran through the whole Holocene, with a very essential scientific value. Besides, the site is in the headstream region of Hani River, flowing into Hunjiang River, primary tributaries of Yalu River, and is also in water conservation area of Hani River that is the only drinking water source for Tonghua City playing a pivotal role in water conservation, flood controlling, groundwater recharging, regional microclimate regulating and the carbon balance maintaining in Northeast Asia.

# 2 - Data & location

# 2.1 - Formal data

# 2.1.1 - Name and address of the compiler of this RIS

## Compiler 1

Name Jun SUI

Institution/agency Administration Bureau of Jilin Hani National Nature Reserve

No.576, Xiuquan Street
Dongchang District, 134000
Tonghua City
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# Compiler 2

Name Qingxin XU

Institution/agency Administration Bureau of Jilin Hani National Nature Reserve

No.576, Xiuquan Street
Dongchang District, 134000

Postal address
Tonghua City

Postal address
Tonghua City
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# 2.1.2 - Period of collection of data and information used to compile the RIS

To year 2016

#### 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)

Jilin Hani Wetlands

# 2.2 - Site location

#### 2.2.1 - Defining the Site boundaries

### b) Digital map/image

<1 file(s) uploaded>

Former maps 0

# Roundaries description

The site is located in east part of Hani Nature Reserve, taking Hani peatland as the center, including the periphery of the water conservation area in forest (buffer zone). The east, north, and south boundary is the same as the reserve one and the west boundary extends to the beach lands 1.5km downstream the Hami River.

# 2.2.2 - General location

a) In which large administrative region does the site lie?

Liuhe County, Tonghua City, Jilin Provice, China

b) What is the nearest town or population centre?

The nearest population centre is Huitougou Village.

#### 2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes O No 

O

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party?

# 2.2.4 - Area of the Site

Official area, in hectares (ha): 3571.5

Area, in hectares (ha) as calculated from GIS boundaries 3570.68

# 2.2.5 - Biogeography

# Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Udvardy's Biogeographical	Temperate broad-leaf forests or woodlands, and subpolar deciduous thickets, Manchu-
Provinces	Japanese Mxed Forest, Palaearcitc Realm

# 3 - Why is the Site important?

# 3.1 - Ramsar Criteria and their justification

☑ Criterion 1: Representative, rare or unique natural or near-natural wetland types

Hydrological services provided

Located in the volcanic barrier lake basin of Changbai Mountain Longgang volcano group, Jilin Hani Wetlands mainly rely on precipitation and surface water supplied by bedrock fissure water at the mountain foot. At the same time, there are abundant peat moss resources in the wetland, and their water holding capacity is 20-25 times of their own weight; peat itself can also retain water storage capacity more than 3-9 times of its own weight. Therefore, the site plays an important role in water conservation, purifying water, flood control, replenishing groundwater in the region and adjacent areas, maintaining normal water level for seasonal wetlands in surrounding area. Hani River, the main river in the site, is the important tributary of Hunjiang River, one of the primary tributaries of Yalu River, with a length of 60.2 km, a basin area of 537.32 km2 and an average annual runoff of 220 million m3 in the Site. The river, which brings together water of a large number of streams and peat marshes along the valley, is one of the important protected objects in the Site. As the origin of the Hani River, Hani peatland, the natural reservoir filled with water of good quality and stable quantity, is the only safe drinking water source for 500, 000 populations in Tonghua City downsteam, guaranteeing for the usage of the domestic water, industrial water and ecological water downstream.

Vegetation communities like Sphagnum - Rhododendron parvifolium - Larix olgensis marshes and Sphagnum - Carex - Betula marshes are wildly distributed in Hani Wetland. The site is the wetland ecosystem with the largest amount of peat reserves, the longest history of swamp development and the largest number of swamp plant communities type in Northeast China, and even in Asia. Development history of peat layer here almost ran through the whole Holocene, with continuous deposition, fast deposition rate and diverse plant residues. The high resolution peat pillar here is so rare in the world that it is an important geological archives of the Holocene environmental evolution. To sum up, the site, with rare and unique species, is an important representative of biogeographic region and East Asia. The peat layer has high organic matter, total humic acid and calorific value, and reserves of dry weight is over 12 million tons. The peat layer of some non-forested peatlands has a thickness up to 9.6 meters, which are the thickest peatlands in Northeast China, and even in Northeast Asia. Therefore, the site is one of the most essential carbon sink in biogeographic region and is of great importance to balance the carbon cycle in Hani River Basin.

Other ecosystem services provided

What's more, wetland community structures here are complex and diversified, which becomes natural filters to absorb, transform and degrade pollutants. Hence, pollution-free water ecosystem formed in Hani peatland is of great significance to purify water and regulate regional microclimate.

- ☑ Criterion 2 : Rare species and threatened ecological communities
- Criterion 3 : Biological diversity

Jilin Hani Wetland, located in the middle part of Longgang Mountain of Mount Changbai, is seldom affected by human activities and interference. Diversity of ecological system and original ecology are well preserved, including marsh ecosystem, forest ecological system and aquatic ecosystem. Hani Wetlands are rich in wildlife resources. In the site, 809 species of plant can be found, including 13 species of lichens, 72 species of bryophytes, 32 species of ferns, 9 species of gymnosperms, 684 species of angiosperms. In the site, 289 species of animal can be found, including 193 species of birds, 43 species of mammals, 32 species of fishes and 21 species of amphibians and reptiles. The following important plants are distributed in the site: Chosenia arbutifolia, Taxus cuspidata. The following rare and threatened birds are distributed in the site: Ciconia boyciana, Aythya baeri. The following rare mammals are distributed in the site: Ursus thibetanus, Lynx lynx, Cervus elaphus. And they are of great value for maintaining biodiversity in the biogeographic region.

Justification

- ☑ Criterion 4 : Support during critical life cycle stage or in adverse conditions
- ☑ Criterion 7 : Significant and representative fish

There are 32 species of fishes, under 9 families of 5 orders and, are distributed in Jilin Hani Wetlands. The composition of fish fauna is relatively complex, including complex of northern mountainous area (e.g. Leptobotia manchurica), complex of northern plain (e.g. Brachymystax lenok and Hucho taimen) and complex of Paleogene (e.g. Pseudorasbora parva). This reflects the characteristics of the fish fauna in the northern region and the rich fish resources of the site.

3.2 - Plant species whose presence relates to the international importance of the site

Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Chosenia arbutifolia		<b>2</b>		<b>2</b>	VU © iii © TSF		National Protection Class: II	Crit 4: the site provides important habitats for the rare plant species.

Criterion 4: The plant species are scattered in parts of Northeast China and are rare species (under VU and Naitonal protection class II). Because of the excessive deforestation, the environmental conditions of forest land have changed, and the rivers in some areas are polluted, which affect the germination of the seeds and the growth of the seedlings and young trees. Some areas have been extinct. In some areas, there are only big trees without seedlings and young trees, and their distribution area is decreasing. However, the Site provides important habitats for the plant species.

3.3 - Animal species whose presence relates to the international importance of the site

Phylum	Scientific name	Common name	Species qualifies under criterion 2 4 6 9	criterion	Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
Birds	Birds											
CHORDATA/ AVES	Aix galericulata	Mandarin Duck		0000				LC Sign			National Protection Class: II	Crit 4:Breeding in the site;
CHORDATA/ AVES	Anser cygnoides	Swan Goose	8800	0000				VU ● ST ● ST ● ST				Crit 4:Breeding in the site;
CHORDATA/ AVES	Asio otus	Long-eared Owl		0000				LC OTSF			National Protection Class: II	Crit 4:Breeding in the site;
CHORDATA/ AVES	Aythya baeri	Baer's Pochard	<b>2</b> 000					CR ●ä ●SW		✓	National Protection Class: I	

Phylum	Scientific name	Common name	Species qualifies under criterion	Species contributes under criterion 3 5 7 8	Pop. Size Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
CHORDATA/ AVES	Bubo bubo	Eurasian Eagle- Owl					LC Step			National Protection Class: II	Crit 4:Breeding in the site;
CHORDATA/ AVES	Butastur indicus	Grey-faced Buzzard					LC ©			National Protection Class: II	Crit 4:Breeding in the site;
CHORDATA/ AVES	Buteo buteo	Common Buzzard					LC			National Protection Class: II	Crit 4:Breeding in the site;
CHORDATA/ AVES	Buteo hemilasius	Upland Buzzard					LC OTH			National Protection Class: II	Crit 4:Breeding in the site;
CHORDATA/ AVES	Caprimulgus indicus	Gray Nightjar; Grey Nightjar	/OØOO				LC •\$			National Protection Class: II	Crit 4:Breeding in the site;
CHORDATA/ AVES	Ciconia boyciana	Oriental Stork; Oriental White Stork					EN Str	V	V	National Protection Class: II	Crit 4:Breeding in the site;
CHORDATA/ AVES	Circus cyaneus	Northern Harrier					LC •#			National Protection Class: II	Crit 4:Breeding in the site;
CHORDATA/ AVES	Circus melanoleucos	Pied Harrier					LC Sign			National Protection Class: II	Crit 4:Breeding in the site;
CHORDATA/ AVES	Emberiza aureola	Yellow-breasted Bunting					CR ●\$* ●®		<b></b>		Crit 4:Breeding in the site;
CHORDATA/ AVES	Falco subbuteo	Eurasian Hobby					LC			National Protection Class: II	Crit 4:Breeding in the site;
CHORDATA/ AVES	Falco tinnunculus	Eurasian Kestrel; Common Kestrel					LC STSF			National Protection Class: II	Crit 4:Breeding in the site;
CHORDATA/ AVES	Numenius madagascariensis	Eastern Curlew; Far Eastern Curlew	8800				EN ●#		V		Crit 4:Breeding in the site;
CHORDATA/ AVES	Otus bakkamoena	Collared Scops Owl					LC ©ST			National Protection Class: II	Crit 4:Breeding in the site;
CHORDATA/ AVES	Pernis ptilorhynchus	Oriental Honey- buzzard					LC •#			National Protection Class: II	Crit 4:Breeding in the site;
CHORDATA/ AVES	Strix uralensis	Ural Owl					LC ©ST			National Protection Class: II	Crit 4:Breeding in the site;
Fish, Mollusc	and Crustacea										
CHORDATA/ ACTINOPTERYGI	Brachymystax I lenok		0000								Criterion 7: Significant and representative fish
CHORDATA/ ACTINOPTERYGI		Danube salmon					VU • Sign				Criterion 7: Significant and representative fish
CHORDATA/ ACTINOPTERYGI	Pseudorasbora parva	Stone morokos					LC Sign				Criterion 7: Significant and representative fish
Others											
CHORDATA/ MAMMALIA	Moschus moschiferus	Siberian musk deer					VU ●\$ ●翻			National Protection Class: I	Crit 4:Living in the site
CHORDATA/ MAMMALIA	Ursus thibetanus	Asian Black Bear					VU •\$* •\$*	✓		National Protection Class: II	Crit 4:Living in the site

<sup>1)</sup> Percentage of the total biogeographic population at the site

3.4 - Ecological communities whose presence relates to the international importance of the site

<no data available>

# 4 - What is the Site like? (Ecological character description)

# 4.1 - Ecological character

Hani Wetland mainly consists of forested peatland, non-forested peatland and permanent rivers. The zonal vegetation in this area is conifer-broad leaf forest built with Pinus koraiensis, and other vegetation includes: deciduous broad-leaved forest dominated by Betula platyphylla, miscellaneous grass meadow, swamps and aquatic vegetation. In the site, 6 marsh vegetation types and 10 swamp plant associations can be found, such as the form of Carex schmidtii - Betula fruticosa - Larix olgensis; Sphagnum spp. - Betula fruticosa; and Calamagrostis angustifolia form. Sphagnum is well developed, with a coverage of more than 70%. Since wetland habitats are varied here, the site is an important habitat for the birds and other wetland animals in Northeast China.

On the broad river shore and various swamps, covered with a variety of wetland vegetation, the dominant species include: Carex schmidtii, Carex rhychophysa, Calamagrostis angustifolia and Equisetum heleocharis, constituting a relatively complete freshwater marsh ecosystem, which provide a good habitat and breeding place for rare and threatened waterbird, such as Ciconia boyciana, Numenius madagascariensis and Anser cygnoides. Wetlands also distributes a large area of forest and forest marshes, providing a rich source of food and habitats suitable for Cervus elaphus, Moschus moschiferus, Aquila chrysaetos, Butastur indicus and other animals. Furthermore, the site plays an important role in biodiversity and water conservation, regulating regional microclimate and maintaining regional ecological balance.

## 4.2 - What wetland type(s) are in the site?

#### Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Flowing water >> M Permanent rivers/ streams/ creeks		3	16.74	
Fresh water > Marshes on peat soils >> U: Permanent Non- forested peatlands		2	291.86	Unique
Fresh water > Marshes on peat soils >> Xp: Permanent Forested peatlands		1	1900.93	Unique

#### Other non-wetland habitat

One non-water matter								
Other non-wetland habitats within the site	Area (ha) if known							
Forest (water conservation area)								

## 4.3 - Biological components

# 4.3.1 - Plant species

Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
Fraxinus mandshurica		National Protection Class: II
Glycine max		National Protection Class: II
Pinus koraiensis	Korean pine	National Protection Class: II
Taxus cuspidata	Japanese yew	National Protection Class: I
Tilia amurensis		National Protection Class: II

#### 4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATAAVES	Accipiter nisus	Eurasian Sparrowhawk				National Protection Class:
CHORDATAAVES	Accipiter virgatus	Besra				National Protection Class:
CHORDATAAVES	Aegypius monachus	Cinereous Vulture				National Protection Class:
CHORDATA/AVES	Aquila chrysaetos	Golden Eagle				National Protection Class: I
CHORDATAAVES	Asio flammeus	Short-eared Owl				National Protection Class:
CHORDATA/AVES	Buteo lagopus	Rough-legged Hawk;Rough-legged Buzzard;Roughleg				National Protection Class:
CHORDATAMAMMALIA	Cervus elaphus	elk				National Protection Class:
CHORDATAVANES	Circus spilonotus	Eastern Marsh Harrier				National Protection Class:
CHORDATAAVES	Cygnus cygnus	Whooper Swan				National Protection Class:
CHORDATAAVES	Falco peregrinus	Peregrine Falcon				National Protection Class:
CHORDATAVAVES	Falco vespertinus	Red-footed Falcon				National Protection Class:
CHORDATAMAMMALIA	Lutra lutra	European Otter				National Protection Class:
CHORDATAMAMMALIA	Lynx lynx	Eurasian Lynx				National Protection Class:
CHORDATA/MAMMALIA	Martes zibellina	Sable				National Protection Class: I
CHORDATAAVES	Milvus migrans	Black Kite				National Protection Class:
CHORDATAVAVES	Otus scops	Eurasian Scops Owl				National Protection Class:
CHORDATAAVES	Tetrastes bonasia	Hazel Grouse				National Protection Class:
CHORDATA/MAMMALIA	Ursus arctos	Grizzly Bear;Brown Bear				National Protection Class:

# 4.4 - Physical components

# 4.4.1 - Climate

Climatic region	Subregion
D: Moist Mid-Latitude climate with cold winters	Dwa: Humid continental (Humid with severe, dry winter, hot summer)

#### 4.4.2 - Geomorphic setting

.2 - Geomorphic setting
a) Mnimum elevation above sea level (in metres) 887
a) Maximum elevation above sea level (in metres) 906
Entire river basin
Upper part of river basin ☑
Mddle part of river basin □
Lower part of river basin
More than one river basin □
Not in river basin
Coastal

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

Jilin Hani Wetland is the birthplace of the Hani River, which is the main tributaries of the Hunjiang River. The Hunjiang River is a primary tributary of the Yalu River.

Eutrophic 

Mesotrophic 

Oligotrophic

Dystrophic 🗹	
Unknown	

# 4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the i) broadly similar O ii) significantly different  $\odot$ site itself: Surrounding area has greater urbanisation or development  $\Box$ 

Surrounding area has higher human population density  $\square$ 

Surrounding area has more intensive agricultural use  $\Box$ 

Surrounding area has significantly different land cover or habitat types 🗹

Please describe other ways in which the surrounding area is different:

Most land surrounding Jilin Hani Wetlands is woodland, mainly including mixed coniferous and broad-leaved forests dominated by Pinus koraiensis and summer green broadleaf forest and Quercus mongolica forests.

# 4.5 - Ecosystem services

#### 4.5.1 - Ecosystem services/benefits

Provisioning Services

i Towatoriing oct vices		
Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	Low
Fresh water	Drinking water for humans and/or livestock	Low
Wetland non-food products	Timber	Low
Wetland non-food products	Reeds and fibre	Low

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	Medium
Erosion protection	Soil, sediment and nutrient retention	Medium
Climate regulation	Local climate regulation/buffering of change	High
Climate regulation	Regulation of greenhouse gases, temperature, precipitation and other climactic processes	High
Hazard reduction	Flood control, flood storage	High
Hazard reduction	Coastal shoreline and river bank stabilization and storm protection	High

**Cultural Services** 

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	Low
Spiritual and inspirational	Aesthetic and sense of place values	High
Scientific and educational	Educational activities and opportunities	High
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	High
Scientific and educational	Long-term monitoring site	High
Scientific and educational	Major scientific study site	High

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganizms, the genes they contain, and the ecosystems of which they form a part	High
Soil formation	Sediment retention	High
Soil formation	Accumulation of organic matter	High
Nutrient cycling	Storage, recycling, processing and acquisition of nutrients	High
Nutrient cycling	Carbon storage/sequestration	High

Within the site:	0
Outside the site:	500000

Have studies or assessments been made of the economic valuation of Yes ® No O Unknown O ecosystem services provided by this Ramsar Site?

Where economic studies or assessments of economic valuation have been undertaken at the site, it would be helpful to provide information on where the results of such studies may be located (e.g. website links, citation of published literature):

"GEP" and "ecological assets accounting report" of Tonghua, Jilin	

# 4.5.2 - Social and cultural values

i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland

ii) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland

iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples

iv) relevant non-material values such as sacred sites are present and their existence is stronglylinked with the maintenance of the ecological character of the wetland

<no data available>

# 4.6 - Ecological processes

<no data available>

# 5 - How is the Site managed? (Conservation and management)

# 5.1 - Land tenure and responsibilities (Managers)

## 5.1.1 - Land tenure/ownership

Public ownership

Category	Within the Ramsar Site	In the surrounding area
Local authority, municipality, (sub)district, etc.	V	<b>V</b>
National/Federal government	<b>2</b>	<b>2</b>

## 5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for	Administration Bureau of Jilin Hani National Nature Reserve
managing the site:  Provide the name and title of the person or	
people with responsibility for the wetland:	Baofeng GUAN, Director
Postal address:	No.576, Xiuquan Street Dongchang District, 134000 Tonghua City,
	Jilin Province, P.R.China,
E-mail address:	jlhani@163.com

# 5.2 - Ecological character threats and responses (Management)

# 5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Annual and perennial non- timber crops	Low impact	Low impact	<b>/</b>	✓

Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Roads and railroads	Low impact	Low impact		✓

Biological resource use

Biological resource ase					
	Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
	Hunting and collecting terrestrial animals	Low impact	Low impact	<b>✓</b>	✓
	Gathering terrestrial plants	Low impact	Low impact	<b>4</b>	✓
	Logging and wood harvesting	Low impact	Low impact	<b></b>	✓

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Fire and fire suppression	Low impact	Low impact	✓	<b></b>

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Storms and flooding	Low impact	Low impact	€	✓

# 5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
National Nature Reserve	Jilin Hani National Nature Reserve	http://hnnr.forestry.gov.cn/	partly

# 5.2.3 - IUCN protected areas categories (2008)

la Strict Nature Reserve 🗵
lb Wilderness Area: protected area managed mainly for wilderness protection
II National Park: protected area managed mainly for ecosystem protection and recreation
Ill Natural Monument: protected area managed mainly for conservation of specific natural features
IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

## 5.2.4 - Key conservation measures

#### Legal protection

Legal protection		
	Measures	Status
	Legal protection	Implemented

#### Habitat

Measures	Status
Catchment management initiatives/controls	Implemented
Improvement of water quality	Implemented
Habitat manipulation/enhancement	Partially implemented
Hydrology management/restoration	Partially implemented
Re-vegetation	Partiallyimplemented
Soil management	Implemented
Land conversion controls	Implemented
Faunal corridors/passage	Implemented

#### Species

openie e		
Measures	Status	
Control of invasive alien plants	Implemented	
Control of invasive alien animals	Implemented	

#### **Human Activities**

Measures	Status
Management of water abstraction/takes	Implemented
Regulation/management of wastes	Implemented
Livestock management/exclusion (excluding fisheries)	Implemented
Fisheries management/regulation	Implemented
Harvest controls/poaching enforcement	Implemented
Regulation/management of recreational activities	Implemented
Communication, education, and participation and awareness activities	Implemented
Research	Implemented

#### Other

- 1) By the end of 2012, Administration Office of Hani Reserve constructed 512 m2 of office management houses, 215 m2 of houses for propaganda and education, 400 m2 of houses for fire prevention, 200 m2 of Hani Management Station, 217 m2 of wildlife salvation station, 524 m2 of animal cages. Infrastructure improvement enhances the efficiency of conservation area.
- 2) The reserve invited experts and scholars from Northeast Normal University and Northeast Forestry University to conduct comprehensive investigation on natural resources in the reserve.
- 3) Teaching and scientific research bases were established with such units as Beijing Forestry University. Many scientific research institutes studied Hani wetland and obtain a lot of achievements in scientific research.
- 4) "Administrative Regulations of Jilin Hani National Nature Reserves" was approved by 1st Standing Committee of Tonghua Municipal Government on January 12, 2017, and implemented from March 1, 2017.

#### 5.2.5 - Management planning

Is there a site-specific management plan for the site? No

Has a management effectiveness assessment been undertaken for the site? Yes O No

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning Yes O No 

processes with another Contracting Party?

## 5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No, but a plan is being prepared

# 5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Water regime monitoring	Implemented
Water quality	Implemented
Soil quality	Implemented
Plant community	Implemented
Plant species	Implemented
Animal community	Implemented
Animal species (please specify)	Implemented
Birds	Implemented

- 1) Hani Wetland established 800 m2 of houses for scientific research and monitoring, three platforms of bird supervision and 1000 m of floating bridge.
- 2) Telescopes, infrared cameras, night-vision devices, GPS and video monitoring systems were added to the wetland, thus providing first-hand materials for scientific research.
- 3) The monitoring of productivity, biomass and biodiversity of Hani Wetlands was consistently implemented. Observation points of birds and beasts were set up and long-term monitoring of birds and mammals using a relatively fixed line was carried out, in order to obtain more information on wildlife.
- 4) Staff in the reserve participated in training programs and learned from universities, environmental protection organizations. The monitoring of wetland ecosystems and rare birds was enchanced by using meteorological and hydrological monitoring points and fixed monitoring plots. Monitoring data were archived annually.

# 6 - Additional material

# 6.1 - Additional reports and documents

## 6.1.1 - Bibliographical references

Chen Xu et al. Changbai Mountain Hani marsh resources status and protection proposal [J]. wetland science and management, 2007 Chen Xu et al. The ecological niche of seven species of bryophytes in Hani Peatland, Changbai Mountain [J] Applied Ecology Journal.2009 Dong Jing et al. Kazakhstan wetland resources protection [J]. Heilongjiang science and technology information, 2011

"GEP" and "ecological assets accounting report" of Tonghua, Jilin

Jilin Hahi National Nature Reserve scientific investigation report (internal data)

The overall plan of the National Nature Reserve of Hahi, Jilin (internal data)

Udvardy M. 1975. Classification of the Biogeographical Provinces of the World. IUCN Occasional Paper No. 18.

#### 6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

ii. a detailed Ecological Character Description (ECD) (in a national format)

iii. a description of the site in a national or regional wetland inventory

iv. relevant Article 3.2 reports

v. site management plan

<no file available

vi. other published literature

<no file available>

## 6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site



Autumn landscape of Hani Wetland (Qingxin Xu, 04-10-



Catchment area of Hani Wetland ( Hongbin Zhang, 28-10-2015 )



Summer landscape of Hani Wetland (Li He, 24-08-

# 6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation 2018-01-08