Information Sheet on Ramsar Wetlands (RIS) 2006-2008 version

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.

2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.

3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

FOR OFFICE USE ONLY. DD MM YY Designation date Site Reference Number

1. Name and address of the compiler of this form:

Name: Zunxian Liu Institution: Bureau of Heilongjiang San Jiang National Nature Reserve Address: San Jiang National Nature Reserve, Fuyuan County, Heilongjiang Province Zip: 156500 Tel: +86-(0)454-2199000 Fax: +86-(0)454-2199000 Email: liuzunxian@163.com

2. Date this sheet was completed/updated:

September 28, 2007

3. Country:

The People's Republic of China

4. Name of the Ramsar site:

The precise name of the designated site in one of the three official languages (English, French or Spanish) of the Convention. Alternative names, including in local language(s), should be given in parentheses after the precise name.

San Jiang National Nature Reserve

5. Designation of new Ramsar site or update of existing site:

This RIS is for (tick one box only):

a) Designation of a new Ramsar site; or

b) Updated information on an existing Ramsar site $\sqrt{}$

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area

The Ramsar site's boundary and area has not changed. $\sqrt{}$

Or

If the site boundary has changed:

i) the boundary has been delineated more accurately; or

ii) the boundary has been extended; or

iii) the boundary has been restricted**

and/or

If the site area has changed:

i) the area has been measured more accurately; or

ii) the area has been extended; or

iii) the area has been reduced**

**** Important note**: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

Not changed.

7. Map of site:

Refer to Annex III of the Explanatory Note and Guidelines, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

i) a hard copy (required for inclusion of site in the Ramsar List):

ii) an electronic format (e.g. a JPEG or ArcView image) ";

iii) a GIS file providing geo-referenced site boundary vectors and attribute tables. $$\sqrt{}$$

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park, etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The boundary of this reserve was delineated according to the boundaries between China and Russia and the surrounding rivers. The site boundary is the same with the reserve.

8. Geographical coordinates (latitude/longitude, in degrees and minutes):

Provide the coordinates of the approximate centre of the site and/or the limits of the site. If the site is composed of more than one separate area, provide coordinates for each of these areas.

Center: 47°56'N, 134°20'E

Extent : 133°43'-134°40' E, 47°26'-48°24' N

The site has two separate parts: the Heilongjiang River part and the Wusuli River part. The Heilongjiang River part: 133°43-134°17′ E, 47°53′-48°24′ N, center: 134°4′ E, 48°8′N; The Wusuli River part: 134°13′-134°40′ E, 47°26′-48°11′ N, center: 134°36′ E, 47°44′ N.

9. General location:

Include in which part of the country and which large administrative region(s) the site lies and the location of the nearest large town.

The site is located in Fuyuan County and Tongjiang City of Jiamusi, Heilongjiang Province, Northeast China. It is about 360 km northeast to Jiamusi City.

10. Elevation: (in meters: average and/or maximum & minimum)

Maximum: 80 m; minimum 20 m, average: 50 m.

11. Area: (in hectares)

164 400 ha.

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

San Jiang Nature Reserve is located in Heilongjiang Province, Northeast China, mainly protecting wetland and important waterfowl species. This site is a delta alluvial plain where Heilongjiang River and Wusuli River converge. With low and flat topography, abundant rivers and well developed marsh vegetation, it is identified as a typical inland alpine wetland and water ecosystem.

The site is adjacent to Russia's wide wetlands and mountains at the opposite side of Heilongjiang River. Totally, there are 26 eyots, 57 rivers of different sizes, over 210 lakes and

pools in the site, which serve as important habitats of 106 waterfowl species. Particularly, this reserve is a breeding place and stopover for many valuable bird species such as *Grus japonensis* and *Ciconia boyciana* (around 60 individuals).

This Ramsar site well conserves Sanjiang Plain's permanent and seasonal freshwater marshes, and wild species' unique gene banks. Thus, it is of rich biodiversity.

13. Ramsar Criteria:

Tick the box under each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11). All Criteria which apply should be ticked.



14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Criterion 1: Sanjiang Plain is one of the largest wetland areas in China with centralized distribution of marsh wetlands. Considering its geological origin, environment change and ecosystem dynamics, Sanjiang Plain is of great importance in Asia even the world. San Jiang Reserve presents the basic characteristic of Sanjiang Plain's typical inland freshwater wetland and water ecosystems. It consists of two parts of wetlands: Wusuli River Basin and Heilongjiang River Basin, and is a typical representative of east Sanjiang Plain's alpine wetland ecosystems under minor influence of human development.

Criterion 2: The unique environment conditions and vegetation of San Jiang Reserve provide inhabiting and breeding places for many national protected species. There are 12 national first-level protected animal species and 43 national second-level protected animal species. According to the IUCN Red List (2007), the site holds 4 endangered species and 7 vulnerable threatened bird species (11 species in total) as shown in the following table.

Species Latin Name	IUCN Category
Ciconia boyciana	EN
Mergus squamatus	EN
Anser cygnoides	EN
Grus japonensis	EN
Aquila. clanga	VU
Haliaeetus leucoryphus	VU
Haliaeetus pelagicus	VU
Grus monacha	VU
Grus vipio	VU
Anas formosa	VU
Aythya baeri	VU

Criterion 3: This site holds well developed vegetations. *Calamagrostis angustifolia* meadows, reed meadows and natural island-shaped broadleaved forests are of great uniqueness

and rareness. Totally, there are more than 500 higher plant species of 95 families, belonging to Changbai Mountain Flora. The zonal plant communities in the site belong to the type of temperate coniferous and broadleaved forest. A large area of azonal marsh vegetation develops due to the various conditions of water accumulation. The constructive, dominant and companion plant species here are all helophytes, hydrophytes or mesophytes adapting to the wet conditions. Most species belongs to Family Gramineae and Cyperaceae. San Jiang Nature Reserve is the compound of marsh wetlands and forest habitats, having various marsh types. It is of high biodiversity with complex and diverse animal populations including forest animals, wetland animals and aquatic animals. According to an investigation, within this Ramsar site, there are totally 28 *Grus japonensis* individuals of 6 nests (2007 spring), 16-30 *Grus vipio* breeding individuals (2002-2007) and 20-30 *Ciconia boyciana* breeding individuals (2002-2007).

Criterion 4: This wetland provides habitats for many rare wild animals (see criterion 2) during their life history.

Criterion 5: Waterfowl census has been conducted in spring and autumn since 2002. The individuals of *Phalacrocorax niger* could reach up to 20 000-3 0000 (e.g. 28 000 in the autumn of 2006). The individuals of *Anser cygnoides* reached 24 000 in the spring of 2006. Overall, the gooses and ducks could reach to its maximum of 50 000 to 100 000 in the autumn.

Criterion 7: Besides the two major river systems of Heilongjiang River and Wusuli River, there are 57 anabranches of different sizes and over 70 lakes, pools, channels, ponds and reservoirs, which together constitutes the widespread water environment. The abundant food resources here make it an important breeding habitat for fishes. According to an investigation, there are 105 fish species within San Jiang Reserve, of which cold water fish and cold-favored fish species constitute the majority.

Criterion 8: The midstream part of Heilongjiang River located within Sanjiang Reserve has the features of wide and open river waters, plentiful islands, complex riverbeds and diverse water depths. It is the important habitat for large economic fish species such as *Paradramis pekinensis*, *Megalobrama skolkoui*, *Coregonus ussuriensis*, *Ctenopharyngodon idellus*, *Sinipeca chuatsi* and *Silurus soldatovi* to breed, winter and inhabit. Heilongjiang River and Wusuli River are important migrating and breeding channel for *Oncohynchus keta*, an endemic fish species of Heilongjiang, and habitats of *Coregonus ussuriensis*, sturgeon and siberian buso sturgeon to breed and inhabit.

15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:

Changbaishan Subregion, Northeastern Region, Palearctic Realm

b) biogeographic regionalisation scheme (include reference citation):

The Biogeography of Fauna in China (Zhang Rongzu, 1999)

16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Geology and Geomorphology: The site is geologically located in the central section of Fuyuan sunken basin which is the subordinate structure unit in broken and sunken basin of Tongjiang Inland in the Mesozoic era. The land subsided intermittently since the Quarternary Period. The slope of land surface from southwest to northeast is 1/5000-1/10000. Large areas of lowlands are covered with water, through which the surface layers of the marsh sediments are formed. The layers have mild clay of 2-17 m, under which fine sands, gravels and mid-coarse sands can be found. The total thickness is 100-300 m.

The geomorphologic units within the site include low hillocks, alluvial plains and flooding areas. The plains and flooding areas take a great proportion, with fertilized soil and abundant vegetation, which could provide favorable condition for the establishment of the nature reserve of wetland ecosystem type.

Origin: San Jiang Nature Reserve is located in the northeast of Sanjiang Plain. It is a natural low alluvial plain where the Heilongjiang River and Wusuli River converge.

Hydrology: There are two river systems within the reserve: Heilongjiang River and Wusuli River. Heilongjiang River has a part of 30 km within the reserve, while the length of Wusuli River within the site reaches up to 115 km. There are 57 rivers of different sizes and more than 210 lakes in the reserve. This reserve includes 3 one-class river branches: Yalujiang River, Nongjiang River and Bielahong River. In the upstream areas there mostly lie heavy wetlands without obvious river channels. All the middle and small rivers flowing across the reserve have the characteristics of plain marsh river, i.e. small bottom slope (generally around 1/10000), large channel bending coefficient, narrow river channels in dry reasons, vast floodplain and small flow velocity. In flood seasons, affected by jacking of Heilongjiang River and Wusuli River, the back-flow usually reaches up to 25 to 30 km, with the maximum of 70 km. The frozen period lasts about 132 to 150 days from November to next mid/late April.

The reserve is rich in underground water. Below the surface there is a continuous water-containing body with good permeability and without blocks between different aquifers. Because the reservoir basin tilts slightly from southwest to northeast, the groundwater flows northeastward to Heilongjiang River and Wusuli River.

San Jiang Nature Reserve is a huge biological reservoir in Northeast Sanjiang Plain. Due to the special hydrological and physical characteristics of marsh soil, it could hold water mass that is 3-9 times heavier than the soil body. Water mass held by marshes reach up to 400% to 600% with an outflow coefficient around 0.5, because of which, it has a strong water holding capability. The natural regulating coefficient of the marsh is 0.678. Flood water is stored in soil or conserved in lakes and marshes in the form of surface water. Thus, flood water amount is declined.

Soil type: Located in the high latitude zone, the soil in the site is affected by natural and human factors and develops in diverse ways. Four soil types can be found: white-stiff soil, meadow soil, bog soil and peat soil. Different soil types have close relations with vegetation distribution.

Water quality: The site's natural water chemistry type is HCO₃-Na, that of upper floodplain groundwater is HCO₃-Ca/Na, and that of marsh water is COCl₂-Na. The mineralization degree of

the water is 36-202 mg/l, the rigidity is 0.67-4.67 and the pH value is 5.3-6.8.

Water level and depth: The historical highest water level of Heilongjiang River was 89.60 m and the lowest was 79.49 m with the average of 86.60 m. The highest water level of Wusuli River was 101.40 m and the lowest was 94.60 m with the average of 95.41 m. The depth of Yalu River varies from 2 m to 6 m, while that of Nongjiang River varies from 3 m to 9 m. The water levels of the small rivers within this reserve change along with the main large rivers.

Climate: With high latitude, the site has a long but cold winter and a short but hot summer. Being close to the Okhotsk Sea, the site is influenced by the oceanic climate. In winter it is under the control of the continental air mass in polar region, while in summer it is influenced by subtropical zone oceanic air mass. Hence it has a small annual temperature difference compared with the inland areas at the same altitude. With the character of oceanic climate, seasonal variation is distinctive. The mean annual temperature is 2.2 . The frost-free period is 115-130 days. The frozen period lasts about 120 days. The mean annual rainfall is 603.8 mm. The mean annual evaporation is 1257.1 mm.

17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, and climate (including climate type).

The area of the catchment is about 120 000 km², belonging to low alluvial plain, with 3 geomorphologic features of low hillocks, floodplains and flooding areas. The main soil types are white-stiff soil, meadow soil, bog soil and peat soil .The farmland occupied 60% of the whole catchment, which is the main agricultural area of Northeast China. The catchment has obvious features of temperate monsoon climate. The annual average temperature is about 2.0 . The annual average rainfall is about 600 mm. The annual average evaporation is 1 200 mm.

18. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

The site holds widespread swamps, marshes, lakes, ponds and rivers. The wetlands usually serve as natural reservoirs to store a large amount of water especially when the flooding season comes. The San Jiang wetland regulates about 4×10^8 m³ flood water, complements about 6×10^8 m³ underground water. The surface water quality is at level. Overall, the site plays an important role in flood control, regulation of regional climate change, maintaining normal water-table, and air purification.

19. Wetland Types

a) presence:

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the *Explanatory Notes & Guidelines*.

Marine/coastal:



Inland:





b) dominance:

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.

Wetland categories	Wetland types in the Ramsar site	Percentage of extent in the Ramsar site
Тр	Permanent freshwater marshes covered by floating plants	40%
Ts	Seasonal/intermittent flood area covered by meadow plant communities	30%
U	Herbaceous peat	4%

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

The site supports typical freshwater marsh ecosystems. The hydrophyte is abundant, presenting various floating plants, submerged macrophytes and emerged macrophytes. The wetland vegetation covers more than 95% of the seasonal or intermittent flooding areas, where the constructive species are *Cyperus lasiocarpa*, *Carex meyeriana*, *Carex pseudocuraica*, *Carex appendiculata*, *Calamagrostis angustifolia*, *Salix rosmatinifolia*, *Acorus calamus* etc. Plentiful algae provide abundant foods for fish, meanwhile planktons and fish are good foods for birds. Large areas of wetland plants offered habitats for the waterfowls which inhabit and breed here. There have bird species such as Ciconia boyciana, *Grus japonensis*, *Grus vipio*, *Cygnus Cygnus* and large numbers of gooses, ducks, umbrettes and gulls.

Lowland meadow and grassland is distributed with numerous herbaceous plants. *Calamagrostis angustifolia* is the dominant species. There are many hillocks among the meadows, covered with natural broadleaved forests. *Alauda arvensis* and many kinds of Buff-bellied Pipits are typical birds here. There live many birds in the meadows, such as *Vanellus vanellus*, small snipes and buntings.

The river and river ponds, where a large number of float grasses grows and fish and benthos resources are rich, is an important feeding place of waterfowls. There is also a habitat for swimming-birds like gooses, ducks, grebes, *Fulica atra* and small plovers and snipes.

Large numbers of passerines are distributed in the farmlands, woodlands and settlements, such as *Emberiza spodocephala*, *Hirundo dauric* and, *Pica pica*.

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14, Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present - these may be supplied as supplementary information to the RIS.*

There are about 500 species of higher plants within the site, falling into 95 families. The main wetland plant species are many kinds of sedge. The site's zonal vegetation is temperate coniferous and broadleaved forest. A large area of azonal marsh vegetation develops due to various conditions of water accumulation. The constructive, dominant and companion species are all helophytes, hydrophytes or mesophytes adapting to the wet conditions, which are mainly represented as Gramineae and Cyperaceae plants (e.g. *Calamagrostis angustifolia*).

Marsh: The marshes can be divided into light marsh and heavy marsh according to the depth of seeper. *Calamagrostis angustifolia-Carex lasiocarpa* are the common type of the light marshes, while the heavy marsh can be divided into peat marsh and sapropel marsh. The peat marsh includes three ecotypes: *Carex lasiocarpa* marsh, *Carex lasiocarpa-Carex Pseudocuraica* marsh and *Clyceria acutifora* marsh. The sapropel marsh is mainly represented as *Calamagrostis angustifolia-Phragmites australis-Carex lasiocarpa* marsh type.

Meadow: In the principle of botanic taxonomy, meadows here can be classified as true meadow and marsh meadow. The true meadow is mainly represented as *Calamagrostis angustifoli* meadow type and *Betula microphylla*-miscellaneous marsh type, consisting of more than 70-80 species. The marsh meadow is mainly represented as the type of *Calamagrostis angustifoli-Carex* schumidtii marsh meadow, consisting of 81 species, with the dominant species of *Calamagrostis angustifoli*.

Broadleaved forest (island-shaped forest): Broadleaved forest is mainly distributed on the remnant hillocks within the reserve. The dominant species is Mongolian Oak (*Quercus mongolica*) and a little existence of David Poplar (*Populus Davidiana*) and Asian White Birch (*Betula platyphylla*). Shrubs are dominated by *Lespedeza bicolor*. There are also many plants under state key protection such as *Glycine soya, Fraxinus mandshurica, Phellodendron amurense, Tilia amurensis* and *Juglans mandshurica*.

Aquatic plants: There are three types: submerged plants like *Utricularia intermedia*, floating plants like *Lemna minor* and emerged plants like *Phragmites australis*.

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present - these may be supplied as supplementary information to the RIS.*

San Jiang Nature Reserve biogeographically belongs to Northeast China Region, Northeastern Sub-realm, Palearctic Realm. It is located in the triangular region where Heilongjiang River and Wusuli River converge. There are 43 mammal species (under 12 families of 5 orders), 257 bird species (under 40 families of 16 orders), 7 reptile species (under 4 families of 3 orders), 5 amphibian species (under 4 families of 2 orders) and more than 500 insect species in this area. There also have 12 national first-class protected animal species and 43 national second-class protected animal species.

According to a preliminary investigation, the site holds the number of 6-10 couples of *Grus japonensis*, 8-12breeding couples and 80-100 migratory individuals of *Ciconia boyciana*, 18-20 individuals of *Grus vipio*, 100-200 migratory individuals of *Cygnus Cygnus*, 5-7 individuals of *Aquila chrysaetos* and 8-10 individuals of *Haliaeetus albicill*. The maximum population of *Phalacrocorax carbo* is over 20 000, and the maximum individuals of gooses and ducks is up to 50 000-100 000 during the migration seasons in spring and fall.

23. Social and cultural values:

a) Describe if the site has any general social and/or cultural values e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values:

Ecotourism along the rivers can promote San Jiang region's opening to the outside world and contribute to local economic development.

Constructions of the reserve will further promote the development of wild animal protection, and will make the site a propaganda and education base, which will produce a great deal of social benefits.

The Reserve is rich in birds, animals, fish and forest resources. These renewable resources could play important roles in designed agricultural reform and grazing in the experiment area, which can enhance the living standards of local residents.

The reserve holds a population of Hezhe nationality of 300-400 people, having a great value in studying local Hezhe nationality's culture and development.

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning?

No.

If Yes, tick the box and describe this importance under one or more of the following categories:

i) sites which provide 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) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:

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

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

24. Land tenure/ownership:

a) within the Ramsar site:

State ownership.

b) in the surrounding area:

State and collective ownership.

25. Current land (including water) use:

a) Within the Ramsar site:

All the lands in this site are included in the National Nature Reserve.

Core area: accounting for 33.3% of the total area of the reserve. This region retains relatively complete original wetland ecosystems and biodiversity, and is the centralized distribution area of the protected birds, also an important breeding habitat and feeding ground for the gooses and ducks. Research and monitoring works are mainly taken in this region.

Buffer area: accounting for 14.1% of the total area. This region retains original or part-original wetland ecosystem types and serves as buffers and natural barriers for the core area.

Experiment area: accounting for 52.5% of the total area. Nowadays, the wetlands are in a good state of preservation except that some are transformed into farmlands. The main land uses are farmland (mainly planting soybeans and rice) and grazing.

b) In the surroundings/catchment:

Farmland is the main land use type in this region, soybeans and rice cultivation accounts for about 80% of the total region.

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

a) Within the Ramsar site:

Agricultural activities could produce human disturbances to the wetland in some degree.

b) In the surrounding area:

The hydrologic constructions (such as drainage system) in the surrounding farms could decrease the water resource of the site in some degree.

27. Conservation measures taken:

a) List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar site:

In particular, if the site is partly or wholly a World Heritage Site and/or a UNESCO Biosphere Reserve, please give the names of the site under these designations.

Since 2003, a total of more than 200 million RMB was invested to establish five protection stations. In 2006, the Forest Public Security Bureau was established, and any illegal hunting and illegal logging are forbidden. The reserve has been working together with the governments of surrounding towns and villages for co-conservation since 2003, and a co-conservation committee was founded to effectively protect wetland waterfowls.

b) If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate):

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Ia; Ib; II; III; IV; V; VI
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c) Does an officially approved management plan exist; and is it being implemented?

No.

d) Describe any other current management practices:

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

The reserve is actively taking multiple measures to expand international cooperation and increase communications with the world. Such activities including cooperation with Wetlands International, cooperation among the nature reserves located in the birds' migration routes in Northeast Asia, Sino-Russia co-conservation and communication of Heilongjiang River and Wusuli River regions, researches on the mode of conservation and wise use.

The reserve is planning to relocation the original residents who live in the edge of the buffer zone, and to restore the farmland into vegetation.

29. Current scientific research and facilities:

e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Northeast Forestry University established a base for scientific research, teaching and practicing in the reserve in 2002. A book entitled as *Sanjiang National Nature Reserve's Nature Resource* was published in 2004. An animal monitoring station of national level was established in 2006, and more than 500 000 RMB was invested to set up 3 wireless video monitoring spots. Five field monitoring stations were established in cooperation with the management station, mainly for bird monitoring. Currently, a protection project funded by GEF ("Conservation and Sustainable Use of China's Wetland Biodiversity") is being implemented in the site. The experts are completely studying the reserve's resources in order to effectively manage the reserve. In October, 2006, San Jiang National Nature Reserve signed the "Cooperation Agreement of Co-Conservation of Natural Environment in Wusuli River Basin and Heilongjiang River Basin" with two Russian National Nature Reserves. This cooperation makes the co-protected area achieve 140 000 km². More than 400 animal species and 1 000 plant species are under protection.

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities

A specimen building (800m²) was completed in 2006, and opened up for scientific research, education and propaganda. It welcomes about 5 000 tourists every year, including 2 600 students and 300 scholars and experts.

Large-scale propaganda and education activities were developed in every year's Bird Week, World Wetland Day and World Earth Day. Long-term propaganda and education for wetland benefits, and laws and regulations on wildlife protection are developed. Five thousand booklets on the San Jiang wetland were printed each year.

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Taking the location advantage of border to Russia and rich natural resources, tourism activities along Heilongjiang River and Wusuli River have been developed.

32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept of Agriculture/Dept. of Environment, etc.

Territorial: Jiamusi government

Functional: Forestry Administration of Heilongjiang Province

33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Institution: Bureau of San Jiang National Nature Reserve, Heilongjiang Province. Principal: Qingyan Zhang (Director) Address: San Jiang National Nature Reserve, Fuyuan, Heilongjiang Province Zip: 156500 Tel: +86-(0)454-2138577

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

- Ma Yiqing, et al. 1986. Theriologica Sinica of Heilongjiang Province. Harbin: Heilongjiang Science and Technology Press.
- [2] Zhang Rongzu, et al. 1997. Distribution of Mammalian Species in China. Beijing: China Forest Press.
- [3] Zheng Zuoxin. 1987. A Synopsis of the Avifauna of China. Beijing: Science Press.
- [4] Ma Jianzhang. 1992. The Avifauna of Heilongjiang. Beijing: China Forestry Press.
- [5] Zhang Juemin, et al. 1995. The Fishes of Heilongjiang. Harbin: Heilongjiang Science and Technology Press.
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