Information Sheet on Ramsar Wetlands (RIS) – 2009-2014 version

Available for download from http://www.ramsar.org/doc/ris/key_ris_e.doc and http://www.ramsar.org/pdf/ris/key_ris_e.pdf

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 17, 4th edition).
- 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.

1. Name and address of the compiler of this form:	For office use only.
Name: Kaijia TAN Institution: Bureau of Dajiu Lake National Wetland Park of Hubei Province Address: Jiuhu Road 1#, Dajiuhu Country, Shennongjia Forestry District, Hubei Province, P.R of China Post: 442418 Tel: (+86) 719-3472258 Fax: (+86) 719-3472258 Email: djhwetland@163.com, snjtkj@126.com	DD MM YY Designation date Site Reference Number
2. Date this sheet was completed/updated:	

February 21, 2013

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.

Hubei Dajiu Lake Wetland

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 \square ; or

b) Updated information on an existing Ramsar site \Box

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

a) Site boundary and area

The Ramsar site boundary and site area are unchanged: \Box

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:

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): \Box ;

- ii) an electronic format (e.g. a JPEG or ArcView image) $\mathbf{\Sigma}$;
- iii) a GIS file providing geo-referenced site boundary vectors and attribute tables \square .

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 site boundary has the same boundary with Dajiu Lake Provincial Nature Reserve of Shennongjia District in Hubei Province. The wetland is situated close to Shennongjia National Nature Reserve and the Tujia Autonomous Township in Xiagu to the southeast, Wushan and Wuxi County in Chongqin to the southwest, Hongping Towship of Zhushan County to the north.

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: 31°28'14"N, 110°2'51"E Extent: 31°24'51"-31°32'30"N, 109°58'35"-110°7'32"E

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.

Dajiu Lake Wetland is located in Dajiuhu Township on the southwest border of Shennongjia Forest District in Hubei Province, 165 km away from Songbai Township which is the administration capital of Shennongjia Forest District.

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

Average: 1,740 m Maximum: 2,624 m Minimum: 1550 m.

11. Area: (in hectares)

9,320 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.

Hubei Dajiu Lake Wetland is a typical subalpine sphagnum bog wetland in subtropical area. It is a rare representative of the subtropical subalpine wetlands in central China. Various wetland types occur here, including subalpine meadow, sphagnum bog, sedge bog, sweet flag bog, red fescue bog, bogbean bog, rivers, ditches, ponds etc. The maximum depth of peat is about 3.5m and formed before Holocene (about 10000-12000 years ago). The wetland is located in a relatively closed environment, with an intact natural environmental. The wetland is highly valued, since many threatened plant and animal inhabit here, such as *Picea neoveitchii, Taxus chinensis, Corylus chinensis, Syrmaticus reevesi, Platalea leucorodia, Moschus berezovskii etc.* It is one of the biodiversity hotspots of China, The wetland has great value for scientific research since it is an important site for studying wetland succession and the responding of wetland to global change. The wetland is also important for the water quality in low reaches, since it is the water source for the tributary of Han River, which is located in the middle route of South-North Water Transfer Project.

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.

1 2 • 3 • 4 5 6 7 9 $\mathbf{\Lambda}$ $\mathbf{\Lambda}$ $\mathbf{\Lambda}$

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:

The Hubei Dajiu Lake Wetland is a rare representative of a typical subalpine sphagnum bog wetland located in the biogeographic region and in sub-trophical central China. It supports various wetland types, including subalpine meadow, sphagnum bog, sedge bog, sweet flag bog, red fescue bog, bogbean bog, rivers, ditches, ponds etc. The maximum depth of peat is about 3.5m and formed

some 10,000-12,000 ago. Located in the mountain basin formed by the eastern extension of Daba Mountain, the wetland has a typical karst landform. As the water source for the Du River, which is an important tributary of Han River, Dajiu Lake Wetland is highly valued for the ecosystem and hydro environment.

Criterion 2:

Rare and endangered species distributed in Dajiu Lake Wetland and levels in related standards are listed as follows.

Species	Latin name	IUCN	CMS	CITES	National protection level				
	Bird sp	ecies							
Oriental Stork	Ciconia boyciana	EN	I	I	I				
Reeves's Pheasant	Syrmaticus reevesii	VU		_	II				
	Mammal	species							
Forest Musk Deer	Moschus berezovskii	EN	—		I				
Clouded Leopard	Neofelis nebulosa	VU	_	I	Ι				
Asiatic Black Bear	Ursus thibetanus	VU	_	I	II				
Sumatran Serow	Capricornis sumatraensis	VU	_	I	II				
Veitch's Spruce	Picea neoveitchii	CR		_	II				
Chinese Yew	Taxus chinensis	EN		II	I				
_	Bretschneidera sinensis	EN	_	_	I				
—	Corylus chinensis	EN							
Oliver's Plum Yew	Cephalotaxus oliveri	VU	—	—	II				
_	Dysosma versipellis	VU		_					
Tall Gastrodia	Gastrodia elata	VU							

Criterion 3 :

Dajiu Lake Wetland is located in Shennongjia Forest District, which is one of the "WWF Global 200". The site belongs to rare subalpine sphagnum bog wetland in subtropical area. A significant amount of threatened plants and animals in the wetland are irreplaceable for the biodiversity maintenance and resource complementary in the biogeographic region. There are 1002 plant species in the wetland, including 984 species of higher plants and 18 species of bryophyta. Among these bryophyte, Sphagnaceae is distributed all around the concave basin of Dajiu Lake and is key species which form the distinctive sphagnum bog wetland. Various wetlands provide habitats for many birds and mammals. There are 54 bird species, 27 mammal species and 7 amphibian and reptile species in the wetland, including many rare and endangered species such as Oriental Stork (*Ciconia boyciana*), Reeves's Pheasant (*Syrmaticus reevesii*), Forest Musk Deer (*Moschus berezovskii*), Clouded Leopard (*Neofelis nebulosa*). This Ramsar site is one of the biodiversity hotspots in the biogeographic region.

a) biogeographic region:

^{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.

Evergreen sclerophyllous forests, scrubs or woodlands, Oriental Deciduous Forest Biogeographic Province, Palaearcitc Realm

b) biogeographic regionalisation scheme (include reference citation):

A Classification of the Biogeographical Provinces of the World (Miklos D.F. Udvardy, 1975)

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.

Geological and geomorphology: Dajiuhu wetland belongs to the eastward extension of Daba Mountain. The lithology of surrounding mountain is metamorphic rock and sedimentary rock with various kinds, formed in Proterozoic-Triassic period. The topology of Dajiu Lake wetland belongs to the remnant karst depression of plateau mountain stage. A closed karst basin was formed here. There are quaternary alluvial and proluvial deposition with considerate depth in the bottom of basin, with water pores and underground rivers, which is a typical karst landform. The middle part of this area is smooth and broad, and annual elevation is 1740m with high mountains. The Dajiu Lake wetland is a rare subalpine basin of northwest of Hubei province.

Origin: Naturally originated.

Soil: Most soil in Dajiu Lake wetland is bog soil and meadow soil. There are some yellow brown soil or dark brown soil in upper land.

Hydrology: There are two rivers in Dajiu Lake wetland, namely Heishui River and Jiudeng River. The Tongdougou stream in Xiaojiu Lake conflows to Luoyang River first, then conflows to Du River, and run in Han River. The annual rainfall of Dajiuhu is 1528.3mm, Monthly average precipitation is 241 mm at most (July) and 25.6mm at least (January), the average occurrence days of precipitation 125.

Water quality: DO saturation rate≥90% (or7.5), Permanganate index≤2, COD≤15, BOD5≤3,

NH3-N≤0.015, TP≤0.02, TN≤0.2

Water depth: The mean depth is 1.8m and max depth is 7m

Climate: Dajiu Lake wetland is located in the monsoon climate region at the middle latitude of north-subtropics, belongs to the subalpine cold temperate zone in China. Sunshine duration is short, temperate is cold. Average annual temperature is about 7.4 °C and the coldest month is January with

an average daily temperature of -4.3°C. The frost-free season is very short (only 144 days). The

annual precipitation is about 1528.3mm and the precipitation is abundant and well distributed. Cloudy and foggy weather is common in this area and the relative moisture is more than 80%. The year-round sunshine time is about 1000 hours and the average sunshine time of a day is 2.7 hours. Winter is long in Dajiu Lake Wetland. Summer is so short here that autumn is just next to spring this special climate conditions make Dajiu Lake wetland a unique subalpine wetland. Due to the high and huge mountain in the catchment, this area shows an obvious vertical climate characteristic.

17. Physical features of the catchment area:

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

Dajiu Lake is located in the south origin of area of Du river system. The catchment of Dajiu and Xiaojiu lake basin is 5721 ha. The catchment of Du river system is 12400 km2, average annual runoff is 6×10^9 m³. The west part of Dajiu Lake wetland is originated from Daba Mountain, the south part is originated from Shengongjia. Subalpine landform is the main landform. The upper stream area is alpine with an elevation of 1200-2500m; the downstream area is hills with an elevation of 500-1200m. Mountain yellow-brown soil and yellow-brown soil is the main soil type. The ecosystem of

the catchment is almost intact, except for the farms in the margins of forests. The climate in the catchment belongs to subtropical humid zone, with an annual temperature of 12-15 °C and annual precipitation of 800 to 1000mm.

18. Hydrological values:

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

Dajiu Lake Wetland is the origin area of Du River, which is the first level tributary of Han River. The wetland is located in the confluence region of Three Gorges reservoir area, Danjiangkou reservoir area and Second reservoir area of the middle route of South-North Water Transfer Project. The wetland is an important ecological barrier for the middle reach of Han River. It has great value for the flood control, soil and water conservation, climate regulation of the Han River basin and surrounding area. The peat and sphagnum in the wetland can not only conserve water, but also purify water, as well as recharge underground water.

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/co	oasta	1: A	•	В	•	С	•	D	•	Ε	•	F	•	G	•	Η	•	Ι	•	J	•	K	•	Zŀ	x(a)
Inland:	L Vt	•	M W	•	N Xi	• f •	O Xj	• p •	P Y	•	Q Zg	• g•	R Zi	• k(b)	Sp)	•	Ss	•	Tj	2	Τs	3 •	U	•	Va•
Human-m	ade:	1	•	2	•	3	•	4	•	5	•	6	•	7	•	8	•	9	•	ZI	k(c))			

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.

Ts, U, O, 6, Tp, M, Zk(b)

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.

Dajiu Lake Wetland is mainly covered by vast area of sphagnum bogs, peat swamps and marshes. The dominant plants are *Sphagnum palustre*, *Carex argyi*, *Sparganium simplex*, *Polygonum hydropiper*, *Juncus effuses*, *Malus hupehensis etc*. The complete peat bog ecosystem provides habitat and breeding site for many rare and endangered species, such as *Syrmaticus reevesi*, *Platalea leucorodia*, and *Moschus berezovskii*, etc. Various broadleaf forests and mixed forests distribute around the wetland. The dominant trees are *Pinus armandii*, *Populus davidiana*, *Betula albo-sinensis Fagus engleriana* and *Abies chensiensis*. The forests provide habitat for many birds, such as *Carduelis sinica* such as, *Parus monticolus*. Meanwhile, the wetland provide living water and industrial water with high quality for the residents around or downstream of the wetland, since the sphagnum bogs can preserve and purify water, and the forests around wetland can also provide abundant water resource.

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.

Influenced by various factors such as topography, climate, soil etc, the flora in the Dajiuhu wetlands has a very complex and well-connected composition, with the western subtropical and temperate compositions as the source. The natural vegetation in the area includes marshes, aquatic vegetation, meadows, shrubs, temperate coniferous forest and broadleaf forests.

According to the scientific investigation and historical data, there are total 984 vascular plant species in Dajiu Lake Wetland Besides the species listed in Criteria 2, there is one species of national protection 1st level (*Davidia involucrata*), 9 species of national protection 2nd level (*Cercidiphyllum japonicum, Magnolia officinalis, Liriodendron chinens, Abies chensiensis, Torreya*)

fargesii, Zelkova serrate, Glycine soja, Phellodendron chinense, Tetracentron sinense). In addition, there are 18 species of bryophytes, belonging to 13 families and 17 genera.

22. Noteworthy fauna:

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., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS*.

Based on comprehensive scientific investigation and follow-up observation, in the Dajiuhu wetland of Shennongjia there are 18 orders, 41 families, 61 genera, 88 species of terrestrial vertebrates, including 27 species of mammals, belonging to 5 orders, 14 families, 24 genera; 54 species of birds, belonging to 10 orders, 22 families, 32 genera; 2 species of reptiles, belonging to 10 orders, 2 families, 2 genera; five species of amphibians, belonging to 2 orders, 3 families and genera. Besides the rare and endangered species listed in Criteria 2, there are 5 species of national protection 2nd level, including Common Crane (*Grus grus*), Mandarin Duck (*Aix galericulata*), Temminck's Tragopan (*Tragopan temminckii*), Koklass Pheasant (*Pucrasia macrolopha*), Golden Pheasant (*Chrysolophus pictus*).

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:

With the premise of ecological and environmental protection, ecotourism of Dajiu Lake Wetland has been well developed and has become a famous reputation of Hubei province. Local economic structure has successively turned from extensive agriculture to ecotourism service, which greatly alleviated the agricultural pollution.

On the cultural level, many village names are derived from the legend 'Rebel of Xuegang to Tang Dynasty'. In folk legend, the 1st to 9th laps are the sites where Xuegang quartered his troops, trained soldiers and restored foods.

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 **D** 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. The reserve has the tenure of land use.

b) in the surrounding area:

State ownership. The land is tenured to Wetland Administration, local government and resident.

25. Current land (including water) use:

a) within the Ramsar site:

Most land is protected area. Bogs have never been utilized. A science observation corridor passes through the edge of the wetland. There are some tourism utilities at the open water in the experimental zone. The reservoir is mainly used for hydropower, agriculture and aquaculture.

b) in the surroundings/catchment:

The forests in the surrounding mountains are part of the National Natural Forest Protection Project. There is some farmland cultivating alpine vegetables in the upper land of wetland. There is also some livestock breeding in the grasslands.

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:

Agriculture, livestock breeding and tourism may have some impact on the wetland environment.

b) in the surrounding area:

There is still some agricultural activities in the surrounding area. Pesticide and fertilizer leads to pollution of the wetland environment. Ecological resettlement work is under way to alleviate the pressure of tourism and tertiary industry.

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.

On Dec. 1, 2003, Dajiu Lake Wetland Reserve (at district level) was approved by Shengnongjia Forest District Government. Boundary delimitation was finished. The area of the Reserve was 333.3ha at that time.

On Sep. 2006, the Dajiu Lake National Wetland Park was approved by National Forestry Bureau The park is the 4th national wetland park of China, and the 1st national wetland park of central China. The area of Dajiu Lake National Wetland Park was 5083 ha in plan.

In June 2010, Dajiu Lake Wetland Reserve of Shengnongjia Forest District was promoted as provincial reserve. National wetland administration Bureau and provincial reserve administration bureau worked together to manage the Reserve. Reserve area increased to 9320 ha. There are 207.7ha overlapping area of the core area of Dajiu Lake Wetland Reserve and the key protection area of Dajiu Lake National Wetland Park.

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

Ia \square ; Ib \square ; II \square ; III \square ; IV \square ; V \square ; VI \square

c) Does an officially approved management plan exist; and is it being implemented?:

'Master plan of Dajiu Lake Provincial Reserve, Shengnongjia Forest District, Hubei Province

(2007-2005)'has been approved by the government of Hubei Province. The plan is under taken.

d) Describe any other current management practices:

To alleviate the conflict and difficulties in conserving Dajiu Lake Wetland in Shengnongjia Forestry District of Hubei province, 'Regulations on Dajiu Lake Wetland Park' was officially released by the government of Shengnongjia Forestry District on April 16, 2010. The regulation is aimed at a legalized, standardized and routinized wetland management.

28. Conservation measures proposed but not yet implemented: e.g. management plan in preparation; official proposal as a legally protected area, etc.

Ecological migration and the construction of new towns in offsite are being carried out actively, in order to relieve the pressure of increasingly booming tourism industry and the tertiary industry on wetland ecological environment. The local people are guided to do industry transformation and give up the original extensive farming in order to reduce the wetland pollution. In addition, more infrastructure has been built and management has been strengthened to prevent human destruction of the wetland resources. The associated protection measures and suggestions are gradually put into practice and implemented which were proposed by State Forestry Bureau and wetland experts.

29. Current scientific research and facilities:

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

Since its establishment, Dajiu Lake Wetland Reserve bureau has established long-time scientific and technical cooperation with College of Environmental Science in China University of Geosciences (Wuhan) and College of Life Science in Wuhan University. The cooperation is active all the time. A research and education base was also established in cooperation with China University of Geosciences (Wuhan) in Dajiu Lake in 2011.

Scientific research and monitoring on Dajiuhu wetland have been carried out jointly with some domestic and foreign universities and research institutions, such as National Forestry Bureau, University of Montpelier in France, Institute of Geodesy and Geophysics and Institute of Wuhan

Botanical Garden from Chinese Academy of Sciences, and Sun Yat-Sen University, China University of Geosciences (Wuhan), Wuhan University, Central China Normal University, Nanjing University etc, experts and scholars from which schools and institutes have extensively surveyed the wetland

In addition, some scientific research facilities are being established, such as the ecology research station of Dajiu Lake Wetland and field site of the National Key Laboratory in the College of Environment Science in China University of Geosciences (Wuhan).

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 for school visits, etc.

Fixed billboards and bulletin boards have been set up in Dajiu Lake Wetland to publicize the importance of wetland protection. Websites have been established to report the latest development in wetland research and wetland conservation value to the public. To improve the public awareness of environment protection, achievement on wetland protection were exhibited to the public, as well as open class on the knowledge of wetland conservation was delivered to local residents. Achievements outside of the reserve and open classes of wetland protection knowledge in the local both can improve the eco-environmental protection awareness of the local people.

31. Current recreation and tourism:

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

Besides wetland protection and restoration work, Dajiu Lake Wetland also develops the local tourism industry. In recent years, the length of new-built walking path adds up to 10000 meters. The Reserve has built 4 docks and water platforms, bought 8 sightseeing boats were bought, completed necessary safety protection facilities, and other infrastructure such as leisure desks and chairs, ecological toilets, dust bins. 150,000 tourists visited Shengnongjia Dajiu Lake Wetland in 2012.

32. Jurisdiction:

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

Regional: Shennongjia Forest District of Hubei Province Functional: Hubei Provincial Forestry Bureau

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.

Definition: Bureau of Dajiu Lake National Wetland Park of Hubei Province General Director: Xinglin WANG

Address: Jiuhu Road 1#, Dajiuhu Country, Shennongjia Forestry District, Hubei Province, P.R of

China

Post: 442418 Tel: (+86) 719-3472258 Email: djhwetland@163.com

34. Bibliographical references:

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

Baoyin HE. Peat Record of Climate Change in History in Shennongjia Region [D]. Wuhan University, 2001.

- Baoyin HE, Sui ZHANG, Shuming CAI. Climatic Changes Recorded in Peat from the Dajiuhu Lake Basin in Shennongjia since the Last 2500 Years [J].Marine Geology & Quaternary Geology, 2003, 3(2):109-116.
- Dan PENG, Shenxiang LIU, Weiping LI, Zhaoquan ZHU. Characteristic analysis of Sphagnum palustre bog in Dajiuhu, Mt.Shennongjia[J]. Guizhou Science, 19(4):101-104.
- Fengqi GAO, Zeyou ZHANG, Huiqing LANG. Geological Report of Peat Deposit in Dajiu Lake, Mt.Shennongjia [R]. Northeast Normal University, Jun, 1982.
- Forestry Management Authority in Shennongjia. The Comprehensive Planning of Dajiu Lake National Wetland Park in Shennongjia Region in Hubei Province[R], 2006.
- Fugui WANG, etc. Restoration and Protection Research Report of Dajiu Lake Wetland in Shennongjia Forest Region in Hubei Province [R].Hubei Water Resources Research Institute, Mar,2005.
- Huiping LIU, LingDi XIE. A Study on the Representation of Some Main Pollens in Shennongjia Region [J].Journal of Central China Normal University (Natural Sciences), 1998, 32(4): 395-397.
- Institute of Wuhan Botanical Garden, Chinese Academy of Sciences. Plants of Shennongjia [M]. Wuhan: Hubei People's Press, 1980: 15-33.
- Mingming ZHOU, Wenyi LI. Vegetation and Environment in Holocene in Dajiu Lake Basin of Shennongjia. Study of Vegetation and Environment in the late Quaternary Period in North Subtropical of China [M]. Maritime Press, 1993: 33-45.
- Project Application Office of Dajiuhu Wetland in Shennongjia Forest Region. Project Report of Dajiu Lake Wetland Protection [R], 2005.
- Shennongjia Forest Region Local Chorography Compilation Committee in Hubei Province. Shennongjia Chorography [M]. Hubei Science and Technology Press, 1996: 1-79.
- Shennongjia Forest Region Local Chorography Compilation Committee in Hubei Province. Shennongjia Chorography [M]. Hubei Science Press, 1996: 1-40.
- The Comprehensive Report of Scientific Survey for Dajiu Lake Wetland in Shennongjia Region[R], 2007.
- Udvardy M. 1975. Classification of the Biogeographical Provinces of the World. IUCN Occasional Paper No. 18.
- Xiao LI, Yunping LI, Yinbo YU, etc. Regional Hydrogeological Survey Report of Shennongjia(H-49-3/1:200000) [R]. Hydrogeology Team of Geology and Mineral Bureau in Hubei Province, Jun, 1984.
- Yongyao LIU. Regional Geological Survey Report of Shennongjia (H-49-3/1:200000) [R]. Regional Survey Team of Geological Bureau in Hubei Province, Jan, 1974.