Information Sheet on EAA Flyway Network Sites (SIS) – 2017 version

Available for download from http://www.eaaflyway.net/about/the-flyway/flyway-site-network/

Categories approved by Second Meeting of the Partners of the East Asian-Australasian Flyway Partnership in Beijing, China 13-14 November 2007 - Report (Minutes) Agenda Item 3.13

Notes for compilers:

1. The management body intending to nominate a site for inclusion in the East Asian - Australasian Flyway Site Network is requested to complete a Site Information Sheet. The Site Information Sheet will provide the basic information of the site and detail how the site meets the criteria for inclusion in the Flyway Site Network. When there is a new nomination or an SIS update, the following sections with an asterisk (*), from Questions 1-14 and Question 30, must be filled or updated at least so that it can justify the international importance of the habitat for migratory waterbirds.

2. The Site Information Sheet is based on the Ramsar Information Sheet. If the site proposed for the Flyway Site Network is an existing Ramsar site then the documentation process can be simplified.

3. Once completed, the Site Information Sheet (and accompanying map(s)) should be submitted to the Flyway Partnership Secretariat. Compilers should provide an electronic (MS Word) copy of the Information Sheet and, where possible, digital versions (e.g. shapefile) of all maps.

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1. Name and contact details of the compiler of this form*:

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EAAF SITE CODE FOR OFFICE USE ONLY:

E	A	A	F	0	2	5

2. Date this sheet was completed*:

DD/MM/YYYY

xx/06/2006

3. Country*:

People's Republic of China

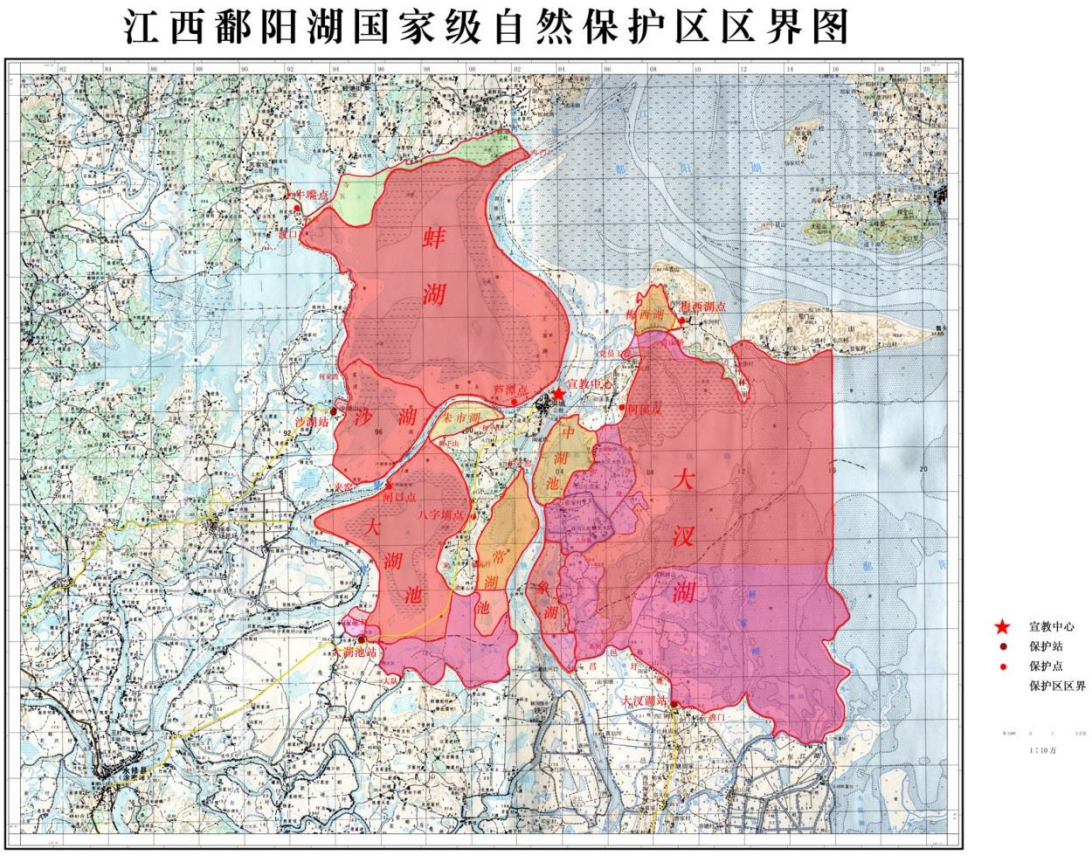
4. Name of the Flyway Network site*:

Accepted English transcription of the Site's name.

Poyang Lake National Nature Reserve

5. Map of site*:

The most up-to-date available and suitable map of the wetland should be appended to the SIS (only in digital format and shape file). The map must clearly show the boundary of the site. Please refer to the "Digitising Site Boundaries in Google Earth" file linked here.



6. Geographical coordinates (latitude/longitude, in decimal degrees)*:

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.

29^{O}05' -29^{O}15' N; 115^{O}55' -116^{O}03' E (29.00000, 116.25000)

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

15m

8. Area*:

The total area of the site, in hectares. If the areas of discrete site units are known, please also list each of these together with the names (or labels) used to identify and differentiate these units.

22,400ha

9. General overview of the site*:

A brief (two sentences) summary of the site, mentioning principal physical and ecological functions, and its importance for migratory waterbirds.

Jiangxi Poyang Lake National Nature Reserve is renowned as a wetland of international importance and abundant biodiversity. It is located on the north-western part of the biggest freshwater lake in China — Poyang Lake, northern Jiangxi Province, located in the mid-to-lower reaches of the Yangtze River. The reserve has a total area of 22,400ha. More than 310 species of birds have been recorded in the reserve, including 11 species of Class I state priority protection, and 44 species of Class II State priority protection.

Poyang Lake National Nature Reserve is famous for its large number and diversity of wintering waterfowl species, as demonstrated by this famous poem:

"*Do you know how many birds in Poyang Lake?*
When they fly, you cannot see cloud and the sun;
When they land, you can not see grass on the ground."

One hundred and twenty-five waterbird species have been recorded, and hundreds of thousands of waterfowl spend the winter in the reserve. The reserve is the currently the world's most important wintering area for Siberian Crane and Swan Goose.

The reserve was established in 1983, and promoted to national level in 1988. Since it was established, the reserve has become one of the most high-priority protected areas by WWF and IUCN, and was declared a wetland of international importance under the Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat. The reserve became a member of the Northeast Asian Crane Site Network in 1997.

Water quality is considered favourable, although there are large impacts and threats to water levels through upstream dam construction and sedimentation. Crab culture and poplar plantations also impact on the waterbird habitats.

10. Justification of Flyway Site Network criteria*:

Please provide waterbird count information (with year of latest count) that demonstrates that the site meets the criteria of the Flyway Site Network (Annex 1). That is:

- it regularly supports > 20 000 migratory waterbirds; or,
- it regularly supports > 1 % of the individuals in a population of one species or subspecies of migratory waterbird; or,
- it supports appreciable numbers of an endangered or vulnerable population of migratory waterbird
- it is a "staging site" supporting > 5 000 waterbirds, or > 0.25% of a population stage at the site.

A listing of the populations of migratory waterbirds covered by the East Asian – Australasian Flyway Partnership and the 1% thresholds is attached (Annex 3).

The "staging site" criterion is particularly difficult to apply and application of this should be discussed with the Secretariat. Also note that some species have several populations that are very difficult to distinguish in the field.

Poyang Lake National Nature reserve supports at least 34 shorebird species. Ten (10) species meet the 1% criteria for shorebird populations in the East Asian-Australasian Flyway: Northern Lapwing, Grey-headed Lapwing, Little Ringed Plover, Kentish Plover, Eastern Sand Plover, Black-tailed Godwit, Spotted Redshank, Pintail Snipe, Dunlin, and Pied Avocet (Table 1 and Appendix 2). One species (Pacific Golden Plover) has met the 0.25% staging criteria during the northward migration period.

Table 1. Shorebird Counts at Poyang Hu that meet criteria for international importance. Data are from 1992 to 2005.

No	Chinese Name	English Name (& *Scientific Name*)	1% Criteria*	Count	Date	Reference	Site
1	凤头麦鸡	Northern Lapwing (*Vanellus vanellus*)	1000	6286	10/12/2005	Wu Xudong, Huang Zuyou	Dachahu
				6185	11/12/2005	Wu Xudong, Huang Zuyou	Dachahu
				8000	Winter	Ji Weitao et al. (2001)	In the reserve
2	灰头麦鸡	Grey-headed Lapwing (*Vanellus cinereus*)	1000	1700	25/09/2004	Wu Jiandong	In the reserve
3	环颈鸻	Kentish Plover (*Charadrius alexandrinus dealbatus*)	1000	1400	24/12/2004	Wu Xudong, Huang Zuyou	Dachahu
4	红胸鸻	Eastern Sand Plover (*Charadrius veredus*)	440	5000	12/04/2005	Wu Xudong, Huang Zuyou	Dachahu

5	黑尾塍鹬	*Black-tailed Godwit (Limosa limosa melanuroides)*	1600	12000	11/10/2000	Wu Jiandong	Banghu
				3000	Winter	Ji Weitao et al. (2001)	In the reserve
				4000	28/11/2004	Mark Barter	Sha Hu
6	鹤鹬	*Spotted Redshank (Tringa erythropus)*	1000	1816	30/01-09/02/2004	Barter *et al*, (2004)	In the reserve
				16000	14/10/2004	Zhou Feilong, Yi Wusheng	Changhuchi
				17900	15/10/2004	Zhou Feilong, Yi Wusheng	Changhuchi
				16800	16/10/2004	Zhou Feilong, Yi Wusheng	Changhuchi
				14600	19/10/2004	Zhou Feilong, Yi Wusheng	Changhuchi
7	林鹬	Wood Sandpiper (*Tringa glareola*)	1000	1550	29/04/2000	Ji Weitao et al. (2001)	In the reserve
8	针尾沙锥	Pintail Snipe (*Gallinago stenura*)	250	1000	20/11/1999	Wu Jiandong	In the reserve
9	黑腹滨鹬	Dunlin (*Calidris alpina*)	10000	24000	16/12/2003	Wu Xudong, Huang Zuyou	Dachahu
				42389	28/12/2004	Ji Weitao, Wu Xudong, Huang Zuyou	Dachahu
				11178	29/12/2004	Ji Weitao, Wu Xudong, Huang Zuyou	Dachahu
10	反嘴鹬	Pied Avocet (*Recurvirostra avosetta*)	1000	4567	30/01-09/02/2004	Barter *et al*, (2004)	In the reserve
				9000	7/12/2004	Wu Jiandong	In the reserve
				6400	3/02/2005	Ji Weitao, Wu Jiandong	In the reserve
				3561	30/01/2005	Barter *et al*, (2004)	In the reserve
				3400	Jan-98	Ji Weitao et al. (2001)	In the reserve
No	**Chinese Name**	**English Name**	**0.25% Criteria**	**Count**	**Date**	**Reference**	**Site**
1	金[斑]鸻	Pacific Golden Plover (Pluvialis fulva)	250	500	3/04/2001	Wu Jiandong	Near Jishan

*** Flyway population estimates and 1% criteria are from Wetlands International (2002) and Bamford *et al* (In Press).**

Results of the Waterbird Survey of the Middle and Lower Yangtze River Floodplain, organized by WWF in late January and early February 2004, identified Poyang Lake as extremely important in the region for several other waterbirds, with 12 species encountered in internationally important

numbers within the Reserve during the survey (see below table).

Species	Scientific Name	1% criteria	Count	Date	References
Black Stork	*Ciconia nigra*	1	5	30/01-09/02/2004	Barter *et al.* (2004).
Oriental White Stork	*Ciconia boyciana*	30	1409	30/01-09/02/2004	
Eurasian Spoonbill	*Platalea leucorodia*	65	2598	30/01-09/02/2004	
Tundra Swan	*Cygnus columbianus*	860	1585	30/01-09/02/2004	
Swan Goose	*Anser cygnoides*	550	24403	30/01-09/02/2004	
Bean Goose	*Anser fabalis*	600/550	4224	30/01-09/02/2004	
White-fronted Goose	*Anser albifrons*	1300	10099	30/01-09/02/2004	
Siberian Crane	*Grus leucogeranus*	30	1671	30/01-09/02/2004	
White-naped Crane	*Grus vipio*	40	2549	30/01-09/02/2004	
Hooded Crane	*Grus monacha*	10	57	30/01-09/02/2004	
Pied Avocet	*Recurvirostra avosetta*	1000	4567	30/01-09/02/2004	
Spotted Redshank	*Tringa erythropus*	1000	1816	30/01-09/02/2004	

A further five species were found in internationally important numbers during the 2005 WWF count – Common Teal (14 909 individuals), Spot-billed Duck (14 753), Northern Lapwing (1 920), Common Crane (261) and Dalmatian Pelican (1) (M. Barter pers. comm.).

11. Wetland Types*:

List the wetland types present (see Annex 2). List the wetland types in order of their area in the Flyway Network site, starting with the wetland type with the largest area.

Inland wetland, including M, O, P, and Tp

12. Jurisdiction*:

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

Territorial jurisdiction over the site:

Nanchang City Government & Jiujiang City Government, Jiangxi Poyang Lake National Nature Reserve.

Functional jurisdiction for conservation purposes:

Jiangxi Provincial Forestry Department, Jiangxi Poyang Lake National Nature Reserve.

13. 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 and the title and/or name and email address/phone number of the person or persons in this office with direct responsibility for managing the wetland.

Name: Poyang Lake National Nature Reserve

Contact person: Weitao Ji, Director of Poyang Lake National Nature Reserve

Address: No. 97, Honggu 2 Road, Nanchang 330038, Jiangxi Province, PRC

Telephone: 0791-3857168
Fax: 0791-3856879
Email: jxjwt@sohu.com

14. Bibliographical references*:

A list of key technical references relevant to the wetland, including management plans, major scientific reports, and bibliographies, if such exist. Please list Web site addresses dedicated to the site or which prominently feature the site, and include the date that the Web site was most recently updated. When a large body of published material is available about the site, only the most important references need be cited, with priority being given to recent literature containing extensive bibliographies.

Bamford, M., Watkins, D., Bancroft, W., Tischler, G. And Wahl, J. (In Press). Migratory Shorebirds of the East Asian – Australasian Flyway: Population Estimates and Internationally Important Sites. Wetlands International – Oceania. Canberra, Australia.

Barter, M., Chen, L., Cao, L. & Lei, G. (2004). Waterbird Survey of the Middle and Lower Yangtze River Floodplain in Late January and Early February 2004. China Forestry Publishing House, Beijing, China.

Asia-Pacific Migratory Waterbird Conservation Committee. (2001). Asia-Pacific Migratory Waterbird Conservation Strategy: 2001-2005. Wetlands International – Asia Pacific. Kuala Lumpur, Malaysia. 67pp.

Barter, M., Chen, L., Cao, L. & Lei, G. (2004). Waterbird Survey of the Middle and Lower Yangtze River Floodplain in Late January and Early February 2004. China Forestry Publishing House, Beijing, China.30.

Ji Weitao et al. (2001). Jiangxi Forest Science and Technology, Issue 146, pp 29-31. Jiangxi Agricultural University Publishing House, Jiangxi, China.

Jiangxi Provincial Nature Reserve Management Office et al (1987). Ecology Research on Wintering Rare Waterbirds in Poyang Lake Nature Reserve

Jiangxi Poyang Lake National Nature Reserve General Plan (unpublished internal document).

Poyang Hu National Nature Reserve - Waterbirds Database

State Forestry Administration (2002). China National Wetland Conservation Action Plan, 2002. China Forestry Publishing House, 142pp + maps.

Wetlands International. (2002). Waterbird Population Estimates – Third Edition. Wetlands International Global Series No.12, Wageningen, The Netherlands. 226pp.

Wu Yinghao, Ji Weitao *et al* (2002). Jiangxi Poyang Lake National Nature Reserve Management Plan. Poyang Lake National Nature Reserve.

Wu Yinghao, Ji Weitao *et al* (2002b). Research of Poyang Lake National Nature Reserve. Poyang Lake National Nature Reserve.

15. 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.

- **Geomorphology:** The reserve lies at the river-lake intersection of Gan River and Xiu River, where flood-waters occur during the summer monsoon season and disappear in the winter dry season. The typical elevation of wetlands in the reserve is around 13-18 meters. Topography is smooth, the largest ground slope is 0°17'42". The sediment is mainly fine and superfine sand and clay.
- **Soil type and chemistry:** Migratory waterbird habitat requirements indicate preferences for distinct soil-types, grouped as migratory bird habitat soils and non-habitat soils. Migratory bird habitat soils include grassy marshland soil, grassy marshland bog soil and under-water sediments; Non-habitat soils includes yellow brown earth, tide soil and rice soil.
- **Water quality:** Little known pollution from local sources. Water quality of Poyang Lake is considered relatively good.
- **Climate:** The average annual rainfall range is 744.1 - 2363.2 mm. The average annual temperature is 17.1℃, the average temperature in January is 4.5℃, the lowest temperature recorded is –9.8℃, and the highest recorded temperature is 40.2℃.

16. Physical features of the catchment area:

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

17. Hydrological values:

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

- **Flood control:** The Lake can store 5-9 billion cubic metres of water in the flood season when necessary.
- **Irrigation:** In the dry season, the Lake provides good quality water for local agriculture.
- **Ecology integrity:** Poyang Lake plays an important role in sustaining the ecological integrity of the adjacent Yangtze River.

18. General ecological features:

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

Poyang Lake National Nature Reserve consists of nine shallow, freshwater lakes.

This area lies in the transition climate zone between warm temperate and subtropics. Lake shores appear in autumn and winter. There are a wide variety of habitats - shallow water, mud flats and grassland. The wetland vegetation is an important nesting area for breeding birds.

19. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy 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 SIS.*

(Please add here the species which do not come under sec no 14)

The dominant plant species include *Eurgale ferox, Ceratophyllum demersum, Trapa maximowizzii, Nymphoides peltatum, Potamogeton malainus, Vallisneria spiralis, Phalaris arundinacea, Cares unisexualis, C. cinerascens and Polygonum lapathifolium*. Plants which have important economic value include: cotton, rice, lotus, *Zizania caduciflora*, and crown daisy.

20. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 10. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the SIS.*

(Please add here the species which do not come under sec no 14)

The Reserve is an internationally important site for wintering waterfowls, with 125 waterbird species recorded. Apart from the 11 shorebirds mentioned above, 17 other waterbird species meet the 1% criteria: Black Stork *Ciconia nigra* 5, Oriental White Stork *Ciconia boyciana* 1409, Eurasian Spoonbill *Platalea leucorodia* 2598, Tundra Swan *Cygnus columbianus* 1 585, Swan Goose *Anser cygnoides* 24 403, Bean Goose *Anser fabalis* 4 224, Greater White-fronted Goose *Anser albifrons* 10 099, Siberian Crane *Grus leucogeranus* 1671, White-naped Crane *Grus vipio* 2 549, and Hooded Crane *Grus monacha* 57 (Mark Barter et al 2004).

Poyang Lake National Nature Reserve supports the world's highest number of wintering Siberian Cranes (about 3100 Siberian Cranes wintered at the reserve in 2003), and is the most important wintering area for Swan Goose (more than 60,000 Swan Geese wintered in the reserve in recent years).

21. Social, economic and cultural values:

a) Describe if the site has any general social, economic 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:

- **Ecologic tourism:** The growth of eco-tourism in Poyang Lake National Nature Reserve is expected to bring additional income for local residents, who will in-turn give more support to the conservation of waterfowls and their habitat.
- **Education and scientific research:** Poyang Lake National Nature Reserve is an ideal place for conducting research on limnology, ichthyology, ornithology etc. Experts and students from universities, colleges and institutes will help to improve management of the reserve.
- **Fishery:** Fishing in Poyang Lake represents the main source of income for some local residents. Fishing activities sometimes influence wintering birds.
- **Grazing:** In winter, many buffalos graze on the grassland of the lakebed. The influence of buffalos on wintering birds needs further investigation.

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? (Double-click the checkbox to check and choose “Checked” under “Default Value” from “Check Box Form Field Options” window)

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: ☐

22. Land tenure/ownership:

a) Within the Flyway Network site:

Poyang Lake National Nature Reserve holds land tenure over the lakes Dahucki and Shahu, while other lakes in the reserve are national owned.

b) In the surrounding area:

23. Current land (including water) use:

a) Within the Flyway Network site:

Fishery, pasture, and vegetation collection.

b) In the surroundings/catchment:

24. 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 Flyway Network site:

- **Aquaculture:** Observations in recent years have found that in some parts of the reserve, the area of the submerged vegetation has reduced. The most likely cause is crab culture and the exceptional flood of 1998.
- **Silt:** From 1995 to 1998, there were 2 very large floods in Poyang Lake. The heavy loads of silt and sand reduced lake depth in some parts and silting up of some streams in winter.
- **Water level control:** Water depth is a major factor affecting the biomass and integrity of habitats and directly influences abundance and biodiversity of waterbirds in a freshwater ecosystem. At present, except for Dahuchi and Shahu, the Reserve authorities do not have any effective measures to control water level when necessary.
- **The Three Gorge's Dam:** The construction of the Three Gorges Dam appears to have changed the existing hydrological characteristics of the reserve, and more research on these impacts is needed. The ecological impacts from the 3-Gorges Dam in particular needs further research. The obvious impact appears to be on the duration and height of flood-period water levels; however stronger data is needed to distinguish the effect of dam construction from effects of low rainfall in the catchments.
- **Poplar plantation:** Poplar plantations in the reserve have disturbed wintering waterfowls and destroyed habitats for wintering waterfowls**.**

b) In the surrounding area:

25. Conservation measures taken:

a) List national and/or international category and legal status of protected areas, including boundary relationships with the Flyway Network 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.

A Provincial Nature Reserve was established here in 1983, with an area of 22 400 ha, and was promoted to National Nature Reserve in 1988. The Reserve is routinely monitored and hunting is forbidden. A management plan has been published and implemented. Public education activities and local co-management projects are conducted.

- **Nature reserve established:** Poyang Lake Nature Reserve was established by the government of Jiangxi Province in 1983, and became a National Nature Reserve in 1988. The total area is 22 400ha. Hunting and collecting bird eggs have been totally forbidden in the Reserve.
- **Management plan:** The management plan of Poyang Lake National Nature Reserve was mapped out and implemented during 1996-2000, using the grant-in-aid of GEF.
- **Research and monitoring:** Studies on ecological relationships among cranes and other large waterbirds, water levels, and aquatic food plants since 1998 in co-operation with the International Crane Foundation. Monitoring and regulation of aquatic vegetation began in 2003.
- **Bird statistics**: Since the establishment of the reserve in 1983, bird species and the numbers of cranes, storks, spoonbill, geese and shorebirds in the reserve have been assessed and recorded. According to the survey data from 2002 to 2005, the peak counts are 16,000(28/10/2002), 25,000(22/12/2003), 55,000(28/12/2004), 85,000(19/12/2005). These indicate a rising trend, but might also result from improved coverage and counting from one survey to the next.
- **Participation of local communities and indigenous people:** Local governments and villagers are involved in wetland conservation and management.

b) If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate, see Annex 3):

Ia ☐; Ib ☐; II ☐; III ☐; IV ☐; V ☐; VI ☐; N/A ☐

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

If yes, is it being implemented?: If no, is one being planned?

d) Describe any other current management practices:

26. Conservation measures proposed but not yet implemented:

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

- **Border adjustment:** Adjusting the border and expanding the protection domain of the reserve;
- **Ecological compensation:** Implementing ecological compensation measures, to indemnify local people for financial loss caused by wetland conservation;
- **Protection and research investment:** Increase protection and research investment;
- **General plan:** The general plan has been finished (Wu and Ji *et al.,* 2002), and awaits approval by the State Forestry Administration.

27. Current scientific research and facilities:

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

Current scientific research includes: Studies on ecological relationships among cranes and other large waterbirds, water levels, and aquatic food plants, monitoring species numbers, distribution, and abundance of wintering waterfowl, and changes in aquatic vegetation. Monitoring of wintering waterfowl is conducted three times a month (Wu and Ji *et al.,* 2002b).

28. 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.

Conduct annual public awareness activities during "World Wetlands Day" and "Bird Loving Week"; lectures to students on nature conservation, winter camping activities; periodic interviews with local governments, villagers; print and distribute materials on wetlands conservation and birds protection.

29. Current recreation and tourism:

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

Researchers and College students from Nanchang, Hefei, Wuhan, Hong Kong, as well as Netherlands, Japan, Russia and the USA come to the Reserve very often. Some tourists visit the reserve at present, but increasing numbers have shown interest in the reserve. Bird watching is the main activity.

30. Threats*:

Which of the following threats is present historically – when the threat stopped but the effects are still there (H), currently (C) or potentially (P)?

	Historically	Currently	Potentially
Residential and commercial development			
housing and urban areas	☐	☐	☐
commercial and industrial areas	☐	☐	☐
tourism and recreation areas	☐	☐	☐
Agriculture and aquaculture			
annual and perennial non-timber crops	☐	☐	☐
wood and pulp plantations	☐	☐	☐
livestock farming and ranching	☐	☐	☐
marine and freshwater aquaculture	☐	☐	☐
Energy production and mining			
oil and gas drilling	☐	☐	☐
mining and quarrying	☐	☐	☐
renewable energy	☐	☐	☐
Transportation and service corridors			
roads and railroads	☐	☐	☐
utility and service lines	☐	☐	☐
shipping lanes	☐	☐	☐
flight paths	☐	☐	☐
Biological resource use			
hunting and collecting terrestrial animals	☐	☐	☐
gathering terrestrial plants	☐	☐	☐
logging and wood harvesting	☐	☐	☐
fishing and harvesting aquatic resources	☐	☐	☐
Human intrusions and disturbance			
recreational activities	☐	☐	☐
war, civil unrest and military exercises	☐	☐	☐
work and other activities	☐	☐	☐
Natural system modifications			
fire and fire suppression	☐	☐	☐

dams and water management/use	☐	☐	☐
other ecosystem modifications	☐	☐	☐
Invasive and other problematic species and genes			
invasive non-native/alien species	☐	☐	☐
problematic native species	☐	☐	☐
introduced genetic material	☐	☐	☐
Pollution			
household sewage and urban waste water	☐	☐	☐
industrial and military effluents	☐	☐	☐
agricultural and forestry effluents	☐	☐	☐
garbage and solid waste	☐	☐	☐
air-borne pollutants	☐	☐	☐
excess energy	☐	☐	☐
Geological events			
volcanoes	☐	☐	☐
earthquakes/tsunamis	☐	☐	☐
avalanches/landslides	☐	☐	☐
Climate change and severe weather			
habitat shifting and alteration	☐	☐	☐
droughts	☐	☐	☐
temperature extremes	☐	☐	☐
storms and flooding	☐	☐	☐

Please write here any additional threats and comments/queries you have on the threats.

Annex 1: Criteria for the inclusion of sites in the Flyway Site Network

(From the Partnership Text)

To be considered for inclusion in the Flyway Site Network, this Partnership adopts the following criteria:

a. Convention on Wetlands (Ramsar, Iran, 1971) criteria for internationally important sites for migratory waterbirds. That is:

   Criterion 2: A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.

   Criterion 5: A wetland should be considered internationally important if it regularly supports 20,000 or more waterbirds.

   Criterion 6: A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.

b. The staging criteria as applied under the Asia - Pacific Migratory Waterbird Conservation Strategy. That is:

   i. A staging site should be considered internationally important if it regularly supports 0.25% of individuals in a population of one species or subspecies of waterbirds on migration.

   ii. A staging site should be considered internationally important if it regularly supports 5,000 or more waterbirds at one time during migration.

c. Under exceptional circumstances a site can be nominated if it supports migratory waterbirds at a level or stage of their life cycle important to the maintenance of flyway populations. Justification of such nominations will be considered by the Partnership on a case by case basis.

Annex 2: Ramsar Classification System for Wetland Type

The codes are based upon the Ramsar Classification System for Wetland Type as approved by Recommendation 4.7 and amended by Resolutions VI.5 and VII.11 of the Conference of the Contracting Parties. The categories listed herein are intended to provide only a very broad framework to aid rapid identification of the main wetland habitats represented at each site.

To assist in identification of the correct Wetland Types to list in section 19 of the RIS, the Secretariat has provided below tabulations for Marine/Coastal Wetlands and Inland Wetlands of some of the characteristics of each Wetland Type.

Marine/Coastal Wetlands

A -- **Permanent shallow marine waters** in most cases less than six metres deep at low tide; includes sea bays and straits.

B -- **Marine subtidal aquatic beds**; includes kelp beds, sea-grass beds, tropical marine meadows.

C -- **Coral reefs**.

D -- **Rocky marine shores**; includes rocky offshore islands, sea cliffs.

E -- **Sand, shingle or pebble shores**; includes sand bars, spits and sandy islets; includes dune systems and humid dune slacks.

F -- **Estuarine waters**; permanent water of estuaries and estuarine systems of deltas.

G -- **Intertidal mud, sand or salt flats**.

H -- **Intertidal marshes**; includes salt marshes, salt meadows, saltings, raised salt marshes; includes tidal brackish and freshwater marshes.

I -- **Intertidal forested wetlands**; includes mangrove swamps, nipah swamps and tidal freshwater swamp forests.

J -- **Coastal brackish/saline lagoons**; brackish to saline lagoons with at least one relatively narrow connection to the sea.

K -- **Coastal freshwater lagoons**; includes freshwater delta lagoons.

Zk(a) – **Karst and other subterranean hydrological systems**, marine/coastal

Inland Wetlands

L -- **Permanent inland deltas**.

M -- **Permanent rivers/streams/creeks**; includes waterfalls.

N -- **Seasonal/intermittent/irregular rivers/streams/creeks**.

O -- **Permanent freshwater lakes** (over 8 ha); includes large oxbow lakes.

P -- **Seasonal/intermittent freshwater lakes** (over 8 ha); includes floodplain lakes.

Q -- **Permanent saline/brackish/alkaline lakes**.

R -- **Seasonal/intermittent saline/brackish/alkaline lakes and flats**.

Sp -- **Permanent saline/brackish/alkaline marshes/pools**.

Ss -- **Seasonal/intermittent saline/brackish/alkaline marshes/pools**.

Tp -- **Permanent freshwater marshes/pools**; ponds (below 8 ha), marshes and swamps on inorganic soils; with emergent vegetation water-logged for at least most of the growing season.

Ts -- **Seasonal/intermittent freshwater marshes/pools on inorganic soils**; includes sloughs, potholes, seasonally flooded meadows, sedge marshes.

U -- **Non-forested peatlands**; includes shrub or open bogs, swamps, fens.

Va -- **Alpine wetlands**; includes alpine meadows, temporary waters from snowmelt.

Vt -- **Tundra wetlands**; includes tundra pools, temporary waters from snowmelt.

W -- **Shrub-dominated wetlands**; shrub swamps, shrub-dominated freshwater marshes, shrub carr, alder thicket on inorganic soils.

Xf -- **Freshwater, tree-dominated wetlands**; includes freshwater swamp forests, seasonally flooded forests, wooded swamps on inorganic soils.

Xp -- **Forested peatlands**; peatswamp forests.

Y -- **Freshwater springs; oases**.

Zg -- **Geothermal wetlands**

Zk(b) – **Karst and other subterranean hydrological systems**, inland

Note: "**floodplain**" is a broad term used to refer to one or more wetland types, which may include examples from the R, Ss, Ts, W, Xf, Xp, or other wetland types. Some examples of floodplain wetlands are seasonally inundated grassland (including natural wet meadows), shrublands, woodlands and forests. Floodplain wetlands are not listed as a specific wetland type herein.

Human-made wetlands

1 -- **Aquaculture** (e.g., fish/shrimp) **ponds**

2 -- **Ponds**; includes farm ponds, stock ponds, small tanks; (generally below 8 ha).

3 -- **Irrigated land**; includes irrigation channels and rice fields.

4 -- **Seasonally flooded agricultural land** (including intensively managed or grazed wet meadow or pasture).

5 -- **Salt exploitation sites**; salt pans, salines, etc.

6 -- **Water storage areas**; reservoirs/barrages/dams/impoundments (generally over 8 ha).

7 -- **Excavations**; gravel/brick/clay pits; borrow pits, mining pools.

8 -- **Wastewater treatment areas**; sewage farms, settling ponds, oxidation basins, etc.

9 -- **Canals and drainage channels, ditches.**

Zk(c) -- **Karst and other subterranean hydrological systems**, human-made

Annex 3: IUCN Protected Areas Categories System

IUCN protected area management categories classify protected areas according to their management objectives. The categories are recognised by international bodies such as the United Nations and by many national governments as the global standard for defining and recording protected areas and as such are increasingly being incorporated into government legislation.

Ia Strict Nature Reserve

Category Ia are strictly protected areas set aside to protect biodiversity and also possibly geological/geomorphical features, where human visitation, use and impacts are strictly controlled and limited to ensure protection of the conservation values.

Ib Wilderness Area

Category Ib protected areas are usually large unmodified or slightly modified areas, retaining their natural character and influence without permanent or significant human habitation, which are protected and managed so as to preserve their natural condition.

II National Park

Category II protected areas are large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible, spiritual, scientific, educational, recreational, and visitor opportunities.

III Natural Monument or Feature

Category III protected areas are set aside to protect a specific natural monument, which can be a landform, sea mount, submarine cavern, geological feature such as a cave or even a living feature such as an ancient grove. They are generally quite small protected areas and often have high visitor value.

IV Habitat/Species Management Area

Category IV protected areas aim to protect particular species or habitats and management reflects this priority. Many Category IV protected areas will need regular, active interventions to address the requirements of particular species or to maintain habitats, but this is not a requirement of the category.

V Protected Landscape/ Seascape

A protected area where the interaction of people and nature over time has produced an area of distinct charcter with significant, ecological, biological, cultural and scenic value: and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values.

VI Protected area with sustainable use of natural resources

Category VI protected areas conserve ecosystems and habitats together with associated cultural values and traditional natural resource management systems.

Appendix 1: Peak counts of all shorebirds in 2002-2004, at Poyang Hu National Nature Reserve.

No.	Chinese Name	English Name	Count Period	Site	Peak Count	1% Criteria
1	水雉	Pheasant-tailed Jacana	summer	Meixi Lake, Dacha Lake	45	250
2	凤头麦鸡	Northern Lapwing	winter	In the reserve	4 000	1 000
3	灰头麦鸡	Grey-headed Lapwing	summer	In the reserve	1 700	1 000
4	灰斑鸻	Grey Plover	winter	In the reserve	300	1300
5	金[斑]鸻	Pacific Golden Plover	autumn	In the reserve	500	250
6	剑鸻	Great Ringed Plover	winter	In the reserve	50	100
7	金眶鸻	Little Ringed Plover	Four seasons annual?	In the reserve	130	100
8	环颈鸻	Kentish Plover	Four seasons annual?	In the reserve	1 400	1 000
9	蒙古沙鸻	Lesser Sand Plover	winter	In the reserve	70	250
10	铁嘴沙鸻	Greater Sand Plover	winter	In the reserve	50	990
11	红胸鸻	Eastern Sand Plover	spring	In the reserve	5 000	440
12	白腰杓鹬	Eurasian Curlew	autumn	In the reserve	30	350
13	红腰杓鹬	Far Eastern Curlew	autumn	In the reserve	12	210
14	黑尾塍鹬	Black-tailed Godwit	autumn	In the reserve	12 000	1 600
15	斑尾塍鹬	Bar-tailed Godwit	autumn	In the reserve	300	1500/1700
16	鹤鹬	Spotted Redshank	Four seasons annual?	In the reserve	18 000	1 000
17	红脚鹬	Common Redshank	winter	In the reserve	20	1 000
18	泽鹬	Marsh Sandpiper	winter	In the reserve	70	900
19	青脚鹬	Common Greenshank	winter and autumn	In the reserve	500	550
20	白腰草鹬	Green Sandpiper	winter	In the reserve	800	1 000
21	林鹬	Wood Sandpiper	winter	In the reserve	210	1 000
22	矶鹬	Common Sandpiper	winter	In the reserve	110	3 000

No.	Chinese Name	English Name	Count Period	Site	Peak Count	1% Criteria
23	翻石鷸	Ruddy Turnstone	Winter or autumn in 96、98、03、04	In the reserve or surrounding rivers	55	250
24	针尾沙锥	Pintail Snipe [*indentification not confirmed*]	winter	In the reserve	1 000	250
25	大沙锥	Swinhoe's Snipe [*indentification not confirmed*]	winter	In the reserve	100	1 000
26	扇尾沙锥	Common Snipe [*indentification not confirmed*]	winter	In the reserve	2 100	10 000
27	丘鷸	Eurasian Woodcock	Summer in 95、96	Meixi Lake	3	100
28	长趾滨鹬	Long-toed Stint	Winter in 03、04	Dacha Lake	30	250
29	尖尾滨鹬	Sharp-tailed Sandpiper	Winter in 03	Meixi Lake	5	1 700
30	黑腹滨鹬	Dunlin	winter	In the reserve	24 000	10 000
31	三趾鹬	Sanderling	Winter in 03、04	Dacha Lake	15	100
32	黑翅长脚鹬	Black-winged Stilt	winter	In the reserve	30	1 000
33	反嘴鹬	Pied Avocet	winter	In the reserve	9 000	1 000
34	普通燕鸻	Oriental Pratincole	summer	Meixi Lake	300	670