Designation date: 11/01/2002 **Ramsar Site no. 1145**

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.

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DD MM YY
Designation date Site Reference Number

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

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2. Date this sheet was completed/updated:

October 10, 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.

Dafeng (*Elaphburus davidianus*) National Nature Reserve [note: should be ***Elaphurus*** *throughout the RIS]*

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

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:**
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:

The individuals of *Elaphburus davidianus* has increased from 500 in 2001 to 1 169 in 2007, with as least 100 wild individuals.
Ramsar Criterion 5 and 9 are added to the Criterion 2 and 3 of the previous RIS.

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.**

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 is the same as the Dafeng (*Elaphburus davidianus*) National Nature 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.

Centre: 33°05′ N, 120°49′ E
Boundary: 32°59′-33°03′ N, 120°47′-120°53′ 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.

Dafeng (*Elaphburus davidianus*) National Nature Reserve is located in Dafeng County, Jiangsu Province, East China. It is about 50 km southeast to Dafeng City and 100 km southeast to Yancheng City.

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

Average: 1.5 m, Maximum: 2 m, Minimum: 0 m

11. Area: (in hectares)

78 000 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.

The Ramsar site is located in the coast of the Yellow Sea in Dafeng County of central Jiangsu Province. There are diverse habitat types and rich biodiversity in this site. The natural vegetation is mainly dominated by *Imperata cylindrical* var. *major* and *Phragmite saustralis*. In the reserve, there lives the largest stocked population of *Elaphburus davidianus* in the current world. The total individuals of *Elaphburus davidianus* increased from 500 in 2001 to 1 169 in 2007, with over 100 wild individuals. Except *Elaphburus davidianus*, there are four National First-Class Protected Animals (*Grus leucogeranus*, *Grus japonensis*, *Grus monacha* and *Haliaeetus albicilla*), 21 National Second-Class Protected Animals such as *Hydropotes inermis*, *Cygnus columbianus* and *Grus grus*, and many other protected wild mammal and bird species.

The typical mudflat wetland in the Yellow Sea supports rich biodiversity and thus provides inhabiting and breeding places for various kinds of bird, fish and shellfish. The reserve became a Ramsar site in 2001, and then joined the international migratory network of plovers and sandpipers in 2004. Being an international important wetland of great ecological significance, the site obtained permanent protection.

The reserve is also a favorable tourism site because of the *Elaphburus davidianus* and the rich bird and fish resources. In every summer, more than 200,000 tourists come here to watch the Deer King Tournament.

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	8	9

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).

Criterion2

According to the 2006 IUCN Red List, the site regularly holds 2 critically endangered species, 4 endangered species and 4 vulnerable species (10 species in total) as shown in the following table.

Species Latin Name	IUCN Category
Elaphurus davidianus	CR
Grus leucogeranus	CR
Grus japonensis	EN
Anser cygnoides	EN
Platalea minor	EN
Tringa guttifer	EN
Grus vipio	VU
Larus saundersi	VU
Aquila clanga	VU

Egretta eulophotes	VU

Criterion 3:

This site is located in the transitional zone between terrestrial and oceanic ecosystems. A variety of marsh wetlands can be found in this site and the biodiversity is very rich. In 2005's survey, a total of 226 higher plant species falling into 158 genera of 53 families were recorded. Over 198 species are edible or favorite for *Elaphburus davidianus*. Plants of Gramineae, Cyperaceae, Compositae, Guminosae and Chenopodiaceae are widely distributed in the wetland. A total of 182 bird species falling into 36 families of 16 orders were recorded, including 7 National First-Class Protected Birds, 16 National Second-class Protected Birds and 92 species listed in the "Sino-Japan Agreement for the Protection of Migratory Birds and Their Habitats". Twelve species of mammals are found in the site, including 1 National First-Class Protected Animal and 7 National Second-class Protected Animals. Moreover, 27 species of amphibian and reptile, 559 insect species, 150 fish species, 10 echinoderm species, 62 annelida species, 6 coelenterate species and 98 zooplankton species were also recorded.

Criterion 5:

In the surveys of recent years, a total of 182 bird species falling into 36 families of 16 orders were recorded. In the ponds of the first core area, the second core area and the mudflats in the third core area, over 20 waterfowl species with average individuals of 25 000 (2002-2007), most of which were gooses and ducks and plovers and sandpipers.

Criterion 9:

On August 14, 1986, in collaboration with WWF, the State Forestry Administration selected 39 individuals of *Elaphburus davidianus* (13 males and 26 females) from 7 zoos in the UK and introduced them to the mudflats of Dafeng in the coast of Yellow Sea. And thus the first *Elaphburus davidianus* reserve in the world was established. By the careful management of the staff, the population size increased significantly (as shown in the following table). Currently, there are 1 169 individuals, covering 30% of the total *Elaphburus davidianus* individuals in the world.

Year	Individuals	Year	Individuals	Year	Individuals
1987	44	1994	186	2001	586
1988	54	1995	233	2002	648
1989	65	1996	268	2003	706
1990	78	1997	302	2004	819
1991	96	1998	354	2005	918
1992	124	1999	408	2006	1007
1993	168	2000	462	2007	1169

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:

North China region, Palaearctic 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 located in the flat coastal plain of Jiangsu Province, which was naturally formed in Paleozoic by the sedimentary deposits from the Yangtze Delta. The truncated stratum, with marine carbonates and shallow marine-oddment as the main components, is formed by the sedimentary deposits of fine sand, powder sand and clay.

Soil types: The site, belonging to north subtropical zone, has no obvious zonal soil. The coastal saline soils distributed in silt-mud coast are the intrazonal soils in the region.

Hydrology: The Ramsar site is located between Chuandonggang River and Dongtai River (in Dongtai City). There is grid-like irrigation system formed by kinds of channels within the seawall. Also, there are natural creeks/channels entering the sea in the supra-tidal mudflats outside the seawall. The site is rich in groundwater with high salinity (over 3‰) and mineralization degree. But the groundwater deeper than 150 meter has a low salinity of less than 1‰, and thus it is drinkable.

Water quality: The water quality of the reserve changes slightly between III to IV level, with a nitrogen content of 1.5 ppm and pH value ranging from 6.98 to 8.08.

Climate: This Ramsar site is located in the transitional zone of subtropical zone to temperate zone and the climate here holds the characters of transition, monsoon and ocean climates. There are rich of sunshine, heat and water resources. The temperature changes slowly in spring and autumn. The frost comes late and the frost-free period is long in a year. The annual average temperature is 14.1℃, the annual precipitation is 1 068 mm and the annual rainy day is 116.4 days, About 63% of the rainfall occurs between June and September.

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 related catchment is the Huaihe River Basin located in the transitional climate zone from North to South China. With the Huaihe River as boundary, the north and south parts of the basin are located in temperate zone and sub-tropical zone, respectively. The total area of the catchement is 270 000 km^2. with a moderate climate, the mean annual temperature is 11-16 ℃. The temperature increases from north to south and from the coast to the inland. The extreme low and high temperatures are -24.1 ℃and 44.5 ℃, respectively. The evaporation decreases from north to

south, with an annual average evaporation from water surface of 900-1500 mm. In a year, there are 200-240 frost-free days.

Long ago, the catchment was a sea. About 5 600 year ago, the coastline was located in current Jinhu, Hanjiang and Yizheng regions. Current Lixiahe region was a shallow sea while its eastern area is a deep sea. With the accretion of the Yangtze Delta and Huaihe Delta as well as the accumulation of the sediments, the coastline moved east continually. The coastline reached and stabilized at the line of current Haizhou-Yancheng-Dongtai-Rudong in the Suitang era, with a total length of 800 km.

In the catchment, there are 12 000 000 hectares of arable lands with wheat, rape and cotton as the main crops. Population density (615 persons per square kilometer) in the catchment is the highest in the seven Chinese biggest river basins. Plain regions cover about 2/3 of the catchment. The total crop yields and the commercial crop yields of this region cover about 1/6 and 1/4 of the total in China, respectively. Therefore, it is one of the important bases of agricultural productions in China.

18. Hydrological values:

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

Located in the coast of Yellow Sea, this site is abundant in water resources. The wetland has a wide range of functions such as water conservancy, groundwater recharge during dry season, flood control & reduction of flood damage, sediment retention, shoreline stabilization and maintenance of water quality.

Flood control and shoreline stabilization: The reserve, a coastal mudflat of the Yellow Sea, abuts against the outmost sea wall of Yancheng Municipality to the Yellow Sea. The wetlands no doubt contribute to relieve the disasters caused by strong wind and flood especially in years with strong tides and floods. The kinds of ponds and reservoirs are the effective buffers of flood.

Sediments trapping: A lot of sediments brought by more than ten rivers going through this reserve and many floaters brought by the tides accumulate here and will be deposited or decomposed here in the end. Every year, new lands, about 100~200 meter long against the south shoreline (about 900 hectares), were formed by these sediments.

The semidiurnal tidal waves are relatively big in spring and autumn nights and summer and winter days. Generally, northeast wind significantly enlarges the tide. Tide levels of 9.6 meters and 3.22 meters have ever been recorded. There are more than ten big rivers in the wetland such as Chuandonggang River, Zhugang River, Jiangjiehe River, Wangganghe River, Yimaoyouhe River, Ermaoyouhe River, Sanmaoyouhe River, Simaoyouhe River, Wumaoyouhe River, Laodoulongganghe River and Doulonggang River, with the water mainly from upriver Lixiahe River. Tongyangyunhe River and Guangaizongqu River. Annual surface runoff and upriver water going through here are 510 million cubic meters and 2.5 billion cubic meters, respectively. Because the east land is higher than the west land, the water here is hardly drained. The Ramsar site is located between Chuandonggang River and Dongtaihe River. There is gridding irrigation system formed by kinds of rivers. Also, there are channels to the sea in the supra-tidal beach before the sea wall. The site is rich of saline groundwater with a salinity of more than 3‰. But the groundwater deeper than 150 meter has a low salinity of less than 1‰ and thus is drinkable.

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:

A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**Zk(a)**

Inland:

L	**M**	**N**	**O**	**P**	**Q**	**R**	**Sp**	**Ss**	**Tp**	**Ts**	**U**	**Va**	**Vt**	**W**	**Xf**	**Xp**	**Y**	**Zg**	**Zk(b)**

Human-made:

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**Zk(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.

H (35%), G (30%), A (20%)

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.

In the Ramsar site, there distribute some forest communities with poplar, *Metasequoia glyptostroboides*, and *Robinia pseudoacacia-Armorpha fruticosa* as dominant species. The reserve not only is the perfect habitats of *Elaphburus davidianus* but also provide favorable living and feeding habitats for birds. The reed marsh area is seasonal and increases in rainy seasons. While in drought seasons, the reeds become amphibian plants. In summer morning, *Elaphburus davidianus* individuals often come here and eat burgeons, leaves and *Carex scabrifolia*.

The near-sea regions, with some *Aeluropus littoralis* and *Suaeda salsa* communities, provide not only favorable food for *Elaphburus davidianus* but also perfect habitats for insects and zoobenthoses. The regions washed by sea waves grow many Spartina communities and provide favorable habitats for Nereis. The barren beaches, being rich of seashells, coastal fishes and zoobenthoses, provide feeding grounds for waterfowls, especially for red-crowned cranes, Saunter's gull, plovers and sandpipers.

There are a few farmlands and small settlements distributed in the site where lives a variety of typical domestic species such as *Passer montanus*, *Hirundo rustica*, *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.***

The Ramsar site is rich of plant species, which can be divided into 11 main types: *Robinia pseudoacacia* forest, poplar forest, *Robinia pseudoacacia-Armorpha fruticosa* forest, *Metasequoia glyptostroboides* forest, *Phyllosta chysviridis* forest, *Phyllosta chysviridis* forest, saline soil meadow, saline meadow and barren flat, reed marsh, *Typha angastifolia* marsh, hydrophytic plant community, immature soil and abandoned vegetation. In 2005's survey, a total of 226 higher plants species falling into 158 genera of 53 families were recorded. More than 198 species belong to the edible or directly-feeding plant species for *Elaphburus davidianus*. Plants of *Gramineae*, *Cyperaceae*, *Compositae*, *Guminosae* and *Chenopodiaceae* distribute widely in the wetland.

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

The Ramsar site, one of the largest wetlands in Asia and important breeding, inhabiting and living through winter fields for waterfowls, is located on the beach of the Yellow Sea. The flat wetland is rich in forest, grass, water, fish, shrimp and seashell resources and thus provides sufficient food and favorite habitats for birds. In recent surveys, a total of 199 bird species falling into 36 families of 16 orders were recorded, including 7 species of National First-Class Protected Animal, 16 species of National Second-Class Protected Animal and 92 species in "Sino-Japan Agreement for the Protection of Migratory Birds and Their Habitats".

The reserve has large area of tidal-flats, marshes and saline-alkaline lands, rich biological resources and complex fauna. Except *Elaphburus davidianus*, there are 12 species of mammals, including one National First-Class Protected Animals and 7 National Second-class Protected Animals. Moreover, there are 27 species of amphibians and reptiles, 559 entomic species, 150 fish species, 10 echinoderm species, 62 annelida species, 6 coelenterate species and 98 zooplankton species in the records.

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:

Social values

Tourism: The beautiful scenes, favorable environments and numbers of scenic spots make the site a perfect recreational place. The development of tourism not only provides jobs for the local people but also improve people's living quality.

Education: The event that successfully resuming *Elaphburus davidianus* population in its original place provides convictive teaching materials. The reserve is an important base for local

education. With the large semi-wild *Elaphburus davidianus* population as base, a national training center has been established for professionals major in wild zoology and reserve management.

Propaganda: Some basic buildings and facilities have been established to improve the wetland protection and motivate more people especially more young people to participate in the activities of wild animal protection. It is also important for China to effectively perform the Convention on Biological Diversity, the Convention on Wetlands and the Sino-Japan Agreement for the Protection of Migratory Birds and Their Habitats.

Reserve management: In the reserve, there lives the largest stocked *Elaphburus davidianus* population in the current world. The successful experience is important for wild *Elaphburus davidianus* population formation in the future and other animal species protection and introduction.

Cultural values

The successful introduction of *Elaphburus davidianus* into Dafeng Reserve has much scientific significance. The reserve has become an important base of practice teaching and scientific researching for colleges, universities and research institutes. With the 20 year development, the *Elaphburus davidianus* has become a star and bridge in the exchanging between nations, and is deeply involved in the fields of education, culture and economy. For examples, the *Elaphburus davidianus* also has been written in the local versions of textbooks for preliminary and middle school students. Local *Elaphburus davidianus* culture was included in the Jiangsu Provincial Non-material Culture Heritages in 2005. In recent years, many works of photograph, painting and literature about *Elaphburus davidianus* have been finished. Also, the Ramsar site is one of the important parts of local tourism-economic system. The reserve helped Yancheng Municipality win a title of the Chinese Favorable Tourist City in 2005. Moreover, Milu (*Elaphburus davidianus*) has been used for titling more than ten corporations and more than ten registered trade marks in Dafeng City. In recent years, times of the International Milu (*Elaphburus davidianus*) Festival and Busyness Meeting have been successfully organized in Dafeng City. Many achievements have been obtained by these activities. For example, a commercial agreement of 7,600 millions was signed at the International Milu Festival and Busyness Meeting performed in December, 1992.

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

The land within this site is owned by the state, the core area is managed by the Reserve, and the buffer and research areas are managed by the local government.

b) in the surrounding area: state and collective ownership.

The surrounding areas are under state ownership and the local government has tenure to use the lands.

25. Current land (including water) use:

a) within the Ramsar site:

With the new and old seawalls as boundaries, the Ramsar site can be divided into three parts. The part I, where captive-bred herds live, is located within the old sea wall and used for tourism. The part II, lying between the new and old sea walls, is a favorable habitat for *Elaphburus davidianus* because of rich grass and *Robinia pseudoacacia* communities. Here is also a distributary area for captive-bred herds. The part III, where wild herds live, is located outside the new seawall. *Phragmites Australis*, *Suaeda salsa* and *Spartina alterniflora* are the dominant species here.

b) in the surroundings/catchment:

Dafeng Forestry Center and Chuandong Farm are located at the northwest and the south of the Ramsar site, respectively. Cotton, barley and rape crops are widely planted in Chuandong Farm. Farmers living in the surroundings have strong willing of protecting wild animals. They are protecting wild animals and *Elaphburus davidianus* habitats by using pesticide as little as possible.

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:

Considering the rapid growth of *Elaphburus davidianus* population, the current wetland area could limit its growth in the future.

b) in the surrounding area:

The agriculture and fishing activities in the surroundings could produce some disturbances on the wetland.

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.

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

Ia; Ib; II; III; [IV]; V; VI

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

No.

d) Describe any other current management practices:

According to the "Law of the People's Republic of China on the Protection of Wildlife", wildlife resources are state-owned, no individual or group is allowed to hunt wild animals, and the reserve has the right to prohibit any illegal activity endangering wild animals in the core area.

To resolve the problem of habitat degradation resulted from over-loading of *Elaphburus davidianus* population, an area of 100 hectare in the Second Core Area was lined off for sharing some individuals from the First Core Area. Experiments on discharging *Elaphburus davidianus* to wild habitat are actively conducted. Moreover, many favorite plants of *Elaphburus davidianus* have been planted in the First Core Area. The original plants in the First Core Area also have been improved.

To decrease the influence from the surrounding agricultural activities, great efforts have been made to raise public awareness of the importance of wetlands by propagandizing and training. The local people can therefore support and even participate in conservation activities. The details are listed as follows.

i) Many copies of the "Law of the People's Republic of China on the Protection of Wildlife" were distributed to local people in March, 2002, in order to make them realize the importance of wetland conservation.

ii) A lot of questionnaires on public awareness of wildlife protection were distributed to local farmers in February, 2003. More than 10 000 questionnaires were filled and returned.

iii) Many questionnaires on public awareness of wildlife protection were also distributed to tourists in August, 2004. A total of 5 000 copies were returned.

iv) An activity of autograph of 10 thousand people in many schools in Jiangsu was organized to commend *Elaphburus davidianus* as one of the official mascots of Beijing 2008 Olympic Games. The significant activity is also important for reserve education.

The site is not included in the Montreux record.

28. Conservation measures proposed but not yet implemented:

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

No

29. Current scientific research and facilities:

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

Current research programs: A project of the Key Technologies Research and Development Program, "Survival Strategies of wild *Elaphburus davidianus* in south Yellow Sea Wetlands" (2002BA806G10), was carried out. Also, the reserve is cooperating with the Institute of Zoology of Chinese Academy of Sciences in the researches on biodiversity in south Yellow Sea wetlands (2007-2010).

Scientific research facilities: Four laboratories equipped with balances, dissectors, common measurement tools and common animal medicine have been established. Some other common equipments also have been equipped, i.e. two patrolling motorcycles, one wireless remote controlled equipment, four GPS, one pickup video cameras and four cameras. A lot of new equipments will be purchased. A 39-m scientific observation town covering 25 square meters has also been established in the management area.

Scientific monitoring programs: Since many *Elaphburus davidianus* individuals were released into the reserve, 40 books recorded their activities and behaviors have been compiled. In addition, 112 series of "Report on *Elaphburus davidianus*" and 8 proposals about wild *Elaphburus davidianus* have been composed. Eighteen papers about wild *Elaphburus davidianus* have been published in the Chinese academic journals such as *Acta Theriologica Sinica*, *Journal of Nanjing Normal University* and *Wildlife*.

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.

The reserve has the education functions of publicizing scientific knowledge especially biodiversity protection. There is a visitors' centre of 600 m^2 visited by about 40 000 tourists every year. Two exhibition hall of birds and *Elaphburus davidianus* with a total area of 3 000 square meters have also been established.

In order to improve public awareness and interests in *Elaphburus davidianus* protection, a lot of handbooks, DVD, VCD and CD have been made and distributed to the people and some leaders of local communities. The reserve organizes its staff to conduct on-the-job training and fellowship studying on knowledge of wetland conservation. About 30 scientific books, popular science readings or *Elaphburus davidianus* culture series have been written and published. By cooperating with the media, a series of special topic films (more than 30) have been produced, copied in DVD and distributed in the public and foreign visitors.

Since 2002, four or five series of professional trainings to improve public awareness are organized every year. A total of 2000 key persons in the community have been trained. The reserve often teaches school students the knowledge of wetland conservation free. Caravans (flower vehicles) are also used in kinds of education and propaganda activities. A game of writing, painting and poem reading titled Protecting Milu (*Elaphburus davidianus*) and Cherishing Homestead was organized in young students in April of 2006, in order to help them form the concept of environmental protection since childhood. Between 2002 and 2006, twice International

Milu (*Elaphburus davidianus*) Festivals were organized to propagandize the culture of wetland and *Elaphburus davidianus*.

31. Current recreation and tourism:

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

Besides *Elaphburus davidianus* and waterfowl protection, local ecotourism has also been actively developed, with wetland landscape and culture as the main contents. Many buildings have been established. For examples, the *Elaphburus davidianus* Exhibition hall, Exhibition Hall of Bird Specimens, Education Center, Exhibition Section of Wetland Functioning and Ecological Garden of Popular Science were established in 2001, 2002, 2003, 2004, and 2006, respectively.

In 2006, anther tourism spot of wetland culture named Tingaopo was established. It is 1000-m long and covers 40 000 m^2. The total investment for this spot is 2 million RMB (Chinese Yuan). Also, a total of 10 million RMB was investigated to establish a public education center, an exhibition center and a researching and training center with a capacity of 200 thousand people per year.

In October 2006, the Ramsar site was nominated as National AAAA Tourism Site by National Tourism Bureau.

32. Jurisdiction:

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

Territorial: Yancheng Municipal Government.

Functional: State Forestry Administration. The direct superior is Forestry Administration of Jiangsu 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: Dafeng Milu National Nature Reserve Administration
Address: Caomiao Town, Dafeng City 224136, Jiangsu Province, China
Principal: Yuhua Ding (vice director)
Tel.: +86-(0)515-83391912

34. Bibliographical references:

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

[1] Jiangsu Forestry Survey and Design Institute. 2001. General Planning of Dafeng Milu National Nature Reserve, 1-29.
[2] Dafeng Milu National Nature Reserve Administration. 1996. Scientific Investigation Report of Dafeng Milu National Nature Reserve.
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[4] Ding Yuhua, 1993. Current status and development of Milu in China. In: Zhang Jie ed. Evolvement of mammals under human activity. Beijing: Chinese Science and Technology Press, 93-96.

[5] Ding Yuhua, 1996. The natural resource in Dafeng Milu National Nature Reserve and its utilizations. Proceeding of the meeting about the establishment and development of Chinese reserve. Beijing: Chinese Forestry Press, 136-137.