

## 2006/07 年纳帕海越冬黑颈鹤观察简报

2006 年 10 月—2007 年 5 月我们对在中甸纳帕海保护区越冬黑颈鹤进行了为期 7 个月的观察，记录了纳帕海保护区内越冬黑颈鹤的数量、习性和行为，有关情况简介如下：

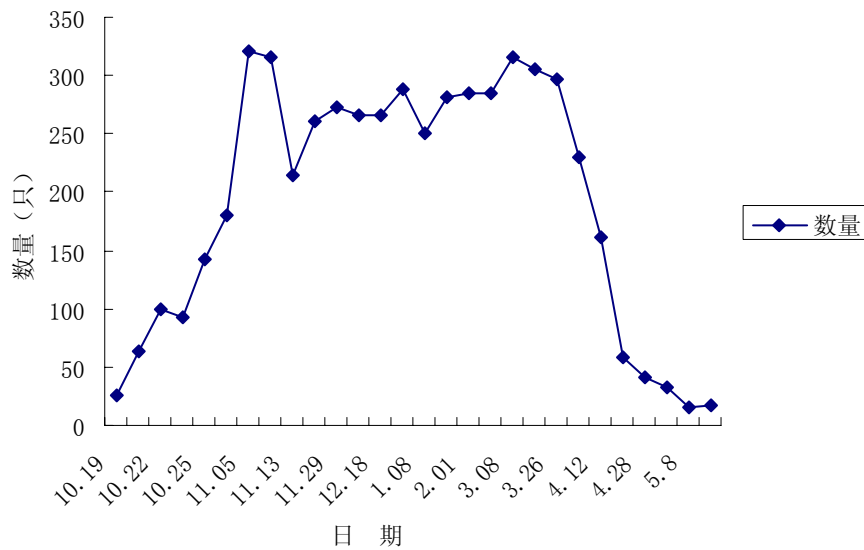
### 一、数量

纳帕海越冬黑颈鹤种群数量大体在 300 只左右，整个越冬季的数量呈两头高中间略低的态势（图一）。其中最大种群数量为越冬早期的 320 只，中期在纳帕海稳定夜栖的鹤群数量为 260—280 只，白天稳定活动于纳帕海的鹤群数量为 200 左右，越冬后期夜栖地统计到的最大数量为 315 只。

2006 年 12 月份的越冬中期曾在纳帕海保护区以东约 60 千米的碧塔海自然保护区的西南山谷湿地中发现有 20 只群活动，其中有一

个 2 成 2 幼的家庭，另在碧塔海保护区的山间草甸中发现有 2 成鹤活动。碧塔海地区曾发现有 70 只的白天活动群（刘强，2005 年冬观察数据）。

由于没有观察到夜栖地和夜栖的黑颈鹤，碧塔海地区白天活动的鹤群也可能是纳帕海夜栖群中白天飞来觅食的。除此之外，在纳帕海夜栖的黑颈鹤中还有 30—50 只在越冬中期不能确定其活动地点，且在越冬期末期见到有两个 2 成 2 幼的家庭的幼体体色乌黑，明显有别于其他幼体，为越冬中期在纳帕海稳定栖息家庭中所未见的，这两个家庭应该属于中期在纳帕海以外越冬的家庭。从数量的变化上看，除纳帕海自然保护区外，滇西北地区可能还存在少量其他黑颈鹤越冬地。



图一 纳帕海保护区 2006/07 年冬夜栖地黑颈鹤数量统计线图

Fig. 1 Number of Black-necked Cranes roosting in Napahai in winter 2006/07

## 二、2006/07 年纳帕海越冬黑颈鹤栖息地概况

2006/07 年冬季因早期降水不足致使整个保护区湿地面积严重萎缩, 相比往年明显缩减。有两块大面积浅水湿地在本年越冬季开始前就已经干枯成为干泥地, 使黑颈鹤不能再利用。湿地的缩减对纳帕海黑颈鹤越冬种群是个潜在的威胁。虽然在 2006/07 年越冬季中未发现幼鹤或成鹤有因虚弱或饥饿而行动不正常或死亡的现象, 但越冬中期白天在纳帕海觅食的鹤群数量相比前期有大幅度的减少, 不排除是因为可获得性觅食地的减少而造成的可能性。如果不采取措施, 这个滇西北黑颈鹤最主要的越冬地点将很可能不能够维持整个种群的冬季生存。

## 三、栖息地内穿行而过的高压输电线对黑颈鹤越冬的影响

在纳帕海自然保护区东南侧的吓学湿地浅水水域为纳帕海三个主要夜栖地之一, 越冬初期有 30—50 只, 中期有 70—110 只鹤夜栖

于此, 其中带幼鹤家庭有 7—10 个。吓学村以西有一条东西横穿整个纳帕海的高压输电线, 高 10—15m 左右, 共有五条单线组成, 上面两条下面三条。此条输电线正处于吓学南湿地的北边草地, 吓学夜栖地以北 250—300m, 把纳帕海分为南北两个黑颈鹤主要活动区。因此这条输电线成为了黑颈鹤南北飞行的致命威胁, 特别是没有经验的幼鹤在晚上飞回夜栖地时, 往往因飞行高度太低, 加上傍晚光线不足, 而在飞回夜栖地时撞上高压输电线。

在观察期间共发现有 2 只幼鹤受伤, 1 只幼鹤死亡。2 只受伤幼鹤经检查发现均为一腿骨断裂且翅上有伤, 1 只在北边湿地被发现, 1 只就在吓学南湿地的正北的此条输电线下被发现, 另 1 只死亡的幼鹤也在吓学南湿地的正北输电线下被发现, 发现时已经被吃猛禽吃掉一半。由于在纳帕海工作期间, 发现了 3 次黑颈鹤的受伤和死亡事件, 因此, 高压线对黑颈鹤的飞行安全有很大的影响。

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## A brief observing report on wintering Black-necked Cranes in Napahai in 2006/07

The number, habit and behavior of Wintering Black-necked Cranes in Napahai N.R. of Zhongdian were recorded by 7 months' observation in the reserve from October, 2006 to May, 2007.

### 1. Crane number:

The number of Wintering Black-necked Cranes in Napahai N.R. was about in 300, fig.1 showed that the number distribution was shallow "U" shaped. In the early stage the maximum number of roosting cranes was in 320; in the middle stage there were 260~280

stable roosting cranes and about 200 stable cranes moving about in the reserve in the daytime; in the later stage the maximum number of roosting cranes was in 315.

In the middle wintering stage — December, 2006, a group of 20 cranes (including one family with parents and 2 juveniles) was found at Jiligu wetland of Bitahai N.R. east to Napahai N.R. 60 km away from it. Two adults were found in grassy marshland of Bitahai N.R., a group of 70 cranes feeding in the daytime had been found in Bitahai area (Liu Qiang, the observed data

of 2005).

Due to no roosting site and roosting crane was found in Bitahai area, so the crane group foraged here in the daytime might be the roosting cranes in Napahai. Besides, the authors could not make sure the roosting site of other 30~50 Black-necked Cranes in Napahai. In the later stage the authors found 4 sooty juveniles from 2 families (2 adults and 2 juveniles in each), they were not found among stable families in middle stage survey, so these 2 families should be wintered outside Napahai in middle stage. It was estimated that besides Napahai there might be a few other wintering areas in the northwest of Yunnan.

## 2. Status of habitats for wintering Black-necked Crane in 2006/07

The shortage of previous precipitation in the winter of 2006/07 made the area of wetland in the reserve remarkably shrunk, and it was a potential threat to the wintering cranes. Although no crane was abnormal or dead caused by sick or hungry, but the decrease of daytime feeding cranes in Napahai in the middle stage probably was related to it. Some measurements should be taken to sustain the whole crane population in the most important wintering area of northwest Yunnan.

## 3. The affect of transmission wires across the habitat on the cranes

The shallow water of Xiaxue Wetland southeast to Napahai N.R. is one of the main roosting sites of the reserve. There were 30~50 and 70~110 cranes roosted here in the early and the middle stage respectively, including 7~10 families those with juveniles. A group of transmission wires (10~15m high) across the reserve that divided the reserve into 2 parts, it is a deadly threat to the cranes when fly in south-north direction, especially to those experienceless juveniles, they may clash into the wires when returning to the roosting site at dusk dim and make a lower fly.

During the observation 2 injured juveniles and 1 dead juvenile were found. One injured juvenile was found in northern wetland, another injured juvenile was found just under the wire in Xiaxue Wetland, both cranes were one leg broken and have injured wings. The dead juvenile was found either under the wire in Xiaxue Wetland and half body was eaten by the raptors.

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## 草海保护区 2006/2007 冬季鹤类越冬情况

草海保护区 2006/2007 鹤类越冬从 2006 年 10 月初开始, 9 日首见 3 只于胡叶林。到 11 月底, 鹤类数量已经基本稳定。于 11 月 29、30 日进行同步调查 (结果见表 1)。由于整个元月持续下冻雨, 元月的同步调查调整到 2 月进行 (结果见表 2), 然而在这个时候我们已经

发现有鹤开始迁徙 (约 80 余只)。3 月中旬时, 已有超过一半的鹤类迁徙离开草海。4 月上旬, 基本离开草海。

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表 1 草海保护区 2006 年 11 月鹤类和大型水禽调查情况表(单位:只)

Table 1 Survey on the roosting sites of cranes and large waterbirds in Caohai N.R., in 11/2006(individual)

调查地点 Site	调查时间 Date	调查种类 Species				
		黑颈鹤 Black-necked Crane	灰 鹤 Common Crane	斑头雁 Bar-headed Goose	赤麻鸭 Ruddy Shelduck	鸬 鹚 Great Cormorant
簸箕湾	29 日	275	23	24	800	
Boqiwan	30 日	278	2			
朱家湾	29 日	157	31	24	150	
Zhujiawan	30 日	59	99	6	80	
胡叶林	29 日	449	526	1800	800	
Huyelin	30 日	438	586	1800	800	
阳关山	29 日	44	180	360		
Yangguanshan	30 日	56	228	386		
吴家岩头	29 日	186	297	300	400	30
Wujiyantou	30 日	142	287	340	420	30
合计	29 日	1111	1057	2508	2150	30
Total	30 日	973	1202	2532	1300	30

表 2 草海保护区 2007 年 2 月鹤类和大型水禽夜栖地调查表(单位:只)

Table 2 Survey on the roosting sites of cranes and large waterbirds in Caohai N.R., in 02/2007(individual)

调查地点 Site	调查时间 Date	调查种类 Species				
		黑颈鹤 Black-necked Crane	灰 鹤 Common Crane	斑头雁 Bar-headed Goose	Ruddy Shelduck 赤麻鸭	鸬 鹚 Great Cormorant
簸箕湾	7 日	272	34			
Boqiwan	8 日	274	33			
朱家湾	7 日	70	71	80	200	
Zhujiawan	8 日	72	67	80	400	
胡叶林	7 日	255	186	1000	1500	45
Huyelin	8 日	534	196			
温家屯	7 日	74	54	800	1000	
Wenjiatun	8 日	18	111			
阳关山	7 日	51	231	410	250	
Yangguanshan	8 日	64	282	410	250	
吴家岩头	7 日	156	284	250	500	35
Wujiyantou	8 日	143	249	250	500	50
合计	7 日	878	860	2540	3450	80
Total	8 日	1105	938	740	1150	50

## Wintering status of cranes in Caohai N.R., 2006/2007

The wintering cranes of 2006/2007 in Caohai N.R. started with the find of 3 cranes in Huyelin on 9 October, 2006, crane number was basically stable in the end of November, the survey was then conducted on 29 and 30 December, 2006 (table 1 shows the survey result). The 2007's survey was postponed to February because of the sustained sleet in

January (table 2 shows the survey result). In this time about 80 more cranes have left to migrate, in middle March half more cranes have left Caohai, in early April all the cranes left Caohai.

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## 2006-2007 年对大山包带有卫星发射器黑颈鹤的观察

2006 年 11 月—2007 年 4 月, 在云南省大山包国家级自然保护区对越冬的黑颈鹤进行观察期间, 发现了 2 只在 2006 年春季带上卫星发射器的黑颈鹤, 有关情况如下:

黑颈鹤 64309 号:

2006 年 11 月 6 日, 即从繁殖地返回的黑颈鹤到达大山包的第 8 天, 早 8:30 左右 1 只左右腿皆佩戴有红黄彩环组合的黑颈鹤停在大海子夜栖地, 与其他 37 只黑颈鹤混群。其颈部系有一红色细线, 背部卫星发射器天线清晰可见。根据 2006 年的工作记录, 该鹤为 2006 年 3 月 20 日在大山包大海子捕到并佩戴有卫星发射器的鹤, 卫星发射器上的编号为 64309。

此后, 我们又多次在大山包保护区内见到此鹤。分别是: 2007 年 1 月 24 日 15 点 32 分在龙家大地耕田中与 5 只黑颈鹤混群; 2007 年 1 月 27 日 11 点 43 分在同一地点活动在 12 只的群体中; 2007 年 3 月 10 日 13 点 20 分与 89 只黑颈鹤一起活动在大海子沼泽地中。其间, 该鹤在一次求偶鸣叫时攻击另一只对同一黑颈鹤进行求偶鸣叫的黑颈鹤。结合以往两次其在群体中都单独活动的情况, 初步断定该黑颈鹤为 1 只雄鸟, 并且开始出现配对行为。在

2007 年 3 月 21 日 15 点 47 分记录到该鹤与另外一只黑颈鹤在大海子夜栖地水域中相互跳舞嬉戏, 推测此时这只背有卫星发射器的黑颈鹤可能已经配对成功, 这还需在以后的观察中进一步证实。

卫星跟踪的数据显示: 该鹤于 2006 年 3 月 28 日离开大山包前往四川省若尔盖湿地, 2006 年 11 月 2 日返回大山包黑颈鹤国家级自然保护区, 停留 146 天后, 于 2007 年 3 月 24 日再次离开越冬地。

黑颈鹤 64311 号:

在大山包保护区大海子夜栖地越冬的黑颈鹤有一特点: 即在每天早上 9 点左右 (随月份不同而有变化) 飞出夜栖地觅食至中午 11 点 30 分左右才返回。2007 年 3 月 14 日, 9 点 30 分有一群约 70 只的黑颈鹤飞到大海子, 因此该群鹤的行为与以往相比实属异常。对其观察后发现有一只左腿戴有黄红、右腿无环的黑颈鹤在大海子浅水区中理羽, 背部可见卫星发射器天线。第二天中午该鹤仍然活动在大海子, 此后就再没有发现。对比卫星跟踪记录表, 确定该鹤为 2006 年 2 月 28 日在贵州草海鸭子塘环志并戴有发射器的黑颈鹤, 卫星发射器编

号为 64311。从该鹤与这 70 只鹤的情况看, 该鹤很可能是随同其他 70 多只黑颈鹤一起迁徙的。

卫星跟踪的数据显示: 该鹤于 2006 年 3 月 31 日离开贵州草海前往四川省若尔盖湿地, 2006 年 11 月 7 日离开若尔盖, 11 月 9-10 日在大山包短暂停留后, 于 11 月 11 日回到贵州草海, 停留 123 天后, 在 2007 年 3 月 13 日再次离开越冬地, 当晚到达大山包, 在此至少停留 1 天以上, 然后在 3 月 18 日到达繁殖地。

本次实际观察确认了卫星跟踪的结果, 说明大山包是草海越冬黑颈鹤的春季和秋季迁徙过程中的一个重要停歇地点。

环志黑颈鹤的野外观察和黑颈鹤卫星数据, 都充分证实了黑颈鹤东部种群的稳定存在, 并进一步探明了东部种群春秋两季迁徙路线的固定性。为黑颈鹤的迁徙研究提供了重要证据。

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## Observation on satellite transmitter attached Black-necked Cranes in Dashanbao in 2006-2007

In the survey on Black-necked Cranes in Yunnan Dashanbao National N.R. from November, 2006 to April, 2007, two satellite transmitter mounted Black-necked Cranes were found, both were attached in the spring of 2006.

The Black-necked Crane of No.64309:

After 8 days of arriving at Dashanbao from its breeding area, the Black-necked Crane banded with red and yellow rings in its both legs was found on November, 2006, it stayed at Dahaizi roosting site among a group of 38 Black-necked Cranes. The crane had a red thread tied in the neck and attached with satellite transmitter. According 2006's work record, this crane had been caught in Dahaizi of Dashanbao on 20 March, 2006 and had been mounted with satellite transmitter 64309.

Afterwards, the crane were found for several times: Among a group of 5 Black-necked Cranes in the farmland of Longjiadadi at 15:32 on 24 January, 2007; among a group of 5 Black-necked Cranes in the same place at 11:43 on 27 January, 2007 and among a group of 89 Black-necked Cranes

in Dahaizi marsh at 13:20 on 10 March, 2007. The authors found that in making courtship call the crane made courtship fight with another crane who was making courtship call to the same target crane, the crane was hence thought a male crane and has showed courtship behavior. The crane was found in dancing with another crane in roosting waters at 15:47 on 21 March, 2007, it was inferred they had paired successfully, further confirmation waits for more observation.

The satellite tracing data showed that: the crane left Dashanbao towards Ruogai Wetland, Sichuan on 28 March, 2006 and returned to Dashanbao Black-necked Crane National N.R. on 2 November, 2006 and stayed there for 146 days. It left wintering site again on 24 March, 2007.

The Black-necked Crane of No. 64311:

The Black-necked Cranes roosted in Dahaizi of the reserve were used to leave Dahaizi roosting site to feed and come back at about 11:30, but a group of about 70 cranes unusually flew to Dahaizi at 9:30 on 14 March, 2007. The authors then found a grooming

crane with yellow-red ring in its left leg and mounted with a transmitter among the group. It stayed at Dahaizi till next day. It was then confirmed to be the crane banded and mounted with transmitter No.64311 at Yazitang of Caohai, Guizhou, it might migrate together with other cranes in the group.

The satellite tracing data showed that: the crane left Caohai towards Ruergai Wetland, Sichuan on 31 March, 2006 and returned to Caohai on 11 November, 2006 and once stayed at Dashanbao on 9~10 November, 2006 when by way of the reserve. It stayed at Caohai for 123 days. It has left wintering site again on 13 March, 2007 and has arrived at Dashanbao that evening and has stayed there for at least 1 day, it arrived at breeding site on 18 March,

2007.

This observation concords with the satellite tracing data, it shows that Dashanbao is an important stopover site for the Black-necked Cranes wintered at Caohai during their spring and autumn migrations.

Field observing banded crane and satellite tracing data all confirm that there exists a stable eastern population of Black-necked Crane and makes sure that there has a fixed spring and autumn flyway of the eastern population, it enriches the study in migration of Black-necked Crane.

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## **Research initiated by the Royal Society for Protection of Nature (RSPN) of Bhutan has revealed new insights into the migration of the Black-necked Crane**

After four Black-necked Crane *Grus nigricollis* were banded by the project in early 2006, the project has continuously received data from the satellite transmitters attached to the cranes (PTT- Platform Telemetry Transmitters). The data received so far indicates that the birds don't migrate very far from Bhutan. It appears that the cranes that winter at Phobjikha, breed in southern Tibet in Phari/Bam-tsho, near Bhutan.

In their first migration flight in early 2006, the three cranes flew 107 kms from Phobjikha heading North West towards Phari in Tibet, which is an old trading centre of Bhutan. The crane named 'Jigme' (named in memory of Mr. Jigme Tobgay, former staff of Royal Society for Protection of Nature (RSPN) of Bhutan

who passed away recently) later migrated to lake Bam-Tsho another 67 kms north of Phari. The other two cranes, Gangtep and Phobjib were also later tracked near Lake Bam-Tsho, 46 kms north of Phari.

Though we had lost contact with Gangtep since 5th November 2006, Gangtep was the first crane to arrive Phobjikha. It arrived at Phobjikha on the 8th Nov. Jigme followed later on 15 November along with a female crane that was leg banded. On 1st November, Jigme was observed taking short flights towards the Bhutanese border inside Laya. On that day he traveled a total of 34.69 km in and out of the country and covered approximately 17.92 km heading towards the border (one-way). This suggests that cranes frequent

to nearby areas in Bhutan even before their arrival in Bhutan. Maps indicate that the area is a pasture land, though we are not yet sure if there is a wetland as well. Phobjib unfortunately, could be monitored only till 7th March 2006. The reason for the lost signal is still unknown.

In monitoring the flight movements of these three cranes, it is evident that some of the cranes in Phobjikha take the North east routes via Laya, Punakha and Wangdue to both migrate in and out of Bhutan. The data also suggests that the cranes could be taking just one day to fly over Bhutan and most probably do not stop-over during their flight. However this cannot be confirmed, because the PTTs are programmed to receive data only every three days and more over it is solar operated so data received are not comprehensive enough.

The study should provide a scientific basis for understanding migration pattern of cranes and eventually help move towards bigger efforts like the trans-boundary conservation of the species. This three year study will also go a long way in establishing networking with the conservation partners across Tibet.

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## 不丹皇家自然保护学会启动的研究揭示了黑颈鹤迁徙的新动态

自从 2006 年年初环志了 4 头黑颈鹤后，就不断从安装在鹤体上的卫星发射器（PTT：平台遥测转换器）收到信息。目前收到的信息表明黑颈鹤迁飞到离不丹不远处，这些鹤是在富哲卡（Phobjikha）越冬、在不丹附近藏南的珀里/班-措（Phari/Bam-tsho）繁殖。在 2006 年年初的首次迁飞时，有 3 头黑颈鹤从富哲卡向西北朝西藏的珀里飞行了 107 千米。一头名叫“Jigme”的鹤（为纪念最近去世的不丹皇家自然保护学会会员 Jigme Tobgay 先生而命名的）后来飞到珀里北部距离其 67 千米处的班-措湖。另外两头名为“甘特普（Gangtep）”和“富哲比（Phobjib）”的鹤也飞到珀里北部距离其 46 千米处的班-措湖附近。

虽然自 2006 年 11 月 5 日就失去和“甘特普”黑颈鹤的联系，但它是第一个到达富哲卡

的鹤。它于 11 月 8 日到达，“Jigme”于 11 月 15 日和一头腿上有环志的雌鹤一同到达。12 月 1 日“Jigme”朝着不丹边境的拉亚 Laya 作短距离的飞行，那天他在不丹境内外共飞行了 34.69 千米，其中有 17.92 千米是朝着边境方向飞行的。这表明黑颈鹤在到达不丹之前频繁地出现在不丹附近的地区。图片显示那儿是一片草场，不过还不清楚是否有湿地。不巧的是“富哲比”自 2006 年 3 月 7 日就失去联系，目前还不清楚信号中断的原因。在监测这 3 头鹤的迁移中发现，有些停留在富哲卡的鹤在迁入和迁出不丹时均采用了经拉亚、普那卡和旺杜的东-北路线。资料还表明黑颈鹤能在一天内飞过不丹，大多数鹤在此迁飞中不需停歇。但是不需停歇没有被证实，因为 PTTs 被设定每隔 3 天才能收到一次数据，至多是用太阳操纵的



而不能获得足够全面的资料。

本研究对了解鹤类的迁飞类型和最终过渡到像黑颈鹤的跨越国境的保护这样的大项目提供了科学基础。3 年的研究也和西藏的自然保护合作者建立了合作网。

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## 黄河三角洲自然保护区 1998-2006 年鹤类种类及数量变化

山东黄河三角洲国家级自然保护区(以下简称保护区)是以保护河口湿地生态系统和珍稀、濒危鸟类资源为主体的湿地类型保护区,地理坐标为东经 118°33'-119°20', 北纬 37°35'-38°12', 保护区包括两部分:一是现行黄河入海口两侧,包括大汶流和黄河口两个管理站;另一部分是 1976 年以前的黄河故道,为一千二管理站。

保护区地处东北亚内陆、环西太平洋地区鸟类迁徙路线的中间环节,是东北亚鹤类保护区网络的重要成员。由于地理位置优越,生态环境独特,此区域的鹤类资源丰富,在中国 9 种鹤类中,保护区内有沙丘鹤(2005 年新记录)、蓑羽鹤(偶见迷鸟)、白鹤、白头鹤、白枕鹤、丹顶鹤和灰鹤 7 种鹤类资源。

本文对 1998 年至 2006 年鹤类野外调查数据进行整理,分析不同时期鹤类种类及数量的变化情况。

### 1. 研究方法

**研究区域:**保护区及其周边地区,对适宜鹤类栖息、停歇的生境重点调查。

**研究时间:**1998 年至 2006 年。为研究鹤类停歇期和越冬期的种类以及数量变化情况,根据鹤类的迁徙规律,分为:迁徙期(南迁)——每年 10 月、11 月份;越冬期——每年 12 月至

次年 1 月份;迁徙期(北迁)——每年 2 月、3 月份(部分年份鹤类会滞留至 4 月)。

**调查方法:**根据多年鹤类集中分布地点的观察,确定鹤类分布的重要地区,在此实行定点观察,利用双筒望远镜(8×40)、单筒望远镜(20×60)每天观察记录鹤的种类、数量、分布及生境类型。

**数据处理:**取不同时期每种鹤野外统计数量的最高值;同一时间不同地点数量相加。

### 2. 结果及分析

#### 2.1 调查结果

黄河三角洲自然保护区 1998-2006 年鹤类调查数量统计见表 1。

#### 2.2 结果分析

**越冬期鹤类种类及数量**保护区内越冬的鹤类有 4 种:白头鹤共记录 2 次,在 2001 年、2006 年分别有 2 只越冬,且其与灰鹤混群;丹顶鹤共记录 7 次,为保护区常见越冬鹤类,平均数量为 37 只,数量最高年份为 75 只(2006),数量最低年份为 18 只(2003);灰鹤共记录 7 次,为保护区常见越冬鹤类,平均数量为 194 只,数量最高年份为 330 只(2000),数量最低年份为 38 只(2002);白枕鹤共记录 1 次,偶见越冬鹤类,仅在 2006 年有 7 只在此越冬。

表 1: 黄河三角洲自然保护区 1998-2006 年鹤类调查数量统计表

Table 1 Survey on cranes in Huanghe Delta N.R., 1998~2006

种类 Species	数量 (年度) Number (year)		
	越冬期 Wintering period	迁徙期 (南迁) Southwards migratory period	迁徙期 (北迁) Northwards migratory period
白鹤 Siberian Crane		34 (2001)、63 (2002)、2 (2003)、 77 (2004)、81 (2005)、104 (2006)	3 (2005)、3 (2006)
白头鹤 Hooded Crane	2 (2001)、2 (2006)	27 (1998)、25 (1999)、32 (2000)、 2 (2001)、4 (2003)、43 (2004)、 6 (2005)、55 (2006)	26 (1998)、10 (1999)、14 (2000)
白枕鹤 White-naped Crane	7 (2006)	43 (1998)、43 (1999)、39 (2000)、 22 (2001)、130 (2003)、384 (2004)、 60 (2005)、350 (2006)	35 (1998)、19 (1999)、24 (2000)
丹顶鹤 Red-crowned Crane	29 (1998)、35 (1999)、 52 (2000)、26 (2001)、 23 (2002)、18 (2003)、 75 (2006)	88 (1998)、52 (1999)、79 (2000)、 61 (2001)、121 (2002)、154 (2003)、 179 (2004)、85 (2005)、144 (2006)	56 (1998)、64 (1999)、41 (2000)、311 (2002)、173 (2003)、94 (2004)、138 (2005)、300 (2006)、
灰鹤 Common Crane	312(1998)、258 (1999)、 330(2000)、118(2001)、 38 (2002)、159 (2003)、 145 (2006)	383(1998)、494(1999)、531(2000)、 123(2001)、252(2002)、14(2003)、 4 (2004)、147 (2005)、360 (2006)	391 (1998)、190 (1999)、 303 (2000)、88 (2002)、 174 (2003)、14 (2004)、 24 (2005)、
沙丘鹤 Sandhill Crane		1 (2006)	
蓑羽鹤 Demoiselle Crane		1 (1999)	

**迁徙期 (南迁) 鹤类种类及数量** 保护区内在南迁期发现的鹤类有 7 种: **白鹤**共记录 6 次, 2001 年首次发现其野外种群, 平均数量为 60 只, 数量最高年份为 104 只 (2006), 数量最低年份为 2 只 (2003); **白头鹤**共记录 8 次, 平均数量为 24 只, 数量最高年份为 55 只 (2006), 数量最低年份为 2 只 (2001); **白枕鹤**共记录 8 次, 平均数量为 134 只, 数量最高年份为 384 只 (2004), 数量最低年份为 22 只 (2001); **丹顶鹤**共记录 9 次, 平均数量为 107 只, 数量最高年份为 179 只 (2004), 数量最低年份为 52 只 (1999); **灰鹤**共记录 10 次, 平均数量为 245 只, 数量最高年份为 531 只 (2000), 数量最低年份为 4 只 (2004); **蓑羽**

**鹤**共记录 1 次, 数量为 1 只 (1999), 为保护区偶见迷鸟; **沙丘鹤**共记录 1 次, 数量为 1 只 (2006), 为保护区鹤类新记录;

**迁徙期 (北迁) 鹤类种类及数量** 保护区内在北迁期发现的鹤类有 5 种: **白鹤**共记录 2 次, 数量为 3 只 (2005、2006); **白头鹤**共记录 3 次, 平均数量为 17 只, 数量最高年份为 26 只 (1998), 数量最低年份为 10 只 (1999); **白枕鹤**共记录 3 次, 平均数量为 26 只, 数量最高年份为 35 只 (1998), 数量最低年份为 19 只 (1999); **丹顶鹤**一共记录 8 次, 平均数量为 147 只, 数量最高年份为 311 只 (2002), 数量最低年份为 41 只 (2000); **灰鹤**共记录 8

次, 平均数量为 143 只, 数量最高年份为 391 只 (1998), 数量最低年份为 14 只 (2004)。

### 3. 建议

**3.1 加强鹤类野外调查。**鹤类的野外调查是基础性的科研工作, 其种类、数量、迁徙规律的研究需要积累多年的基础资料, 要加强年度的监测、巡护制度, 积累长期的鹤类的动态变化。

**3.2 开展鹤类生境选择研究。**鹤类作为湿地生境的敏感指示物种, 能直观地反映湿地质量的变化情况。对此, 要深入开展鹤类生境选择的研究工作, 研究鹤类与生境的生态学关

系, 为鹤类栖息地保护提供科学依据。

**3.3 研究鹤类生境的年度变化, 预测生境变化对鹤类数量、分布的影响。**建立鹤类调查资料和分布区域生境资料数据库, 在此基础上利用地理信息系统对鹤类分布进行空间分析, 分析年度生境类型变化对鹤类分布的影响, 预测生境类型的改变对未来鹤类分布及数量的影响。

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## Variation of crane species and number in Huanghe Delta N.R., 1998-2006

Shandong Huanghe Delta National N.R. is a wetland reserve mainly protects estuary wetland ecosystem, and rare and endangered bird resources, with the coordinates of 118°33'-119°20'E, and 37°35'-38°12'N. The reserve consists of two parts: the both sides of Huanghe mouth — the Dawenliu Administrative Station and Huanghe Estuary Administrative Station; and the Old Course of Huanghe River before 1976 — now the Yiqianer Administrative Station.

Being located in inland of Northeast Asia and the midway of bird flyway in the encircling West Pacific Area, the reserve is an important member of the North East Asian Crane Site Network. The superior geographic location and unique ecological environment make the reserve rich in crane resource, among 9 species of cranes in China the reserve owns 7 species *Grus Canadensis* (new record here in 2005), *Anthropoides virgo* (lost bird, occasionally seen), *G. leucogeranus*, *G. monacha*, *G. vipio*, *G. japonensis* and *G. grus*.

In this paper the authors arranged field survey data in 1998-2006, and analyzed the variation of crane species and number in different duration.

### 1. Method

**Survey area:** The reserve and its surrounding areas, focusing the habitats suitable for cranes to inhabit and stop over.

**Survey period:** 1998-2006. Each year is divided into southwards migratory period (October-November), wintering period (December-next January) and northwards migratory period (February-March, partially delayed to April).

**Survey method:** Based on past survey data to locate the main distribution areas of different species, and conducted fixed route surveys. The binoculars (8×40) and monocular (20-60) were used to observe crane species, crane number, crane distribution and their habitat types.

Data treatment: The maximum number of each species counted in different time was selected, and then to sum up the number of each species in different locations at the same time.

## 2. Results and analyses

### 2.1 Results

Survey result on cranes in Huanghe Delta N.R., 1998-2006 see table 1.

### 2.2 Analyses

Wintering period: There were 4 crane species wintered in the reserve. Two records for Siberian Cranes, 2 cranes found mixed with Common Cranes in 2001 and 2006 respectively. Seven records for Red-crowned Cranes, with the highest number 75 in 2006 and the lowest number 18 in 2003, and with the average number 37. Seven records for Common Cranes, with the highest number 330 in 2000 and the lowest number 38 in 2002, and with the average number 194. 7 White-naped Cranes were the only record here, and it showed that the cranes might occasionally winter in the reserve.

Southwards migratory period: There were 7 crane species stopped over in the reserve in southwards migratory period. Six records for Siberian Cranes, the wild population was first found in 2001, with the highest number 104 in 2006 and the lowest number 2 in 2003, and with the average number 60. Eight records for White-naped Cranes, with the highest number 384 in 2004 and the lowest number 22 in 2001, with the average number 134. Nine records for Red-crowned Cranes, with the highest number 179 in 2004 and the lowest number 52 in 1999, with the average number 107. Ten records for Common Cranes, with the highest number 531 in 2000 and the lowest number 4 in 2004, with the average number 245. One record for 1 Demoiselle Crane, it was a lost bird. One record for 1 Sandhill Crane, it was the new

record in the reserve.

Northwards migratory period: There were 5 crane species stopped over in the reserve in northwards migratory period. Two records totally 3 Siberian Cranes in 2005 and 2006, Three records for Hooded Cranes, with the highest number 26 in 1998 and the lowest number 10 in 1999, with the average number 17. Three records for White-naped Cranes, with the highest number 35 in 1998 and the lowest number 19 in 1999, with the average number 26. Eight records for Red-crowned Cranes, with the highest number 311 in 2002 and the lowest number 41 in 2000, with the average number 147. Eight records for Common Cranes, with the highest number 391 in 1998 and the lowest number 14 in 2004, with the average number 143.

## 3. Suggestions

**3.1** Strengthen field survey to cumulate the basic data in crane species, crane number and crane migratory regulation, and strengthen annual monitoring and patrolling systems to cumulate the data of dynamic variation of the cranes.

**3.2** To study habitat selection by the cranes. Being a sensitive indicator species of wetland habitat, the study of habitat selection by the cranes may provide a scientific base for protecting crane habitat.

**3.3** To study annual change of crane habitat, and predict how habitat change may affect crane number and distribution. Set up the database of crane surveys and their habitats, then by using GIS system to do spatial analysis on crane distribution, to predict how the variation of habitat types affect crane distribution and crane number in the future.

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## 黄河三角洲越冬丹顶鹤专项调查

为掌握黄河三角洲越冬丹顶鹤的数量，2007年1月25日至26日，国际鹤类基金会苏立英博士，全国鸟类环志中心钱法文、江红星博士同黄河三角洲自然保护区的科研人员共同组队，开展了越冬丹顶鹤的专项调查。调查组采用直接计数法分三组对黄河三角洲自然保护区及其周边地区同步调查，调查结果如下：

越冬丹顶鹤数量：此次调查共调查到丹顶鹤68只，其中亚成体4只。调查期由于大雪天气，能见度低，部分区域无法进入，可能使调查的数量偏低。黄河三角洲自然保护区一千二管理站由于近几年缺少淡水，部分芦苇沼泽干涸，导致此区域鹤类数量明显减少。

其它水禽数量：在此次调查中对其它水禽进行了统计，记录到灰鹤31只，白头鹤1只（与灰鹤混群），东方白鹳16只，豆雁179只，灰雁2只，大天鹅34只（亚成体4只），疣鼻天鹅5只，斑嘴鸭196只，苍鹭12只，赤麻鸭1只，大麻鸭4只，黄腿银鸥43只，绿头鸭75只，普通秋沙鸭18只，普通秧鸡3只。

此外，2007年3月29日，黄河三角洲单凯等在东营市河口区新户镇发现11只低空飞翔的卷羽鹈鹕，地理坐标为北纬37°53'39.6"，东经118°29'26.4"。

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## Survey on wintering Red-crowned Cranes in Huanghe Delta

A survey on wintering Red-crowned Crane in Huanghe Delta N.R. and its surrounding areas was conducted on 25~26 January, 2007, survey team including Doctress Su Li-Ying of the ICF, Mr. Qian Fa-Wen and Dr. Jiang Hong-Xing of National Bird Banding Center of China, and the staff of the reserve.

68 Red-crowned Cranes were found, 4 of them were sub-adults. Due to the heavy snow the visibility was low and some sites were unapproachable, this counting number might be lower than it would be. Due to short of fresh water in recent years, some reed marshes within the Yiqianer Administrative Station dried up, and crane number dropped remarkably.

The other waterbirds recorded in this survey were: 31 Common Cranes, 1 Hooded

Crane (mixed with Common Cranes), 16 Oriental White Storks, 179 Bean Geese, 2 Greyleg Geese, 34 Whooper Swans (4 sub-adults), 5 Mute Swans, 196 Spot-billed Ducks, 12 Grey Herons, 1 Ruddy Shelduck, 4 Eurasian Bitterns, 43 Yellow-legged Gull, 75 Mallards, 18 Common Mergansers and 3 Water Rails.

In addition, Mr. Shan Kai found 11 low-level flying Dalmatian Pelicans in Xihu Town (37°53'39.6"N, 118°29'26.4"E), Hekou District, Dongying City.

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## 2007年黄河三角洲自然保护区北迁期鹤类调查

为准确掌握北迁期鹤类的动态变化，从2007年2月起，我们采用每旬开展一次同步调

查的方式，对黄河三角洲自然保护区的鹤类进行动态监测。2007年北迁期鹤类的调查数据如

下:

2007 年北迁期调查到的丹顶鹤主要集中在近海滩涂的潮间带,灰鹤主要集中在河道两岸的草地、芦苇沼泽,白鹤有短暂的停歇,栖息生境是芦苇沼泽。与往年相比,2007 年鹤类北迁期在黄河三角洲停歇的鹤类的数量明显减少。自然保护区一千二管理站的芦苇沼泽由于缺乏淡水,土地干涸,使鹤类迁徙停歇失去重要栖息地;春季当地居民的芦苇收割行为也对停歇的鹤类造成严重人为干扰,集中在芦苇沼泽生境中的鹤类明显减少。

在黄河三角洲自然保护区,大面积覆有浅水的芦苇沼泽是鹤类集中分布的生境,自然保护区在黄河丰水期会储蓄大量淡水以恢复芦苇沼泽,但冬春季是黄河枯水期,淡水供应缺乏,使部分区域土地干涸。从冬季开始的芦苇收割行为会延续到初春,这些人为活动对鹤类停歇造成严重人为干扰。黄河三角洲自然保护区在今后的鹤类生境管理中,对以上情况应采取 措施、加强管理。

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表 1 黄河三角洲自然保护区 2007 年北迁期鹤类调查数据统计  
Table 1 Counting of northwards migratory cranes in Huanghe Delta, 2007

时间 Date	丹顶鹤 Red-crowned Crane	灰鹤 Common Crane	白鹤 Siberian Crane
07/02	72	26	7
18/02	56	23	
25/02	62	31	
10/03	120	4	
14/03	97	12	
21/03	97		
28/03	62		
02/04	19		

## Survey on northwards migratory cranes in Huanghe Delta N.R., 2007

In order to accurately know the dynamic change of northwards migratory cranes in Huanghe Delta N.R. the authors conducted synchronic counting monthly since February, 2007.

The survey revealed that: Red-crowned Cranes mainly concentrated in the intertide of inshore, Common Cranes mainly concentrated in grassland and reed marshes along the river, Siberian Cranes had a short stay in reed marshes. Compare with the former years, the number of northwards migratory cranes in the reserve is remarkably decreased. Due to short of fresh water some reed marshes within Yiqianer Administrative Station dried up,

cranes hence lost their important habitat. Although the reserve stores large amount of fresh water when Huanghe River is water plentiful, but in winter the lower water level of Huanghe River is unable to support enough fresh water to the marshes of the reserve. The harvest of reeds from winter till next early spring, this human activity disturbed cranes seriously. The reserve should take some measurements and strengthen management to resolve these problems

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Huanghe Delta National N.R. 257091)

## 辽宁双台河口国家级自然保护区春季鹤类及水鸟调查简报

2007年2月5日—3月30日,我们对辽宁双台河口国家级自然保护区的春季鹤类迁徙情况进行了调查,调查期间共统计到水鸟35种,其中鹤类4种,即丹顶鹤、白鹤、白枕鹤和灰鹤。今年丹顶鹤的首见日是2月15日共4只(在春节前),这也是历年来在双台河口自然保护区内最早见到丹顶鹤的记录。3月上旬丹顶鹤迁到的数量逐渐增加,3月14日我们在保护区的东部滩海五千七的苇田和河口滩涂统计到丹顶鹤190只(其中苇田110只,河口滩涂80只)、赵圈河管理站的站北98只、东郭苇场的酒壶嘴178只、南小河东岸63只、东郭海滩36只,累积丹顶鹤465只。

2007年3月20日我们组织进行了迁徙鹤类的同步调查,调查人员分成3个小组,观测点共计11个,依次为滩海管理站的五千七、平原水库,赵圈河管理站的四干、红海滩码头、拐弯铺和东郭管理站的南小河、酒壶嘴、八仙岗、六道沟、三道沟、罗家等。同步调查中共

统计到丹顶鹤287只、白鹤4只、白枕鹤2只、灰鹤1只。

此次调查丹顶鹤数量有所减少,其原因一是部分丹顶鹤已继续北迁,二是受3月3日东北普降大雪的影响,保护区内的老坨子、小台子、南井子等观测点的道路泥泞,调查人员一直无法进入该区调查,而这些地方每年都有丹顶鹤停歇记录。因此今年春季在辽宁双台河口自然保护区停歇的丹顶鹤数量应该高于统计到的数量,估计在500只左右。

同时调查中还统计到其他水鸟31种,约3万余只,其中东方白鹳341只,遗鸥156只、花脸鸭1980只,其它雁鸭类2万余只。遗鸥和花脸鸭的种群是双台河口自然保护区内多年来所记录到的最大种群数量。

**李玉祥, 李晓静**(辽宁双台河口国家级自然保护区管理局)

## Survey on Cranes and waterbirds in Niaoning Shuangtaihekou National N.R. in spring of 2007

Cranes and waterbirds in Niaoning Shuangtaihekou National N.R. were surveyed from 5 February to 30 March, 2007. 35 species of waterbirds were found, including Red-crowned Crane, Siberian Crane, White-naped Crane and Common Crane. 4 Red-crowned Cranes were first found on 15 February, it was the earliest appearance of the crane in the reserve so far. The number of Red-crowned Cranes increased since early March, totally 465 Red-crowned Cranes were found on 14 March, including 190 cranes at the reed field and beeches of estuary in

Wuqianqi, the eastern reserve (110 at the reed land, 80 at the beeches), 98 at Zhanbei of Zhaoquanhe Administrative Station, 178 at Jiuhuzui of Dongguo Reed Farm, 63 on the east bank of Nanxiaohe and 36 at Dongguo beaches.

A Synchronic survey on migratory cranes was conducted on 20 March, 2007, totally 11 observing spots including the Wuqianqi and the Pingyang Reservoir of Tanhai Administrative Station, the Siqian, the Honghaitan Dock and the Gaiwanpu of the Zhaoquanhe Administrative Station, and the

Nanxiaohe, the Jiuhuzui, the Baxiangang, the Liudaogou, the Sandaogou and Luojia of Dongguo Administrative Station were surveyed. Totally 287 Red-crowned Cranes, 4 Siberian Cranes, 2 White-naped Cranes and 1 Common Crane were found.

The number of Red-crowned Crane was decreased, during the survey time some cranes had left the reserve to continue their northwards migration, and a heavy snow on 3 March blocked the surveyors approached to some observing spots where the cranes had been stayed (such as, Laotuozi, Xiaotaizi and

Nanjinzi). Hence the number of Red-crowned Cranes stayed in the reserve in this spring was estimated about in 500.

31 species about 30 000 more other waterbirds were found in this survey, including 341 Oriental White Storks, 156 Relict Gulls, 1 980 Baikal Teals and 20 000 more other geese and ducks. Here the number of Relict Gull and Baikal Teal reached the maximum number of each species in the record of the reserve.

**Li Yu-Xiang, Li Xiao-Jing**  
(Administrative Bureau of Niaoning Shuangtaihekou National N.R.)

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### 崇明东滩 2006-2007 越冬白头鹤情况

2006 年冬季,崇明东滩鸟类国家级自然保护区的科研人员对白头鹤资源开展了专项调查,共调查到白头鹤 118 只,灰鹤 7 只,白枕鹤 1 只。调查发现,首批白头鹤 28 只于 2006 年 10 月 24 日到达,于 2007 年 3 月 27 日离开。白头鹤在东滩越冬时间约为 5 个月。近年来,

由于人为活动的干扰及互花米草扩散,白头鹤栖息地面临着严重的威胁,亟待采取保护措施。

**马强 臧洪熙 钮栋梁**(崇明东滩鸟类自然保护区)

### Status of the 2005/2007 wintering Hooded Cranes at Chongming Dongtan

In the winter of 2006, 118 Hooded Cranes, 7 Common Cranes and 1 White-napped Crane have been recorded in Chongming Dongtan Nature Reserve. The first 28 of Hooded Cranes arrived at Chongming Dongtan on 24-October-2006, and the last group of Hooded Cranes left on 27-March-2007. So the

wintering period of Hooded Cranes at Chongming Dongtan is about 5 months. For the jamming and diffusing of *Spartina alterniflora*, the habitat for Hooded Crane is facing serious threats.

**Ma Qiang, Zang Hong-Xi, Nou Dong-Liang**  
(Chongming Dongtan Bird Nature Reserve)

### 2006 年冬盐城沿海丹顶鹤及珍稀水鸟监测

由盐城国家级珍禽自然保护区进行的盐城沿海丹顶鹤及珍稀水鸟越冬监测和白鹤 GEF 江苏监测项目研究发现,2006 年 12 月,在盐城沿海越冬水鸟超过 22 万只,其中丹顶

鹤为 801 只,白鹤 1 只,白头鹤 3 只,东方白鹤 23 只,黑脸琵鹭 20 只,灰鹤 725 只,遗鸥 3 只,黑嘴鸥 289 只。

在大丰县海北垦区 (33D23M4.5S N,



120D39M46.3S E) 发现的 1 只白鹤成体与 382 只灰鹤, 60 只丹顶鹤, 3 只白头鹤混群, 同时在收割后的水稻田觅食。在射阳芦苇公司稻田, 还发现扎龙环志的丹顶鹤, 环志为红色彩环 (H51)。

盐城是丹顶鹤最重要的越冬地, 保护区救

护中心在越冬期间共救护伤病及农药中毒的丹顶鹤 7 只, 救护存活 5 只, 死亡的丹顶鹤经过病理剖检都发现肝脏等器官肿瘤。丹顶鹤在盐城沿海越冬仍然面临着栖息地丧失、人类投毒捕猎水禽和人与鹤争食的威胁。

王会 (盐城国家级珍禽自然保护区)

## Survey on wintering Red-crowned Crane and rare and precious waterbirds in the coastal area of Yancheng

The survey on wintering Red-crowned Crane and rare and precious waterbirds in the coastal area of Yancheng conducted by Yancheng National Precious Bird N.R. and by Siberian GEF Jiangsu Project found that the number of wintering waterbirds in the coastal area of Yancheng was over 220 000 individuals in December, 2006. Among them there were 801 Red-crowned Cranes, 1 Siberian Crane, 3 Hooded Cranes, 23 Oriental White Storks, 20 Black-faced Spoonbills, 725 Common Cranes, 3 Relict Gulls and 289 Saunder's Gulls.

In Haibei reclamation area of Dafeng County (33D23M4.5S N, 120D39M46.3S E), One adult Siberian Crane was found mixed with 382 Common Cranes, 60 Red-crowned

Cranes and 3 Hooded Cranes feeding in a harvested rice field. A Red-crowned Crane was found in the rice field of Shenyang Reed Company, banded with red ring (H51) by Zhalong N.R..

Yancheng is the most important wintering area for Red-crowned Crane, the rescue center of the reserve has totally rescued 7 injured, sick or pesticide poisoning cranes, 5 of them were survived, the anatomy of dead cranes found tumors in their livers and other tissues. The wintering Red-crowned Cranes in the coastal area of Yancheng still faces the threats of habitat loss, human poison and human competes food with them.

Wang Hui (Yancheng National Precious Bird N.R.)

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## 黑龙江大沾河湿地自然保护区 2007 年春季白头鹤调查简报

2007 年 3 月 25 日-6 月 1 日, 在黑龙江大沾河湿地自然保护区, 进行了为期 69 天的白头鹤种群数量调查。该保护区位于黑龙江省逊克县境内, 沾河林业局, 地理坐标为: 48°01'23"-48°46'45"N, 127°57'54"-128°27'24"E, 总面积为 21.2 万 ha。

30 余名经过培训的保护区工作人员以及

森林调查队队员, 以保护区乌斯孟等八个保护站为依托, 对保护区及其周边地区分布的白头鹤进行了详细调查。调查面积约为 30 万 ha。调查以见到实体为准, 排除重复统计, 确认在保护区及周边地区共有白头鹤 85 只。结果见表 1:

表 1 2007 年大沾河湿地自然保护区白头鹤数量统计  
Table 1 Survey on Hooded Cranes in Dazhanhe N.R. in 2007

地点 Location	时 间 Date	数量 Number	备注 Notes
格拉气麦地 Felaqi wheat field	01-24/04	8	刚到还没分散, 其中至少有 1 个繁殖对 Just arrived and not scattered. Including at least 1 breeding pair
乌斯孟麦地 Wusimeng wheat field	02-26/04	2+2	分别占据不同的角落, 至少有 1 个繁殖对 Stayed in different places. Including at least 1 breeding pair
北沽河防火塔 Beizhanhe fire tower	04, 22/04	5	亚成体 Sub-adults
李井学窝棚处 At the shed of Lijinxue	22/04	3	亚成体 Sub-adults
北沽河 43 林班 Beizhanhe the 43 <sup>rd</sup> section	22,25/04	2	繁殖对 Breeding pair
北沽河八公里半 Beizhanhe 8.5 km	14/05	2	找到巢了 Found a nest
尖新山南线 South of jianxinshan	06, 20/04	2	比较稳定, 视为 1 个繁殖对 Relatively stable. Regard as one breeding pair
木沟河 Mugouhe	06/04	19	集群觅食 Group feeding
汤元山 27 号线 The 27 <sup>th</sup> line of Tangyuanshan	19-21/04	2+3	其中有 1 繁殖对 Including 1 breeding pair in 5 cranes
五道林, 场区西南水库 The reservoir in the southwest of the Wudaolin tree farm	04-12/04	10	刚来, 没分散 (据林场职工讲, 每年都有, 但没有今年多) 已经找到 2 个巢 Just arrived and not scattered. It was said the cranes came here annually, but this year was the most 2 nests were found
陈吉安农场 Chen Jian Farm	02-11/04	8	2 个以上繁殖对, 繁殖状况比较稳定 2004 年找到过巢 At least 2 breeding pairs, in stable status Nest was found here in 2004
茂岚水库 Maonan Reservoir	12/04	2	
鹿场农田 Luchang farmland	12/04	13	觅食 Feeding
伊南河 Yinnanhe	23/04	2	

3-5 至小群活动于森林湿地和附近的农田中。

调查过程中找到了 3 个白头鹤的巢, 见表 2。

其中至少有 10 个繁殖对。亚成体多结成

**表 2 2007 年大沽河湿地自然保护区白头鹤巢**  
**Table 2 Nests of Hooded Cranes in Dazhanhe N.R., 2007**

地点 Location	备注 Notes
五道林 Wudaolin No.2007--1 N48 55,E128 03	2 枚卵全部孵出幼鸟, 通过个体特征确认: 该巢的雌雄成鸟分别是 2005 年五道林 2 号巢的雌雄成鸟。两巢的距离为 703m。 2 eggs all hatched. The parents were the pair in No. 2 nest found in Wudaolin in 2005. The two nests were 703 m apart.
五道林 Wudaolin No.2007—2 N48 57,E127 57	有 1 枚无精卵 One egg was unfertilized
北沾河 Beizhanhe No.2007—2 N48 15,E128 16	巢边 2.7m 处有一旧巢, 经过仔细寻找, 发现了碎卵壳, 证明是以前 (2006 年的可能性更大) 繁殖成功的旧巢。 There was an old nest 2.7m away from it, broken egg shells were found in the old nest, it meant that the old nest has successfully bred (probably in 2006).

通过个体识别, 再次确认白头鹤有领域回归行为。

本次调查, 虽然取得了一定的成果, 但这个数字还不能够代表白头鹤在大沾河及其周

边地区的分布的实际情况。很遗憾, 南沾河林场的无人区 (大约 4 万 ha) 一直没能进入。

**郭玉民** (首都师范大学) **谷彦昌**、**谷金学**、**赵鹏程** (黑龙江大沾河湿地自然保护区)

## Survey on Hooded Cranes in Dazhanhe Wetland N.R. in the spring of 2007

A survey on Hooded Cranes in Dazhanhe Wetland N.R. was conducted from 25 March to 1 June. The surveyed area covers 300 000 ha, by excluding duplicated counting the authors made sure that there were 85 Hooded Cranes distributed in the reserve and its periphery areas (see table 1).

There were at least 10 breeding pairs in the area. The sub-adults mostly aggregated into small group of 3~5 cranes and moved about in forest wetland and neighboring farm land.

3 nests were surveyed (see table 2):

By individual identification the authors confirmed that the cranes showed returning territory behavior.

There is a no man land with an area of about 40 000 ha within Zhanhe Tree Farm, it waits for further survey.

**Guo Yu-Min** (Capital Normal University)  
**Gu Yan-Chang, Gu Jin-Xue, Zhao Peng-Cheng** (Heilongjiang Dazhanhe Wetland N.R.)

### 黑龙江新青白头鹤自然保护区鹤讯

黑龙江新青白头鹤自然保护区 (N48°19' E129°58'), 位于黑龙江省伊春市新青区境内, 地处小兴安岭北侧东坡, 总面积为 6.3 万 ha。

自 2006 年新青发现白头鹤以来, 当地政府十分重视。通过申报审批, 把原来的“新青驼鹿自然保护区”改名为“新青白头鹤自然保

护区”。先后申请了“白头鹤”和“修女鹤”商标、建设了“白头鹤之乡”雕塑群、印刷了“白头鹤之乡”宣传册。2007年4月，在白头鹤常出没的湿地建了临时观测点，组织人员在其它地点也开展了白头鹤分布和数量观察。

定点观察的记录显示：在观察点附近(N48°18' E129°35')有不少于9只(5只亚成

体, 2个繁殖对)白头鹤;此外在汤林林场(N48°20' E129°30')有4只(2+2至少1个繁殖对)、松林林场(N48°15' E129°33')有2只(繁殖对)、山杨小区(N48°17' E129°28')有2只(繁殖对)。虽然没有找到新的鹤巢,但记录了4次交配行为,见表1:

**表1 新青白头鹤交配行为记录**  
**Table 1 Mating behavior of Hooded Cranes in Xinqing N.R.**

日期, 时刻 Date, time	地点 Location	备注 Notes
12/04/ at 5:14	定点观察地 The fixed route observing site	持续时间 10 秒 Last 10 min
23/04 at 6:58	汤林林场 Tanglin Tree Farm	录制了白头鹤完整的交配过程 The mating process was videoed completely
02/05 at 6:20	定点观察地 The fixed route observing site	可能是不参加繁殖的亚成体 Perhaps they were non-breeding sub-adults
07/05 at 10:00	定点观察地 The fixed route observing site	可能是不参加繁殖的亚成体 Perhaps they were non-breeding sub-adults

同时记录了早春迁来的时间、繁殖对分布情况以及亚成体群的活动规律等。6月12日保护区工作人员在桦林林场(N48°12' E129°40')又发现了2个白头鹤雏鸟和2只成鹤。这样在保护区至少有19只白头鹤被记录,其中包括6个繁殖对、一个由5只亚成体组成的小群和2只难于判明情况的个体。

新青白头鹤自然保护区距离大沾河湿地

自然保护区大约 100 km。两个保护区最近的鹤巢相距 115.6 km。两个保护区自然生境十分相似。有同样生境的地方在大、小兴安岭还很多。根据所掌握的资料可以乐观地推测,在中国还有白头鹤的繁殖区有待发现。

郭玉民(首都师范大学生命科学院 100037) 费鸿崑 于云生(黑龙江新青白头鹤自然保护区 153036)

## Crane news from Heilongjiang Xinqing Hooded Crane N.R.

Heilongjiang Xinqing Hooded Crane N.R. (N48°19' E129°58') is located in Xinqing District, Yinchun City, Heilongjiang Province northeast of the Xiaoxinganling Mountain, with an area of 63 000 ha.

Since the finding of Hooded Cranes in Xinqing, the local government paid great attention to it. The former "Xinqing Moose N.R." was renamed "Xinqing Hooded Crane

N.R.". The government applied for the trademarks of "Hooded Crane" and "Nun Crane", set up the sculptures of "Home of Hooded Crane" and print propaganda booklets. A temporary observing spot was set up in the wetland where the crane appeared very often, crane survey also conducted in other places in the reserve.

Fixed route observation showed that: at

least 9 Hooded Cranes (5 sub-adults and 2 breeding pairs) were found near the observing spot (N48°18' E129°35') ; 4 cranes (2+2, at least with one breeding pair) in Tanglin Tree Farm (N48°20' E129°30') ; one breeding pair in Songlin Tree Farm (N48°15' E129°33') and one breeding pair in in Shanyangxiaoqu (N48°17' E129°28') . Four mating behaviors were recorded in table 1.

The arrival time of the cranes in early spring, the distribution of the breeding pairs and the regulation of the sub-adult activities were recorded either. Two adults and 2 nestlings were found in Huanlin Tree Farm (N48°12' E129°40') , so far, at least 19 cranes were recorded in the reserve, including 6 breeding

pairs, one sub-adult group of 5 cranes and 2 unidentified individuals.

Xinqing Hooded Crane N.R. is about 100 km away from Dazhanhe Wetland N.R., the shortest distance of crane nests between the two reserves is 115.6 km. Habitats of the two reserves were very similar, there are many similar habitats existing in Xiaoxinganling Mountain, it is hopeful to infer that more breeding sites of Hooded Cranes will be found in China.

**Guo YU-Min** (Life Sciences College, Capital Normal University, 100037 ) **Fei Hong-Kun, Yu Yun-Sheng** (Heilongjiang Xinqing Hooded Crane N.R. 153036)

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## **Safeguarding a Chain of Important Wetlands—the Midterm Review for our Siberian Crane Wetland Project**

Using the Charismatic and culturally significant Siberian Crane as a flagship species, the UNEP/GEF (United Nations Environment Programme / Global Environment Facility) “Siberian Crane Wetland Project” began in 2003. ICF is working with the government of four counties-China, Iran, Kazakhstan, and Russia--to develop a coordinated approach towards the conservation of internationally important wetlands along two flyways of the Siberian Crane. The project runs for six years. This summer, at the project mid-point, UNEP brought in an independent reviewer who guided us through a midterm review.

We are pleased to report on achievements. In China, in response to growing water shortages for wetlands in Northeast China, our project team obtained support from diverse government sectors to develop water and wetland restoration plans for project sites. We expect, early in 2007, that a high-level meeting will be convened to discuss coordination of water management for both human and

ecological needs.

Virtually 99% of the world's Siberian Cranes winter in the Poyang Lake Basin. To develop an informed response to threats from water development project, comprehensive wintering waterbird surveys and applied research are underway. These studies look at the fragile relationship between water levels, water plants, and waterbirds. To provide better long-term protection for cranes and other waterbirds throughout the lake basin, a network of 15 county level protection stations has been developed. Additional protected areas have been established, with total area increasing from 150 000 to over 201 900 hectares. One of the new sites, Nanjishan (33 300 hectares), is waiting for final approval as a national nature reserve.

In Russia, the Sterkh Foundation's work on raising public awareness has been exemplary. Activities included an international festival, films, booklets, statues, and a nine-story high Siberian Crane painted on an apartment

building! Colleagues in Yakutia are conducting research and monitoring on the breeding population and speeding up efforts to identify and protect important migratory stopover sites. Reforms within the Ministry of Agriculture have led to loss of staff and budget for federal level wildlife refuges (Zakazniks). Our project team is working with both federal and regional agencies to craft creative solutions to allow continued protection at the main Siberian Crane sites in West Siberia during this difficult transition.

In Kazakhstan, project implementation started nearly two years behind schedule due to government restructuring, but has boldly accomplished much. The team has developed innovative solutions to protected area reform and expanded the boundaries for the Naurzum Nature Reserve from 32 400 to over 191 000 hectares. They have produced a variety of high quality publications and developed curricula for schools. The government has recently signed the convention on migratory Species (CMS) and the Ramsar Convention on Wetlands.

In Iran, the government designated a Non-shooting Area and Ramsar Site to afford protection to the wintering grounds of the Siberian Crane on the private rice fields (Damgahs) and traditional duck trapping areas in Fereydoon Kenar. Duck trapper associations are meeting regularly, with significant progress towards community dialogue and participation. Along the Caspian Sea, Bujagh National Park

was established to protect important migratory bird habitat at the Sefid Rud River Delta.

ICF has worked with these four countries to strengthen international research and protection activities along the two flyways. A crane site network has been approved in Western and Central Asia under the CMS Memorandum of Understanding concerning Conservation Measures for the Siberian Crane and in cooperation with Wetlands International. Site nomination criteria and procedure have been approved and a list of sites developed with nine range countries. Highly popular and outstandingly creative Crane Day Celebrations are held at over 60 sites in nine countries inspiring children, local communities and governments, as well as potential donors.

The midterm review helped us to evaluate and revise our plans for the remaining three years. As we continue activities at site, national, and regional levels, we are seeking mechanisms that will enable key accomplishments to be sustained after the end of the project. We are deeply grateful to our colleagues in China, Iran, Kazakhstan, and Russia who have made these successes possible.

For more information see [www.scwp.info](http://www.scwp.info) and [www.sibeflyway.org](http://www.sibeflyway.org).

By **Claire Mirande**, GEF project Director  
(Selected from "The ICF Bugle" 32(4),  
Nov.2006)

## 维护重要湿地链——白鹤湿地项目中期述评

白鹤以其超凡魅力和文化意义而成为旗舰种。联合国环境署/全球环境基金会和中国、伊朗、哈萨克斯坦、俄罗斯等四个国家的政府共同为了保护沿着白鹤两条迁飞路线上的国际重要湿地而努力。项目计划进行 6 年，2006 年夏是项目进行到一半的阶段，联合国环境署引进独立评估人指导项目的执行者通过中期

评估。

项目取得了可喜的成就。

在中国，为解决东北日益严重的水荒，项目组从各政府部门获得支持，来实现恢复项目所在地的水位和湿地的计划。2007 年年初将要召开一个高级别的讨论会，讨论满足人和生态

需求的水资源的合作管理。全球的白鹤有 99% 在中国鄱阳湖流域越冬，为应对白鹤的威胁因素，鄱阳湖正在进行从开发水资源到越冬水鸟的全面调查和研究，研究关注水位、水生植物和水鸟间的脆弱关系。该研究为在鄱阳湖湖区的鹤类和其它水鸟提供了较好的长期保护。在鄱阳湖湖区已建立了 15 个县级保护站网络，保护区面积从 150 000 公顷增至 201 900 公顷；南矶山（33 300 公顷）国家级自然保护区正在待批中。

在俄罗斯，希望之鸟基金会在提高公众觉悟上树立了榜样。该基金会举办了一个与白鹤有关的国际节，放映白鹤电影，发放白鹤宣传册，建立白鹤雕塑，并将 9 层楼高的白鹤画在一个建筑物上！雅库特的同行们对白鹤的繁殖种群进行了研究和监测，加快了对白鹤重要迁飞途中停歇地的确定和保护。俄罗斯农业部的改革使联邦级的野生动物禁猎区扎卡尼克的人员和经费被砍，白鹤项目组与俄联邦级和地区级的机构合作，在这困难的过渡期为继续保护白鹤在西西伯利亚的主要繁殖地提出解决办法。

在哈萨克斯坦，由于政府的重建，白鹤项目的启动比原计划推迟了 2 年，但现在已取得了不小的成绩。项目组对保护区进行了改革，将瑙尔祖姆自然保护区的边界从 32 400 公顷扩大到 191 000 公顷。他们发行了各种高质量的出版物，为学校设立有关白鹤保护的课程，政府近来签署了迁徙物种公约和拉姆萨尔公

约。

在伊朗，政府指定白鹤在私人稻田的越冬湿地为禁猎区；指定传统的鸭类诱捕区费雷杜恩·凯纳尔为拉姆萨尔国际重要湿地。鸭类的诱捕者们定期碰头，在社区对话和社区活动参与上有了显著的进展。建立了沿里海的布亚吉国家公园，用来保护在塞菲河河口三角洲的重要迁徙鸟类的栖息地。

国际鹤类基金会和上述 4 国加强沿此两条白鹤迁飞路线的国际研究和保护活动。在理解有关白鹤保护措施的迁徙物种公约备忘录和与湿地国际的合作下，已批准了西亚和中亚的鹤类地点网，地点的提名标准和提名程序也已通过。已产生了包括 9 个有白鹤分布国家的白鹤地点名录。在 9 个国家的 60 多个白鹤地点举办了鹤节活动，鼓舞了儿童、地方社群和政府部门及潜在的捐助者。

中期回顾有助于项目参与者评估和修正今后 3 年的计划。当我们在有白鹤分布的地点、国家和区域水平上继续从事活动时，就能寻找出项目结束后仍然持续有效的关键机制。中国、伊朗、哈萨克斯坦和俄罗斯同行们的努力使成功变成可能。

需要更多的信息，请查 [www.scwp.info](http://www.scwp.info) 和 [www.sibeflyway.org](http://www.sibeflyway.org) 网页。

全球环境基金会白鹤项目主任 米兰德·克莱尔（杨兆芬译自 The ICF Bugle 32 卷 4 期，2006 年 11 月）

## Tibet Autonomous Region January 2007 Survey for Black-necked Crane, Common Crane, and Bar-Headed Goose

South-central Tibet historically has been the most important wintering area for

Black-necked Crane (*Grus nigricollis*) and Bar-headed Goose (*Anser indicus*) populations. In the early 1990's, surveys conducted by the International Crane Foundation and the Tibet Plateau Institute of Biology documented >3,900 cranes (Bishop 1993, Tsamchu and Bishop 2005) and estimated the Bar-headed Goose population between 13,000-14,500 birds (Bishop et al. 1997).

From 3-14 January 2007 the Tibet Plateau Institute of Biology and the International Crane Foundation conducted a joint survey for Black-necked Cranes and Bar-headed Geese. We drove >2,600 km over a period of 11 days, searching the major river valleys including the Lhasa, Yarlung, and Nyang as well as their major tributaries. Our efforts represented the first major survey for wintering cranes and geese since the 2003 establishment of the

Yarlung Zangbo River Middle Reaches Black-necked Crane Nature Reserve by the Tibet Autonomous Regional Government (Bishop and Tsamchu 2005).

We observed 6,940 Black-necked Cranes during our surveys, including more than 5,300 cranes (~76%) inside the boundaries of the new nature reserve. The largest foraging flock we observed (330 cranes) was located near Shigatse on the Aima Plateau. Based on our January 2007 results for Tibet and the most recent winter counts available for the Yunnan-Guizhou Plateau (Li and Yang 2005), and Bhutan (Royal Society for the Protection of Nature 2007 pers. commun. to G. Archibald), the estimated population of Black-necked Cranes is ~11,000 birds. Approximately 63% of the world's population winters in south-central Tibet (Table 1).

**Table 1. Black-necked Crane numbers by wintering area and survey date.**  
**表 1 越冬黑颈鹤调查数据**

Area 地区	Number 数量	Survey Date 调查日期	Source 资料来源
Tibet, 西藏	6,940	07/01, 2007	this paper. 本文
Yunnan/Guizhou 云南/贵州	3,562	01, 2004	Li & Yang 2005. 李凤山, 杨芳 2005
Bhutan, 不丹	462	2006/2007	Royal Society for Protection of Nature, 2007 保护自然皇家学会, 2007

During our surveys we also observed a total of 18 Common Cranes (*Grus grus*) including one family with 1 chick, and second family with 2 chicks. Common Cranes were always observed in mixed flocks with Black-necked Cranes. Most Common Cranes (15 of 18) were observed on or near the Lhasa River or on the eastern Yarlung River, around Gonggar.

We observed a record count of 31,955 Bar-headed Geese, almost double the population mid-1990's estimate (Bishop et al. 1997) for this same area. More than 8,000 geese were observed in the Nyang River valley, where they were especially concentrated

between Gyantse and Bainang (Gadong). In part because most of the Nyang River is not part of the new nature reserve, only 48% (15,500) of the geese we observed were located in the new nature reserve.

Despite the record numbers of cranes and geese observed during our surveys, both the Black-necked cranes and Bar-headed Geese continue to be vulnerable. Throughout their winter range there are rapid increases in human development and population pressures. As such, both Black-necked Cranes and Bar-headed Geese merit continued concern and conservation measures.



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## 2007 年 1 月在西藏自治区调查黑颈鹤，灰鹤和斑头雁

西藏东南部在历史上是黑颈鹤和斑头雁种群的最重要的越冬地。在 20 世纪 90 年代初期，国际鹤类基金会和西藏高原生物研究所的调查显示那里有 3 900 头以上的黑颈鹤，估计斑头雁种群在 13 000 至 14 500 头之间。

2007 年 1 月 3 日至 14 日，西藏高原生物研究所和国际鹤类基金会对黑颈鹤和斑头雁进行了联合调查。11 天内行程超过 2 600 千米，调查了包括拉萨河，雅鲁河和尼羊在内的主要河流的流域及其主要的支流。雅鲁藏布江黑颈鹤自然保护区是由西藏自治区政府于 2003 年成立的，此次调查是保护区成立以来对越冬鹤类和雁类的首次大规模的调查。

调查中发现 6 940 头黑颈鹤，包括在新保护区边界内的 5 300 头（占 76%）。在艾玛高原日喀则附近发现了最大群的觅食黑颈鹤（330 头）。基于本次在西藏的调查结果，结合最近在云贵高原和不丹的冬季调查，估计黑颈

鹤种群在 11 000 头，约占在西藏中东部越冬的全球种群数量的 63%。

调查中还共发现 18 头灰鹤，其中有 1 个家庭携带 1 头幼鹤，另 1 个家庭携带 2 头幼鹤。发现灰鹤时，它们总是和黑颈鹤混群。被发现的灰鹤大多数（18 头中的 15 头）是在拉萨河上或附近，或在贡嘎一带的雅鲁河上。

此次观察到的 31 955 头斑头雁，几乎是 20 世纪 90 年代在同一地区估计数的一倍。在尼羊河流域就发现了 8 000 多头斑头雁，斑头雁在此多集中在江孜和白朗（嘎东）。部分原因是尼羊的大部分不属于新保护区，此次在新保护区内仅发现了 48% (15 500 头) 斑头雁。

在本次调查中所记录的黑颈鹤和斑头雁的数量仍在易危范围内，但在它们的整个越冬区内，尽管在人类的开发和人口压力下它们的数量在迅速增长。因此黑颈鹤和斑头雁仍需继续关注并采取保护措施。

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## Banding and monitoring of Siberian Cranes in Yakutia

Several Siberian Cranes *Grus leucogeranus* were placed with satellite transmitters (PTTs –Platform transmitter terminals) under the sponsorship and logistical support of the International Crane Foundation (ICF) and the Research Center of Wild Bird Society of Japan from 1990-1996 (Germogenov and Solomonov, 1997; Germogenov et al. 1999; Germogenov et al. 2002; Germogenov et al., 2006, Harris et al., 1995; Kanai et al., 2002). More Siberian Cranes were banded in 2005 by the UNEP/GEF Project Development of a Wetland Site and Flyway Network for Conservation of the Siberian Crane and Other Migratory Waterbirds in Asia (Vladimirtseva and Germogenov, 2006; Markin et al. 2006).

Banding of Siberian Cranes of the eastern population was conducted in the breeding ground, Chroma-Indigirka tundra (70-71°30' N

– 143-149° E). The cranes were attached with metal (A and C series) and plastic color bands (including long bands with digits) and PTTs. Ground observations were made in the same breeding area as well as the winter grounds of the Poyang Lake National Nature Reserve (PLNNR) in the Yangtze river basin, southeastern China (29° N - 116° E).

A total of 68 birds are banded. Of them, 17 were strongly molting adults and 51 non-flying juveniles. For all the birds marked, the birds were coded as the following: Ad – mature bird, Sad – bird aged until 6 years old, Juv – flying chick, then comes a serial number of the captured bird among chicks or adults (ad+sad) of the year – two last figures.

Among the 68 birds, one Siberian crane (Juv 1-90, Ad 4-96) was captured twice, who was in the pair and molting in 1996 (table1 ).

Table1. Siberian Cranes banded in Yakutia and their sightings in China

表 1 在雅库特环志的并在中国发现的白鹤












No 环志 顺序 号	Bird age & number 年龄和 数量	Date of banding 环志日期	Places of bird banding and their sightings in China 白鹤被环志并在中国发现的地点	Legs 腿	
				Right 右	Left 左
1.	Juv 1-90 1990 年 环志的 第一头 幼鹤	1990.08.14	Southern shore of Khosukun lake, Square 42, from pair 36. Was re-caught on July 23, 1996, from pair 23 without chicks north of lake Brosokovskoye, 18 km from the place of ringing in 1990 (Ad 4-96). Yellow band 1 on the left leg, standard metal band (CMK in Rus) # 320887 on the right band. PTT # 19314 幼鹤在霍苏库湖南岸被环志，是第 36 对鹤的后代。1996 年 7 月 23 日在距其 1990 年被环志处 18 千米的布罗索科斯科耶湖的第 23 对鹤中再次被发现。左腿有一个黄色环，右腿有编号为 320887 的标准金属环 (CMK 俄罗斯)。PTT 号 19314。	320887	1

2.	Juv2-90	1990.08.14	Eastern shore of lake Brosokovskoye, Square 42. Chicks from one brood of pair 32. 幼鹤在布罗索科斯科耶湖东岸被环志, 是第 32 对鹤的后代之一。	320888	2
3	Juv3-90	1990.08.14	Eastern shore of lake Brosokovskoye, Square 42. Chicks from one brood of pair 32. This bird was sighted in Poyang Lake National Reserve in Nov 5-20, 1996 (information from M. Ueta) with yellow band 3 on the left leg. 幼鹤在布罗索科斯科耶湖东岸被环志, 是第 32 对鹤的另一个后代。 据 M. Ueta 报道, 此鹤于 1996 年 11 月 5~20 日在鄱阳湖保护区出现, 左腿有一个 3 号黄色环。	320889	3
4	Juv 4-90	1990.08.14	West of lake Kharkino, Square 31. From pair 1. 幼鹤在科尔吉诺湖西岸被环志, 是第 1 对鹤的后代。	320890	4
5	Juv 5-90	1990.8.25	North shore of Bytynai lake, Square 42. From pair 20. 幼鹤在贝特奈湖北岸被环志, 是第 20 对鹤的后代。	320882	5
6	Juv 6-90	1990.8.25	Southeastern shore of lake Bestrikey, Square 30. From pair 12. 幼鹤在贝斯特里凯湖东南岸被环志, 是第 12 对鹤的后代。	320883	6
7	Juv 7-90	1990.8.25	West shore of Ulakhan-Quel, Square 30. From pair 8. 幼鹤在乌拉尔-克尔湖西岸被环志, 是第 8 对鹤的后代。	320884	7
8.	Juv 8-90	1990.8.25	Northwestern shore of lake Ulakhan-Quel, Square 30. From pair 9. 幼鹤在乌拉尔-克尔湖西岸被环志, 是第 9 对鹤的后代。	320885	8
9.	Juv 9-90	1990.8.26	North-west of lake Ebelyakh, Square 53. From pair 3. 幼鹤在埃别尔亚赫湖西北岸被环志, 是第 3 对鹤的后代。	320886	9
10.	Juv 1-91 1991	1991.8.10	Southeastern shore of lake Jukarskoye, Square 42. From pair 7. 幼鹤在朱卡尔斯克耶湖东南岸被环志, 是第 7 对鹤的后代。	234001	0 1
11.	Juv 2-91	1991.8.10	Southeastern shore of lake Banyl, Square 42. Possible from pair 3 but rather from pair 16. 幼鹤在班尼尔湖东南岸被环志。幼鹤可能是第 3 对鹤的后代、更可能是第 16 对鹤的后代。	234002	0 2
12.	Juv 3-91	1991.8.10	Western shore of lake northeastward from lake Bytynai, Square 42. From pair 19. 幼鹤在贝特奈湖西岸被环志, 幼鹤是第 19 对鹤的后代。	234003	0 3
13	Juv 4-91	1991.8.10	North of lake Banyl-swamp Kosukhino, Square 42. From pair 40. Bird was sighted in Poyang Lake Reserve in Nov 5-20, 1996 (information from M. Ueta) with white band 04 on the left leg. 幼鹤在科苏克伊诺班尼沼泽北岸被环志, 幼鹤是第 40 对鹤的后代。该鹤于 1996 年 11 月 5 日至 20 日在鄱阳湖保护区被发现, 鹤的左腿上有 04 号白色环。	234004	0 4
14	Juv 5-91	1991.8.10	System of small lakes south of lake Mutninskoye, Square 31. From pair 8. Bird was sighted in Poyang Lake Reserve in Nov 5-20, 1996 (information from M. Ueta) with white band 05 on the left leg. 幼鹤在穆特尼恩斯科耶湖南部的小湖网被环志, 幼鹤是第 8 对鹤的后代。该鹤于 1996 年 11 月 5 日至 20 日在鄱阳湖保	234005	0 5

			护区被发现，鹤的左腿上有 05 号白色环。		
15	Juv 6-91	1991.8.10	Southwestern shore of lake Sagarychye, Square 4. From pair 10. 幼鹤在萨加雷赫耶湖西南岸被环志，幼鹤是第 10 对鹤的后代。	234006	06
16.	Juv 7-91	1991.8.11	In the area of peninsula of lake Banyl, Square 42. From pair 4. 幼鹤在班尼尔湖半岛区被环志，幼鹤是第 4 对鹤的后代。	234007	07
17.	Juv 8-91	1991.8.11	Westwards of lake Brosokovskoye, northwards of lake Oyuttar-Quellerya, Square 42. From pair 29 幼鹤在布罗索科斯科耶湖西岸和奥尤塔尔-克里尔雅湖北岸被环志，幼鹤是第 29 对鹤的后代。	234009	08
18.	Juv 9-91	1991.8.11	Neck between lakes Bytynai and Banyl, Square 42. From pair 15. 幼鹤在贝特奈湖和班尼尔1湖之间的狭窄处被环志，幼鹤是第 15 对鹤的后代。	234009	09
19	Juv 10-91	1991.8.11	Southwestern shore of Bytynai lake, Square 42. Chicks of one pair 21. 幼鹤在贝特奈湖西南岸被环志，幼鹤是第 21 对鹤的后代之一。	234011	10
20	Juv 11-91	1991.8.11	Southwestern shore of Bytynai lake, Square 42. Chicks of one pair 21. Bird was sighted in Poyang Lake Reserve in November, 5-20, 1996 (information from M. Ueta) with white band 11 on the left leg. 幼鹤在贝特奈湖西南岸被环志，幼鹤是第 21 对鹤的另一个后代。该鹤于 1996 年 11 月 5 日至 20 日在鄱阳湖保护区被发现，鹤的左腿上有 11 号白色环。	234012	11
21	Juv 12-91	1991.8.11	East of lake Ulakhan-Quel, Square 30. From pair 9. Bird was seen in Poyang Lake Reserve in November, 5-20, 1996 (information from M. Ueta) with metal band on the right and white band 12 on the left legs. 幼鹤在乌拉尔-克尔湖东部被环志，幼鹤是第 9 对鹤的后代。该鹤于 1996 年 11 月 5 日至 20 日在鄱阳湖保护区被发现，鹤的左腿上有 12 号金属环。	234013	12
22.	Juv 1-92	1992.8.13	Southwestern shore of lake Banyl, Square 42. PTT # 01029. From pair 3. 幼鹤在班尼尔湖西南岸被环志，PTT 号 01029。幼鹤是第 3 对鹤的后代。	234018	01
23.	Juv 2-92	1992.8.13	East of lake Omuk-Quelya, Square 41). From pair 1. 幼鹤在奥穆克-克尔雅湖西南岸被环志，幼鹤是第 1 对鹤的后代。	-	02
24.	Juv 3-92	1992.8.13	North of lake Alexeychan, Square 41. From pair 6 幼鹤在亚历克塞昌湖北部被环志，幼鹤是第 6 对鹤的后代。	234016	03
25.	Juv 4-92	1992.8.13	West of lake Qulumer, Square 30. From pair 17 幼鹤在库卢迈尔湖西部被环志，幼鹤是第 17 对鹤的后代。	234017	04
26.	Juv 5-92	1992.8.21	North of lakes Ulakhan-Quel and Alexandra, Square 54. PTT # 04029. From pair 1. 幼鹤在乌拉尔-克尔湖和亚历山大湖的西部被环志，PTT 号 04029。幼鹤是第 1 对鹤的后代。	234019	05

27.	Juv 6-92	1992.8.21	On the lakeside near yedomo (hill) Khadar south of lake Banyl, Square 42. From pair 5. 幼鹤在班尼尔湖南部的哈多尔叶多马附近的湖边被环志, 幼鹤是第 5 对鹤的后代。	234020	06
28.	Juv 7-92	1992.8.21	On the neck between lakes Qulumer and Uolar-Quel, Square 41. From pair 11. 幼鹤在庫卢迈尔湖和乌拉尔-克尔湖之间的狭窄处被环志, 幼鹤是第 11 对鹤的后代。	234021	07
29.	Juv 8-92	1992.8.21	Between lakes Uolar-Quel and Omuk-Quelya, Square 41. From pair 9. 幼鹤在乌拉尔-克尔湖和奥穆克-克尔雅湖之间被环志, 幼鹤是第 9 对鹤的后代。	234022	18
30.	Juv 9-92	1992.8.21	South-east of lake Dolgunnakh, Square 41. From pair 2. 幼鹤在多尔贡纳克湖东南部被环志, 幼鹤是第 2 对鹤的后代。	234023	09
31.	Juv 1-93	1993.8.12	Peninsula on western shore of lake Brosokovskoye, Square 42. From pair 33. 幼鹤在布罗索科斯科耶湖西岸的半岛上被环志, 幼鹤是第 33 对鹤的后代。	01	
32.	Juv 2-93	1993.8.12	Western shore of lake Banyl, Square 42. From pair 16. The band was turned up by mistake during installing. 幼鹤在班尼尔湖西岸被环志, 幼鹤是第 16 对鹤的后代。环在安装时颠倒了方向。	10	
33.	Juv 3-93	1993.8.12	North-west of lake Oyuttar-Quelerya, Square 42. From pair 14. 幼鹤在奥尤塔尔-克里尔雅湖的西北岸被环志, 幼鹤是第 14 对鹤的后代。	05	
34.	Juv 4-93	1993.8.13	Northern shore of lake Pestrenkey, Square 30. From pair 7. 幼鹤在佩斯特伦基湖的北岸被环志, 幼鹤是第 7 对鹤的后代。	07	
35.	Juv 5-93	1993.8.13	Area of lake Ushkan, Square 53. From pair 4. 幼鹤在乌什坎湖区被环志, 幼鹤是第 4 对鹤的后代。	08	
36.	Juv 6-93	1993.8.15	North-west of lake Brosokovskoye, Square 42. From pair 31. 幼鹤在布罗索科斯科耶湖的西北部被环志, 幼鹤是第 31 对鹤的后代。	09	
37.	Juv 7-93	1993.8.15	System of small lakes south of lake Mutninskoye, Square 31. From pair 8. Bird was seen in Poyang Lake Reserve in November, 5-20, 1996 (information from M. Ueta) with blue band 10 on the left leg; and at the same place by Britain ornithologists in December, 2-6, 1997, also with blue band 10 on the left leg information from G. Archibald. 幼鹤在穆特尼恩斯科耶湖南部的小湖网被环志, 幼鹤是第 8 对鹤的后代。该鹤于 1996 年 11 月 5 日至 20 日在鄱阳湖保护区被发现, 鹤的左腿上有 10 号蓝色环。1997 年 12 月 2 日至 6 日, 英国鸟类学家在同一地点也发现了同一头鹤。	10	
38.	Ad 1-93 1993 年 环志的第 一头性成 熟鹤	1993.8.12	East of lake Oyuttar-Quellere, Square 42. From pair 10 with a chick. PTT # 20257. 成年鹤在奥尤塔尔-克里尔雅湖的东部被环志, 是携带 1 头幼鹤的第 10 对鹤中的一头。		03

39.	Ad 2-93	1993.8.13	North of lake Sagarychye, Square 41. From pair 7 without chicks. PTT # 20255. 成年鹤在萨加雷赫耶湖北部被环志，是没有幼鹤的第 7 对鹤中的一头。 PTT 号为 20255.	0 6	
40.	Juv 1-94	1994.8.16	Southern shore of lake Khosukun, Square 42. From pair 36. Bird was seen in Poyang Lake Reserve in November, 5-20, 1996 (information from M. Ueta) two times, in one case with yellow band 10 on the left leg, in the other-with blue band 11 on the left (!) leg and yellow band on right (!); in the same place Mark Beaman and D.E. Sergeant saw this bird (or Juv 2-94, or Juv 3-94) in December, 2, 1997 (information from J.T. Harris) with blue band on right leg and yellow band on left leg; and Britain ornithologists saw this bird in December, 2-6, 1997 (information from G. Archibald), with blue band 11 on left leg and yellow 10 on the right one! 幼鹤在霍苏库湖的南岸被环志，是第 36 对鹤的后代。该鹤在鄱阳湖保护区于 1996 年 11 月 5~20 日发现过两次，一次见到左腿上有 10 号黄色环，另一次见到左腿上有 11 号蓝色环而右腿上有黄色环。Mark Beaman 和 D.E. Sergeant 于 1997 年 12 月 2 日在同一地点看见过这头鹤（或 Juv 2-94, 或 Juv 3-94），其右腿有蓝色环左腿有黄色环。不列颠鸟类学家于 1997 年 12 月 2~6 日看见左腿上有 11 号蓝色环而右腿上有黄色环的同一头鹤。	1 1	1 0
41.	Juv 2-94	1994.8.16	South-west of lake Jukarskoye, Square 42. From pair 39. Bird was seen in Poyang Lake Reserve in November, 5-20, 1996 (information from M. Ueta) with yellow band 11 on the left leg and blue band 12 on the right one. This bird (either J 1-94 or J 3-94) was seen in the same place by Mark Beaman and D.E. Sergeant in December, 2, 1997 (information from J.T. Harris) with yellow band on the left leg and blue band on the right leg. 幼鹤在朱卡尔斯克耶湖西南部被环志，是第 39 对鹤的后代。在鄱阳湖保护区于 1996 年 11 月 5~20 日发现过，左腿上有 11 号黄色环，右腿上有 12 号蓝色环。Mark Beaman 和 D.E. Sergeant 于 1997 年 12 月 2 日在同一地点看见过这头鹤（J 1-94 或 J 3-94），它左腿上有黄色环，右腿上有蓝色环。	1 2	1 1
42.	Juv 3-94	1994.8.16	Southwestern shore of lake Oyuttar-Quyellyarya, Square 42. From pair 9. This bird (or may be one of the two J 2-94 or J 1-94) was seen in Poyang Lake Reserve by Mark Beaman and D.E. Sergeant in December, 2, 1997 (information from J.T. Harris), with yellow band on the left leg and blue band on the right leg (J.T. Harris). 幼鹤在奥尤塔尔-克里尔雅湖西南岸被环志，是第 9 对鹤的后代。Mark Beaman 和 D.E. Sergeant 于 1997 年 12 月 2 日在鄱阳湖保护区看见过这头鹤（或者是 J 2-94 和 J 1-94 中的一个），左腿上有黄色环，右腿上有蓝色环。	1 3	1 2
43.	Juv 4-94	1994.8.16	North of lake Banyl, Square 42. From pair 13. Bird was seen in Poyang Lake Reserve in November, 5-20, 1996 (M. Ueta) with red band on the right leg and blue one - on the left leg (information from M. Ueta). 幼鹤在班尼尔湖北部，是第 13 对鹤的后代。1996 年 11 月 5-20	1 5	1 0


44	Ad 1-95	1995.8.3	<p>日曾在鄱阳湖保护区被发现，右腿上有红色环，左腿上有蓝色环。</p> <p>East of lake Khosukun, Square 42. From pair 22 with a chick. 成年鹤在霍苏库湖东部被环志，是带有 1 头幼鹤的第 22 对鹤中的一头。</p>		<b>234040</b>	
45	Ad 2-95	1995.8.3	<p>Low place west of southern shore of lake Brosokovskoye, Square 42. From pair 33 without chicks. PTT # 21627. 成年鹤在布罗索科斯科耶湖南岸的西部低洼处被环志，PTT 号为 21627。来自没有幼鹤的第 33 对鹤。</p>		<b>234041</b>	
46	Ad 3-95	1995.8.5	<p>North-west of lake Sagarychye, Square 41. From pair 8 with a chick. PTT # 21628. 成年鹤在萨加雷赫耶湖西北部被环志，PTT 号为 21628。来自带有 1 头幼鹤的第 8 对鹤。</p>		<b>234039</b>	
47	Ad 4-95	1995.8.6	<p>Neck of lake Uolar-Quel, Square 41. From pair 9 without chicks. PTT # 21420. Bird was seen in Poyang Lake Reserve in November, 5-20, 1996 (information from M. Ueta) with blue band 16 on the left leg and in the same place Mark Beaman and D.E. Sergeant saw it in December, 2, 1997 (information from J.T. Harris) with blue band with a number on the right leg; and white and blue on the left leg 成年鹤在乌拉尔-克尔湖的颈部被环志，携带 21420 号 PTT。来自无幼鹤的第 9 对鹤。1996 年 11 月 5-20 日曾在鄱阳湖保护区被发现，左腿上有 16 号蓝色环。Mark Beaman 和 D.E. Sergeant 于 1997 年 12 月 2 日在鄱阳湖保护区看见过这头鹤右腿上有具数字的蓝色环，左腿上有白色和蓝色环。</p>	<b>234038</b>		
48.	Juv 1-95	1995.8.10	<p>East of lake Ulakhan-Quel, Square 31. The only chick of pair 13. Bird was seen in Poyang Lake Reserve (Lake Si Xia) in December, 6, 1998 (Zhao Jin-Sheng, 1999) with red band 11 on the left leg and a short white band on the right; then Jeb Barzen sighted this bird in November-December, 1999 (information from Smirenski Sergey, December, 2, 1999) with red band 11 on the left leg and short white band on the right. 幼鹤在乌拉尔-克尔湖的东部被环志，是第 13 对鹤的仅有的 1 头幼鹤。1998 年 12 月 6 日曾在鄱阳湖保护区寺下湖被发现，左腿上有 11 号红色环，右腿上有白色短环。1999 年 11~12 月 Jeb Barzen 看见左腿上有 11 号红色环，右腿上有白色短环的同一头鸟。</p>	<b>234057</b>		
49	Juv 2-95	1995.8.10	<p>East of lake Ulakhan-Quel, Square 31. The only chick of pair 12. Bird was seen in Poyang Lake Reserve in December, 2, 1997, by</p>	<b>234045</b>		



			<p>Mark Beaman and D.E. Sergeant (J.T. Harris) with a short green band on the right leg and red long band 12 on the left leg; and at the PLR, at Lake Si Xia in December 6, 1998, it was seen with red 12 (possibly it is 13 and if so, it may be individual Ad 9-96) on the right leg and short green band on the left leg (Zhao Jin-Sheng, 1999).</p> <p>幼鹤在乌拉尔-克尔湖的东部被环志，是第 12 对鹤的仅有的 1 头幼鹤。Mark Beaman 和 D.E. Sergeant 曾于 1997 年 12 月 2 日在鄱阳湖保护区看见过这头鹤。右腿上有绿色短环，左腿上有 12 号红色长环。1999 年 12 月 6 日在鄱阳湖保护区的 Si Xia 湖看见，右腿上有 12 号红色环（可能是 13 号，若如此则是 Ad 9-96 鹤），左腿上有绿色短环。</p>		
50	Ad 1-96	1996.7.19	<p>East of lake Oyun-Quel , Square 50. From pair 1 without chicks. PTT # 19312.</p> <p>Bird was seen in Poyang Lake Reserve in December, 2, 1997 by Mark Beaman and D.E. Sergeant, with short blue band on the right leg and short white band on the left (information from J.T. Harris).</p> <p>成年鹤在奥云克尔湖被环志，携带 19312 号 PTT。来自无幼鹤的第 1 对鹤。Mark Beaman 和 D.E. Sergeant 曾于 1997 年 12 月 2 日在鄱阳湖保护区看见过这头鹤，其右腿上有蓝色短环，左腿上有白色短环。</p>	 <b>234048</b>	
51	♂? Ad 2-96	1996.7.19	<p>South-east of lake Banyl, Square 42. From pair 6 without chicks. PTT # 19315.</p> <p>成年鹤在班尼尔湖东南部被环志，携带 19315 号 PTT。来自无幼鹤的第 6 对鹤。</p>	 <b>234046</b>	
52	Ad 3-96	1996.7.20	<p>Eastern shore of lake Kubalakh, Square 53. From pair 8 with chick? PTT # 19313.</p> <p>成年鹤在库巴拉赫湖东岸被环志，携带 19313 号 PTT。来自携带幼鹤的第 8 对鹤。</p>		
(1)	Ad 4-96	1996.7.23	<p>North of lake Brosokovskoye, Square 42. Juv 1-90 is the same bird. Was captured secondly from pair 23 without chicks 18 km from the place of banding in 1990. PTT # 19314.</p> <p>成年鹤在布罗索科斯科耶湖北部被环志，携带 19314 号 PTT。即 1990 年的 Juv 1-90 鹤，再次在离首次环志地 18 km 处的无幼鹤的第 23 对鹤中被捕捉和再环志。</p>		
53	Sad 5-96 1996 年 环志的 第五头 不足 6 岁 成年鹤	1996.7.23	<p>Northern coast of lake Khosukun, Square 42. Pair 24 without chicks. PTT # 21629 and # 25327.</p> <p>该不足 6 岁的鹤在霍苏库湖北岸被环志，携带 21629 号和 25327 号 PTT。来自无幼鹤的第 24 对鹤。</p>	<b>234055</b> 	
54	Sad 6-96	1996.7.23	<p>Northern coast of lake Khosukun, Square 42. Pair 24 without chicks. PTT # 21629 and # 25327.</p>	<b>234050</b>	



			<p>This pair with a non-banded chick was registered in Poyang Lake Reserve by Mr. Ji Weitao in November, 16, 2003. One bird has a short green band on the left leg, the other- a short white band on the right leg (Information from Simba Chan).</p> <p>该不足 6 岁的鹤在霍苏库湖北岸被环志, 携带 21629 号和 25327 号 PTT。这对鹤和 1 头未环志的幼鹤曾被纪伟涛先生于 2003 年 11 月 16 日记录在鄱阳湖保护区。一头鹤的左腿上有绿色短环, 另一头鹤的右腿上有白色短环。</p>		
55	Sad 7-96	1996.7.23	<p>West of lake Khosukun, Square 42. From pair 27 without chicks near the colony of loons. PTT # 22447.</p> <p>该不足 6 岁的鹤在霍苏库湖西岸被环志, 携带 22447 号 PTT。来自一群潜鸟边的无幼鹤的第 27 对鹤。</p>		
56	Sad 8-96	1996.7.23	<p>North of lake Oyuttar-Quyellyarya, Square 42. From pair 13? without chicks. PTT# 22446</p> <p>该不足 6 岁的鹤在奥尤塔尔-克里尔雅湖北部被环志, 携带 22446 号 PTT。来自无幼鹤的第 13? 对鹤。</p>		
57	Ad 9-96	1996.7.29	<p>South of lake Banyl, Square 42. From pair 2 without chicks. PTT # 22452 for Ad 10-96</p> <p>成年鹤在班尼尔湖南部被环志, Ad 10-96 鹤携带 22452 号 PTT。来自无幼鹤的第 2 对鹤。</p>		
58	Ad 10-96	1996.7.29	<p>South of lake Banyl, Square 42. From pair 2 without chicks. PTT # 22452 for Ad 10-96.</p> <p>Bird Ad 9-96 was seen in Poyang Lake Reserve by Britain ornithologists on 2-6 Dec, 1997 with red band 13 on the right leg, short green band on the left (information from G. Archibald); the same bird was seen in PLR, lake Si Xia, on 6 Dec, 1998, with red band 13 (possible 12!, and if so, it is Juv 2-95) on the right! leg and short green – on the left leg! (Zhao Jin-Sheng, 1999); Jeb Barzen also saw this bird in Nov–Dec, 1999 with red band 13 on the right leg and short green band on the left leg (Information from S. Smirenski of Dec 2, 1999).</p> <p>成年鹤在班尼尔湖南部被环志, Ad 10-96 鹤携带 22452 号 PTT。来自无幼鹤的第 2 对鹤。Ad 9-96 鹤于 1997 年 11 月 2-6 日在被不列颠鸟类学家在鄱阳湖保护区看见, 其右腿上有 13 号红色环, 左腿上有绿色短环。该鹤于 1998 年 11 月 6 日在鄱阳湖保护区的寺下湖再次被看见, 其右腿上有 13 (可能是 12 号, 若如此它就是 Juv 2-95 鹤) 号红色环, 左腿上有绿色短环。Jeb Barzen 也于 1999 年 11~12 月看见该鹤, 其右腿上有 13 号红色环, 左腿上有绿色短环。</p>		
59	♀Ad 11-96	1996.7.29	<p>South-east of lake Banyl, Square 42. Both from pair 5 without chicks. PTT # 25328Ad for 12-96 installed.</p> <p>Bird Ad 11-96 was registered by Britain ornithologists in Poyang Lake Reserve in 2-6, December, 1997: with red band 15 on the right leg and with short white band on the left leg! (Information from G. Archibald).</p> <p>2 头成年鹤在班尼尔湖东南部被环志, 携带 25328 号 PTT 的是 12-96 安装的成年鹤。来自无幼鹤的第 5 对鹤。Ad 11-96 鹤于 1997 年 12 月 2~6 日记录于鄱阳湖保护区, 其右腿上有 15 号红色环, 左腿上有白色短环。</p>		

60	♂Ad 12-96	1996.7.29	South-east of lake Banyl, Square 42. Both from pair 5 without chicks. PTT # 25328Ad for 12-96 installed. Bird Ad 12-96 with non-working PTT died (or killed) near lake Jiang-Han, close to village Gantang, in Huangpi County in November, 1996: 30°44' N, 114°28' E. Only colored bands were sighted: red 16 on the right leg and short yellow on the left leg (Hu Yjng-Xing, 1998). 2 头成年鹤在班尼尔湖东南部被环志, 携带 25328 号 PTT 的是 12-96 安装的成年鹤。来自无幼鹤的第 5 对鹤。携带不工作 PTT 的 Ad 12-96 鹤, 于 1996 年 12 月死在 (或被杀于) 湖北省黄陂县汉江湖附近的甘棠镇边: 30°44' N, 114°28' E. 其右腿上有 16 号红色环, 左腿上有黄色短环。	<b>16</b>	
61.	Juv 1-05	2005.8.17	South-east of lake Banyl, Square 42. The only chick from pair 6. 幼鹤在班尼尔湖东南部被环志, 是第 5 对鹤的唯一的幼鹤。	<b>145980</b>	<b>174</b>
62.	Juv 2-05	2005.8.17	South-west of lake Jukarskoye, Square 42. Single chick from pair 39. 幼鹤在朱卡尔斯克耶湖西南部被环志, 是第 39 对鹤的唯一的幼鹤。	<b>145958</b>	<b>175</b>
63.	Juv 3-05	2005.8.17	South-east from lake Jukarskoye, Square 42. Single chick from pair 7. 幼鹤在朱卡尔斯克耶湖东南部被环志, 是第 7 对鹤的唯一的幼鹤。	<b>145959</b>	<b>176</b>
64.	Juv 4-05	2005.8.17	System of lakes south-west of lake Khosukun, Square 42. Single chick from pair 35. 幼鹤在霍苏库湖的西南湖系被环志, 是第 35 对鹤的唯一的幼鹤。	<b>145960</b>	<b>177</b>
65.	Juv 5-05	2005.8.17	North of lake Brosokovskoye, Square 42. Single chick from pair 23. Young rusty Siberian crane Juv 5-05 with white band 194 on the left leg and metal band on the right leg was sighted by bird lovers at Poyang Lake, Dec, 2, 2005 (Information from S. Chan). 幼鹤在布罗索科斯科耶湖北部被环志, 是第 23 对鹤的唯一的幼鹤。Juv 5-05 鹤是锈色的幼鹤, 于 2005 年 12 月 2 日被爱鸟者在鄱阳湖发现, 其左腿上有 194 号白色环, 右腿上有金属环。	<b>145962</b>	<b>194</b>
66.	Juv 6-05	2005.8.17	North-east of lake Oyuttar-Quyellyarya, Square 42. Single chick from pair 10. Ad 1-93 is one of the parents. 幼鹤在奥尤塔尔-克里尔雅湖的东北部被环志, 是第 10 对鹤的唯一的幼鹤。Ad 1-93 鹤是其双亲之一。	<b>145963</b>	<b>195</b>
67.	Juv 7-05	2005.8.17	North of lake Oyuttar-Quyellyarya, Square 42. Single chick from pair 14. 幼鹤在奥尤塔尔-克里尔雅湖的北部被环志, 是第 14 对鹤的唯一的幼鹤。	<b>145964</b>	<b>196</b>
68.	Juv 8-05	2005.8.17	North-eastern shore of lake Banyl, Square 42. ). Single chick from pair 12. 幼鹤在班尼尔湖东北岸被环志, 是第 12 对鹤的唯一的幼鹤。	<b>145965</b>	<b>197</b>

**320887**

- Standard metal band for bird banding in Russia





Of 39 birds banded by year 1994, 11 were sighted in January 1994 at Poyang Lake (J. Harris, O. Goroshko, Y. Labutin et al., 1995). It was the first evidence of Siberian cranes from the eastern population wintering in China. Of 8 young Siberian Cranes banded on August 17, 2005 in Yakutia, only one Juv 1-05 or Juv 5-5 occurred wintering in the Poyang Lake Nature Reserve. A total of 22 birds (identified) out of 68 were recorded at Poyang Lake since 1994 to 2005 (sometimes more than once during a season and in different years): 13 of them banded as chicks and 9 adults.

We learned that adult and juvenile birds can loosen metal bands. For example, there was no metal bands on the bird captured in Yakutia for the second time (Juv 1-90/ Ad 4-96) and on the one in Poyang Lake reserve in January 1994 (J. Harris, O. Goroshko, Y. Labutin et al., 1995). Siberian crane Ad 12-96 that died in China on 4 November 1996 also had only colored plastic bands and the PTT attached (Hu Hong-Xing, 1998).

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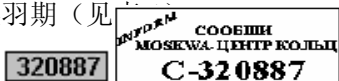
## 在雅库特对白鹤的环志和监测

在国际鹤类基金会和和日本野鸟学会研究中心的发起和帮助下, 1990~1996 年为几头白鹤安装了卫星平台发射终端(PTT), 2005 年

联合国环境基金会 / 全球环境署的项目 " 发展保护白鹤和其他迁徙水鸟在亚洲的湿地和迁飞路线网络 " , 促使环志更多的白鹤。

白鹤的东部种群的环志在其繁殖地克罗马-因迪吉尔卡 (Chroma-Indigirka) 苔原 (70-71°30' N - 143-149° E) 进行。给鹤安装了 A 和 C 系列的金属环和包括有数字长环的彩色塑料环, 以及卫星平台发射终端(PTT)。在其繁殖地和越冬地-中国东南部长江流域的鄱阳湖国家级自然保护区 (29° N - 116° E) 进行地面观察。

共环志了 68 头白鹤, 其中的 17 头是正在换羽的成年鹤, 其余 51 头是无飞行能力的幼鹤。按以下的编码对所有的鹤进行环志: Ad-性成熟的鹤, Sad-不足 6 岁的鹤, Juv-能飞行的幼鹤。被发现的环志鹤, 其编码的最后两个数字是幼鹤或成年鹤 (性成熟鹤和不足 6 岁的鹤) 被环志的年代。在被环志的 68 头白鹤中, 有 1 头被发现两次 (一次是于 1990 年环志的第一头幼鹤, 另一次是 1996 年于环志的第四头性成熟鹤), 1996 被捕捉时正处于配对和换羽期 (见



在俄罗斯环志鸟类的标准金属环。

在 1994 年环志的 39 头白鹤中, 有 11 头当年就在鄱阳湖被发现, 首次证实了白鹤的东部种群在中国越冬。2005 年月 17 日在雅库特环志的 8 头幼鹤, 其中只有 Juv 1-05 或 Juv 5-5 在鄱阳湖越冬。自 1994 年到 2005 年, 在 68 头环志的白鹤中共有 22 头在鄱阳湖越冬, 其中有 13 头在幼鹤期被环志, 9 头在成年期被环

志。

成年鹤和幼鹤都会丢失金属环, 例如, 在雅库特再次捕捉到的环志鹤(Juv 1-90/ Ad 4-96) 均没有金属环, 1994 年 1 月在鄱阳湖捕捉到的一头环志鹤也没有金属环。于 1996 年 11 月死于中国的 Ad 12-96 号白鹤, 身上也只有一个彩色塑料环和一个 PTT。

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### 2006 年度环鄱阳湖越冬水禽的物种及数量调查

2006 年 12 月 15 日~23 日, 鄱阳湖国家级自然保护区管理局在江西师范大学鄱阳湖生态环境与资源研究重点实验室及中科院遥感科学国家重点实验室的共同资助下, 首次独

立完成了环鄱阳湖越冬水禽调查工作。此次调查范围涉及环鄱阳湖地区的南昌 (县)、新建、进贤、永修、星子、共青城、都昌、九江县、庐山区、湖口、彭泽、余干、鄱阳、瑞昌(市)14

个区、县, 调查区域面积约 2540km<sup>2</sup>。此次调查选择了越冬候鸟最集中的时期, 且每日天晴雾薄, 能见度较高, 调查进展顺利。

此次调查共统计到水禽 75 种, 总数量达到 52 万多只, 其中仅雁形目水禽数量就达到 38 万多只。有 9 处水禽总数量各自超过了国际重要湿地标准数量 2 万只, 其中鄱阳湖保护区内就有沙湖、大湖池、大汉湖、中湖池和蚌湖这 5 处。数量最高的是保护区内的沙湖, 达 9 万只以上 (其中仅鸿雁、白额雁和小天鹅三个物种的总数量就超过了 7 万只)。

就物种来说, 调查到的被 IUCN 列入受胁物种的有白鹤 (CR)、东方白鹤 (EN)、鸿雁 (EN)、小白额雁 (VU)、花脸鸭 (VU)、青头潜鸭 (VU)、白头鹤 (VU)、白枕鹤 (VU)、遗鸥 (VU) 和黑嘴鸥 (VU) 共 10 个物种。有 22 个物种的种群数量达到国际重要湿地的 1% 标准。白鹤数量 2700 余只, 与近年来数量基本相当, 并且发现仍然主要集中在鄱阳湖保

护区范围内或周边邻近地区。白头鹤 359 只, 白枕鹤 1757 只, 灰鹤 1361 只, 其中白头鹤与白枕鹤绝大部分都分布在保护区及濒临保护区的共青城、南湖等地, 而灰鹤则主要分布于赣江南支附近的几个湖泊周边的草洲上。其余一些重要物种分别有: 东方白鹤 3000 多只, 白琵鹭 8000 多只, 小天鹅 80 000 多只, 鸿雁 70 000 多只 (根据 2006 年保护区开展的常规监测, 发现有时仅保护区一个湖泊内就停栖着近 7 万只鸿雁), 白额雁则达到 110 000 多只。

本次调查数据结合其他年份、其他组织形式开展的环湖调查结果, 可以更全面的反映整个鄱阳湖区的越冬水禽分布及动态变化, 以及一些珍稀物种的重要分布地, 为分析鄱阳湖生态系统的动态变化规律、以及合理制定鄱阳湖区域整体规划和生物多样性保护提供重要参考依据。

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## Survey on species and their number of wintering waterbirds in surrounding Poyang Lake area in 2006

Financed by the Key Laboratory of Poyang Lake Ecological Environment and Resource Research, Jiangxi Normal University and the State's Key Laboratory of Remote Sensing, Academia Sinica the administrative Bureau of Poyang Lake National N.R. first independently completed a survey on wintering waterbirds in surrounding Poyang Lake area in 15~23 December, 2006. This survey covered 14 districts and counties in surrounding Poyang Lake area including Nanchang County, Xinjiang, Jinxian, Yongxiu, Xingzi, Gongqingcheng, Duchang and Jiujiang Counties, Lushan District, Hukou, Pengze, Yugan and Poyang and Ruichang City, with an area of 2 540 km<sup>2</sup>. Survey was selected in the high aggregated duration of wintering

migrants, the fine day and high visibility made the survey conducted smoothly.

75 species of waterbirds totally 520 000 more individuals were found, among them 380 000 more birds belonging to Anseriformes. There were 9 sites qualified to be the Ramsar Wetland, bird number in each site was more than 20 000—the criterion of the Ramsar Wetland, including Shahu Lake, Dahuchi Lake, Dachahu Lake, Zhonghuchi Lake and Fenghu Lake within Poyang Lake N.R., the Shahu Lake alone owned 90 000 more birds (Swan Goose, White-fronted Goose and Tundra Swan totally 70 000).

There were 10 species belonging to the IUCN Redlist: Siberian Crane (CR), Oriental White Stork (EN), Swan Goose (EN), Lesser

White-fronted Goose (VU) , Baikal Teal (VU) ,Baer's Pochard (VU) ,Hooded Crane (VU) ,White-naped Crane (VU) ,Relict Gull (VU) and Saunder's Gull (VU) . There were 22 species each population size reached the 10% criterion of the Ramsar Wetland. There were 2 700 more Siberian Cranes, 359 Hooded Cranes, 1 757 White-naped Cranes and 1 361 Common Cranes. The number of Siberian Cranes was stable in recent years and still concentrated in the reserve and its surrounding areas; most Hooded Cranes and White-naped Cranes distributed in the reserve and the neighboring areas of Gongqingcheng, Nanhui; Common Cranes mainly distributed at the grassy bank of the lakes near the south tributary of Ganjiang River. The other main bird species were: 3 000 more Oriental White

Storks, 8 000 more White Spoonbills, 80 000 more Tundra Swans, 70 000 more Swan Geese and 110 000 more White-fronted Geese.

To combine this survey data with previous data, it may more completely show us the distribution and dynamic variation of wintering waterbirds in Poyang Lake, and the main distributive areas of some rare and precious species, so that to provide an important base for analyzing the regulation of the ecosystem dynamic variation and for making a reasonable plan of Poyang Lake area and conserving its biodiversity.

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## 2006 年冬季鄱阳湖区东方白鹳的种群数量及分布

东方白鹳不仅是我国国家一级重点保护野生动物，也是被 IUCN 列为濒危级别的全球受胁物种。江西鄱阳湖是东方白鹳的重要越冬地之一，特别是近年来，鄱阳湖区分布的东方白鹳数量一直占着该种群较大比例。根据鄱阳湖自然保护区自 2002 年以来的监测发现，仅保护区内统计到的最高数量每年都在 1600 以上。

2006 年 12 月中下旬，鄱阳湖自然保护区在环鄱阳湖越冬水禽的调查统计中，共观察统计到东方白鹳 3000 多只，比 2005 年统计到的最高数量还要高出数百只，当然由于此次环湖调查持续有一周以上，不能排除因部分东方白鹳在湖区的迁移而导致的重复计数。调查时共计有 26 处发现东方白鹳分布，数量最多的子湖泊为位于赣江中支附近的大沙坊湖（地理坐标约 28°56'48"N，116°14'30"E）和位于赣江南支北面的西湖（地理坐标约 28°50'45"N，

116°14'20"E），都超过 600 只。鄱阳湖保护区所辖的蚌湖、大湖池和沙湖的分布数量也都比较可观，分别超过 300、200 和 100。整个鄱阳湖区单个湖泊分布数量超过国际重要湿地所要求的 1%标准（30 只）的区域共有 9 处，且仅这 9 处的东方白鹳总数量就超过了 3000，而这 9 处几乎全部位于鄱阳湖西北部的鄱阳湖保护区及其周边区域和鄱阳湖南部的赣江中、南支附近区域。

从整个 2006 年度越冬季节来看，东方白鹳在湖区的流动性也相当高，而且有时东方白

鹳会集群到相当惊人的程度，如鄱阳湖保护区在 2007 年 1 月上旬开展的定期监测时就发现，仅沙湖单个湖泊东方白鹳的数量就达到 2000 以上，场面十分壮观。

总体来说，2006 年冬季在鄱阳湖越冬的东方白鹳数量继续保持稳定，且似乎还有上升趋

势，而从它们的空间分布来看，鄱阳湖保护区及其周边区域和鄱阳湖南部的赣江中、南支附近区域是东方白鹤的最重要分布地，今后需给予更多的关注。

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## Number and distribution of Oriental White Stork in Poyang Lake in the winter of 2006

Oriental White Stork is the first class wild animal under the State's key protection, and is listed as endangered species by the IUCN. Jiangxi Poyang Lake is one of the important wintering area for the stork, and with a high proportion of the population recently. Since 2002 there were 1 600 more storks wintered in the reserve each year.

3 000 more Oriental White Storks were recorded in mid and late December, 2006 in a survey on wintering waterbirds, it is several hundred more than the maximum number in 2005's survey. But due to this survey lasted more than one week, some repeated counting may happen. The storks were found distributed at 26 sites, Dashanfang Lake located near the middle tributary of Ganjiang River (28°56'48"N, 116°14'30"E) and Xihu Lake north to the south tributary Ganjiang River (28°50'45"N, 116°14'20"E) all had 600 more storks. Benhu Lake, Dahuchi Lake and Shahu Lake had 300 more, 200 more and 100 more storks respectively. There were 9 lakes within

the region of Poyang Lake qualified to be the Ramsar Wetland, the 9 lakes mostly within the reserve and its surrounding areas in the northwest of Poyang Lake, and near the middle and south tributaries of Ganjiang River in southern Poyang Lake.

The wintering storks showed high mobility, they sometimes aggregated to a magnificent degree, such as, 2 000 more storks were found in Shahu Lake in early January, 2007.

The number of wintering Oriental White Storks in Poyang Lake in the winter of 2006 was stable and tended to arise. Poyang Lake N.R. and its surrounding areas and the areas near the middle and south tributaries of Ganjiang River are the important distributive areas of the stork, more attention should be paid to the areas in the future.

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## 安徽升金湖自然保护区越冬水鸟监测报告

入冬以来，升金湖湖区水位下降，滩涂显露，白头鹤、东方白鹤以及大量的雁鸭等候鸟成群结队，分至沓来。根据工作安排，保护区工作人员在2006年12月18日对全湖越冬水鸟情况开展了一次同步调查统计，现将监测情况报告如下：

此次监测地点主要包括上湖的王坝、大洲、联合、小路嘴、杨娥头，中湖的刘家汉、姜坝以及下湖的三千亩、燕窝等。由于调查时间和监测力量不足，有些区域如舌甘、坦埠、唐田汉等地点未能同时监测。

此次监测调查结果共监测到升金湖越冬



水鸟种类 46 种, 总数 53076 只。其中国家 I 级保护物种白头鹤 226 只, 东方白鹳 198 只, 黑鹳 1 只, 白鹤 5 只; 国家 II 级保护物种白琵鹭 1672 只, 小天鹅 2122 只, 白额雁 46 只, 白枕鹤 1 只, 灰鹤 1 只; 雁鸭类主要以鸿雁、豆雁、小天鹅、斑嘴鸭、针尾鸭、绿头鸭和绿翅鸭为主, 统计到总数 34790 只; 此外鸕鹚类的数量为 14251 只。

自然保护区所开展的工作理解程度普遍提高, 来升金湖保护区观光旅游、摄影、考察人数较多。越冬小天鹅数量较去年有所下降, 越冬白头鹤群体对觅食地、栖息地的选择不太稳定, 越冬期活动范围更广, 部分鹤群已转至稻田觅食栖息, 初步分析可能是湖区食物不足导致, 具体原因有待进一步观察分析。此次监测统计的水鸟具体情况见表 1。

调查中发现, 周边群众对湿地环境保护和

表 1 2006 年 12 月升金湖自然保护区越冬水鸟监测统计 (单位: 只)  
Table 1 The counting of wintering waterbirds in Shengjin Lake N. R., 12/2006  
(Unit: individual)

监测地点 鸟类种名	王坝 Wangba	大洲 Dazhou	联合 lianhe	小路咀 Xiaoluzui	杨娥头 Yangetou	刘家汉 Liujiacha	姜坝 Jiangba	三千亩 Sanqianmu	燕窝 Yanwo	合计 Total
小鸕鹚 Little Grebe		21	17	4	13	2		6	5	68
凤头鸕鹚 GreatCrestedGrebe		6	4		2			5	3	20
卷羽鸕鹚 Dalmatian Pelican		2								2
苍鹭 Grey Heron	25	31	57	12	45	35	15	17	7	244
大白鹭 Eastern Great Egret	17	50	39	4	34	8		47	5	204
中白鹭 Intermediate Egret	6	18	12	2		4	3	11		56
小白鹭 Little Egret	3	32	17	6	1	3		24	2	88
东方白鹳 Oriental White Stork		4	73					121		198
黑鹳 Black Stork								1		1
白琵鹭 Eurasian Spoonbill		89	1328					255		1672
鸿雁 Swan Goose	1763	1584	878		2363	346		1217	210	8361
豆雁 Bean Goose	1876	2463	327		3507	231		2986	35	11425
灰雁 Grey Lag Goose	24	87	12		36			267		426
白额雁 White-fronted Goose		12	6					28		46
小白额雁 Lesser White-fronted Goose								200		200
小天鹅 Tundra Swan	228	1366	49	265			46	137	31	2122
翘鼻麻鸭 Common Shelduck	17	22	8							47
琵嘴鸭 Northern Shoveler	7	18								25
赤麻鸭 Ruddy Shelduck	21	26		37	159			8		251
针尾鸭 Northern Pintail	807	1610	376	66				716		3575
绿翅鸭 Green-winged Teal	213	1305	538					202		2258

罗纹鸭 Falcated Duck	31	127						78		236
绿头鸭 Mallard	376	655	24	6				209		1270
斑嘴鸭 Spot-billed Duck	763	1720	463	77				807	32	3862
赤颈鸭 Eurasian Wigeon	267	278	73							618
监测地点 鸟类种名	王坝 Wangba	大洲 Dazgou	联合 lianhe	小路咀 Xiaoluzui	杨娥头 Yangetou	刘家汉 Liujiacha	姜坝 Jiangba	三千亩 Sanqianmu	燕窝 Yanwo	合计 Total
红头潜鸭 Common Pochard		45	23							68
灰鹤 Common Crane	1									1
白头鹤 Hooded Crane	97	47	18	5	4	3	4	48		226
白枕鹤 White-naped Crane	1									1
白鹤 Siberian Crane	2							3		5
黑水鸡 Common Moorhen		137		34	13					184
白骨顶 Common Coot		669								669
凤头麦鸡 Northern Lapwing	196					5		18		219
灰斑鸻 Grey Plover		6								6
环颈鸻 Kentish Plover		11						13		24
斑尾塍鹬 Bar-tailed Godwit	113							35		148
鹤鹬 Spotted Redshank	260					55			178	493
白腰草鹬 Green Sandpiper	106									106
扇尾沙锥 Common Snipe							21			21
针尾沙锥 Pintail Snipe								3		3
黑腹滨鹬 Dunlin	12788									12788
黑翅长脚鹬 Black-winged Stilt	8									8
青脚鹬 Common Greenshank	187		18			28	5	3	128	369
反嘴鹬 Pied Avocet	251	34								285
黑尾鸥 Black-tailed Gull				2						2
红嘴鸥 Black-headed Gull		54		121						175
总计 Total	20454	12529	4360	641	6177	720	94	7465	636	53076

徐文彬, 赵放武, 龙晓春, 尹莉 (升金湖国家级自然保护区管理局, 247230)

## Survey on wintering waterbirds in Anhui Shengjin Lake N.R.

A synchronic survey on wintering waterbirds was conducted in Shengjin Lake

N.R.on 18 December, 2006. The survey covered Wangba, Dazhou, Lianhe, Xiaoluzui and Yangetou of the upper lake, Liujiacha and Meiba of the middle lake and Sanqianmu and Yanwo of the lower lake.

46 species of wintering waterbirds totally 53 076 individuals were found. Among them the species of the 1st class of State's Key Protection were Hooded Crane (226), Oriental White Stork (198), Black Stork (1), Siberian Crane (5); the species of the 2nd class of State's Key Protection were White Spoonbill (1 672), Tundra Swan (2 122), White-fronted Goose (46), White-naped Crane (1) and Common Crane (1). Totally 34 790 geese and

ducks were found, they mostly consisted Swan Goose, Bean Goose, Tundra Swan, Spot-billed Duck, Pintail, Northern Pintail and Common Teal. There were 14 251 shorebirds either.

The survey showed that the number of Tundra Swan was lower than those in last year; the selection of Hooded Crane in feeding and roosting sites was not so stable, some cranes moved to feed and roost in rice field, it might partially caused by food shortage in the lake area. The survey result was showed in table 1.

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## 林甸湿地东方白鹳繁殖新记录

2007年4月10日下午15时38分,笔者和大庆市林甸县育苇场老马场村(扎龙保护区核心区)杨升华,通过8-20倍双筒望远镜进行鸟类监测时发现:1对东方白鹳(*Ciconia boyciana*)在距老马场村东北约600m的杨树防护林中营巢(N47°9'26.2", E124°27'34.2")。

据林甸湿地局、扎龙管护站和当地常住居民证实:迄今为止,东方白鹳在育苇场繁殖尚属首例。东方白鹳主要繁殖于黑龙江和内蒙古,越冬于长江中下游。在黑龙江繁殖的东方白鹳主要分布于东部的三江平原,在西部仅有零星分布。这次在林甸发现有东方白鹳繁殖的原因可能是:近年来在扎龙保护区有3对东方白鹳繁殖,主要分布在局址附近。由于繁殖成功率上升,使扎龙东方白鹳繁殖种群数量增加,迁徙至此的繁殖鹳没有巢树可选择,只能就近寻找巢源,最终选择在老马场。经GPS测量,老马场距保护区局址约20km。

实地调查发现:东方白鹳营巢的防护林两侧为农田,面积约200亩(合13.3公顷);每

年4-5月份是当地村民的耕种季节,此时期与东方白鹳的孵化期同步。4月11日-14日笔者对人为及牲畜活动对东方白鹳的影响作了观察和简单的试验,结果表明:(1)在防护林附近散放的奶牛对东方白鹳的繁殖没有影响;(2)巢树300m内有人为活动时,东方白鹳警惕性很高,由卧巢改为站巢,若人为活动一直持续下去,东方白鹳会继续卧巢,行为上变化不大;一旦人为活动暂停,东方白鹳会离巢,短则20分钟,多则数小时才归巢。观察还发现:4月12日11时28分和13时41分、4月13日9时45分、4月14日9时49分,分别有2只、5只、7只、5只东方白鹳来此进行干扰,在巢上空盘旋,企图落在巢上,繁殖对中1只站立守卫巢并不时击喙发声,另1只负责驱赶,每次驱赶时间约20-30分钟。

为了减少人为活动对东方白鹳繁殖的干扰,我们建议:(1)在杨树防护林周边500m有通道的地方设立警告提示牌,让人和车绕道而行。(2)应争取停止此区域内的人为活动,并适当给与相应的经济补偿;(3)在保护区内设立人

工招引巢。

江生态工程职业学院，哈尔滨，150080 )

吴庆明，邹红菲 (东北林业大学野生动物资源学院，哈尔滨，150040) 朱井丽 (黑龙

## New breeding record of Oriental White Stork in Lindian Wetland

Laomachang Village of Lindian Reed Culture Farm was located in the core area of Zhalong N.R., one pair nesting Oriental White Storks were found in poplar shelter-forest about 600 m northeast away from the village by the authors and Mr. Yang Sheng-Hua of the village at 15:38 on 10 April, 2007.

Lindian Wetland Bureau, Zhalong Administrative and Protection Station and local residents all confirmed that it was the first time to find the storks breeding here. Oriental White Stork mainly breeds in Heilongjiang and Inner Mongolia, and winters in the middle and lower basins of Changjiang River. The storks breed in Heilongjiang mainly distribute in Sanjiang Plain and scatter in the west of the province. There were 3 breeding pairs nested near the bureau building in Zhalong N.R. recently, the immigrated storks had to choose other place to nest, at last they selected Laomachang 20 m away from the bureau building.

There were 13.3 ha area of farmland located in both sides of the shelter forest, annual sowing season is synchronic with the incubation period of the stork. The authors tested how human and livestock activities affect the breeding storks, the result showed that: (1) The milk cow did not affect the

storks ; (2) When human activity happened within 300 m distance from the nesting tree, the stork stood up in their nest for a while then continued incubation even if the human activity went on; once human activity stopped the stork might leave the nest for 20 min to several hours. The breeding pair were disturbed by other Oriental White Storks, 2, 5, 7 and 5 invasive storks arrived at 11:28 and 13:41 on 12 April, at 9:45 on 13 April and at 9:49 on 14 April respectively, facing the invaders one breeding stork stood in the nest and beat its bills to make sound to defend the nest, another breeder flew to drive the invaders away, the battle might last 20~30 min.

In order to reduce the affect of human activities on breeding storks, the authors suggest that:

(1) to set up warning board 500 m away around the shelter forest, to show people and cars making a detour to it. (2) Stopping human activity in the area and paying certain economic compensation for them. (3) Set up artificial attract nests in the reserve.

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## 东洞庭湖保弧区实施封闭管理，越冬水鸟数量回升

2006年长江流域持续干枯，洞庭湖高水季节水位较往年同期降低近5米之多，冬季枯水期水位较三峡截流前平均降低近2米以上，地

下水位降低超过1米(见表1)。入冬以来，洞庭湖水位提前一个月回落，大面积的洲滩裸露，为越冬水鸟提供栖息场所的浅水湖盆迅速

枯竭，鱼虾和底栖动物螺蚌死亡；苔草滩涂也提前干枯，雁类特别是国际濒危物种小白额雁的食源地急剧减少，越冬水鸟的栖息地面临着巨大的威胁。

为了贯彻落实湖南省人民政府“关于调整东洞庭湖核心保护区管理权属有关问题的会议纪要”和岳阳市人民政府关于“加强东洞庭湖核心保护区大小西湖及壕沟实施封闭管理的通告”的精神，东洞庭湖国家级自然保护区于9月初洞庭湖退水时就逐步对该区域实施封闭管理。由于在2006年初就没有对大小西湖进行抽水捕捞，实施水位控制以后的大西湖、小西湖和壕沟近3万亩水域内水草长势良好，成为鱼类和水鸟难得的越冬地，2006年中国洞庭湖国际观鸟赛期间，在君山岛至大、小西湖比赛区域内发现鸟类190种，超过三届鸟赛156、149、151种的平均数近40种之多。

为了进一步调查和了解越冬期鸟类的活动范围和初步评估封闭管理的效果，东洞庭湖保护区于12月26日—31日开展了东洞庭湖区域越冬鸟类和栖息地的野外监测。调查中统计到6只白鹤、5只东方白鹳、2只黑鹳、2200只白琵鹭、199只小天鹅，170只鸿雁，170只白骨顶，2600多只反嘴鹈，16000多只雁类，17000多只鸭类。以上调查结果表明，虽然鸟类数量不是很多，但与过去比较白鹤在离开大小西湖近10年以后第一次回归，而小天鹅、鸿雁从5年前的近3000和800多只下降到几乎为零的情况下，2006年冬季的越冬种群又开始重新恢复，白骨顶也从1994年的40000多只下降为零到目前的逐步恢复。可以看出，大、小西湖及壕沟的生境恢复和封闭管理的效果逐步显现出来。

表1 三峡水库启用前后洞庭湖枯水期地下水位比较（米）

Table 1 The water levels of groundwater of East Dongting Lake in dry season before and after the damming up of Sanxia Reservoir (m)

观测时间（月/年） Record time (M/Y)	运行前 Before damming up		运行后 After damming up	
		01/2002,02/2002, 11/2002,12/2002, 01/2003,02/2003	11/2003,12/2003, 01/2004,02/2004, 11/2004,12/2004	01/2005,02/2005, 11/2005,12/2005
黄沙湾 Huangshawan	13.84	11.72	12.37	11.52
湖滨（I）Hubin（I）	16.28	16.93	17.10	16.13
湖滨（II）Hubin（II）	23.81	22.93	24.04	23.90
麻坊 Matang	20.62	19.90	20.60	20.04
君山 Junshan	20.83	19.65	20.17	18.84
水位均值 Average	19.48	18.18	18.85	17.88
			18.30	

运行后水位降低值

The reduced water level

1.18

after the running

越冬水鸟调查中也反映出一个严峻的问题，由于缺水，苔草过早枯萎，无法被取食后更新，致使大量的雁类缺乏食物而转移到农民的田地里啄食冬小麦，给社区农业生产带来了较大的影响，增加了新的矛盾。

同期进行的西洞庭湖野外监测中，在自然保护区范围内的大连障、半边湖、东洼等地段：首次发现黑鹤 60 只，东方白鹤 7 只，白鹤 3 只。后续调查又在青山垅：记录到绿翅鸭 6000

多只，白骨顶 200 多，鸬鹚 105 只。半边湖：白鹤 3 只；大连障：豆雁 400 多只，小天鹅 85 只，黑鹤 14 只，鹤鹑 88 只，黑腹滨鹬 118 只，斑嘴鸭 8 只，白琵鹭 245；打靶台：白鹤 14 只，灰鹤 2 只，东方白鹤 4 只，小天鹅 86 只，大白鹭 22 只。这是西洞庭湖范围内多年水鸟调查以来发现黑鹤最多的一年，也是因为洞庭湖整体机构性缺水造成冬季水位较低，水鸟只能都集中栖息在核心区附近的小范围水面。

蒋勇（东洞庭湖国家级自然保护区管理局 岳阳 414000）

## The closed management in East Dongting lake supports more wintering waterbird

In 2006 Changjiang River Basin was in dry condition, in the winter-the dry season the average water level of Dongting Lake was 2 m more lower than that before the dam up of the river by Sanxia Dam, the water level of groundwater either 1 m more lower (see table 1). The water level of Dongting Lake fell one month ahead of time, it resulted the dried-up of some habitats, the death of fish, shrimps, shells and snails, the withering of sedge beaches, so that the site of food source of geese especially of the internationally endangered species Lesser White-fronted Goose was decreased remarkably, the habitat of wintering waterbirds faced seriously threat.

To carry out "The meeting summary of concerning regulating the administrative authority of the core area of East Dongting Lake" issued by the Hunan Provincial Government, and "Announcement on strengthening closed management in large and Small West Lakes and ditches of the core area of East Dongting Lake", East Dongting Lake National N.R. started a closed management in this area in early September when the water

level fell. The management promoted the aquatic vegetation grew well in 30 000 mu area of waters. In 2006's International Bird Watching Contest, 190 species of birds were found in an area from Junshan Island to Large and Small West Lakes it was more than 156,149 and 151 species found in former contests.

In order to know more about bird distribution and to make a primary evaluation on the effect of closed management, a survey was conducted on wintering birds and their habitats in East Dongting Lake by East Dongting Lake N.R.. Six Siberian Cranes, 5 Oriental White Storks, 2 Black Storks, 2 200 White Spoonbills, 199 swans, 170 Swan Geese, 170 Black Coots, 2 600 more Pied Avocets, 16 000 more geese and 17 000 more ducks were recorded. Although this survey did not find plentiful birds, but Siberian Cranes came back after 10 years. For swans and Swan Goose once numbered 3 000 and 800 respectively 5 years ago, then nearly disappeared in the area, the closed management recovered their wintering population, so did the Black Coot, it

experienced 40 000 individuals in 1994 to nearly disappeared to recover. Hence the closed management showed a primary effect.

The early withered sedge forced large amount of hungry geese to feed winter wheat, and brought new problem.

In the simultaneous survey in West Dongting Lake N.R., 60 more Black Storks, 7 Oriental White Storks and 3 Siberian Cranes were found in Dalianzhang, Banbianhu and Dongwa. 6 000 more Common Teals, 200 more Black Coots, 105 Great Cormorants were found in Qingshanyuan. 400 more Bean Geese,

85 Tundra Swans, 14 Black Storks, 88 Spotted Red Shanks, 118 Dunlins, 8 Spot-billed Ducks and 245 White Spoonbills were found in Dalianzhang. 14 Siberian Cranes, 2 Common Cranes, 4 Oriental White Storks, 86 Tundra Swans and 22 Great Egrets were found in Dabatai. Black Stork reached its maximum number in this survey, it partially because that the dry winter forced waterbirds concentrated in a small area nearby the core area.

**Jiang Yong** (Administrative Bureau of East Dongting Lake National N.R., Yueyang, 414000)

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### 崇明东滩勺嘴鹬目击及环志报告

2007年4月份,在保护区科研人员、复旦大学研究生及观鸟爱好者的共同努力下,崇明东滩共有5次有关勺嘴鹬的目击纪录;同时在5月1日的环志中,幸运的环志到一只勺嘴鹬。这说明了崇明东滩是一个勺嘴鹬迁徙的重要

停歇地。

**马强 臧洪熙**(崇明东滩鸟类自然保护区)  
**蔡志扬 郑思**(复旦大学)

### Report of the sighting and banding of Spoon-billed Sandpiper in Chongming Dongtan

In April 2007, five sightings of the Spoon-billed Sandpiper (*Eurynorhynchus pygmeus*) have been reported in Chongming Dongtan Nature Reserve. And in 1-May-2007, we banded the first Spoon-billed Sandpiper at Chongming Dongtan. So it indicated that

Chongming Dongtan is a very important stopover site for Spoon-billed Sandpiper.

**Ma Qiang, Zang Hong-Xi** (Chongming Dongtan Bird Nature Reserve) **Cai Zhi-Yang, Zheng Si** (Fudan University)

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### 2007年澳门国际黑脸琵鹭研讨会——城市发展与湿地保护

自从1989年本地生态学家梁华在路凼湿地(Taipa-Coloane wetland)发现几只黑脸琵鹭后,来澳越冬的黑脸琵鹭的数量呈现逐年增长的趋势,澳门政府在2001年将两块分别为15公顷及40公顷的湿地划为保护区。

赖以生为的那一片湿地正面临着重大的威胁。附近大型工程的建设,高尔夫球场的启用,还有日益频繁的人为干扰。虽然黑脸琵鹭越冬种群相对稳定,但它们面对的潜在威胁从澳门越冬水鸟的种类和数量都急剧下降的事实中可见一斑。琵鹭越冬数量的增长并不代表它们在澳门的栖息地是个理想的安身之所,相反,这

近年来,澳门经济的急速发展,让它们

些数字正在时刻提醒着我们，澳门对这个脆弱的种群所承担的责任正在增加，如果我们的保护工作出现差错，那意味着黑脸琵鹭3%的种群将失去安身的地方。因此，如何对澳门这两块湿地保护区进行妥善管理，成为迫切的问题。由于经验的缺乏，我们需要向黑脸琵鹭保育方面取得良好成果的地区学习，需要专家们给我们提出宝贵的意见。鉴于此，澳门生态学会于2007年5月14日及15日举办了2007年澳门国际黑脸琵鹭—城市发展及湿地保护研讨会，邀请各地专家分享黑脸琵鹭栖地管理的经验。

得到这些嘉宾的支持，我们感到非常荣幸，并非常感谢他们对澳门黑脸琵鹭的保护和栖地的管理提出了很多宝贵的经验。研讨会气氛热烈，专家们针对澳门栖地现存问题提出了解决方案，并对本澳民间环保团体的发展提出了建议。澳门生态学会将会对本次研讨会的成果进行整理，并将报告呈交给澳门特区政府，希望黑脸琵鹭在澳门能够享有一个安全的家园。以下是研讨会的建议：

#### 1. 环保社团资金不足问题：

- (1) 澳门将举办亚洲室内运动会，会方选择了黑脸琵鹭作为吉祥物(mascot)，可把握此机会进行环境教育并筹集资金。
- (2) 在澳门开办赌场的外国公司是潜在的资金来源。
- (3) 黑脸琵鹭形像可爱，可设计出各种相关小礼品，既可推广教育，也可售买筹款。
- (4) 向世界自然(香港)基金会亚洲水鸟保育基金申请保育经费。

#### 2. 土地规划

- (1) 熟知栖地周围的发展计划及土地规划。
- (2) 对栖地周围即将发展的项目对环境的冲击进行评估并将结果呈交政府。

- (3) 与栖地周围发展商展开对话，寻求合作。

#### 3. 栖地管理问题

- (1) 建议政府对保护区设定清晰目标，根据目标制定管理计划。
- (2) 向目前管理保护区的公司提供专业意见。
- (3) 世界自然(香港)基金会在这方面有着丰富经验，可派员到米埔学习。
- (4) 对栖地的污染问题进行监测。

#### 4. 人为干扰

- (1) 建议澳门政府与珠海政府进行沟通合作，减少位于莲花大桥边境保护区的人为干扰。
- (2) 由于该航道渔船不多，可与珠海政府合作，将黑脸琵鹭越冬期间设定为禁渔期，不会对渔民生活造成太大影响，同时能确保黑脸琵鹭的栖地质量。

#### 5. 环境教育

- (1) 周边地区如香港、深圳对黑脸琵鹭的环境教育都有丰富经验和资源，本地环保社团应加强与其它地区的合作交流。
- (2) 向政府建议在栖地附近建立湿地公园或环境教育中心，为市民创造认识黑脸琵鹭的机会。
- (3) 与教育部门合作，制定以黑脸琵鹭为主题的环境教育计划。
- (4) 认定环境教育的目标人群(决策者、市民还是学生)

#### 6. 跨域合作

- (1) 无论是政府或民间团体，都应加强与邻近地区的合作，尤其是与珠海的合作。
- (2) 建议澳门政府相关部门参与2008年



- 将在韩国举行的拉姆萨尔公约会议。
- (3) 建议政府按《拉姆萨尔公约》把两块保护区划为国际重要湿地。

参加这次研讨会的专家学者有：

Mr. Jonathan Eames (国际鸟盟印支半岛项目经理)

陈承彦 (亚洲鸟盟主任研究员)

林锐芳(香港湿地公园总经理)

余日东(香港观鸟会 国际黑脸琵鹭普查协调员)

施百纳 (世界自然基金会米埔保护区主任)

梁嘉善 (世界自然基金会米埔保护区助理保护区主任)

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李秋华 (暨南大学)

蔡静亚 (澳门生态学会)

## 2007's Macao International Symposium on Black-faced Spoonbill—City development and wetland protection

Since Mr. Liang Jia-Hua, the ecologist of Macao found several Black-faced Spoonbills in Taipa-Coloane Wetland, Macao in 1989, the number of the spoonbill wintered in Macao was in increasing annually, two wetlands each with the area of 15 ha and 40 ha were devided to be nature reserves by the Macao gavornment in 2001.

The rapid economic development in Macao recently threats the wetlands which the spoonbills rely on. The construction of large scale engineers, the open of the golf course and other human disturbances happened near the wetland forming a potential threat to the spoonbills. Although the wintering population here was relatively stable, but the sharp decrease of species and number of wintering waterbirds in Macao reflects the fact of human activities. The increase of wintering spoonbills in Macao does not mean that the habitat in Macao is very suitable for the spoonbills, on the contract, it reminds us take the responsibility to protect the 3% population of the species in the world. In order to reasonably manage these two wetlands , Macao Ecological Society held the “2007's Macao International

Symposium on Black-faced Spoonbill—City development and wetland protection” in 14~15 May, 2007.

In session, the specialists put forwarded some measures to resolve the existing problems in Macao, and gave some suggestions to non-government environmental protection organizations. Macao Ecological Society has compiled the achievements of the symposium and has sent it to Macao District Government, so that to make a safe home for the spoonbills. Following are the suggestions:

1. Environmental protection organizations are lack of expenses:

(1) An indoor games will hold in Macao soon and the spoonbill was selected to be the mascot by the sponsor, take the chance to conduct environment education and to collect expenses.

(2) The foreign companies running gambling house are the potential source for gathering expenses.

(3) To design some lovely spoonbill tokens, use the tokens in education and in gathering expenses.

(4) Apply for conservation fund to Asian Waterbird Conservation Fund, World Wide Fund

for Nature Hong Kong

2. Land plan:

(1) To get familiar with those developmental programmes and land plans happened around the habitat.

(2) To evaluate how the developmental programmes soon happens around the habitat impact the environment, and send the evaluation to the government.

(3) To dialogue with the companies around the habitat, to seek for cooperation.

3. The management of habitat:

(1) Suggest the government to set a clear aim from which to make manage plan.

(2) To provide professional ideal to the present company who manages the reserve.

(3) To send staff to Mai Po to learn the experiences from World Wide Fund for Nature Hong Kong

(4) To monitor the pollution in the habitat.

4. Human disturbances:

(1) The Macao government should contacts with Zhuhai government, to decrease human disturbances on the reserve close to the Lianhua Bridge.

(2) To cooperate with Zhuhai government, to set closed fishing season in wintering period of the spoonbill, so that to ensure the quality of the habitat.

5. Environmental education:

(1) To learn the environmental education experiences from Hong Kong and Shenzhen.

(2) To set up wetland park or the environmental education centre, to provide the chance for the citizen to know the spoonbill.

(3)To make a environment education plan mainly in Black-faced Spoonbill with the education department.

(4) Make sure the target crowd of the environment education (the police-maker, the

citizen or the students?)

6. Across-region cooperation:

(1) Both government and non-government organizations should strengthen the cooperation with neighbouring regions, especially with Zhuhai.

(2) The related departments of Macao government should attend Ramsar Convention meeting holds in South Korea, 2008.

(3) According to the “Ramsar Convention” to set the two reserves to be the “Ramsar Wetland”.

Followings are the specialists and scorlors attended the symposium:

Mr. Jonathan Eames (Indochina Programme Manager of BirdLife International)

Mr. Simba Chan (Senior Conservation Officer of BirdLife Asia)

Mr. Lam Yui-fong (Executive Director of Hong Kong Wetland Park)

Mr. Yu Yat-tung Coordinator (The International Black-faced Spoonbill Census Hong Kong Bird Watching Society)

Mr. Bena Simth (Reserve Officer of Mai Po Nature reserve, WWF)

Ms. Katherine Leung (Administrator, Asian waterbird Conservation Fund, WWF)

Mr. Kuo Tung-huei (Chairman of Wild Bird Federation Taiwan)

Mr. Yu Wei-dow (Secretary General of Wild Bird Federation Taiwan)

Ms. Sunyoung Coordinator of Wetlands Centre at KFEM Headquarter)

Ms. Chen Zhi-hong Secretary General of Xiamen Bird Watching Society)

Pro. Guo Zhao-liang Foshan Science and Technology College)

Mr. Li Qiu-hua ( Jinan University)

**Silvia Choi** (Macao Ecological Society)

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## 内蒙古达赉湖国家级自然保护区发现中贼鸥

2006 年 7-8 月期间,在内蒙古达赉湖国家级自然保护区科研人员和曲阜师范大学鸟类学专家杨月伟教授共同进行的鸟类调查中,在嘎拉达白辛管护站附近(48°38'31"N, 117°11'03"E)多次观测到一只本地新记录鸟类——中贼鸥(*Stercorarius pomarinus*)。屡次发现的均为同一个体,特征为:嘴基部灰白,嘴端黑色,头侧偏黄。飞行时可观察到初级飞羽基部淡灰白色,中央尾羽伸出明显,其它体羽黑褐色;腿上部为黑色,自跗蹠以下为灰白色。据观察发现,此鸟多停栖在普通燕鸥集群繁殖地附近的草甸或湖岸上,经常飞起袭击燕鸥亲鸟,强迫后者吐出育雏食物,但在飞经普通燕鸥繁殖地上空时会激起普通燕鸥的群体攻击。此外,保护区高级工程师刘松涛早在 2004 年 7

月贝尔湖蒙古国一侧(49°08'55"N, 117°45'50"E)及 2006 年 6 月达赉湖保护区呼伦沟管护站范围内(47°41'29"N, 117°35'30"E)曾发现中贼鸥的疑似个体。此次由于其滞留时间较长,停栖区域较为固定,得以准确的观察和鉴定。据文献记载,此鸟繁殖在北极地区,冬季迁至南方海域,定期出现于中国的南沙群岛,在中国南部沿海、香港、江苏南部及内陆的甘肃、山西南部均有过记录,在内蒙古乃至东北地区还属首次发现。在调查范围内未发现中贼鸥的巢或雏鸟,而 7-8 月又非此种鸟的迁徙期,因此,对于中贼鸥在内蒙古东北部地区的分布、留居类型及生态习性还有待于进一步研究。

窦华山、刘松涛 (达赉湖国家级自然保护区管理局, 021008)

## The sight of *Stercorarius pomarinus* in Dalaihu National N.R., Inner Mongolia

In a bird survey of 7-8, 2006, an individual *Stercorarius pomarinus*, was found several times near the Galadabaixin Administrative Station (48°38'31"N, 117°11'03"E) by Prof. Yang Yue-Wei, Qifu Normal University and the scientific researchers of Dalaihu National N.R., Inner Mongolia. It is the new record of bird species in Inner Mongolia. The bird has hoary bill base and black bill tip, and yellow in head sides. Pale at the base of primaries may found in flying bird. The bird has remarkable project central rectrices, the other plumages are sepia. The upper leg is black, under tarsus is pale. The bird was found in grassy marshland or lakeside near the aggregating breeding site of *Sterna hirundo*(Common Tern), it often attacks the parents of the terns and forces them to throw up

food, when it flies over the breeding site of the terns, may cause the attack of the tern group.

Mr. Liu Song-Tao, the Senior Engineer of the reserve had been found a doubtful individual of *Stercorarius pomarinus* in Mongolian side of Beier Lake (49°08'55"N, 117°45'50"E) in July, 2004, and in the area of Hulungou Administrative Station of the reserve (47°41'29"N, 117°35'30"E) in June, 2006. This time, the bird stayed here for a longer duration and stayed in a relatively fixed area so that it could be observed and identified more accurately. Document record that the bird breeds in the Atlantic and migrates to south sea area. It regularly appears at the Nansha Archipelago of China, and was recorded in south coastal of China, Hong Kong, southern Jiangsu, and Gansu

and southern Shanxi in inland area, it is the first finding of the bird in Inner Mongolia even in Northeast China. No nest and nestling was found in this survey, and it is not the migratory period of the bird, the distribution of the bird in

northeast is on studying.

**Dou Hua-Shan, Liu Song-Tao**  
(Administrative Bureau, Administrative, 021008)

### 迁徙物种公约 3 种候鸟的行动计划征求意见

国际鸟盟受迁徙物种公约（波恩公约）的委托，为 3 种亚洲的极危和濒危水鸟编写了国际保护行动计划，勺嘴鹬、黑脸琵鹭和黑嘴端凤头燕鸥。初稿已经完成，现在至 8

月下旬征询各方面的意见。有兴趣审阅行动计划稿件者请与陈承彦联系。（电邮信箱 [simba\\_panthera@hotmail.com](mailto:simba_panthera@hotmail.com)）。

**陈承彦**（亚洲鸟盟）

### Public consultation of CMS Action Plans on 3 migratory bird species

BirdLife Asia Division is working on behalf of the CMS on drafting international conservation plans for three globally endangered waterbirds species: Spoonbilled Sandpiper, Black-faced Spoonbill and Chinese Crested Tern. For those

who are interested to have a draft copy to comment, please contact Simba Chan at [simba\\_panthera@hotmail.com](mailto:simba_panthera@hotmail.com) by mid-August 2007.

**Simba Chan** (BirdLife Asia Division)

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### 2007 年中国鹤类小额研究基金项目

2007 年中国鹤类研究基金共收到项目申请 8 份。4 月 29 日中国鹤类研究基金管理小组在中国科学院动物研究所召开评审会，对申请项目进行了认真的评审、讨论和赋分。根据中国鸟类学会与国际鹤类基金会签署的协议，2007 年资助 2 个项目。获得批准的项目分别为：

扎龙湿地注水后白枕鹤的数量分布及繁

殖栖息地选择（东北林业大学，吴庆明，编号 019）

中俄兴凯湖地区鹤类的分布、数量及栖息地选择研究（黑龙江兴凯湖国家级自然保护区，刘化金，编号 020）

今年未获准的项目仍可继续申报。

中国鹤类研究基金管理小组

### 2007 Small Grant for China Crane Research

“Small Grant for China Crane Research”, funded by the International Crane Foundation (ICF) has been started from 1999. In 2007, eight application proposals were received. The evaluation meeting was held in Beijing on 2

April 29, 2007 and two proposals got approved. They are:

Study on the spatial and breeding habitat selection of White-naped crane in Zhalong wetland. (No.19, Wu Qing-Ming, Northeast

Foerestry University.)

Study on the distribution, population and habitat selection of cranes around Xingkai Lake, China and Russa. (No.20, Liu Hua-Jin,

Heilongjiang Xingkai Lake National Natural Reserve.)

China Crane Research Small Grant Administration Group

## 欢迎加入中国鸟类学会鹤类与水鸟专业委员会

中国动物学会鸟类学分会鹤类与水鸟专业委员会采取“会员制”的方式加强联系并邮寄《鹤类通讯》，个人会员会费每年 10 元（相当于一本《鹤类通讯》的成本），单位会员每年 100 元。个人会员每年可得到 1 份（2 期）《鹤类通讯》，单位会员寄 3 份。请有兴趣加入的同志和拖欠会费的会员将会费（大陆会员每年 10 元，港澳台会员每年 20 元，一次交纳不宜超过 5 年）寄至：北京市朝阳区大屯路，中国科学院动物研究所 丁长青收，邮

编 100101。

中国鸟类学会鹤类与水鸟专业委员会印制了以鹤类和水鸟为主题的贺年卡和不干胶图片（见第 9 卷第 2 期封四），贺年卡可以放在标准信封中邮寄。凡本会注册会员均可免费得到贺年卡 1 套（6 张）和不干胶图片 1 张。有额外需要者请与丁长青联系（电话：010—64807280，Email: [cqding@mx.cei.gov.cn](mailto:cqding@mx.cei.gov.cn)）。

## Membership for the China Crane and Waterbird Committee

The China Crane and Waterbird Committee (CCWC) offers membership to people who are making efforts in research, conservation, education, management, and publicity of cranes and other waterbirds, and their habitats in China. As a member, you will receive two issues of China Crane News each year. Dr. Li Feng-shan from the International Crane Foundation will be the coordinator for overseas membership. If you would like to enroll as a member of the CCWC, please make a check of \$20 payable to: International Crane

Foundation c/o Dr. Li Feng-shan, P.O.Box 447, Baraboo, Wisconsin 53913, USA.

You also can make a payment by credit card; please give your credit card number and expiration date. If you have questions regarding the membership, please contact Dr. Li Fengshan.

Tel: 608-356-9462 ext. 158

Fax: 608-356-9465

Email: [fengshan@savingcranes.org](mailto:fengshan@savingcranes.org)

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## 《中国鹤类通讯》编委会

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## 征稿启事

《中国鹤类通讯》是中国鸟类学会鹤类与水鸟专业委员会编辑的鹤类与水鸟信息交流的内部刊物，主要报道中国鹤类与水鸟的研究、保护、饲养、管理、宣传和教育工作动态和阶段成果，也报道国外鹤类研究动态及其它水鸟有关信息，欢迎同行及各界人士踊跃投稿。来稿要求①同时提交文字纸稿和电子版到本刊邮箱 [chinacranenews@yahoo.com.cn](mailto:chinacranenews@yahoo.com.cn)，注明联系电话、电子邮箱和“中国鹤类通讯稿件”字样。无电子版稿件恕不接收；②字数以 500—1000 字为宜，希勿超过 2000 字；③纸质文稿请用宋体小 4 号隔行打印；④内容简明扼要，相关地点请给出经纬度；⑤文末写明作者姓名、工作单位和邮政编码；⑥来稿可只用中文，

由本刊负责译成英文。

来稿请寄：230039 安徽省合肥市安徽大学生命科学学院王岐山教授收，截稿日期为每年 5 月 1 日和 11 月 10 日。

《中国鹤类通讯》已改用彩色封面，欢迎提供鹤类及水鸟的高质量彩色照片。同时欢迎各自然保护区和动物园提供介绍性稿件和照片，供刊登在封 2 和封 3。

本刊为半年刊，6 月和 12 月出版，向鹤类与水鸟专业委员会会员及国内外有关单位和个人免费赠阅。如因工作需要本刊者，请与丁长青博士联系，电子信箱：[cqding@mx.cei.gov.cn](mailto:cqding@mx.cei.gov.cn)，电话：010—64807280，13701245927。

## Notice to contributors

*China Crane News* is one of the publications of China Crane and Waterbird Committee (CCWC). We publish papers, articles and comments bilingually (in Chinese and English), covering the update and periodical results on the research, conservation, captive breeding, management, education and public awareness of cranes and waterbirds in China. Please send your contributions (paper, article, comments or photographs)

to Prof. Wang Qi-Shan at [chinacranenews@yahoo.com.cn](mailto:chinacranenews@yahoo.com.cn)

*China Crane News* is semiyearly published in June and December. It will be distributed freely to CCWC members and others who interested in Chinese crane and waterbirds. If you want to get *China Crane News*, please contact Dr. Ding Chang-Qing at [cqding@mx.cei.gov.cn](mailto:cqding@mx.cei.gov.cn)

## 中国海外学术交流协会（简称：海外学协）

中国海外学术交流协会（简称：海外学协；英文：Chinese Academic Link International Association, 英文简称：CAL）于1990年由一批热心于中美两国学术交流的海外学子和学者组成的非赢利组织，其宗旨是建立中国和美国之间的学术联系。海外学协于1991年夏天开创与国内科学界共同主办学术讲座，1992年首先向中国国家图书馆提出收集海外学子博士论文的建议等学术活动，都得到各学术界热心的支持和肯定。海外学协与海外的许多学术团体一起协助欧美同学会举办了具有战略影响的《21世纪中国研讨会》，并协助中国科

协建立起“海外智力为国服务行动计划”的平台，让更多的海外学子以各种方式为中国的科学技术发展服务、为中国的现代化服务。海外学协还建立了各种基金会，帮助贫困大学生、支持出版学术刊物和奖励学有所成的科学工作者。

十多年来，海外学协的许多成员已经在美国和中国成为科学研究和各行业的领军人物和中坚。海外学协现任理事长为伍仲仁博士 [zhongren@yahoo.com](mailto:zhongren@yahoo.com)，会长为王建军博士 [jwangj@aol.com](mailto:jwangj@aol.com)。

### A brief introduction on “Chinese Academic Link International Association”

Founded in 1990, the Chinese Academic Link International Association (CAL) is a non-profit organization of Chinese overseas students and scholars with a mission to establish an academic link between China and the United States. In the summer of 1991, the CAL was the first to sponsor and organize seminars and lectures with scientists in China. In 1992 the CAL proposed to the China National Library to collect Ph.D. dissertations from the overseas students and scholars. The CAL's idea in upholding academic exchanges gained wide supports from the Chinese science community. The CAL, as a co-sponsor, together with many other

overseas professional groups, assisted Western-Returned Scholars Association to organize the influential “Symposium on the 21st Century China.” The CAL is also one of the overseas sponsors for “HOME Initiative,” a platform established by Chinese Association for Science and Technology, paving the way for many of those who intend to work in China. The CAL also sets up foundations and awards, offering financial assistance for college students, academic publications, and promising scientists.

Over the years many CAL members have become leaders and experts in various science and academic fields.

Please contact Chairman, Dr. Zhongren Wu (zhongren@yahoo.com) or President,

Dr. Jianjun Wang (jwangj@aol.com) for more information.