



BIRDLIFE INTERNATIONAL  
INTERNATIONAL WATERFOWL AND WETLANDS RESEARCH BUREAU  
INTERNATIONAL UNION FOR THE CONSERVATION  
OF NATURE AND NATURAL RESOURCES

## SPECIALIST GROUP ON STORKS, IBISES AND SPOONBILLS NEWSLETTER

VOLUME 7 (NUMBER 1/2) JULY 1995

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### LETTER FROM THE CO-CHAIRS

Too much time has passed since the last SIS Newsletter was published. We would like to offer our apologies for the fact that it took so long to publish this issue of the SIS Newsletter.

Much regarding SIS has happened over the past year. An international forum on the reintroduction of the Oriental White Stork was held in Toyooka, Japan and an important Action Plan Meeting for Black-faced Spoonbills was conducted in Taipei, Taiwan. Reports on both events can be found in the newsletter.

Recent field reports indicate that the Giant Ibis is still surviving in the border area of Cambodia and Lao PDR. This is very exciting news as this species has rarely been sighted this century; full reports on the most recent observations can be read in this newsletter issue.

Several important meetings involving SIS have been scheduled for the next few months. One of them is a Stork, Ibis and Spoonbill Conservation Assessment and Management Plan Meeting (CAMP) to be held in Khao Kheow, Thailand, 26-29 July 1995. We plan to use the results of this meeting in producing the first draft of the SIS Conservation Action Plan that is to be published with IWRB and IUCN/SSC in 1996. Full participation by our members will be required in the production of the action plan and we look forward to working together with you on this. Recent data on the status of SIS species occurring in your region and data on threats, recommended action, relevant wetland areas etc., etc. will all be most welcome.

Last but not least, we would like to thank Cathy King of Rotterdam Zoo for her kind assistance in helping us prepare this newsletter for publication. She has kindly offered to continue working with us in producing further issues of the SIS Newsletter.

-- Koen Brouwer and Malcolm C. Coulter

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## ANNOUNCEMENTS

### SIS CAMP TO BE HELD

The Stork, Ibis and Spoonbill Conservation Assessment and Management Plan Meeting (CAMP) is scheduled to be held in Khao Kheow, Thailand, 26-29 July 1995. Further details can be found in Volume 6(1/2) of the SIS Newsletter and/or obtained from the Specialist Group chairs. A full report on this meeting will be published in the next issue of the SIS Newsletter.

### BLACK STORK MEETING

Dates have been set for the 2nd International Conference on the Black Stork. The meeting is scheduled to take place 21-24 March 1996 in Trujillo (Extremadura), Spain. The Association for the Defence of Nature and Natural Resources of Extremadura (ADENEX), the Iberian Council for the Defence of Nature (C.I.D.N.) and the SIS Specialist Group will be hosting the conference. Themes of this symposium will include migration, breeding and wintering of Black Storks. Further details will be sent to all persons that have indicated an interest in this species and/or attended the first meeting in Riga, Latvia in 1993. The proceedings of this first meeting should also be available at the end of 1995. Further details regarding the meeting and/or on obtaining the proceedings can be received from the SIS Specialist Group or ADENEX (address: C/Cuba, 10 - 06800 Merida, Spain).

-- Juan J. Ferrero and Koen Brouwer

### SIS ACTION PLAN

We are developing the Conservation Action Plan for Storks, Ibises and Spoonbills throughout the world. The Action Plan will highlight important conservation needs for the international community and will be used in generating funds to help fulfill these.

We have mentioned the preparation of the Action Plan in previous newsletters and the upcoming CAMP for SIS will be an important cornerstone for this. In the past, we have requested information on the status and conservation needs of species in your geographic area and species with whom you are familiar. Many people have provided a great deal of information.

We encourage you to send additional data that you feel will be helpful or pertinent to Malcolm Coulter or Koen Brouwer. We do hope to hear from you soon.

-- Malcolm C. Coulter and Koen Brouwer

### PHOTO-IDENTIFICATION OF SADDLEBILL STORKS

A research project on Saddlebill Storks *Ephippiorhynchus senegalensis* has been underway for four years in South Africa. One facet of the study has been identification of individuals, based on details of the anterior edges of the black band across the red bill. Of course, the sexes are also easily separated, as males have brown eyes and yellow wattles and females have yellow eyes and no wattles. A photo competition carried out in 1993 indicated that at least 25 individuals were present in the 20,000 km<sup>2</sup> Kruger National Park, and nine nests were discovered during an intensive aerial census and a further eleven in follow-up surveys.

Close-up photographs of the same individual Saddlebill Storks taken many years apart are desired to confirm findings. The photographs must be taken from the same side of the bird, as the markings differ on either side. The date to at least the year that the photographs were taken must also be known. Photos of birds taken when they were immature as well as adult would be particularly useful. Copies of such photographs from a zoo would be extremely valuable to the study, and assistance would be fully acknowledged in any publications arising from this work. Preliminary data indicate that markings change little throughout the life of the bird.

-- Alan Kemp, Transvaal Museum, P.O. Box 413, Pretoria, South Africa

### MARABOU STORKS NESTING IN KRUGER NATIONAL PARK

Marabou Storks *Leptoptilos crumeniferus* are present in Kruger National Park (South Africa) every month of the year, and much of the population consists of juvenile birds. Yet only one confirmed breeding attempt, occurring in 1969, had been reported in the park until recently. On 13 October 1992 three substantial nests being utilized by Marabou Storks were found in the park behind rubbish tips at Skukuza. Aerial inspection on 15 October revealed

that one nest contained two eggs and another was lined with green material. One chick hatched from the first nest by 10 November, but both the chick and the unhatched egg had disappeared by 1 December. No further use of the other two nests was observed.

Source: Whyte, I.J. and J.P.A. Otto 1993. Marabou nesting in the Kruger National Park. *Ostrich* 64:186.

#### BLACKFACED SPOONBILL COLONY DISCOVERED IN SOUTH KOREA

In 1994, 10 to 20 pairs of Blackfaced Spoonbills *Platalea minor* were discovered breeding in an egretty on a small island north of Kanghwa Island in the Han River Estuary, Kyonggi Province, South Korea. This is the first breeding record outside of North Korea in recent years. The island is near the Demilitarized Zone between the Koreas. Colony counts were not made in 1994 due to the military sensitivity of the area, but it is hoped that a census will be made in 1995. The south coast of South Kangwha is an important site for spoonbills during post-breeding dispersal. Regular counts of 80 adults and immature birds have been made over the last five years.

Source: Oriental Bird Club Bulletin (1994) 20.

#### BLACKFACED SPOONBILL ACTION PLAN

The Blackfaced Spoonbill *Platalea minor* is a rare estuarine bird of eastern Asia. The only known breeding sites consist of a few island colonies along the western coast of North Korea and a recently discovered colony near the demilitarized zone between the Koreas. The population is better known from the wintering grounds that stretch from southern Japan to northern Vietnam. The total population is about 400 birds.

The Republic of China (ROC/Taiwan) recently made a large initiative for the conservation of the species. The Taiwan Wild Bird Society requested an international meeting to develop a conservation plan for the species. In January, The ROC Ministry of Agriculture sponsored an intensive meeting to develop a conservation action plan. The workshop was convened by Lucia Liu Severinghaus [Taiwan Wild Bird Society]. Participants represented Taiwan (Lucia Liu Severinghaus, Ying Wang), The Democratic People's Republic of Korea (Jong Ryol

Chong), Hong Kong (Simba Chan), SIS (the two co-Chairs), and the Foundation for Spoonbill Research, Netherlands (Ernst Poorter).

A week was spent working from morning to dusk and beyond to develop the conservation plan. This is being revised and will shortly be sent to all range countries for comments and revisions.

This is a great step for an endangered species. We thank the ROC Ministry of Agriculture and the Taiwan Wild Bird Society for their support.

-- Malcolm C. Coulter and Koen Brouwer

#### SIS SURVEYS IN CAMBODIA

A survey of large waterbirds and wetlands was carried out during the dry season in late March and April 1994 by the Asian Wetland Bureau (Taej Mundkur) and the Wildlife Protection Office of the Cambodian Forestry Department (Sun Hean and others) and World Conservation Union (Peter Carr and David Ashwell). Surveys were made aerially over Boeng Tonle Sap (Great Lake) and Tonle Sap river, the entire coast, the Mekong River, and selected forests of the north and east. In addition, boat and ground surveys were carried out at several of these sites. Several important and interesting observations were made on threatened SIS and other waterbirds.

Findings included the discovery of a breeding population of Greater Adjutant Storks *Leptoptilus dubius* in the flooded forests around the west side of Boeng Tonle Sap. This is the only known breeding location of this globally threatened species outside of northeastern India, where a population of 600 birds is found. The Greater Adjutants in the Tonle Sap area were breeding with Lesser Adjutant Storks *Leptoptilus javanicus*, Painted Storks *Mycteria leucocephala*, Blackheaded Ibises *Threskiornis melanocephala* and Spotbilled Pelicans *Pelecanus philippensis*. A Greater Adjutant chick that was reported to have been collected from another colony close to the coastal forest north of Sihanoukville was observed. This suggests that the species could be widespread and the national population is estimated to be between 100-200.

Small numbers (up to four) of Blacknecked Storks *Ephippiorynchus asiaticus* were observed across the country. The presence of a family group with two juveniles at Boeng Chhma in the southeast of Boeng Tonle Sap raises the possibility that the species

continues to breed in Cambodia. Woollynecked Storks *Ciconia episcopus* were also observed in small numbers across much of the country, with a maximum of 23 sighted at a water hole in the middle of dense deciduous forests of Mondulhiri Province.

A flock of 15 Milky Storks *Mycteria cinerea* were observed over the mixed colony of storks, pelicans and ibises in the flooded forest in the west of Boeng Tonle Sap, and a single bird was seen on the coast at Stung Kampong Smach. One other observation of the species in the country has been made in the last several decades. The recent sightings indicate the continued presence of a Milky Stork population in Indochina (Cambodia and Vietnam) that is distinct from the large population in Indonesia and Malaysia.

Small flocks (up to 300) of Asian Openbill Storks *Anastomus oscitans* were observed on and around Boeng Tonle Sap although they had already completed breeding and no colonies were seen.

Small numbers of Glossy Ibis *Plegadis falcinellus* and Black-headed Ibis were observed around Boeng Tonle Sap, although only the latter was found breeding. During an aerial survey of Boeng Tonle Sap, an unsatisfactory and very brief sighting of an ibis was made in the forest around Boeng Chhma, and it was suspected to be a Giant Ibis *Thaumatibis gigantea*. The species has since been reported once in the same area by staff of the local Forestry Office (Sun Hean, pers. comm). On another aerial survey in the northeast Ratanakiri Province, two unidentified ibis were briefly observed on a forested stretch of the Tonle Kong river. On being disturbed by the plane, they flew out of view into the trees bordering the river. Jeb Barzen and his team (pers. comm.) observed a single Giant Ibis on the Sen river not too far from this site a few months later. This region adjoins south Lao PDR where the species was rediscovered in 1993 (see following articles). No White-shouldered Ibises *Pseudibis davisoni* were observed although some villagers reported their occurrence.

The surveys revealed that there is still a large and diverse representation of SIS in Cambodia, although some species have definitely declined in the last few decades. Hunting of eggs and chicks of the colonial SIS species appears to be a problem, especially around Boeng Tonle Sap, where large numbers of Painted Storks were collected. Other species collected include Greater and Lesser Adjutant Storks. The impact of this is not fully known, although it is suspected to be severe for some

species at least. Additional studies to address these issues are being planned.

Details of the survey are available in:

Mundkur, T., Carr, P, Sun Hean, and Chimm Somean. 1995. Surveys of Large Waterbirds in Cambodia March-April 1994. IUCN Species Survival Commission. IUCN, Gland, Switzerland and Cambridge, U.K.

-- Taej Mundkur, Asian Wetland Bureau, IPT  
Universiti Malaya, 59100, Kuala Lumpur,  
Malaysia

#### OTHER SIS SIGHTINGS IN NORTHEASTERN CAMBODIA

A group of observers organized by the International Crane Foundation surveyed areas in northeastern Cambodia for the Eastern Sarus Crane *Grus antigone sharpii* during the middle of the rainy season in August 1994. Important sightings of storks and ibises in the area were also made during these surveys. The survey team included Buphar Amget (Royal Forest Department, Thailand), David Ashwell (IUCN), Maurizio Dioli (private Kouprey ecologist), Jean Marie Hommy (pilot, Aviation Sans Frontieres), Pak Vong Somethy (Cambodian Wildlife Protection Office, Forestry Department), and myself.

We conducted aerial surveys during a total of 4.25 hours on 13-14 August. Most of Stung Treng Province, the southwestern tip of Ratan Kiri Province, and a strip along the eastern side of the Mekong River through Kratie Province were covered. Wetlands in this area ranged from 1 to 1000 ha and were scattered in clumps over a large area. Forests adjacent to these wetlands ranged from dense evergreen to very open Dipterocarp forests.

Large waterbirds found included one Giant Ibis *Thaumatibis gigantea* flushed from a tree approximately 30 km upstream of where the Se San and Sre Pok Rivers meet (Stung Treng Province). Prior to a 1993 record of two Giant Ibises in Laos, about 110 km north of our sighting, the Giant Ibis had not been seen for over 30 years.

Three pairs of Eastern Sarus Cranes, including 2 pairs with eggs or chicks, 8 Lesser Adjutant Storks *Leptoptilos javanicus*, 10 Greater Adjutant Storks *L. dubius*, 3 Blacknecked Storks *Ephippiorhynchus asiaticus*, and 10 Woollynecked Storks *Ciconia episcopus* were also seen during the survey. Few other waterbirds were seen, but concentrations of

the species observed were greater than those recorded the 1994 dry-season (T. Mundkur, pers. comm.). The higher concentration of Greater and Lesser Adjutant Storks in this area in August may reflect a migration of birds out of the Tonle Sap region during the rainy season when water levels are high. No stork nests were seen, although the presence of breeding storks cannot be ruled out.

The scattered, isolated nature of wetlands in this region of Cambodia have provided a safe haven for storks and breeding cranes during many years of warfare. Although our survey was brief, the results suggest that many large waterbirds remain in the northeastern part of Cambodia. In addition, even though the overall diversity of waterbirds is low, most of the large waterbird species found using these scattered wetlands are rare. When civil war currently disrupting Cambodia ends, protection of these scattered wetlands will need to address potential conflicts that may result as many people move back into this area to exploit its resources. To prepare for peacetime, we must complete surveys of these forgotten wetland complexes soon.

-- Jeb Barzen, International Crane Foundation, E11376 Shady Lane Road, Baraboo, Wisconsin 53913, USA

#### RECORDS OF LARGE WATERBIRDS IN SOUTHERN LAO PDR IN 1995

Fieldworkers from WCS (The Wildlife Conservation Society) conducted a rapid environmental assessment in the area of the Xe Nam Noy - Xe Pian hydroelectric project in Champasak and Attopeu Provinces in March - May 1995. A full account can be found in Evans *et al.* (1995). Results further emphasise the outstanding value of the Xe Pian catchment, first shown by Duckworth *et al.* (1993).

The most exciting records were two sightings of single Giant Ibises *Thaumatibis gigantea* on 7 and 9 May 1995 about 10 km apart along the banks of the Xe Pian river where it flows through Xe Pian National Biodiversity Conservation Area. This is the same reserve where two were seen in February-March 1993, the first confirmed records for many years (Duckworth *et al.* 1993).

There were also several sightings of a party of three White-shouldered Ibises *Pseudibis davisoni* along the same stretch of river on 5 and 8 May 1995. One bird was seen there a few times in March 1993.

Singles and small groups of Masked Finfoots *Heliopais personata* were seen on many days along the Xe Pian, at scattered sites both within the reserve and along the unprotected stretch to the north. These birds conceivably nest in the area.

Other significant large waterbirds included four Oriental Darters *Anhinga rufigastrea*, one Lesser Adjutant Stork *Leptoptilos javanicus* and several small groups of Woollynecked Storks *Ciconia episcopus*. The plains around the lower Xe Pian are also known to support Sarus Crane *Grus antigone* (which may still nest) and White-winged Duck *Cairina scutulata*.

The most significant area for large waterbirds is already within the reserve boundaries but is under high human pressure (for example, there are several large villages within the boundaries). The remainder of the lowland part of the Xe Pian and its main tributary the Xe Khampho are included in proposed new reserves, though there is as yet limited information on many of the important species believed to inhabit them.

The impact of the hydroelectric project, which will divert the Xe Pian headwaters into a different river system, will depend on the degree of compensation flow allowed below the dam. Based on current proposed figures, the impact is expected to be relatively low within the existing reserve, but the important populations of Masked Finfoot and White-winged Duck upstream may be badly affected.

#### References

Duckworth, J.W., Evans, T.D., and R.J. Timmins. 1993. A wildlife and habitat survey of Xe Pian National Biodiversity Conservation Area, Champasak Province, Lao PDR. Unpublished report of the Lao-Swedish Forest Resources Conservation Project.

Evans, T.D., Tizard, R.J., Duckworth, J.W., and W.V. Bleisch. 1995. Results of a wildlife survey in the area of the Xe Nam Noy - Xe Pian Hydroelectric Project. Unpublished report to EWI.

#### BLACK STORK BANDING IN CHINA

Two Black Stork *Ciconia nigra* nestlings between 25-30 days of age were banded with both a plastic and a metal ring in Xayar County, Tarim Basin, Xingjiang (41°00'N and 83°10'E) on 10 July 1994 by researchers from the Xinjiang Institute. These are the first Black Storks to be ringed in China in

cooperation with a developing international banding program for this species. Observations of Black Stork nests in the Tarim Basin were difficult in 1994 because of extreme flooding, and the nesting population was smaller than in previous years due to the high water level of the lake.

One of the chicks, given plastic ring no. 901 and metal ring no. M00-5530 had a body weight of 1850 g, body length of 550 mm, wing length of 200 mm, culmen length of 83 mm and tarsus length of 135 mm. The other chick, given plastic ring no. 902 and metal ring no. M00-5600 had a body weight of 1900 g, body length of 540 mm, wing length of 190 mm, culmen length of 77 mm and tarsus length of 125 mm.

-- Ma Ming, Xinjiang Institute of Biology, No 40 Beijing Road, Urumqi 830011, Xinjiang, China

#### NEWS FROM WEST BENGAL, INDIA

Two Black Storks *Ciconia nigra* were seen 9 February 1993 at the Gulmakhola River bed inside the Mahananda Wildlife Sanctuary about 15 km from Siliguri. This species is rarely seen in the area.

Although storks and ibises, among other waterbirds, were regularly seen along the Mechi River on the eastern Nepal-India border according to local inhabitants, sighting have declined dramatically, presumably because of habitat loss and disturbances by local people and poachers.

Poaching of birds such as storks, ibises, teal and snipes has been recorded frequently in this border area in recent times. For example, a poacher from nearby Bihar State in possession of a Greater Adjutant Stork *Leptoptilos dubius* and a Black Ibis *Pseudibis papillosa* was arrested by the Naxalbari police in the Darjeeling District in February 1993. The poacher was sentenced within the month, and was given a six month prison sentence. The stork died at the police station and the ibis was released with the help of wildlife department officials, as are other living birds confiscated from poachers.

Sikkim, Bhutan and North Bengal in the state of West Bengal are rich in habitats suitable to waterfowl, including migratory species. Unfortunately such sites are being threatened by poaching, hunting, habitat loss, cattle grazing and human disturbance. A project to census areas, promote protection measures and to initiate an

awareness campaign is needed. This could be undertaken jointly by BirdLife, the Wildlife and Forestry departments, and various NGOs, such as the North-Eastern Society for Preservation of Nature and Wildlife (NESPON).

-- Tarun Kr. Roy, Liaison Executive, NESPON, 342/B, Diesel Colony, Siliguri Junction, P.O. Prodhana Nagar, Siliguri-734403 (W.B.), India

#### BIRD SURVEYS IN ASSAM, INDIA

A conservation grant of £500 was awarded to Professor P.C. Bhattacharjee by the Oriental Bird Club to carry out a avifaunal survey of Kaziranga National Park. The park is one of the most important bird conservation sites in northeastern India, falling within the Assam Plains Endemic Bird Area. A number of globally threatened species, including the Greater Adjutant Stork *Leptoptilos dubius* and Lesser Adjutant Stork *Leptoptilos javanicus*, among others, are found in this area. Professor Bhattacharjee will provide an up-to-date checklist and status report of the avifauna that will be used to advocate the implementation of suitable conservation authorities and to guide future research.

Dr. A. Choudhury reported that survey work in the 640 km<sup>2</sup> Dibru-Saikhowa Wildlife Sanctuary continues to be financially assisted by 'Naturetrek'. The study was initiated in July 1992 but since April 1993 more emphasis has been placed on birds. More than 250 species have been found in the sanctuary and nearby villages, tea gardens and two forest reserves. *Ciconiiformes* recorded include Black Stork *Ciconia nigra* and Greater Adjutant Stork.

Source: Oriental Bird Club Bulletin (1994) 19.

#### REGIONAL MANAGEMENT OF AMERICAN WOOD STORKS

We have become increasingly aware that, in the United States, *Ciconiidae* are weakly faithful to their breeding areas. They return to their breeding sites each year, but when conditions are no longer suitable, they move to other areas. With the decline in suitability of the Everglades in southern Florida, American Wood Storks have had poor breeding success in the area and many have moved north to breed.

The Georgia Conservancy organized a regional meeting on Wood Storks *Mycteria americana* in 1993 in order to increase communication among researchers and managers working in different regions and states. This effort has been highly successful. The Georgia Conservancy organizes a meeting of researchers and managers at least twice a year to share information and discuss the needs of the American Wood Stork. Our recent effort has been to revise the Recovery Plan for the species. The plan is more than 10 years old and in need of revision to include the interest and research on the species.

We feel that regional sharing of information and management will be helpful for many Ciconiiformes species.

-- Malcolm C. Coulter

#### JABIRU STORKS IN COSTA RICA

Surveys for Jabiru Storks *Jabiru mycteria* were conducted between January and April 1993 at Laguna Mata Redonda, Guancaste Province, Costa Rica. The total population in the dry season was estimated to be 23 individuals for this area; this is the site of the greatest concentration of Jabirus in Costa Rica. Two nests were additionally found in Palo Verde Park. The nests contained three and four chicks, and were located in *Schizolobium parahybum* trees greater than 10 m in height.

The Jabiru Stork is considered to be threatened at the local level, and no management plan for Mata Redonda exists. A number of practices, including dry season burning, illegal hunting and fishing, pollution of the water by agricultural chemicals and rapid deforestation threaten the integrity of the area.

Source: BirdLife International Pan American News 9(2): 1994.

#### SIS NEWS FROM MEXICO

The Jabiru Stork *Jabiru mycteria* was added to the list of Mexican national endangered species in 1991. Important wetland areas for Jabiru Storks are the Usumacinta and Grijalva Delta, to the south of the Gulf of Mexico in the states of Tabasco and Campeche. The most important breeding area known in this region is around Laguna de Terminos in the state of Campeche. This is also the northern extreme of the Jabiru Storks' breeding range.

The largest number of adults counted during my surveys of Laguna de Terminos in 1989 and 1990 was 16. This number is similar to numbers observed by other researchers between 1971 and 1987 in Tabasco and Campeche, although one exceptional count of 83 adults together was made in 1978. Laguna de Terminos is a vast wetland and surveys have been incomplete; more thorough efforts would probably reveal a larger population.

The 1989 and 1990 surveys indicated that populations of some other Ciconiiformes, particularly the American Wood Stork *Mycteria americana*, are declining in the area. Colonies of up to 10,000-15,000 nesting pairs of Ciconiiformes were found at Laguna de Terminos during aerial surveys made by the Audubon Society between 1971 and 1979. One colony included 8,000 pairs of the American Wood Stork; this was the largest colony known to date in North and Central America. In both 1989 and 1990, four mixed-species colonies were located at Laguna de Terminos, with total survey counts of 3,500 and 3,000 pairs respectively, most of which were American Wood Storks. The American Wood Stork was also added to the Mexican national endangered species list in 1991.

Although White Ibises *Eudocimus albus* and Cattle Egrets *Bubulcus ibis* were observed feeding in the area, there was no evidence that they were breeding there. Nesting colonies of these species were reported from Tabasco between 1971 and 1979 by Audubon Society surveyors.

-- Iliia Hartasanchez H., Apartado Postal 4-242, Itzimna C.P. 97100, Merida, Yucatan, Mexico

#### WILD (?) EUROPEAN WHITE STORKS SEEN IN THE NEW WORLD

White Storks *Ciconia ciconia* of uncertain age, but all with dull-reddish bills, were photographed in the following locations in 1993:

14 Aug.: St. John's Antigua, West Indies (17°09'N, 61°49'W)

16 Aug.: Chipley, Florida, USA (30°48'N, 85°32'W)

18 Nov.: Pelican Island, Florida, USA (27°50'N, 80°29'W)

The only captive White Stork known to have recently escaped from an ISIS-participating institution in the North American region before these observations were made was from St.

Catherine's Island, Georgia, USA (31°35'N, 81°10'W), where a 68-day-old unclipped, unpinioned juvenile flew off while being handled on 1 July 1993.

I am attempting to construct a logical scenario for these confirmed observations for a forthcoming paper. In order to do so, I would greatly appreciate advice on the following questions:

1. Are there White Storks known to be in captivity in the North American region that are not in ISIS-participating institutions? Where? Are any of those known to have escaped recently prior to these observations?
2. Given the White Stork's known energetics and methods of flight, can anyone envision a way that one or more storks could cross the Atlantic Ocean (ca. 6,000 km) or fly from Antigua to Chipley (downwind distance ca. 3,800 km) in 38 hours or less?

Any information or ideas or information would be appreciated.

-- P.W. Smith, P.O. Box 901341, Homestead, Florida 33090, USA.

#### INTERNATIONAL FORUM ON REINTRODUCTION OF ORIENTAL WHITE STORKS TO TOYOOKA, JAPAN

An international forum was held 25-26 June, 1994 in Toyooka, Japan, the last site in which Oriental White Storks *Ciconia boyciana* lived in Japan. The last Oriental White Stork was removed from the wild in Japan in 1971, for a captive breeding program. The first captive breeding success in Japan occurred in 1988, at the Tokyo Tama Zoo. Since that time the Japanese captive population has been steadily increasing; Oriental White Storks bred in four Japanese zoological facilities in 1994. One of the birds removed from the wild in Japan during the 1960s bred successfully for the first time in 1994 at the Toyooka White Stork Breeding Center, and second generation captive bred chicks were also produced in 1994 for the first time in Japan at the same facility. Mr. Toru Hasegawa (Tokyo Tama Zoo) is the Japanese and International Studbook keeper for the Oriental White Stork, and will be working with regional studbook keepers in China, North America and Europe.

The purpose of the international forum was to introduce the idea of reintroduction of this stork to the people of Hyogo Province, the province in which the reintroduction will take place, as well as to discuss captive breeding and reintroduction strategies with guest speakers from other countries. Visits to the White Stork Breeding Center and the potential reintroduction site were made prior to the forum. The reintroduction site, encompassing 90 ha, is currently under ownership of 90 people, who, following the forum, agreed to make their lands available for the reintroduction project. A visitor's center, veterinary and breeding facilities, and predator-proof "soft-release" enclosures will be built on site. Suitability of the site, similar in landscape to the last Oriental White Stork breeding location in Toyooka, will be enhanced by placement of additional nesting and perching structures and a series of fish ponds for feeding.

The forum was attended by approximately 850 people, and presentations were given by Vladimir Andronov, Director of the Khingansky Natural Reserve where Oriental White Storks breed in Russia; Koen Brouwer, Co-chair of the BirdLife/IWRB Stork, Ibis and Spoonbill Specialist Group; Catherine King, Chair of the European Ciconiiformes Taxon Advisory Group; Kojiro Matsushima, Director of the Toyooka White Stork Breeding Center; and Michael Wallace, U.S. Fish and Wildlife California Condor Recovery Team Leader. The forum was opened by His Royal Highness Prince Akishino and regional government officials.

The second day of the forum was a public day in which a drama entitled "The Oriental White Stork Fly High" was performed by the ensemble "Niji" and the popular public figure Hiroshi Yagu interviewed aged people living where the last Japanese White Storks had resided, school children and the speakers.

-- Catherine E. King and Koen Brouwer

#### NIGHTTIME FORAGING BY SIS AND BY OTHER WATERBIRDS

It has long been suspected that many waterbirds may be active at night, but supporting evidence has been scarce because of the difficulty of nocturnal observations. While the availability of electronic light intensifiers has alleviated some of these problems (e.g., McNeil. 1991. Proc. Int. Orn. Cong. XX: 1098-1104; Fasola. 1983. Ardea 72:217-222), accumulation

of data has been slow, perhaps due to the difficulties of nighttime fieldwork, or to lack of attention.

During February 1992, I had the opportunity to make extensive observation on a rich community of waterbirds at Lake Turkana, Kenya (for a complete report see Fasola and Canova, 1993. *Ibis* 135: 442-450). Several nights were spent watching the waterbirds along 15 km of shoreline with the aid of light intensifiers. The open waters without vegetation, the absence of dangerous animals along the desertic shore, and the beauty of the African night eased the work. Observations were distributed through the 24 hour circadian cycle, and a total of 23,459 instantaneous scan samples were obtained on the activity of 31 species (pelicans, herons, storks, ibises, spoonbills, geese, ducks, shorebirds). From these observations, we estimated the birds' activity rhythms and daily time budgets. For another 11 species (cormorants, gulls and terns), we observed nighttime roosts and concluded that their foraging activities were exclusively diurnal.

Most species carried on some foraging activity at night. Most Anatidae and waders (14 species) fed uniformly during the day and night. Another five species were primarily nocturnal feeders (herons, some ducks, Yellowbilled Storks *Mycteria ibis* and African Spoonbills *Platalea alba*, Fig. 1). Others fed largely during the day and less at night (flamingos, coots). The egrets, the Glossy Ibis *Plegadis falcinellus* and the Sacred Ibis *Threskiornis aethiopicus* fed only diurnally, the former ibis with a peak of activity around midday, the latter with morning and evening peaks.

The total time devoted to feeding was 19% of the 24-h day for Yellowbilled Storks, 27% for African Spoonbills, and 49% for both Glossy and Sacred Ibises. The proportion of time spent foraging was inversely related to the species' body sizes. Yellowbilled Storks appeared very indolent. They roosted almost all day, sleeping or resting, and devoted only 16% of the time to comfort behaviors. At dark, some storks simply walked a few meters from the roost to the lake where they hunted by standing for hours with their bills in the water. More frequently, however, they hunted by walking and immersing their bills at regular intervals, sometimes feeding in small groups.

Glossy and Sacred Ibises spent the night in communal roosts, usually formed by a core of many gulls and a fringe of a few egrets, pelicans and ibises along the muddy lake shore. The cormorants and some terns gathered in other, monospecific roosts.

All these birds commuted from their dispersed foraging areas to the roosts, arriving between 1835 and 1900 h (i.e., at or shortly after sunset); only the gulls began to congregate earlier, from 1630 h. The birds abandoned their roosts near sunrise, between 0615 and 0710 h. Spoonbills and ibises foraged alone or in pairs. Sacred Ibises usually foraged on the nearby arid, semidesertic land.

Surprisingly, feeding activities were not strongly concentrated in any particular time of day among most waterbirds. Species with uniform feeding activity usually captured small prey, using tactile or visual plus tactile cues. Most diurnal species captured large prey, using visual cues. Palaearctic migrants spent more time feeding than did residents. No support was found that moonlight influenced foraging activities. Environmental conditions at Lake Turkana were relatively uniform throughout the day as regards temperatures (from 30 to 39° C during the study period), wind (usually very strong) and water level (slightly and irregularly influenced by winds).

Since most waterbirds may spend considerable time foraging at night, any study of foraging behavior, use of resources, and particularly of time budgets, should include night observations as well as day observations.

Light intensifiers are approximately the size of diurnal telescopes and are easily portable. Visibility is best in open spaces and when there is some light from the moon or stars. Models with sharp image definition are needed for behavioral studies, but they are expensive. However, less expensive models are satisfactory to establish whether birds are active nocturnally.

-- Mauro Fasola, Dipartimento Biologia Animale, Piazza Botta 9, I-27100 Pavia, Italy

## CAPTIVE BREEDINGS AND BREEDING PROGRAMS

### SHOEBILL STORKS

A pair of Shoebill Storks *Balaeniceps rex* at Wilhelma Zoo in Stuttgart, Germany that had been together for some years were observed copulating and carrying nest material for the first time in October 1994. The female became egg-bound in early November and an emergency operation to

remove the egg was necessary. The intact 177.4 g egg was placed in an incubator but proved to be infertile. The female most unfortunately died shortly thereafter of peritonitis. Only one captive breeding of Shoebill Storks has ever been reported, this was from Lumbumbashi (Elizabethville) in Congo Republic in 1964. However, attempts to contact this zoo to verify the breeding have failed. To our knowledge no other eggs have been laid by Shoebill storks in captivity.

Source: G. Schlessner

#### OPENBILL STORKS

Both species of Openbill Storks hatched young in captivity in 1994; these are the only captive Openbill Stork hatchings known to have ever occurred. One pair in a group of nine Asian Openbill Storks *Anastomus ocitans* hatched three chicks at Bioparque El Retiro in Malaga, Spain during July or August 1994. One chick disappeared from the nest within a day, the other two survived for a couple of weeks but eventually died.

Two pairs from a group of 6 males and 2 females African Openbill Storks *Anastomus lamelligeris* received in 1990 hatched chicks at the San Diego Zoo in 1994. One pair produced 3 chicks in early June and the other pair hatched one chick about 1 August. None of the chicks survived.

Sources: G. Scheres and D. Rimlinger

#### SADDLEBILL STORKS

Saddlebill Storks *Ephippiorhynchus senegalensis* hatched for the first time in captivity at the Dallas Zoo in December 1994. The breeding male and female have become increasingly more proficient in their breeding activities since their gradual introduction at the end of 1989 and beginning of 1990. They proved to be quite compatible; copulations and much displaying were observed during the winter of 1992-1993 when a clutch of fertile eggs was laid but was broken.

Eggs were also laid during the winter of 1993/1994 and 1994/1995. Two chicks hatched during the last season, one was being reared by the parents and the other was hand-reared. Both chicks died, possibly because of feeding problems. Monitoring of the nest has been undertaken using video equipment and data will be analyzed to gather information on

breeding behaviors.

Source: C. Falzone and C. Siebel

#### ORIENTAL CRESTED IBISES

A 2.5 year old male and 3.5 year female Oriental Crested Ibis *Nippon nipponia* were sent from China to the Japanese Ibis Conservation Center on Sado Island in September 1994, in hopes that these birds would reproduce with the two surviving Japanese birds at the center. Two earlier attempts in 1985 and 1990 to breed the Japanese 28 year old female and more than 21 year old male with Chinese conspecifics failed. Unfortunately the newly arrived male died 13 December 1994 after two days of obvious weakening, despite medical treatment by a veterinarian from Tokyo Ueno Zoo. Although external injuries on the bird initially suggested traumatic death, a postmortem investigation at the Tokyo University revealed a heart abnormality that may have led to heart failure. On 30 April 1995 the old Japanese male also died of endocarditis. However, the young female he was paired with, produced five eggs just before his death. They were removed for artificial incubation but proved to be infertile.

Sources: Oriental Bird Club Bulletin (1994) 20; ASAHI, 13 and 14 December 1994; M. Saito, K. Murata and Y. Takaki.

#### HIHAG REGIONAL COLLECTION PLAN

A North American Heron, Ibis and Hammerhead (HIHAG) Regional Collection Plan for use by American Zoo and Aquarium Association (AZA) institutions was published recently. Revisions of a draft produced in 1993 were made following review by members and advisors, and the plan was published by the chair in June 1994. The plan will be updated periodically, particularly as global plans are developed.

The purpose of a regional collection plan is to coordinate and develop conservation efforts for the relevant taxa among institutions. Development of a regional collection plan entails a systematic assessment of available captive space for the taxa in question, and assignment of species priorities for captive breeding programs. Species priorities should reflect global conservation concerns.

Approximately 750 herons and 1750 ibises and

spoonbills are kept in AZA institutions. More than 25% of the ibis and spoonbill species are included in the IUCN Red Data Book, and at least 10% of the herons are considered at risk.

Only the Waldrapp Ibis *Geronticus eremita* of the 16 most endangered heron, ibis and spoonbill species is currently kept in North American institutions. As success in maintaining many ciconiiform species has been limited, the plan emphasizes development of expertise with common, currently held species before attempting to develop programs for more endangered species.

One criterium for selection of species for a captive breeding program is its suitability for a studbook or species survival plan. In view of the current emphasis in HIHAG management, some other criteria for species selection have been developed, including: husbandry research needed, appropriateness as a surrogate for a more threatened species and, lastly, suitability for a consortium effort to bring into AZA institutions because it meets one or more of the other criteria. The last three criteria are viewed as leading to less permanent programs than programs for SSP or regional studbooks, however the former may develop into the latter.

A total of 16 programs is proposed in the plan. Five programs have already been initiated. An "exhibit only and phase out" recommendation is made for three species, and no recommendation, other than no importation in the immediate future, is made for a number of species rare in AZA collections.

-- Anna Marie Lyles, Central Park Zoo, New York, USA

#### ORIENTAL WHITE STORK INTERNATIONAL STUDBOOK

A proposal for Mr. Toru Hasegawa of Tama Tokyo Zoo, Japan to undertake the Oriental White Stork *Ciconia boyciana* studbook was accepted by IUCN and IUDZG. Mr. Hasegawa has served as the Japanese regional Oriental White Stork studbook keeper for several years. He will work closely with the regional studbook keepers for this species, such as Mr. He Baoqing of China.

#### MILKY STORK REINTRODUCTION PROJECT PROGRESSES

Although the Milky Stork *Mycteria cinerea* reintroduction project initiated by the Malaysian Zoological Society in 1988 has been delayed by financial problems and the destruction of the breeding enclosure at Zoo Negara during a storm in 1993, some progress was made in 1994. The goal of the project is to produce sufficient F1 birds at Zoo Negara to supply a breeding enclosure at the proposed release site at Kuala Selangor Park, north of Kuala Lumpur. The F2 offspring produced in this enclosure will be allowed to fly freely; it is assumed that they will stay in the area because of the plentiful natural food supply as well as the attraction of the breeding colony.

Local landowners near the release site recently agreed to finance the building of a cage to house and breed F1 birds transferred there. A second breeding aviary is also now being built at Zoo Negara. The Milky Stork population at Zoo Negara consisted of 27 adults (ten wild-caught, 17 captive bred) and eight chicks in July 1994. Unfortunately one wild-caught Milky Stork which escaped during the storm that destroyed the breeding aviary at the zoo has formed a bond with a Painted Stork *Mycteria leucocephala* from a free-flying colony on zoo grounds, and the pair has successfully produced hybrid offspring.

Source: T.N. Yaacob

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-- Malcolm C. Coulter

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