# THE ICF BUGLE

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World Center for the Study and Preservation of Cranes

# The Black-necked Cranes of Longbaotan

by Liao Yanfa Xining People's Park

[Longbaotan Marsh lies on the roof of the world, the Qinghai-Tibetan Plateau, at about the same latitude as Charleston, S.C. U.S.A. Longbaotan is one of the sources of the Yangtse River as well as the summer home for one of the earth's rarest and least known cranes. Soon after the end of the Cultural Revolution, Chinese scientists traveled to Longbaotan to study the Black-necked Cranes.

Mr. Liao is the Deputy Director of Xining People's Park where in 1986 the Blacknecked Crane successfully bred in captivity for the first time. We are delighted to present Mr. Liao's exciting account of his most recent expedition to Longbaotan.]

In late March every year, the Black-necked Cranes return from southern China to the Qinghai-Tibetan Plateau. The cranes build nests where grasses and reeds abound and human settlements are far away. They lay their eggs in May. After more than three months of care, the chicks fly with their parents south to Yunnan, Guizhou, and southern Tibet for wintering.

My colleagues and I had first surveyed the cranes at Longbaotan in 1978, on behalf of

the Chinese Ministry of Forestry. We returned to Longbaotan in late May of 1986. We hoped to improve our captive breeding efforts by studying the breeding behavior of cranes in the wild.

#### A harsh environment

Longbaotan lies in Qinghai Province, 1080 km. from Xining, the provincial capital. Longbaotan is a wetland 25 km. long and 2-3 km. wide, surrounded by mountains on all sides and fed by many springs and seven mountain streams. Principally a grassy marshland, Longbaotan has five fresh water ponds and numerous grassy mounds scat-

tered abour one to four meters apart with mud in between. Anyone who steps into the mud carelessly will have to be pulled out by others.

Longbaotan has an elevation of 4200 meters. The weather is unpredictable, with very strong winds and sudden storms. Ultraviolet light is so intense that local inhabitants are all dark skinned, and we looked the same after living here for ten days. The daily range of temperature is great. In mid June, the thermometer may reach 13° to 15° C in the afternoon of a fine day, but will drop to

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Two Black-necked crane chicks survey the world from their nest atop a grassy mound in Longbaotan Marsh, China. Photo by Liao Yanfa.

# A Saturday with "Ozzie" and "Harriet"

by Eileen Morrow

[Eileen Morrow recently joined the International Crane Foundation after reading about us in *Life Magazine*. She lives in a growing suburban area in Englewood, Florida and sent a fascinating account of two Florida Sandhill Cranes, known in her neighborhood as "Ozzie" and "Harriet." These birds have been adapting to humanity, and demonstrate what can happen when people refrain from persecuting cranes.]

The cranes usually fly into our neighborhood from the north. I believe that they come from a low-lying area with scrub pines and palmetto shrubs north of us about two miles.

In the morning about 8 a.m. they are in our back yard waiting for breakfast. Occasionally they honk to let us know they've arrived. We feed them (along with the cardinals, doves, red-winged blackbirds, and quails) regular wild bird seed and cracked corn. Usually Ozzie and Harriet dine alone. The other birds leave when they arrive, with the exception of a brave red-winged blackbird now and then. At first, the cranes fed out of a small bird feeder hanging from a twelve-foot oak tree. We now spread the food near the tree, rose bushes, and house, about eight feet from our view.

The cranes stay in our yard for hours. They also walk to the neighbors behind us and through the vacant lots on the sides of our house and across the street. This area across the street especially appeals to them after a rain. The ditch fills with about four inches of water. Ozzie and Harriet seem to like the rain. I've seen them stand into the wind of an oncoming storm, perfectly still while the rain pours down. Amazing!

#### Editor's Note:

On Christmas day Dr. Ronald T. Sauey, co-founder of the International Crane Foundation, suffered a cerebral hemorrhage in Baraboo, Wisconsin. Ron passed away on January 7. Memorial gifts may be sent to the International Crane Foundation. His family appreciates your prayers.

An extended article on Ron and his contributions to conservation will appear in the next issue of the *Bugle*.



These two Florida Sandhill Cranes make daily visits to the suburban yard of ICF member Eileen Morrow. The crane pair, never molested, has become remarkably tolerant of people and the changes they have brought to the landscape. Photo by Eileen Morrow.

We feed them at least once in the morning and occasionally again in the evening. They would stay all day if we kept the buffet coming! They walk toward the person carrying the feed bag, approaching me as close as five feet. But one of my neighbors once held a cup of food and they fed out of it. I guess I'm a bit more cautious, although I've wished to put my arms around them and hug them.

I've seen them play, dance, eat, drink, and (I think) mate. Last spring they disappeared for about four weeks. When they returned, a smaller crane was with them. The smaller crane would come and feed also, but after two weeks he disappeared. There are other cranes that feed nearby. I've seen as many as eight together about 3/4 mile from our house.

Our home is southeast Englewood, a fast developing area. We built our house three years ago and had two neighbors in a quartermile block area. We now have twenty homes. Where will the cranes go? Before development, this area consisted of pine trees, palmettos, grasses and marsh. The Myakka and Peace Rivers flow nearby. Now many homes, churches, shopping centers have sprung up, and even the Texas Rangers are building a training complex. It will be interesting to see how the cranes survive and cope.

At dusk the cranes move away from the power lines, run, and glide into the air, honking good-bye and flying north. I hope I can visit them there someday, but I can be sure they will visit us again tomorrow, as sure as the sun rises.

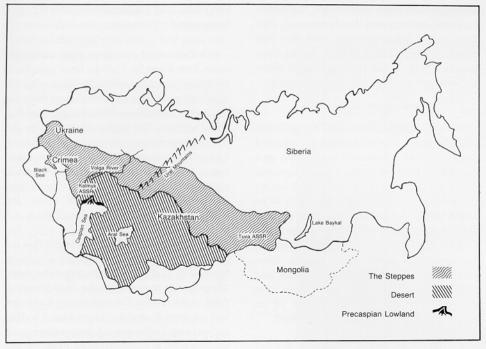
# Demoiselle Cranes Adapt to Changing Habitats in the U.S.S.R.

by Irena Neufeldt Zoological Institute Leningrad

[The Demoiselle Crane remains abundant on portions of its wintering grounds in India and Africa. But as the following report from the Soviet Union indicates, these crane populations continue to thrive only because of remarkable adaptations during the nesting season.]

In the mid 1950s on the vast steppe zone in Kazakhstan and European USSR, Demoiselle crane habitat began to decline due to excessive cattle pasturing and the cultivation of virgin lands for agriculture. The appearance of large numbers of people and machinery resulted in frequent disturbance and destruction of cranes, chicks, and eggs. The Demoiselle's initial response to these disturbances was to move away from its traditional feeding and breeding ranges.

Thus, by the late 1960s and early 1970s the number of Demoiselle Cranes had sharply declined over the whole steppe zone. In some regions of the Ukraine, Crimea, and



The steppe and desert regions of the Soviet Union. Map drawn by Pierre Manigault.

Precourasia, where irrigation and intertilled crops predominated, the Demoiselles completely disappeared. Developing agriculture pushed the cranes from the arid "chernozem" steppes to the extremely arid steppes of the south. Now breeding Demoiselles are moving into the semi-deserts of Kalmyk ASSR and Kazakhstan. In some regions, such as the Precaspian lowland, the Demoiselles have even begun to settle in the deserts for the first time.

The cranes have also learned to coexist with people by nesting near shepherds and

cattle in uncultivated pastures. This behavior has increased especially in the past few decades, although such coexistence has a long history in the central Asian steppes of Mongolia and nearby Tuva and Transbaikalia in the USSR. Pasture lands have become increasingly important for cranes in the extremely arid steppes and semi-deserts of Kazakhstan and Kalmyk ASSR.

Here, too, some new aspects of Demoiselle interrelations with human activity have appeared. First, at the same time that cultivation has increased in the steppe zone, cattle

farming has intensified in the semi-desert. In many places the pastures were formerly used by cattle only in the fall and winter, thus leaving the land to the cranes the rest of the year. The pastures are now being grazed all year, therefore posing a greater threat to the Demoiselles. Second, the expansion of cattle farming has led to a more extensive network of watering ponds. This has helped the cranes in these arid regions, promoting their penetration further into the semi-desert.

Surprisingly, the Demoiselles are also adapting to the human pressures on their habitat by learning to nest on agricultural fields. This adaptation has allowed the cranes to survive in those parts of the steppe zone where winter and spring crops are grown. The cranes especially are nesting on cultivated land in regions where their opportunities for nesting in natural habitats are limited or excluded, such as in the southern Ukraine and southern Volga where there is excessive sheep grazing on the remaining small plots of virgin steppe, and in the extremely cultivated hollows of Eastern Kazakhstan.

In European USSR the crops are rotated, thereby allowing cranes to choose optimal nesting conditions. They prefer to nest on fallow land or on fields with winter or early sowed crops. In Kazakhstan, however, with its spring wheat monoculture, the cranes do not have the luxury of choice. This population suffers during the spring tilling and sowing that coincides with the beginning of the breeding season. These Demoiselles are compensated for the early damage because later the fields are free of people and cattle until after the young cranes begin to fledge.



In extremely arid parts of East Kazakhstan, Demoiselle Cranes nest in areas used for livestock grazing. Photo by A.G. Lukhtanov.

#### Black-necked Cranes

Continued from page 1

 $-2^{\circ}$  or  $-4^{\circ}$  C in the early morning.

Since the busy highway to Zhiduo passes over the north bank of Longbaotan, the cranes choose grassy mounds and shoals in the southern part of the marsh for nesting. Some dozens of white or black-and-white feral dogs inhabit the the marshland. The damage they do to the birds should not be overlooked by the authorities concerned.

#### We look for cranes

Upon our arrival at Longbaotan, we drove around the wetland to have a general view. We observed a bird island 500 meters long by 100 meters wide, located in the central part of the marsh. Bar-headed Geese were the dominant species. In 1978 we had found only a few dozen geese, but now we counted at least 2,000 nests. Also there were hundreds of nests of White-eyed Pochards and Common Mergansers. We found altogether 19 Black-necked Cranes at Longbaotan: eight pairs at fixed locations, another pair with wide ranging activity, and a lone bird. This number is similar to the seven nests we found in 1978, with one lone bird in addition.

For the ninth pair in 1986, we couldn't locate the nest. But we noticed that sometimes they would stretch their heads and necks toward each other, a typical courtship activity that often occurs when nest and eggs have been destroyed. We had observed mating behaviors in captive cranes, and were now anxious to observe them in the wild.

We came back to this pair the next day, June 3. At 9:30 a.m. the pair flew to where a herd of cattle was grazing, less than 200 meters away from us. At first they slowly paced and fed. Then one of them suddenly opened its wings, flapping and jumping. It picked up a stem and threw it into the air, dancing and running around. The other bird responded by lowering its head, stretching its neck, then flapping its wings and jumping in a series of graceful movements. When we tried to approach, they moved toward the water and sang in unison.

As we continued to advance, the cranes flew off, and landed on the other side of a river. They walked slowly toward the rim of the marsh, entering the territory of another pair. Soon a large crane ran straight at them. The intruders called in unison. After a short moment, the two males began to fight. They kicked, pecked, and struck with their wings, falling and rolling together. The female

watched without any interference. But within a minute, the intruders slowly retreated, pursued by the defending male until they had left the territory. During all this time, the other female sitting on the eggs had never stood up, but just watched the scene uneasily.

#### We struggle to the nests

We had roughly determined the positions of all the nests. After we finished our breakfast on June 4, we decided to inspect the nest nearest to our camp. First we had to carry our rubber boat to the water some 800 meters away from us. We filled the boat with air so that it was easier to carry, but all of us soon felt exhausted, our lips blackened due to the lack of oxygen on the plateau. The distance between the grassy mounds was often unidentical with the length of the boat, and the jumping actions of the four persons were often unidentical, so that some of us unavoidably were falling into the mud.

The lake has a water depth of 0.2-0.3 meters. We had to cross two lakes to reach the nest. It was easy to paddle on the deep water regions, but there were few such places. Mostly we found shoals and grassy mounds. The boat, overloaded with four persons and much equipment, was often stranded. Furthermore, we had to pump air into our old and worn rubber boat every twenty minutes or so, very tiresome work indeed. At some places, when it was impossible to move by paddling, all the "passengers" had to jump into the water. Some pulled the boat with ropes from grassy mounds, others pushed from behind in the water. It took us more than six hours to reach our destination. In twenty days, all of us changed shape. I lost five kilograms, and I was the one who did the least work.

We discovered altogether eight nests between June 4 and 14. Half the nests were built on grassy mounds, while the others lay on shoals of mud. The construction of the nest has a close relation with its height over the water surface. The higher nests, mainly on grassy mounds, were thinly lined inside (one had only six straws). The lower nests were taller, thicker, and heavily lined. Previous statements, that Black-necked Cranes can only build crude and simple nests, are incorrect.

All eight clutches had two eggs. The incubation period for Black-necked Cranes is from 30 to 31 days. We calculated the dates of egg-laying according to the shell breaking dates of the chicks. The earliest egg had been laid on May 1, and the latest May 13. The earliest egg had come 23 days earlier than we had seen at Longbaotan in 1978. While weather may help account for the difference, we felt this might also be the result of reduced human interference, an indication of effective control since Longbaotan was made a nature reserve by the local government in 1978.

#### Care of eggs and chicks

Both male and female incubate the eggs. When one bird is sitting on the eggs, the other is on watch nearby. At one nest we observed, the birds traded places five to six times during daylight, but seldom on rainy and cloudy days. When temperatures rose in the afternoon, both parents would leave the nest for feeding so that the eggs might be exposed for



Over 2,000 cattle, yaks, sheep, and horses are pastured around the Longbaotan Marsh. Black-necked Cranes will forage among the herds without fear. Photos by Liao Yanfa.

up to 25 minutes. If a storm suddenly came up, one of the birds hastened back to the nest, readjusted the eggs with its bill, and sat down facing the wind.

During incubation, the cranes seldom cried except in response to other cranes. Although ferocious in temperament, the Black-necked Cranes would not attack the nest and eggs of the White-eyed Pochard outside the nesting area, and would allow the Ruddy Shelduck to move freely about. But the cranes would not tolerate Common Mergansers.

A chick required 24 to 26 hours to hatch. The chick would open its eyes right after emerging, but was still very weak. When we approached to take photographs ten hours after hatching, the chicks would walk haltingly with wings spread to keep balance. If intimidated, they would crouch in their nest silently, with their head and neck contracted — by instinct they shun the enemy even when very young. They could drink and swim 24 hours after emergence.

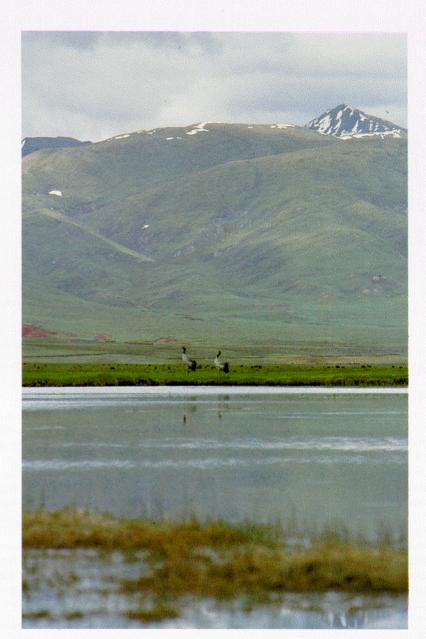
Chicks begin to seek food 48 hours after hatching. Both parents fed them, transferring the food directly from their bills to the bills of the chicks. Or they would put the food on the ground before the chicks, then repeat the process to show them how to eat.

Our investigation confirmed that even though fighting did occur between the chicks, it was far less serious than in captivity. Under captive conditions, chicks over 72 hours of age would fight to the bitter end without eating or drinking if no one intervened. We carefully watched two wild chicks that hatched on July 12 and 14.

On the third day after hatching, the older chick began to peck the head of the young chick. The female crane immediately called ga-ga-ga, and drew the younger chick to her breast. Two days later, the female's calling again stopped bitter fighting. By a week after hatching, fighting increasingly occurred as the chicks searched for food. The younger chick became afraid of the older, and after two weeks of age, it always took to its heels when it saw the bigger chick coming during food searches. This situation continued for about 11/2 months. After that, their relationship improved somewhat, and the chicks frequently played and foraged together. In 1986, we saw at Longbaotan five pairs of Black-necked Cranes each accompanied by two chicks. None of the chicks died.

#### Conservation of Black-necked Cranes

The number of Black-necked Cranes breeding at Longbaotan is relatively stable.



The crane pairs are highly territorial. Longbaotan Marsh is large enough to support eight crane families.

Judging from the wetland area available, Longbaotan can accommodate eight pairs only. The Bureaus of Agriculture and Husbandry of Yushu Prefecture and Yushu County must be congratulated for their conservation measures for the cranes. Although they lack both money and full time cadres, they have done extensive work for public education, and worked with the villages of Cuicang and Cuomei, where the party secretaries are responsible for encouraging the villagers to protect the birds. Tibetan inhabitants living here are traditionally fond of the Blacknecked Crane. They regard it as a "divine bird" and never kill it or collect its eggs.

We have several proposals for management

of the cranes. The few dozens of dogs living at Longbaotan should be exterminated. Although we haven't discovered any damage to the cranes, we did see dogs eating the chicks of Bar-headed Geese and other water birds. The resources of water and fish must be put under better protection, with all kinds of chemicals prohibited within the reserve. The number of livestock pasturing around the marshes should be limited to a certain extent.

Longbaotan has now been officially designated a national nature reserve, as a breeding ground of the Black-necked Crane. We look forward to strengthening protection for this least known of all cranes.



As a first step in the construction, the entire perimeter fence went up this fall. It will keep predators and unauthorized people away from the breeding cranes.

# Crane City Construction Begins

by Joan Fordham, Administrator

The last major step in ICF's move to the new site has begun! Ground breaking for "Crane City" took place in October, 1986 and the fencing began to go up immediately. The perimeter fence for the entire breeding complex will soon be completed, even though we anticipate building only 24 pens

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Co-Founders:

George Archibald

Ron Sauey

Editor:

lim Harris

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in this phase of construction. As more funds become available, we can add pens without having to redo the perimeter fence.

Crane City will be constructed on a plan similar to the pens at the old site. Small houses will provide a dry place for the birds' food and allow the cranes to retreat from bad weather. Photoperiod lights will encourage northern species to breed, and sprinkling devices will create a "monsoon" for the Brolgas from Australia. Perhaps most importantly, we will provide a 50 foot by 50 foot yard so that each pair will have adequate space to establish a territory and breed. As always, we have designed the pens with an eye to efficiency, economy, and the best in accommodations for these very special birds.

With 24 pens built in Phase I, we will bring over many of the birds from the old site. But we need another 26 pens to house our entire breeding flock, with a little extra room for growth. All the major start-up costs are included in Phase I of Crane City: the facility plans, the perimeter fence, electrical power, and the well. All we'll need are more pens! Your help could put us into Phase II of Crane City, allowing us to complete the move to the new site. Phase III — building additional pens as the flock slowly expands — can wait a few years.

We appreciate your generous help in supporting our Capital Drive thus far. If you have not been able to give before, we would be delighted with a gift to help us finish the move. If you have given to Phase I of the project, consider a gift for Phase II. Please mark your checks for the Capital Drive and mail them to ICF. Your help is very much appreciated.

# New School Packets Ready

ICF has just printed three new curriculum packets for schools. Our members may wish to share them with teachers in their local districts.

Kids, Cranes, and Conservation — All our previous packets were designed for schools that visit ICF on field trips. Now for the first time we are offering a packet for schools unable to come to our Baraboo headquarters. This curriculum is written for the upper elementary grades, and can be supplemented by a slide show with a cassette narration. The packet costs \$5 plus postage, and the slide show can be rented for \$5.

Bring 'Em Back Alive — This packet, for grades 6 to 8, explores how people are working to restore crane populations and their wetland homes to a healthy condition. The packet examines conservation techniques and options for how people can interact with the natural world. This curriculum is for schools planning a field trip to ICF, and is provided as part of the tour fee. Other interested people can buy it for \$5. It offers a fine alternative for schools that have already used ICF's current packets.

Restoring the Land — The third packet is a comprehensive curriculum for the restoration of prairies, written on a high school level. It includes experiments, exercises, and practical information for anyone interested in starting a small prairie. Better still, schools unable to establish their own prairie can use the packet as they participate in ICF's prairie restoration. This packet costs \$10 plus postage. A narrated prairie slide show is available for an additional \$10 rental charge. The slides are also well suited for garden clubs and civic organizations.

Curriculum development is hard work. ICF wishes to thank intern Lori Canterbury who prepared *Kids, Cranes, and Conservation,* and Helen Simon, a Baraboo high school teacher who wrote most of *Restoring the Land*. Interns Rob Filmer, Patti Fisher, Pierre Manigault, Abby Marshall, Katherine Strickler, Marianne Wellington, and Debbie Wickus also helped with the packets. The materials were produced with financial assistance from the Frances R. Dewing Foundation and the Institute for Museum Services.

To purchase packets, or to arrange a field trip, contact the Education Coordinator at ICF.

# **Spring Field Trips**

ICF members and their guests are invited to join two field trips:

Sat., May 16 — Sloughs of the Castle Rock Flowage, along the Wisconsin River in central Wisconsin.

Sat., June 6 — Necedah National Wildlife Refuge and Sandhill Wildlife Area in central Wisconsin.

The first trip will explore a fascinating variety of habitats in a large wildlife area managed by the Wisconsin River Power Company. We will spend much of our time in canoes, though we may also do some hiking or use an observation blind if water levels permit. The trip, led by ICF Ecologist Stuart Utley, will focus on wetland plants and their ecology, and on the abundance of cranes and other water birds present in this little known refuge. We'll also be discussing wildlife management and the importance of wetland habitats for cranes around the world.

The second trip, led by ICF's Education Coordinator Marion Hill, will take you to two of Wisconsin's finest wetland refuges. These sites have been very popular for ICF's fall trips, and now you'll have a chance to see them during another beautiful season. Discussions will focus on the history and management of these areas as we drive through the thousands of acres of protected wetland and forest. We hope to see eagles, hawks, herons, and nesting Sandhill Cranes, along with the later spring and early summer flowers and wetland plants. If we're lucky, we may find some of ICF's radio-tagged Sandhill Cranes that have been experimentally released into the Necedah area.

Participants are responsible for their own travel and food; for the first trip, participants should supply their own canoes. ICF will notify registered participants about times and places to meet and what to bring, together with a participant list to facilitate car pooling and sharing of canoes. We will go rain or shine.

A donation of \$18 per person is requested. This income will help support ICF's international training programs. We hope to have visiting conservationists from abroad on each excursion. To reserve a place, send your name, address, phone number, number in your party, and full payment to the Education Coordinator at ICF. Please specify what trip you wish to take.

### The Bottom Line

by Bob Hallam Development Coordinator

ICF is a people institution. Our growth has come from the leadership and creativity of the individuals that serve on our Board of Directors and on our staff. Our financial strength derives from the loyalty of our members. Year after year, a great many of you give generously, allowing us to maintain and expand our conservation efforts. Our future depends on your continued commitment.

ICF would like its members to consider endowing their annual gift to ICF through wills or trusts. In this way, your interest in cranes will continue to strengthen ICF in years to come. Today's efforts for these beautiful birds rest on the faith that conservation leadership will continue uninterrupted in the decades ahead. Your action now will help fulfill that hope.

Donors can designate a gift that ICF will deposit in its endowment. The interest from the donor's gift will, in turn, guarantee the donor's annual support to ICF. A variety of arrangements are possible. Donors or their financial advisors should contact me or Joan Fordham for further information.

## Contributions

Received October-December, 1986

Grants and Awards: Aid Association for Lutherans; George Archibald; Abigail Avery Janet Balding; Mrs. Cecil Carpenter; Chicago Metallic Corp.; John C. Cleaver Foundation: Gerda & William Debelak; Frances R. Dewing Foundation; John Henry Dick: Marion Doherty; A.J. & F.H. Ellinger Foundation; Findley Adhesives; Joan & Dave Fordham; Mary Livingston Griggs & Mary Griggs Burke Foundation; Hubbard Foundation; Institute of Museum Services; Irvin L. Young Foundation; Thomas H. Jacob Foundation; Mrs. Kenneth Jacob; Henry P. Kendall Foundation; Mary Kohler; Jeanette Kratochvil; Marshall & Ilsley Bank Foundation; Jane Matteson; Kopmeier Fund, Milwaukee Foundation; Oshkosh B'Gosh; Fred Ott; Lucile Palmaro; Pew Charitable Trust; George Ranney, Sr.; C.B. Read; Acton Reavill; Ann Sands; Howard Scott; Leonard Shelton; Doris Speirs; Stackner Family Foundation; Mrs. John Stedman; Willis Sullivan; David Utley; David Wetzel; John & Mary Wickhem (Alma Doten Fund); Wildcat Foundation; Margaret C. Winston.

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# Hope for Sarus Cranes in Vietnam and Kampuchea

by Le Dien Duc University of Hanoi SR Vietnam

Southeast Asia is home for the Eastern Sarus Crane. But now the cranes have disappeared from almost all of their former range. Hunting and especially habitat loss are the main reasons for the decline.

In the past thirty to forty years Sarus Cranes were breeding in Dong Thap Muoi, the lowland of the Mekong Delta. At that time the local people used to catch the Sarus Crane young and hand-rear them at home.

In the war, Dong Thap Muoi was a main target of American bombardment and toxic chemical spraying. Sarus Crane habitat suffered serious damage. From 1968 to 1975, soldiers used three to four helicopters to hunt the cranes in the dry season to eat and to sell in Saigon. After the liberation of the South in 1975, Dong Thap Muoi was drained to obtain land for agriculture, so that there was no place for the cranes.

Since then the cranes return only in the dry season from November to February, in a small flock of ten to twenty birds. In February of 1985, a hunter killed two cranes with a military rifle. When we went to Dong Thap Muoi, only the feathers of the victims remained.

Some old Vietnamese, who have long lived in the Bem Cho District of the Pray Veng Pro-

vince along the Kampuchean-Vietnamese Border, have reported that the Sarus Crane was breeding there. The natural conditions are similar to those at Dong Thap Muoi, not far to the south. The local people used to hunt the birds with dogs during the moult time. It is perhaps from this area that the cranes come back to Dong Thap Muoi yearly.

One immature bird, now in Ho Chi Minh City Zoo, may also be from the Kampuchean-Vietnamese border. The young crane apparently on its way to Dong Thap Muoi, was found in a weakened condition. The people of Phu Tan District, An Giang Province, caught the bird in 1985 and brought it to the City Zoo.

Vietnam and Kampuchea share a valuable natural resource. Therefore, in January of 1986, a conservation cooperation plan between Vietnam and Kampuchea was assigned in Phnom Penh under the auspices of World Wildlife Fund representative Dr. J. MacKinnon. According to this plan, we shall investigate the status of the crane in Bem Cho District, and also in Dong Thap Muoi in the dry season. After that we will discuss the possibilities of establishing protected sanctuaries on the border of Vietnam and Kampuchea or in Dong Thap Muoi.

If we do so, we will face difficulties in expertise and finance. We hope that we will receive the necessary assistance from outside to fulfill our task of conservation.

[The Wolf Brehm Fund of Vogelpark Walsrode, West Germany, sponsored the study expedition of Dr. Le Dien Duc and three of his colleagues to Western Europe in August of 1986. The Brehm Fund is now supporting the Vietnamese ornithological efforts in the Bem Cho wetlands along the Kampuchean border. ICF hopes that Le Dien Duc will visit Wisconsin in the fall of 1987 to study our programs for conservation of cranes and wetlands.]



Eastern Sarus Cranes still nest in northern Australia. Recent reports from Vietnam represent the first verified evidence in recent years that the cranes also survive in southeast Asia. Photo taken in Australia by George Archibald.

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