

THE BROLGA BUGLE

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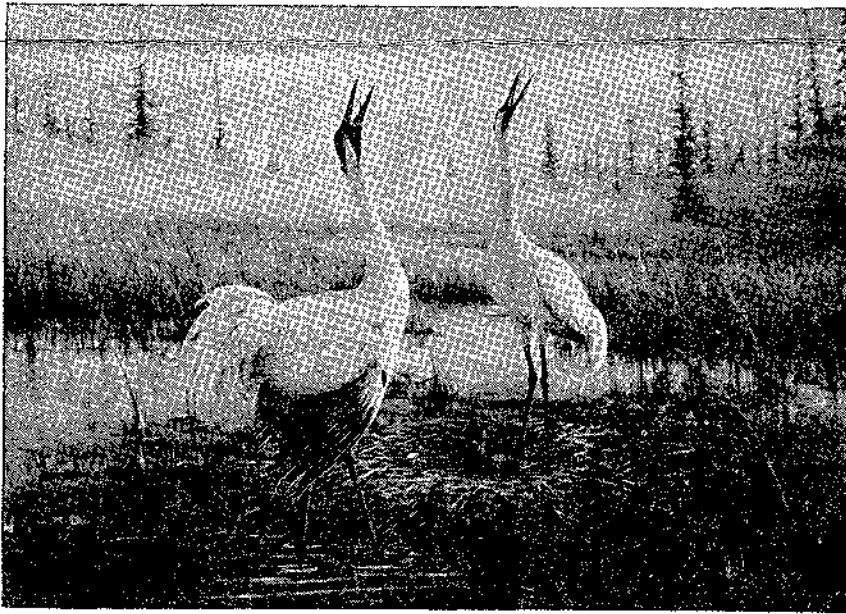
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Milestones

YEAR OF THE WHOOPER



A SALUTE TO "DAWN"

Whooping Cranes by Owen J. Cromme. Original painting now hangs at headquarters of the International Crane Foundation. — Photo by Ronald Rich

This spring two momentous developments occurred in the fight to save the critically endangered Whooping Crane. Government biologists at the Patuxent Wildlife Research Center in Laurel, Maryland succeeded in hatching an egg produced by their captive flock of Whooping Cranes; and at Grays Lake, Idaho, scientists substituted Whooping Crane eggs for the eggs of Greater Sandhill Cranes in an attempt to introduce Whooping Cranes into Idaho.

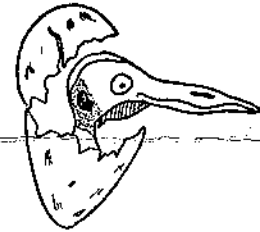
Ever since the 19th Century, conservationists in the U. S. and Canada have been concerned about the status of the Whooping Crane. This five-foot tall bird originally nested throughout the prairie marshlands of central North America. But as these rich and fertile lands were drained for agriculture in the 1800s, the Whooping Cranes began to disappear. By 1890, it became apparent that the tallest bird in North America was on the brink of extinction.

For the next few decades, only a small flock of Whooping Cranes wintering near Corpus Christi, Texas, and a few non-migratory Whoopers in Louisiana remained as the remnants of a once noble and wide-spread species. The main nesting grounds in central U. S. and Canada no longer existed and the actual breeding area for the Texas flock was unknown.

But it was not until 1941, when only fourteen Whoopers were left that a massive effort began to save this magnificent species. The National

Audubon Society was at the forefront of the movement and distributed thousands of leaflets throughout the central U. S. and Canada describing the bird and alerting hunters not to shoot it. The Society also began a vigorous search for the nesting grounds of the Texas flock to

(Continued on page 4)



MILE- STONES

STELLA ARRIVES AT I. C. F.

On March 17th, Stella, a Greater Sandhill Crane, became the first wild crane to voluntarily choose the International Crane Foundation as her new home.

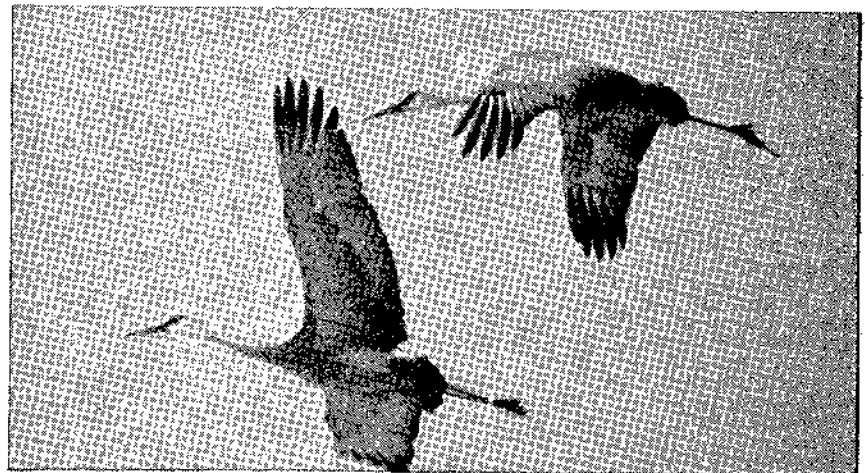
Even though Stella's arrival was a milestone for the Crane Foundation, her appearance on a warm, sunny day in March was not a surprise. She had actually been expected.

Those who have read Dayton Hyde's delightful book, *Sandy*, may remember how "Sandy", Hyde's hand-raised Sandhill Crane, attracted a wild male Sandhill, and the two cranes actually built a nest and raised a family together on his ranch in Oregon.

Hyde's property is located in prime Sandhill habitat and the wild male probably spotted Sandy one day while flying over and decided to make her his own. Besides Hyde's account, there are other cases of wild cranes joining captive cranes at the Kushiro Crane Park in Japan, in Germany and at the Carlos Aviaries in Minnesota.

We expected, therefore, that the Crane Foundation's flock of tame Sandhills would eventually attract wild Sandhills to I. C. F., especially when one considers that I. C. F. is located at the peri-

(Continued on page 4)



STELLA AND RUSTY FLYING HIGH OVER I. C. F.

TAXWISE GIVING

by Forrest Hartmann

The author of this column is a director of the Crane Foundation and practices law in Wisconsin.

APPRECIATED SECURITIES AND REAL ESTATE

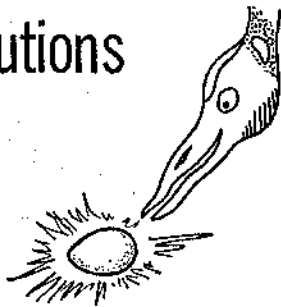
Donors who contribute appreciated securities and real estate held more than six months get a double income tax benefit. First of all, a deduction is received for the full present fair market value which is not limited to the lower cost-basis. Secondly, there is a complete avoidance of the capital gains tax on the appreciation which is the difference between the property's cost-basis and present fair market value.

The ceiling on deductibility is thirty (30%) per cent of the taxpayers adjusted gross income. However, should the gift amount to more than thirty (30%) per cent of the adjusted gross income the excess can be carried over to a following year for up to five years.

If the appreciated securities and real estate are held for six months or less, the charitable deduction is limited to the property's cost-basis. There is no tax on the appreciation. Gifts of this type of short term property are deductible up to 50% of adjusted gross income. Again, there is a five year carry-over for any excess.

Similar tax benefits are available for gifts of appreciated art works, antiques and other personal tangible personal property. However, in the case of gifts of art works and other tangible personal property for use unrelated to the charity's exempt function, there is a limitation. For this type of property, the deduction is the cost-basis, plus one-half of the appreciation. Moreover, if held for less than six months, the deduction is limited to the cost-basis.

Contributions



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FEATURE....

Behind the Lines on the DMZ

GEORGE ARCHIBALD

The author is a director of the International Crane Foundation and a well known authority on the conservation of cranes in eastern Asia.

The irony of it all was extraordinary. A hundred yards before me, roosting beneath the Bridge of No Return, were the last mainland Manchurian Cranes. There were only a handful of these great white birds milling about in the shallow waters by the bridge—decades of persecution had taken their toll—but I couldn't help thinking that perhaps the cranes had at last found a haven secure from the ravages of man. For on that cold, blustery day in December the cranes and I were sharing one of the loneliest and most forboding places on the earth—the no-man's-land between North and South Korea called the DMZ.

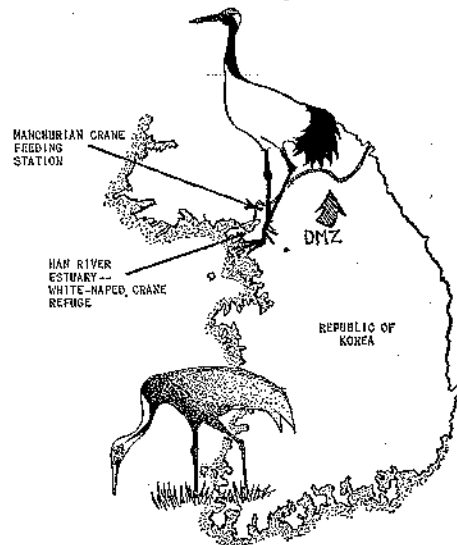
Centuries ago the cries of hundreds of Manchurian and White-naped Cranes used to echo across the clear winter skies of Korea. But as man's appetite for land and technology became ever more ravenous, the wetlands of Korea were claimed in the name of progress. The cranes began to disappear with their wetland habitat, and many were also snared and maimed when men tried to trap them for zoos or taxidermy. The Korean War just about completed the demise of the cranes when the whole peninsula became a battle-ground in the name of man's political ideologies.

But in 1953, the war came to a close and the warring factions withdrew to either side of the DMZ. Overt war changed to a war of words and slogans and the DMZ remained as a buffer between politically polarized people. Only forsaken farmland, war-ravished ghost towns, and silence remained in the 720 square kilometers separating the two Koreas. By U. N. ruling, no man could set foot in the DMZ without a special UN-DMZ pass.

When I entered the DMZ on December 2, 1974, it was strange to observe how nature had smoothed over the ugliness of overpopulation and conflict. Once barren slopes were now blanketed in oak and maple. Terraced rice paddies were now terraced marshes teeming with waterfowl. Deep in the valley, farms had reverted to brush providing homes for rabbits, deer, lynx, and tigers. Pheasants were everywhere as were their predators, the eagles and hawks. Shortly after I entered the DMZ I spotted four white birds with red faces—not cranes, but Sacred Ibises. It was a tremendous find. These birds were long thought extinct on mainland Asia. My find increased the world's population of Sacred Ibises to a grand total of eleven.

I was not in Korea, however, on an exalted bird-watching expedition. I was in this Asian nation on behalf of the International Crane Foundation and the World Wildlife Fund to determine the needs of White-naped Cranes and Manchurian Cranes wintering in South Korea and the DMZ. My interest in the Korean cranes developed from correspondence between the Crane Foundation and Dr. Kim Hom Kyu of South Korea. In 1973 Dr. Kim had expressed interest in making a survey of the numbers and distribution of cranes wintering in Korea. I.C.F. was able to obtain funds for his preliminary survey from the New York Zoological Society, and as a result Dr. Kim located over 1000 White-naped Cranes near the Han River Estuary and several Manchurian Cranes near the DMZ. Dr. Kim also discovered that the Han River Estuary was soon to be developed for agriculture.

Based on Dr. Kim's initial report, the Crane Foundation decided that Korea warranted a closer look. It was hoped that the Han River Estuary could be saved and perhaps made into a sanctuary for cranes. With these plans, I packed my bags, bade farewell to the captive White-naped and



MAP OF KOREA Showing DMZ and Crane Research Areas

Manchurian Cranes at the Foundation and headed for Korea to meet their wild relations.

The Han River Estuary, is located on the north-western coast of South Korea very near the borders of the hated North. It was once a thriving navigation route to the capital city of Seoul, but today because of continuing tensions between the two Koreas, the area is devoid of people. Only the camouflaged naval patrol boats and the floating guard posts which mark the southern boundaries of the DMZ are evidence that man has any interest in this place. But the lack of disturbance and rich organic nature of the estuarine waters have made this whole area a wonderful wildlife paradise. Fifteen hundred White-naped Cranes stalk the upper tidal zones looking for sedge tubers in the muddy gray soil. Thousands of ducks, geese and shore-birds swim in the tidal pools and river waters while huge Golden and White-tailed Eagles soar over looking for incautious waterfowl.

The White-naped Cranes, I soon discovered, feed almost entirely on sedge tubers which they dig from dense beds. These beds of tubers define prime zones for agricultural development. I knew from my talks with Korean Government officials and from my own surveys of the coast of Korea that if these beds were destroyed, the last wintering habitat for the White-naped Crane in South Korea would no longer exist.

Based on these observations and our surveys, Dr. Kim, another ornithologist, Dr. Won and I, decided to approach the South Korean Government with the proposal of turning the Han River Estuary into a National Monument. Aided by the mass media and dozens of radio and tele-

(Continued on page 4)

JAPANESE CONTRIBUTORS OF MONEY

Ischiro Akimoto, Shinobu Asami, Yumi Gato, Toyosaburo Hayashida, Michio Kamizono, Shigeyuki Kawashima, Yoshiaki Matsuoka, Namiko Murata, Kazuyuki Ohtake, Yoshie Onagi, Yoshimi Nakamura.

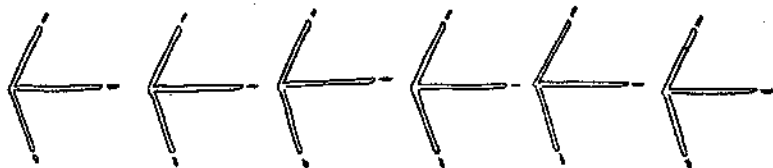
CONTRIBUTIONS OF LABOR OR MATERIAL

Consolidated Broadcasting Corporation, Ruth Lange, Bud and Flo Lueders, Dr. Lawrence Walkinshaw, Danny Weaver, Polly Scutarlo, Lois Weis, Millie Zantow.

GIFT OR LOAN OF BIRDS

Milwaukee County Zoo, Patuxent Wildlife Research Center, States of Idaho, Wisconsin, and the Province of Alberta.

MAKING TRACKS- news of the foundation



ICF Hosts International Crane Workshop

The International Crane Foundation in conjunction with the North American Sandhill Crane Committee will host an international conference of crane experts at I. C. F. headquarters September 3 to 6. Scientists from the U.S., Canada, the U.S.S.R., Germany, Sweden, Japan, and Australia will gather to discuss the latest research into the biology of the crane family.

According to the tentative speaking schedule, there will be 35 papers read and discussed during the four day workshop. These papers will cover all aspects of crane biology including physiology, anatomy, ethology, life history, conservation, and management.

Besides the discussion of scientific papers, participants of the workshop will have the opportunity to take part in actual field work on cranes at several research sites in Wisconsin where Greater Sandhill Cranes are being studied. Techniques such as the capturing and banding of

cranes will be demonstrated. Participants in the workshop will also be able to observe the crane habitat of central Wisconsin from airplanes during the workshop.

On Saturday, September 6, there will be a Workshop Banquet which will feature Dr. Lawrence Walkinshaw as the guest speaker. Dr. Walkinshaw is the author of *Cranes of the World* and *The Sandhill Crane* and is one of the world's foremost experts on the Gruidae.

Also at the banquet an original dramatic performance by a local dance company will interpret the legends and folklore surrounding cranes from all over the world.

Because of the limited space and large number of scientists attending, public access to the workshop will have to be strictly limited. Reservations for the workshop can be obtained by contacting the International Crane Foundation.

NEW FENCE AT I.C.F. HEADQUARTERS

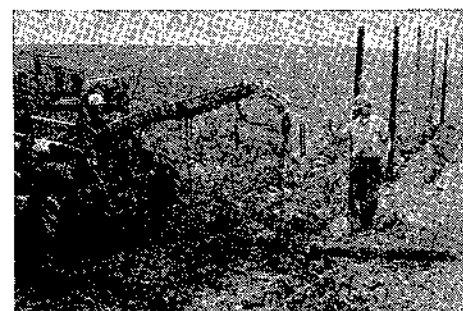
Through the generosity of several Milwaukee Foundations, the International Crane Foundation was able to erect a 10' high fence around an eight acre field to the west of the main barns. This new enclosure will serve as an immature crane confine.

The Steinke, Schroeder and Marshall & Iisley Bank Foundations of Milwaukee provided funds to I. C. F. to construct the new facility. This large enclosure permits the Foundation to house young, non-breeding cranes until they become sexually active.

In the wild, cranes that are too young to breed or pair with a potential mate form large flocks which feed and roost together. During this gregarious period cranes choose their future breeding partners, apparently for life. In birds which mate for life, as with people, there may be need for a degree of choice in the future spouse. Crane pairs that are formed artificially by man sometimes end tragically in bloodshed. Giving cranes some choice in the mating process may avoid these domestic "cranicides".

I. C. F. currently has a flock of Sandhills, European, Broglas, and Sarus cranes in the enclosure and they will soon be joined by a sizeable flock of Sandhills from John Baldwin's study of endothermy in cranes.

I. C. F. is very happy to obtain this new facility and express its gratitude to the Milwaukee organizations for their support.



Workers Constructing New Fence at I. C. F.

BALDWIN CONTINUES SANDHILL STUDY

John Baldwin, a graduate student in Environmental Studies at the University of Wisconsin, is currently continuing his studies at ICF on the physiology of Sandhill Cranes. Baldwin started his research in the spring of 1974 when he began recording the development of endothermy ("warm bloodedness") in Sandhill Cranes.

Although mammals and birds are both able to regulate their body temperatures as adults, young of both groups are often born with a poor ability to perform this feat. In essence, the young animals are like reptiles and amphibians in that their body temperature changes with the ambient or surrounding temperatures.

As young birds and mammals mature, the ability to control body temperature to within a few degrees becomes possible. This allows these animals to be active at wide ranges in the surrounding temperature and to maintain the high metabolic levels necessary for their complex physiology.

Baldwin is trying to determine when Sandhill Cranes reach the point of endothermy and whether this point of time varies between the different subspecies of Sandhills. One might expect, for instance, that Lesser Sandhills from Alaska would be under selective pressure to develop endothermy quickly, while Florida Sandhills, basking under sunny skies, might take longer to accomplish the same trick.

Tentative results from Baldwin's study indicate that Lesser Sandhills do indeed develop endothermy more quickly than Florida Sandhills, but final judgement is being reserved until more data are tabulated.

Baldwin is also very carefully measuring the rate of growth in his Sandhills. Such data is extremely valuable for developing techniques to raise the rarer species of cranes, one of the major goals of the Crane Foundation.

Cranes In Review

GROOS OR GRUS?

The genus *Grus* includes 10 species known as the "typical cranes". This genus includes the three rarest cranes in the world, the Whooping Crane, *Grus americanus*, the Japanese Crane,

ICF Directors Conduct Research in Korea and India

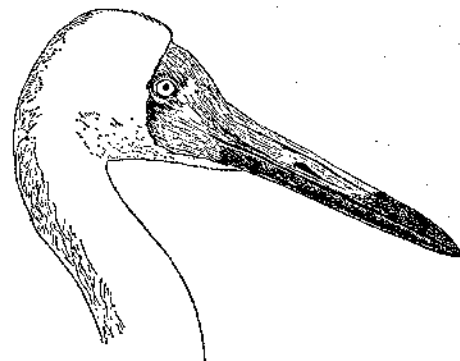
This winter George Archibald and Ron Sauey, co-directors of the International Crane Foundation, traveled to Korea and India respectively to conduct studies of rare cranes.

George Archibald's account of his campaign to develop sanctuaries and feeding stations for cranes in South Korea and the DMZ is the subject of this issue's FEATURE.

The Siberian Crane was the subject of Ron Sauey's four month study in India. This species is probably the third rarest crane in the world. Soviet experts estimate that there are probably no more than four hundred of these tall, white birds left in the world.

The Siberian Crane, as its name implies, nests in Siberia in some of the most remote stretches of wilderness on the planet. It was not until 1961 that the Russian scientist, Perfil'yev, discovered the first nest of this species in eastern Siberia. Since then several other Russian scientists have worked on this species on its breeding grounds in Siberia, the most recent being Dr. Valdimir E. Flint of Moscow State University.

The decline of the Siberian Crane in the last one hundred years is evidenced by the dwindling distribution of this species. In the 19th century, the Siberian Crane was recorded in Turkey, Iran, Afghanistan, India and China during the winter months. Today only one area in India is known to harbor this species in the winter, although there must be other wintering areas left in China. It seems clear that the major reason for the disappearance of the Siberian Crane must be the loss of suitable wintering habitat in the heavily populated parts of southern Asia.



Head of Siberian Crane

In November of 1974, Ron Sauey and Paul Spitzer of Cornell University traveled to the Keoladeo Ghana Sanctuary near Agra to study the last Siberian Cranes in India. A small flock of 63 birds was present during the four months that Sauey and Spitzer spent at the sanctuary.

Although the results of their study are still not complete, Sauey and Spitzer have gathered much new information on the behavior, ecology and life history of the Siberian Crane. They will file a detailed report with the Government of India concerning the study which will include specific recommendations for the conservation of this species in the future.

Grus japonensis, and the Siberian Crane, *Grus leucogeranus*.

Apparently the generic name "Grus" is onomatopoeic for the grating, loud calls which are so typical of cranes.

Eric Lindgren, a correspondent of ICF from Papua, New Guinea, reports that natives there call the Brolga (*Grus rubicunda*) "Groos" which is pronounced like cook. Undoubtedly the scientific nomenclature for the typical cranes, *Grus*, was not the origin for the Papuan name Groos. Apparently both European scientists and the natives of New Guinea coincidentally created similar words to describe these most vociferous of birds, the Groos or Grus cranes.

LULU LAYS EGGS



Lulu announces her first egg at I. C. F.

Phil and Lulu, the Crane Foundation's only pair of Japanese Cranes, made their first nesting attempt this spring at I. C. F. headquarters in Baraboo. These tall, black and white cranes built a nest of dead grasses in their pen in early April, and Lulu deposited a total of six eggs in the nest over a four week period in April and May.

Although Phil stood guard over the nest and gathered nesting material with Lulu, his participation in the breeding attempt unfortunately did not go any further: Lulu's eggs probably are infertile.

Phil and Lulu are on loan to the Foundation from the Philadelphia and Honolulu Zoos respectively. Phil is a sturdy and robust specimen of cranehood, but he suffers from an injury which occurred many years ago and crippled one wing. This bum wing, we believe, is a great impediment to Phil and prevents him from performing the gymnastics involved in crane copulation.

Researchers at I. C. F. tried artificially inseminating Lulu, but we don't know yet whether the attempt was successful.

Phil and Lulu belong to a very rare species of crane, *Grus japonensis*, often called the Manchurian or Sacred Crane. This species is commonly depicted in the art of the Oriental peoples, and traditionally symbolizes long life and happiness. Ironically this symbol of good luck and longevity is itself gravely threatened by agricultural and industrial development in China and Japan. There are less than 300 of these cranes known to exist in the wild.

The Crane Foundation has been very active in research and preservation of the Japanese Crane in both Japan and Korea (see feature story). We are hoping that next year we will be able to add the captive breeding of Japanese Cranes to our list of other accomplishments in the conservation of this majestic species.

STELLA ARRIVES

(Continued from page 1)

phery of the greatest concentration of Sandhills in the mid-west.

Stella (who is named after the wife of Aldo Leopold) apparently has her orange-red eye on Rusty, one of I. C. F.'s two-year-old bachelor

Year of the Whooper

(Continued from page 1)

ensure that this area would receive complete protection.

The effort paid off. As a result of the Audubon publicity, the Whooping Crane became the very symbol of wildlife conservation in the U. S. Hunting of the Whooping Crane was effectively stopped and the nesting grounds were discovered by a forest ranger in remote Wood Buffalo park in northern Alberta. The numbers of Whooping Cranes in the wild slowly climbed over the next three decades to a high of 59 birds in the winter of 1971.

In the early '60s the U. S. and Canadian Governments began a cooperative program to establish a flock of Whooping Cranes in captivity. In 1970 and in five subsequent years, Canadian and U. S. researchers collected eggs from Whooper nests at Wood Buffalo Park and flew them to Patuxent headquarters in Maryland. These eggs became a captive flock of 19 Whooping Cranes. Eventually these birds are to act as egg factories, producing more Whooping Cranes to bolster the tiny wild population.

One of the most difficult aspects of the Whooping Crane project was to devise a scheme to create another separate population of migratory Whooping Cranes. A novel plan was suggested: use the wild Sandhill Crane, a smaller and much more common relative of the Whooper, as a foster species by placing Whooping Crane eggs in the nests of the Sandhills, thus tricking them into raising Whooping Cranes instead of their own young. This would result in Whoopers that were just as wild as their foster parents. Since Sandhills are found in wide areas of North America, eventually many separate populations of Whooping Cranes could be established.

On May 30th of this year, scientists took 14 Whooping Crane eggs from the wild birds in Wood Buffalo Park and flew them to Grays Lake National Wildlife Refuge where they were placed in the nests of wild Sandhill Cranes. These Sandhills and their new charges are now under very close observation. It will be fascinating to observe the progress of this unique experiment in the next few months.

Almost at the same time that the historic Whooper-Sandhill switch was occurring in Idaho, the first captive-produced Whooper egg hatched at Patuxent on May 29. "Dawn", a healthy and vigorous chick, emerged at 7:20 a.m. in an incubator. "Dawn" is a bird of distinction. Its mother also hatched in an incubator and this makes Dawn the first of a new second generation of captive-raised Whooping Cranes. Dawn is also the first Whooper ever produced by the process of artificial insemination.

1975 therefore, is a year of great hope for finally reversing the Whooping Crane's drift toward oblivion. The International Crane Foundation salutes all those who have worked so diligently to aid this magnificent species.

(As we go to press, we are saddened to learn "Dawn", the Whooping Crane chick, has died from apparent congenital defects. The significance of this first hatching of a second generation Whooping Crane at Patuxent is undiminished, however, Editor.)

Sandhills. The two are often seen strolling together through the alfalfa fields surrounding the Foundation, and their rolling duets early in the morning seem sure signs of crane romance.

Stella, like the wild male in Sandy, has tamed down considerably since she first joined the Crane Foundation's flock. When she arrived, it was difficult to approach within 50 yards of her. Now she will walk 15 feet from people, though she is always on her guard at such close quarters.

Everyone at I. C. F. is hoping that Stella and Rusty will nest next year. Bets are now on whether Stella or Rusty will choose the nesting site. If visitors to I. C. F. next spring see Sandhills nesting in the petunia beds, it will be a clear sign that hand-raised Rusty had the final say (or squawk).

Cranes In Review

JAPANESE KEEP STUD BOOK FOR CRANES

Dr. Shigeharu Asakura, director of Tokyo's Tama Zoological Park, is the keeper of a register on all the Japanese Cranes currently in captivity. The register records birth date if known and any breeding attempt, successful or not, for each of the birds in captivity.

The Japanese Crane is given such attention because it is the second rarest crane in the world and especially dear to the Japanese who in the past considered the bird sacred and still regard it as a symbol of longevity and good fortune.

The number of Japanese Cranes in captivity is not large and many of these birds were hatched and raised as offspring of other captive cranes. By keeping a stud book on the cranes now in captivity, pairing between close relatives can be avoided, thus minimizing the chances of genetic inbreeding.

According to Dr. Asakura's register, there were 59 Japanese Cranes in the world's zoos in February of 1974. During 1973, four Japanese Cranes were hatched and reared and seven birds died. Breedings occurred at Carl Hagenbeck's Zoo in Germany and at the Kushiro Crane Park in Japan. Both zoos raised two cranes.

Behind the Lines . . .

(Continued from page 2)

vision reports, we were successful in having the estuary declared National Monument Number 250 by the Korean Government.

After my success with establishing the Han River Crane Sanctuary, I traveled north to the DMZ to continue my work on the Manchurian Cranes. Shortly before I left for the DMZ, however, a South Korean patrol unit discovered a tunnel leading under the DMZ. The South accused the North of trying to infiltrate its borders. The North declared that the tunnel was a ploy by the South to create unrest. I had no opinion on who built the tunnel, but I was concerned that the political turmoil created by the incident would prevent my travel into the DMZ to look for cranes.

Fortunately I was still able to secure a UN permit to enter the DMZ and I lost no time in locating the five-foot-tall Manchurian Cranes. As I mentioned earlier, the cranes actually roost beneath the Bridge of No Return and in the early morning their cries fill the air near the negotiating site at Panmunjom. After a careful reconnoitering of the area, I decided that it would be quite simple to set up a feeding station for the Manchurian Cranes. The first morning that I scattered one hundred pounds of rice on a field just south of the Bridge of No Return, two splendid Manchurian Cranes arrived and began to feed. No other cranes showed up that day, but the next day there were eight Manchurian Cranes feeding on the rice and on the third day there were thirty-five—nearly the entire population! The DMZ Crane Feeding Station was officially in business!

After the tunnel incident, the U. N. headquarters in New York urged two things: that the North and South be prevented from combat, and that they be encouraged to engage in some non-controversial project. The thought occurred to me that the Manchurian Cranes, the very symbol of Good Fortune and Long Life, might be the perfect non-controversial subject for a cooperative project for the unfriendly Koreans. Amazingly enough both the North and South Koreans expressed an interest in a joint feeding program for the Manchurian Cranes! The North even sent a team of five North Korean photographers to capture the great birds on film.

The Han River Crane Sanctuary and the DMZ Crane Feeding Station are now realities thanks to work and interest of conservationists in this country and Korea. Let us hope that the inspiring but vanishing cranes can help to make the Korean peninsula a better environment for both man and nature.