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World Center for the Study and Preservation of Cranes



A National Park for the Cranes

by Kunikazu Momose
Yamashina Institute for Ornithology

The Everglades in Florida, the Keoladeo bird sanctuary of India, and the Kafue Flats of Zambia are important wetlands that are protected as national parks. In 1987, the Kushiro Marsh on Hokkaido, Japan, also was upgraded to national park status.

Most of Japan is mountainous, and the people, factories and limited farmland are crowded on lowlands that constitute just 15 percent of Japan's area. Consequently, it is significant that some wetlands have been spared and protected in Japan, an achievement that is linked to the conservation of cranes.

These special birds are frequently featured in art and folklore of the Orient, where they are symbols of long life, happiness, good luck and marital bliss. And of all nations, Japan is best known for its love for the cranes and has the longest history of conservation on their behalf. Whereas China and the two Koreas have made significant progress in helping cranes during the past 15 years, official crane conservation began in Japan early in this century.

The cranes decline

In ancient times, cranes were protected by the ruling classes of Japan, but protection was temporarily lost when the Meiji Restoration of 1868 removed the power of the upper class and opened Japan to the West. The newly-liberated masses now perceived the crane both as a symbol of former authoritarian rule and as a welcome source of food. And so, throughout Japan, the cranes were ruthlessly slaughtered, and all but disappeared.

In this century, wetlands were drained to provide more land for human use, especially on the three major southern islands. Only on the northern island, Hokkaido, have significant areas of wetlands survived. The largest of these is the Kushiro Marsh located on the southeastern part of Hokkaido not far from the neighboring Kuril Islands.

In the early years of the 20th century, naturalists believed that the Red-crowned Crane had been extirpated from Japan. These majestic black and white cranes no longer appeared on their wintering grounds in Honshu; in southwestern Hokkaido, the great birds disappeared when wetlands were drained. Therefore, it was good news when, in 1924, Mr. Haruji Saito discovered a small population of non-migratory Red-crowned Cranes in Kushiro Marsh. Although Hokkaido has long, cold winters, numerous springs and

associated unfrozen shallow streams provided winter habitat for these cranes which thrive on small aquatic animals.

Protection begins

Mr. Saito's report to the government of Japan resulted in an immediate proclamation that the cranes be protected. Hunting of cranes was prohibited. Then in 1935, 2,700 hectares of the central part of the Kushiro Marsh were also protected as a natural monument. During the next 20 years, the tiny flock of cranes somehow managed to survive through a turbulent era of Japan's history.

The winter of 1952 was unusually cold in Hokkaido, and many of the streams where the cranes fed froze over. Local farmers noticed their plight, and not knowing what

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In 1987, Kushiro-Shitsugen National Park was established on the northern Japanese island of Hokkaido to protect this important wetland from development. The park is home to approximately 35 pairs of Red-crowned Cranes. This pair (left) must have encountered favorable conditions in the wetland, because they were able to raise two fledglings. Photo by Teruo Sato.

It's Leo

by Kyoko Archibald

Leo, a Sandhill Crane I raised eight years ago, was found this summer only a few miles north of where he had been released as a fledging chick. This time, he was with his mate and offspring on his own breeding territory. Leo's return represents the first known successful breeding of a crane reared with a puppet as a parent and in isolation from human contact. Leo has also shown that a male will return to his hatching place to breed. But for me, the best part was playing again the role of Leo's proud "mother."

It all began in 1982, when I became a fellow at the Leopold Memorial Reserve. My research plan was to photograph the life cycle of the Sandhill Crane. When I started, I never would have guessed that the project would turn into a job of "mothering" chicks.

In March of that year, I observed a crane pair at the Reserve from the time of their return from the wintering grounds. After much aggression in defense of their territory, the pair finally settled down and became very quiet and faithful incubators.

An unexpected night in the blind

Parents with hatching eggs are supposed to be tolerant of some disturbance, so I moved a blind near the nest several days before the chicks were due to hatch. The next day I came back to the blind. But the pair was very nervous. The male heard a slight sound caused by my approach, stood up, and flew from the nest. The female joined him and they circled around me.

I froze in the blind... apparently they didn't understand my good intentions. The sun went down but the female, which typically incubates at night, never came back. I didn't know what to do. Should I let them know that I am going away, or should I just stay in the blind all night? I decided to stay. The blind was built on a bush, just above the water, so there was no firm foundation to sit on. After a while, I found a way to rest on some branches just above the water's surface.

It was a moonless night. I don't remember how, but I took a nap and when I woke up, I looked at the nest. With binoculars I could barely see two white spots on the nest. I hoped the parents would come back in the morning, but meanwhile, the eggs were cooling dangerously, so I brought them back into the blind, putting them inside my down jacket to "incubate" until morning.

Now I had to sit just above water with two eggs in my jacket. I really experienced what it's like to be a mother crane, incubating eggs in the middle of the marsh at night. There was darkness, and many wild sounds. After a while, I started sensing heat from the eggs,

so I knew they were still alive. Before dawn, I carefully replaced the eggs on the nest.

Photographer becomes "chick mama"

But the parents never came back; instead, they retreated to the middle of the marsh for molting, leaving me to raise the eggs. As a result, my whole project was changed. Fortunately, I already had experience raising chicks at ICF.

On May 30 and June 1, two chicks hatched. The older one was named Leo, after Aldo Leopold, and the younger Ter, after Frank Terbilcox, then Manager of the Leopold Reserve.

That spring, ICF was just experimenting with a new technique called "puppet rearing," so I introduced the chicks to a Sandhill puppet mother, used to teach them how to eat and to drink water. The chicks graduated from the puppet as they learned to eat food pellets. Although the chicks were raised by the puppet in the beginning to prevent too much imprinting on humans, I had to handle the chicks "in person" as they grew older, because the crane costume was not invented by Rob Horwich until 1985. So the chicks grew tame and came to recognize me as their parent.

Soon we brought them to an upland area beside the marsh to spend the day in a pen. To prevent dangerous fights between the feisty chicks, a clear sheet of plastic was placed between them. They spent a lot of time watching the habitat around them.

When the chicks became old enough to spend the night outside in the pen, I watched

them during the night from a tent pitched right beside the pen. This time, I had a sleeping bag resting on solid ground, instead of a bush and water below.

In the meantime, I was hoping that the real crane parents would come and reclaim their kids. To provide attractions for the parents, I played recorded unison calls from a tape recorder, and scattered corn around the chick pen. But for a long time, the parents did not come near the pen.

Finally, fledging time approached. On August 1, I observed that the parents had finished molting and were visiting nearby alfalfa fields. I thought it would be wonderful if the real parents would take their chicks on the southward migration.

Unfortunately, however, normal family bonding had been disturbed. The parents saw the chicks as intruders, rather than as their own offspring. I hoped that, by manipulating the environment, I could cause the parents and chicks to come together and begin to bond. I wondered if parents who have lost their young sometimes adopt orphaned chicks.

Lots of American mothers drive their children to the market or school; I drove my chicks between the marsh and the hay field. To prevent the cranes from getting too used to humans and their machines, I transported them in tall boxes that blocked their vision.

Early morning adventure

One morning as I drove, one of the chicks tried to escape from its box. As I struggled



Leo (left) is the first crane known to have bred in the wild after having been raised in captivity with minimal human contact. The two chicks, abandoned by their parents, were raised by Kyoko Archibald. First, she tried to reintroduce them to their parents by placing them in this 20 by 30 foot pen in the marsh, without success. Photo by K. Archibald.

to make him stay in the box, my car veered from the road. All of a sudden, I noticed a big oak tree looming closer, but fortunately I managed to stop the car without any damage. Now my car was stuck in the mud at 6:00 a.m., with no way of getting out.

I remembered that the reserve manager (Ter's namesake) lived just a quarter mile away. I realized that if I left the chicks in the car, their long legs or wings might be injured by struggling to get out. So I let the chicks out of their boxes, so they could walk down Van Hoosen Road with me to get help. In spite of the puppet rearing, they were now as tame as completely hand-reared chicks. They faithfully followed me to Frank Terbilcox's driveway. All three of us stood at his doorstep and rang the bell. Frank, in pajamas, opened the door, and in a few minutes he was on the way to rescue my car.

By August 7, Leo and Ter were "commuting" by car from the marsh in the reserve to a little pen in the alfalfa field every morning. That day, I came to the field at 7:00 a.m. I sat in my car near the field and as usual, waited all morning for the parents to come. At 2:30 p.m., with a loud alarm call, the parents did finally arrive. They walked up to the cage with a threatening posture and ate some corn I had scattered around the pen.

After a while, the parents seemed to recognize that the chicks in the cage were vulnerable and their aggressive behavior melted away. Soon they were trying to adopt the chicks. Their aggressive behavior with head down was replaced by the "invitation position" with bill-raising. The pair stayed in the field one and a half hours longer than usual and reluctantly took off for the roost by themselves that evening.

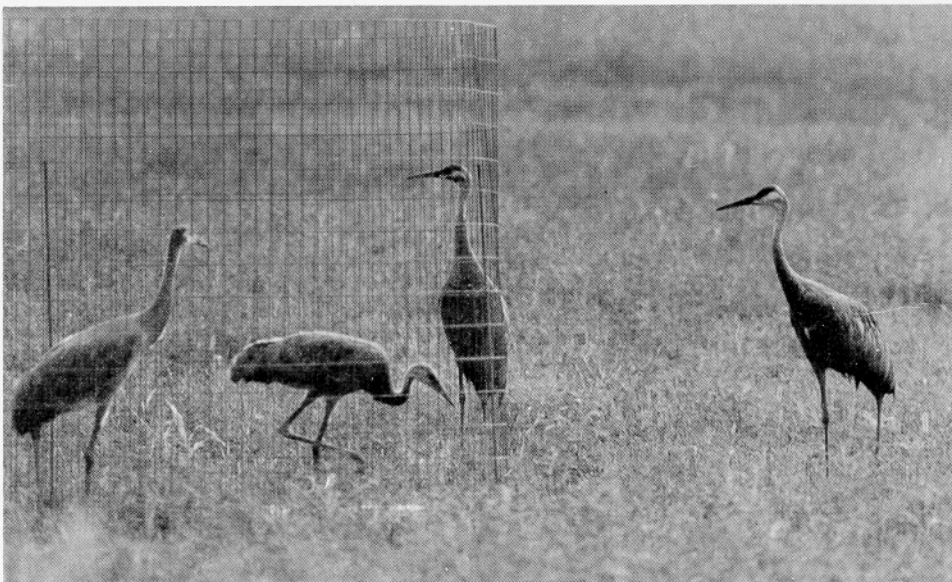
The pair was back at the field early next morning. I wondered if the chicks had been on their minds all night long. Although the pair couldn't understand the story behind the chicks, I empathized with their dramatic reunion.

The chicks commuted to the field every day by car and the pair joined in the commute by flying. The chicks flew for the first time on August 9th, and the chicks were released to the wild on the 12th; they were now able to follow wherever their parents might lead them.

Abnormal family bonds

In the wild, parents lead their chicks and the chicks submissively follow them. When the parents arrived at the field on the morning of the 12th, the chicks came out of the pen and walked to a nearby cornfield. The parents followed them. They stayed together for a while, but then the chicks walked away from the parents again.

It was very exciting to watch the four birds in one area, but it was obvious that the rela-



Later, when she discovered the parents were feeding in an upland field, Kyoko realized she had another chance to introduce the chicks to their parents. After the chicks were placed in this portable pen eight feet in diameter, the parents approached, and soon the chicks were released. But they never learned to follow their parents. Eventually, Leo did learn to socialize with wild cranes. Photo by K. Archibald.

tionship between parents and chicks was abnormal. The parents followed the chicks, trying to "persuade" the chicks to follow them to their roost in the marsh, but without success. Because my presence distracted the chicks, I stopped observations and let them work things out by themselves. But to my disappointment, I soon found the chicks alone.

Since the parents roosted in the marsh, I moved the chicks back to the marsh where they had another chance to encounter the parents. Then, while we were attending a seminar at the Leopold shack in late August, somebody looked toward the marsh, where they saw four birds flying in the dusk. I wanted to believe they were the reunited crane family, and I still believe they were. The last time I saw the chicks was August 30th, when the chicks were in the alfalfa field all by themselves. But my role as a crane mother was now over.

In February of 1984, one and a half years later, I received a letter from Steve Nesbitt of the Florida Game & Fresh Water Fish Commission. He wrote: "I'm happy to be able to tell you that we have seen one of the two birds you raised. We've seen it in flocks of 600-1000 cranes west of Gainesville on January 25 and February 9. It appears to be a normal subadult member of the flock." My lost child, Leo, had been found!

Leo returns!

This summer, a crane family in the Briggsville area was reported to ICF by Dick Meal because of their unusually tame behavior. I wondered if it might be Leo, with

mate and family. The family used to walk around Dick's house and help themselves to raspberries from his garden. The bands on the male were recognized as belonging to Steve Nesbitt's project, and so when Steve was in Baraboo this summer, he went to see the bird. But Steve could not read the number on the metal band because the red plastic band had slipped over the metal one.

Finally, I had a chance to visit the tame crane. When I drove into Dick's driveway, the male was eating corn Dick had scattered in his back yard. As I approached him, the crane walked away from me and went back to where his mate and chick were standing. When the male reached the chick's side, he turned around and walked toward me. I felt a little threatened by his bold confrontation—I stopped and stared. Then surprisingly, he picked up a dead small animal, turned, and fed it to the chick. He was ignoring me completely!

Later this August, while vacationing in Nova Scotia, I received a message from Jeb Barzen, ICF's Wetland Ecologist. Jeb had captured the tame crane and confirmed that the metal band was the one I had put on him eight years ago. I had met Leo again!

Leo's survival has shown that the partial puppet-rearing technique raised a male who mated and bred successfully. As a researcher, I am satisfied to see the successful conclusion of a project, but as a mother, I am happy that Leo has lived to be a normal crane. Leo now has a new set of bands and a radio on his leg. Hopefully, he'll be providing new information about breeding, longevity, and migration of reintroduced cranes, for a long time to come.

Siberian Success

by George Archibald, Director

The roar of our helicopter drowned all conversation, and the great steel dragonfly shook violently as it lowered into the marsh. Wind from swirling blades beat the water to mist. As great rubber tires touched the soft sphagnum, the door opened, and I stepped down to photograph a nest of the Siberian Crane. I had seen thousands of crane nests before, but this was one of only two Siberian Crane nests remaining in western Siberia.

I waded through knee deep water to photograph my colleagues, Yuri Markin and Sasha Sorokin, standing next to that fragile nest with the great dragonfly behind them. After taking a few pictures, I suddenly felt the submerged ice beneath me break and begin to sink. I called to Sasha, but he was transfixed by the eggs and deafened by the roar. Then, Sasha glanced at the helicopter and saw Professor Vladimir Flint pointing vigorously in my direction. By the time Sasha was aware of my plight, I was waist deep. Sasha's strong hand soon had me back on firmer footing.

Numbers are perilously low

Between May 25 and June 21, 1990, I camped with six colleagues in the Kunovat Basin just east of the Ural Mountains. Our US-USSR joint expedition lived just a mile from the sub-arctic breeding grounds of the last Siberian Cranes in western Asia. These birds probably belong to the flock that winters at

Keoladeo National Park in India, a flock that has declined from about 125 birds in the mid-1960s to just 17 cranes this past winter. Hunting and loss of wetlands along their 5,000-mile-long migration route are believed responsible for the decline.

Sasha Sorokin discovered the breeding grounds of the Siberian Cranes in 1981, and returned each year thereafter to count the breeding population. Between 1981 and 1990, the number of breeding pairs has varied between four and ten. Sasha believes that the water conditions—more pairs of cranes when water is high—dictates the numbers of cranes in the Kunovat Basin.

Our expedition had the objective of developing a long-term plan to help the cranes. Because hunting during migration is the biggest problem, it is crucial to know the exact migration route of the Kunovat flock. Research by Mini Nagendran and Steve Nesbitt demonstrated that a Greater Sandhill Crane carrying a radio could be followed during its migration across the southeastern United States. This was no ordinary radio—it was a "platform transmitter terminal" (PTT)—a tiny transmitter powered by batteries, with a life of 5-8 months, that can automatically be tracked by satellite.

To test further whether the PTT could be used to reveal the migration route of Siberian Cranes in the USSR, we decided to attach the radios to Common Cranes that nest among the Siberians. Dr. David Ellis, a crane and raptor behaviorist from the Patuxent Wildlife Research Center, was a crucial member of our team. With support from the National Aeronautics and Space Administration, Ellis was able to secure three PTTs to plot the migration route and the wintering grounds of

the Common Cranes. If carrying radios does not harm the Common Cranes, we hope to use PTTs on Siberian Cranes in order to solve the mystery of their movements.

Capturing Common Cranes

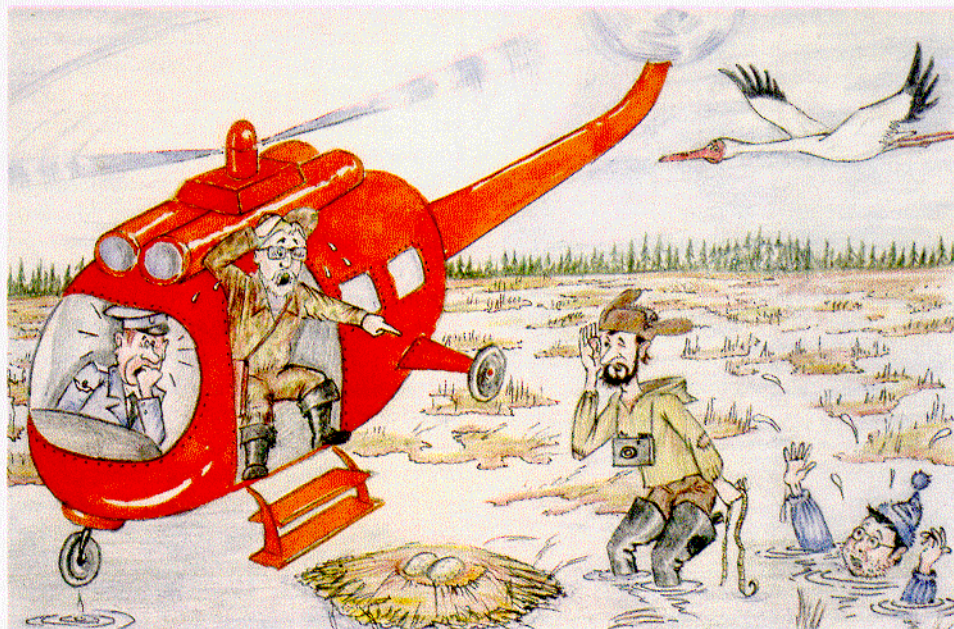
First, Yuri Markin and Sasha located two Common Crane nests. Next, after days of watching incubation patterns of the birds, Yuri injected an oral anesthetic, alpha chloralose, into fresh eggs of a Wood Sandpiper. The drugged eggs then were placed at the edge of the two Common Crane nests just before the males returned to incubate. The males each ate the bait. As planned, the males did not move into the marsh, where they might have drowned, but were easily captured on the nest.

Dave Ellis then attached radio-carrying backpacks to the cranes. A few hours later, the cranes had regained their senses, and within 1.5 hours of recovery, one male was sharing incubation duties with his mate. He seemed to ignore his hardware. A third crane was captured and marked after we used the helicopter to chase a molting and therefore flightless crane.

Meanwhile, Vladimir, Sasha and a professional photographer named Edward Nazarov studied and photographed the Siberian Cranes. We were particularly interested in their diet. Because captive Siberian Cranes are so difficult to breed, we guessed that something might be lacking in the food they receive in captivity. On their wintering grounds, Siberian Cranes are almost exclusively vegetarians. I was amazed to learn, however, that when breeding the Sibes are predominantly carnivorous, eating frogs, fish and larvae, at least in the last two weeks of incubation.

During the late evening campfire talks, we developed a plan to help the Siberian Cranes. In 1991, the Russians hope to build a simple crane-rearing facility near the breeding territory of one pair of Siberian Cranes. Siberian Crane eggs from the captive flocks at ICF, the Oka State Nature Reserve in the USSR, and Vogelpark Walsrode in West Germany could then be gathered and flown to the Kunovat base. Using isolation-rearing techniques developed by Dr. Rob Horwich at ICF, and then perfected by Dr. Richard Urbanek and by Mini Nagendran, the chicks would be reared and released with PTTs to join their wild cousins. With this effort, we could increase numbers of the tiny wild flock, and continue to study the timing and route of migration.

These plans are the fruit of 14 years of cooperative work with Dr. Flint and his team, work that is made possible through the Environmental Agreement signed between the US and the USSR in 1972.



As the author submerges, Vladimir Flint urges a deafened Sasha to help. Cartoon by Max Sorokin.

Whooping Crane Recovery Team Meets at ICF

by Dr. James C. Lewis
US Whooping Crane Coordinator

The International Crane Foundation (ICF) hosted on July 24-26 a distinguished group of crane specialists from the US and Canada. The eight members of the US Whooping Crane Recovery Team meet every 12 to 18 months to plan efforts to return the species to secure population levels and make recommendations to the US Fish and Wildlife Service. Team members include representatives from state or federal agencies, universities, or private foundations, and one member from the Canadian Wildlife Service—all specialists in crane management in the wild or captivity.

This was the first meeting for ICF Director George Archibald and for Steve Nesbitt of the Florida Game & Fresh Water Fish Commission. Dr. Archibald was added to the team as a consequence of ICF's involvement in Whooping Crane propagation. Mr. Nesbitt represents his agency in the cooperative release planned for Whoopers into Florida's Kissimmee Prairie.

Whooper research reviewed

This year's session involved field trips and indoor meetings. The team was taken on a trip to Seney National Wildlife Refuge in Michigan's Upper Peninsula, a trip sponsored by Region 3 (Minneapolis-St. Paul) of the US Fish and Wildlife Service. There Dr. Richard Urbanek of the Ohio Fish and Wildlife Cooperative Research Unit explained the experimental isolation-rearing techniques being developed by using Sandhill Cranes. The team is now reviewing a proposal to expand the studies to Red-crowned Cranes as a surrogate research species more like Whooping Cranes.

A second field trip involved a tour of the new facilities constructed at ICF in 1989 to house the Whoopers. For many Team members, this was their first visit to ICF.

The balance of the meeting provided Team members with an opportunity to become familiar with progress on all fronts of recovery—the good news mixed with the bad. Tom Stehn, the biologist at Aransas National Wildlife Refuge in Texas, reported on the 20 chicks which arrived there in the fall of 1989 and the 141 birds which departed northward in spring of 1990.

Three oil spills this spring in the Gulf of Mexico north of the wintering grounds underscore the tenuous status of the species as long as there is only one self-sustaining



The ICF Whooping Crane Class of 1990 meet the US Whooping Crane Recovery Team in the chicken yard. From left rear to right front appear Steve Nesbitt, Florida Game & Fresh Water Fish Commission; George Gee, Patuxent Wildlife Research Center; Tom Stehn, Aransas National Wildlife Refuge; Rod Drewien, Univ. of Idaho Wildlife Research Institute; Jim Lewis, US Fish & Wildlife Service, Region 2; Graham Cooch, Canadian Wildlife Service; and George Archibald, ICF.

wild population.

Mr. Nesbitt reported progress in evaluating Florida as a release site. Nine Whooping Cranes may be released in 1992 and monitored for two years. Depending on the results, annual releases of 20 birds may begin in 1994.

A report by the Wyoming Cooperative Fish and Wildlife Research Unit described results of a study evaluating power line markers. Fewer collisions by Sandhill Cranes occurred on lines which were marked with bright yellow aeronautical balls than on unmarked lines.

Reproductive success varies

Dr. Drewien, University of Idaho, said there was still no reproduction in the whoopers of the Rocky Mountain cross-fostered population, despite further attempts

at match-making.

Dr. Cooch reported 32 nests found in Canada this spring, including several nests in Alberta 30 miles south of any recent nesting records. This is an important expansion into an area with lots of unoccupied nesting habitat. But the nesting wetlands were drying up and we may be entering a drought period with diminished reproductive success.

The captive birds at ICF did not reproduce following their move to new quarters; the flock at Patuxent Wildlife Research Center fledged only three chicks. But ICF fledged eight chicks from the 11 fertile eggs transferred from Canada to Baraboo.

With this year's reproduction, the number of Whoopers in the wild and captivity has climbed to 235 as of July, 1990, since a low of 21 in 1941. The population growth shows what international cooperation can do. We expect more good news in the coming years.

Gromme Crane Endowment

ICF's Board of Trustees recently established the Owen and Anne Gromme Crane Endowment, with bequests made to ICF from the estates of Barbara Canfield, Edna Koenig, and Marjorie Luther. Recently Owen and Anne Gromme generously enlarged the endowment; its income will be used for ICF's operational needs. In the future all bequests, unless otherwise requested, will go into the Gromme Endowment.

Owen and Anne have been faithful supporters of ICF from the beginning. Director George Archibald remarked that "Establishing the Gromme Endowment is a long-term measure for ensuring the future stability of ICF."

The Trustees also formally established the Ron Sauey Conservation Fund. This fund will be used for operational support of the Ron Sauey Library for Bird Conservation, and for overseas conservation efforts.

A bequest to the International Crane Foundation is an excellent way to assist our conservation programs. A clause like the following can be used in your will: "I give and bequeath (cash amount or description of property) to the International Crane Foundation, having its principal offices at E-11376 Shady Lane Road, Baraboo, WI 53913-9778, to be used for the general purpose of the organization."

Consult your attorney to ensure that your will is legally valid and effective. If you would like more information about making a bequest to ICF, please contact George Archibald, Director, or Bob Hallam, Development Coordinator.

THE ICF BUGLE is the quarterly newsletter for members of the International Crane Foundation (ICF). Articles review ICF programs as well as crane research around the world.

Co-Founders: George Archibald
Ron Sauey

Editor: David Thompson

ICF offers memberships at the following annual rates:

Individual	\$20	Foreign	\$25
Family	\$30	Sponsor	\$500
Associate	\$100	Patron	\$1,000

A Shack for George & Tanya

In the spring of 1991, George Archibald and a hopelessly imprinted female Siberian Crane named Tanya will spend six weeks together in the Stedman Prairie. Twelve-year-old Tanya has never laid an egg. By living at her side from dawn to dusk, with occasional bouts of dancing, nest building, and unison calling, George may be able to bring Tanya into breeding condition. Once she begins to form eggs, artificial insemination will be needed to help her produce fertile eggs.

This project will require \$1,000 for the wiring and renovation of an old shelter, where, with the help of a word processor, George hopes to write about his 1990 adventure on the breeding grounds of the wild Siberian Cranes. If you wish to send George and Tanya a "wedding gift," please select "Captive Flock" on the enclosed envelope.

Library Dedication

The official opening of the Ron Sauey Memorial Library for Bird Conservation, now under construction at ICF, will take place next May 25 and 26 (Ron's birthday). To receive details about the many events we are planning at ICF, please send your name, address, and phone number to Eric Scott at ICF.

Special Gift Envelope

by Bob Hallam

Last year's fall issue of the *Bugle* contained a "special gift envelope" which gave each member a chance to support a particular ICF program of his or her choice.

The special gift money this year allowed the Habitat Department to pay for a manager's salary at Tram Chim, a wetland reserve in Vietnam which protects the endangered Eastern Sarus Crane. The Habitat Department hopes to receive funds again this fall so that the manager can be retained until long-term support for the position can be found.

Last year's contributions to Education are being used to update and print ICF's Whooper Fact Sheet. The four page fact sheet is sent throughout the US to students and reporters who contact ICF about the status of this most endangered of all cranes.

From this year's envelope, Education hopes to use gift money to purchase spotting scopes and tripods required for field trips, research and foreign training. A VCR is also needed for reviewing and showing educational tapes.

Aviculture used their funds to purchase camera equipment to document research projects and medical procedures, and for identification of parasites.



These lovely T-shirts showing the endangered Whooping Crane on a background of aqua are available by mail—write Terry Brooks at E-11376 Shady Lane Rd., Baraboo, WI 53913, and include the size and a check to ICF. Sizes are S, M, L, & XL for adults, and S, M, & L for children. Prices are \$9.50 for adults and \$7.50 for children, plus \$2.00 per shirt for shipping. Wis. residents please add 5% to the price of the shirts you order. Photo by D. Thompson.



This year, ICF hosted over 24,000 visitors and raised 12 chicks. We couldn't have succeeded without our wonderful volunteers, many of whom are shown above. Top row—Catherine Woodward, Ginny Anderson, Tammy Wirag, Tom McDonough; 2nd row—Meredith Selden, Blanche Evans, Gilbert Bird, Maxine Brown, Dorothy Fitzgerald, Cindy Scott; 3rd row—Harold Bessac, Ruth Bessac, Kay Strutz, Bob Kerr, Calico Schmidt, Betty Myers, Marion Hill, Barb Barzen; Front row—Nancy Liggett, Anne Heintzelman, Ann Vogt-Schaller, Laura Gjestson, Irena Smirenski. Photo by D. Thompson.

Contributions

Received July - September 1990

From the Estates of: Marjorie Luther; Robert Lowes.

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ICF's Bird-a-thon Raises \$14,000

To date, ICF's second annual Bird-a-thon has raised over \$14,000 for the Ron Sauvey Conservation Fund, and for ICF operations in Baraboo. We wish to thank all for their dedication and support.

The following persons deserve special commendation for all their time, devotion, and effort: The top three teams, consisting of (1) John Ottinger and Margaret Lison, (2) Barbara Katz and (3) Mike Putnam, together raised over \$1,350. Each of the top three teams will receive a framed, limited edition print by Owen Gromme entitled "Approaching Storm—Whooping Cranes."

Members of other top-scoring teams were (4) Carson and Lisa Mettel, (5) Jane Zuber, (6) Kate Olsen and Kris Smith, (7) Mimi Corneli, (8) Carol Konkol, (9) Karen Etter Hale, and (10) James Nelson. Each team scoring fourth through tenth will receive a limited edition fine art poster by Owen Gromme entitled "Birds of Wisconsin."

Special appreciation goes to ICF Trustee Mark Lefebvre of Stanton & Lee in Madison for donating the prizes. Our thanks again to all for their time and devotion.

A National Park for the Cranes

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else to do, scattered corn on the snow for the cranes. To their surprise, the birds readily accepted the handout. School children followed the farmers' example, and so the tradition of feeding cranes in the winter began. Soon the government provided financial support for the feeding program. With winter food no longer limiting their numbers, the population started an increase which still continues. Today there are about 450 wild Red-crowned Cranes in eastern Hokkaido.

Each winter, thousands of tourists travel to several major crane feeding stations near the Kushiro Marsh, where birds are readily observed and photographed at close range.

Following Mr. Saito's discovery, the Japanese knew that a small number of cranes nested in the Kushiro Marsh. But as their numbers increased to the low hundreds, rumors began that most of the cranes migrated to breeding areas in the Soviet Union. So it was important news when an aerial survey in 1972 revealed that most if not all of the cranes actually nested on Hokkaido. From low flying fixed-winged aircraft, the white cranes and their island-like platform nests were very conspicuous in remote areas of the wetland. The survey was performed by Japan's leading crane authority, Professor Hiroyuki Masatomi, and Dr. George Archibald of ICF. Soon, both the government and the people living in the Kushiro area began to understand the importance of the wetland.

National Park established

Conservation of the expanding population of Red-crowned Cranes clearly required preservation of Hokkaido's wetlands. And so, to protect crane habitat and to educate the people of Japan about the value of wetlands, the central portion of Kushiro Marsh became



For thousands of years, wetlands in northern Japan provided a home for the majestic Red-crowned Crane. Then most of the wetlands were drained and the cranes retreated. Although Kushiro National Park was established to save the breeding ground of the last Red-crowned nesting in Japan, urban development (upper right) and agriculture (bottom right) are now closing in upon the southern border of the park. Photo by Kunikazu Momose.

"Kushiro-Shitsugen National Park" in 1987.

Unfortunately, protection afforded cranes by the National Park is less than complete. The approximately 35 pairs of Red-crowned Cranes now breeding in the marsh are still threatened by tourist development projects. There are plans for golf courses, cottages, boat landings, and roads at the borders of the park.

Since the National Park includes only the marsh itself, park officials cannot control development along rivers coming into the marsh, or on neighboring hills. Also, growth of Kushiro City itself is creating pressure for development. The south corner of the wetland, containing two or three nesting sites, is facing possible destruction in the near future by construction of new roads and development of farmland. A voluntary partnership between the park and local authorities is needed to guide development.

Conservation efforts, however, are underway. In the spring of 1993, Kushiro City will host a meeting of nations party to the "Ramsar Convention for the Protection of Wetlands." This Convention is an agreement whereby signatory nations agree to designate and protect several of their most important wetlands as "Ramsar sites." Kushiro Marsh was listed as Japan's first Ramsar site in 1980. Persons interested in attending the 1993 meeting should contact the Ramsar Convention Bureau, Avenue du Mt. Blanc, 1196, Gland, Switzerland.

As many as two million tourists will visit Kushiro Marsh this summer to see the extensive and beautiful wetland. Their visits will help to increase awareness of the problems of cranes and wetlands, and to motivate conservation action by exposing people to the beauty of the birds and their wilderness habitat.

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