THE ICF BUGLE

Volume 16, Number 2

May, 1990

World Center for the Study and Preservation of Cranes

Asians Meet On Behalf of Cranes

By Jim Harris, Deputy Director

During December in Gujarat, India, the reservoirs are crowded with birds. At one lake near Rajkot, over 100 workshop delegates, brightly colored in clothes from six nations, strolled over the dry landscape. Behind them flocks of cranes massed in the shallows and up onto the shores; in front of them, farmers drove their teams of great gray bulls and herds of goats passed on their way to evening shelter.

Water is scarce in northwestern India, a strange place for one of earth's greatest concentrations of cranes. In autumn, tens of thousands of Demoiselle and Common Cranes arrive from central Asia. They are sometimes joined by the non-migratory Sarus Cranes, sacred to the Hindus.

The Asian Crane Congress convened in Rajkot, Gujarat, from December 27-29, 1989 to consolidate efforts on behalf of central Asia's cranes. Professor R. M. Naik and his colleagues at Saurashtra University organized the Congress.

Indians agree on Siberian Crane strategy

Central Asia's tiny flocks of Siberian Cranes dominated discussions at the Congress—only 12 birds were wintering in Iran and only 17 had appeared at India's traditional site at Bharatpur. ICF sponsored the participation of the leading experts on Siberian Cranes on the nesting grounds, Drs. Vladimir Flint and Alexander Sorokin from the Soviet Union. Neither of them had ever visited India, but the Indians were well aware of their work. Sorokin's slides of field work by dogsled and of nesting marshes still frozen in June amazed the delegates from the south.

Flint proposed two initiatives under the 1984 Indo-Soviet Treaty on Migratory Birds. First, India and the Soviet Union would track by satellite a non-endangered crane, perhaps Common Cranes wintering in Gujarat. One day, this experimental technique might be applicable for the Siberian Crane on its long migration. Second, Soviet scientists would take eggs from the relatively numerous east Asian flock of Siberian Cranes, rear the chicks, and send them to Bharatpur for a winter release. In this way, India's flock could be increased.

The Indians enthusiastically endorsed both proposals. They also passed resolutions which provide for the first time a consensus on essential measures for the Indian flock. Particularly important are the habitat problems at Bharatpur: insufficient water and un

palatable vegetation encroaching on crane feeding areas. The park cannot support the numbers of Siberian Cranes that formerly wintered there. Clearly, Flint's plan to augment the Siberian flock depends on first restoring the habitat. Another top priority is to locate additional sites where Siberian Cranes are wintering, so that these birds and their wetlands can be protected.

Tam Nong hosts Sarus workshop

The Asian Crane Congress was the latest in a series of meetings involving India. In contrast, the International Sarus Cranes and Wetland Workshop (11-18 January, 1990) was a first for Southeast Asia. The University

continued on page 6



This winter, two crane meetings occurred in southern Asia. Regional workshops have become increasingly important for communication among the crane conservationists scattered over five continents. Many work in isolated areas; the challenges, however, are similar from place to place, and solutions need to be shared. This lovely painting by wildlife artist David Rankin appeared on a poster produced by ICF that was distributed at the workshops. The poster was made possible by a grant from the Wild Bird Society of Japan and the Corporate Conservation Council—Japan.

Reintroduction Studies: a Winter Release

by Meenakshi Nagendran

Editor's Note: Before captive-reared endangered cranes are released into the wild, release techniques must be developed with non-endangered cranes, such as the Sandhill. Using the promising "isolation rearing" technique developed at ICF by Dr. Robert Horwich, Dr. Richard Urbanek in 1988 and 1989 released groups of Sandhills at Seney National Wildlife Refuge (NWR) in Michigan on the breeding grounds of wild Sandhill Cranes, while Mini Nagendran in 1989 released a group of Sandhill Cranes at Welder Wildlife Refuge in Texas, on the wintering grounds of wild Sandhills.

In 1965 approximately 118 Siberian Cranes wintered at the famed bird sanctuary near Bharatpur, India. Only 17 birds arrived this winter. Long and perilous migrations and problems on their wintering grounds in India, Iran, and China make the Siberian Crane one of the most endangered species of crane.

The Indian government is deeply concerned about the plight of the Bharatpur flock. Possibly the flock can be bolstered by the release of captive-reared birds. But Siberian Cranes are too scattered on their breeding grounds in the Soviet Union to reintroduce successfully a captive-reared flock in the north. If a successful release could be accomplished in India, it would simplify matters considerably because the wintering grounds of the Siberian Crane in India are readily accessible.

Since reintroduction on the wintering grounds had never been tried, I became interested in developing techniques for rearing and releasing cranes on their wintering grounds using Sandhill Cranes. The experimental winter release of Sandhills would test whether cranes reared and released on their wintering grounds would migrate north the following spring with wild cranes. Texas was chosen because thousands of Sandhills winter there, and because there are no cranes residing year-round that might influence the released birds to become non-migratory.

Rearing and release

On May 23, 1988, 15 fertile Greater Sandhill Crane eggs, collected from Seney NWR in Michigan by Dr. Richard Urbanek, were transported by air in a portable incubator to the Welder Wildlife Refuge in Sinton, Texas. The incubator had a seat to itself and travelled under the name "Eggs!" I was afraid that my first chick would hatch in the plane, but for-

tunately I was spared a trip down to Texas in a crane costume aboard a 737! The first chick hatched on May 24. By June 22, a total of 11 chicks had hatched. Of these, we lost only four chicks.

The seven chicks that survived—Provost, Doinker, Neva, May, Isabelle, Jon and Chigger—were "isolation-reared" by costumed "parents," with puppets, brood models and taped crane vocalizations so that the chicks had almost no contact with their human caretakers. From May through July 1988, the chicks were reared close to the refuge headquarters. After the disappearance of two chicks, I began to take extreme precautions to protect them from predators. In early August the chicks were moved to release sites by the largest lake on the refuge, where wild wintering Sandhill Cranes traditionally roost.

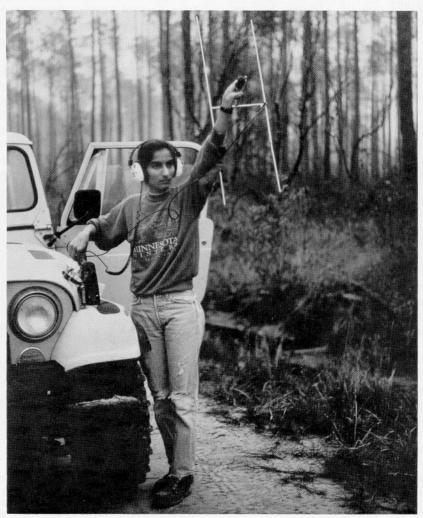
While the chicks were growing, the water receded alarmingly, and by September, the lake was bone dry. It was very important to show the chicks how to roost in water to avoid predators, but for the first time in recent years, wild cranes did not roost in the Welder Refuge. Furthermore on November

5, 1988, the behavior of the chicks changed. With the absence of wild cranes, good roosting habitat, and the change in behavior, it was obvious that I needed to find a new release site as soon as possible.

On November 17, the chicks were moved to a private ranch in Seadrift, Texas. Doinker disappeared that same night. On November 18, the remaining six chicks were moved back to the Welder Refuge. On November 21, Doinker was radio tracked walking down one of the streets in Seadrift! I donned my costume and puppet, and playing my brood call tape as loud as I could, I walked down the street. Totally oblivious to the stares, I retrieved Doinker, who was delighted to see me again!

A move to another release area 25 mi from the Welder Refuge resulted in the loss of three more chicks to a bobcat. Finally, in late December, permission was obtained to release the chicks at Laguna Atascosa NWR near Rio Hondo, Texas; on January 6, 1989, May, Doinker, Jon, and Isabelle moved to Laguna Atascosa NWR. Jon succumbed to gout on January 10.

The crane costume was fine for rearing



Mini Nagendran uses a hand-held antenna to locate hand-reared chicks marked with radio transmitters at Mississippi Sandhill National Wildlife Refuge. Photo by Claire Mirande.

chicks and retrieving wayward offspring, but I couldn't use a costume to teach them to migrate. The weaning process, a transfer of attachment from costumed "parent" to wild cranes, involved attracting wild cranes with bait, to force association between the chicks and wild cranes.

The chicks spent their first night with wild cranes on Lake Atascosa on January 27, 1989. Baiting continued, and the chicks were now observed from a blind. I also traced their movements by homing on their radio transmitters. These hand-reared chicks were slowly but surely learning the ways of wild cranes.

I captured three wild cranes and fitted them with radio transmitters. If I lost track of my experimental birds, at least I could find out where their "guides" were going.

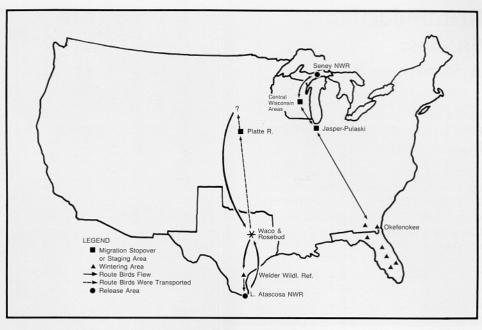
Will they migrate?

On March 11 Isabelle, Doinker and May flew by themselves to roost. At around 7 a.m. on March 12, six cranes flew from the fields heading in a northwesterly direction. Three of these were our chicks. At approximately 9:30 a.m. we lost radio contact with our chicks outside the refuge. I radio tracked from the air just to confirm the chicks' departure from the area. The next six days were spent searching for these cranes between south Texas and the Platte River at Grand Island, Nebraska. When we arrived by the Platte on March 18 we received the radio signal of one of the wild cranes. By April 3 all three wild radioed cranes were on the Platte but there was no sign of the hand-reared chicks.

What had become of the experimental birds? My worst fears were allayed when I received a phone call from ICF on April 4. Apparently the hand-reared chicks had been located in Rosebud, Texas. These three birds were the talk of the town and had all but acquired the key to the city! On the afternoon of April 6, I donned my crane costume and tape player and retrieved the chicks. The costumed "parent" and taped brood calls were used because the chicks had strongly imprinted on these since hatching, and I wished to retrieve the birds without scaring them.

I put the birds in my enclosed pickup truck which had been divided into individual compartments, and drove back to the Platte. By 9 a.m. on April 7 and with Dr. Paul Currier's assistance, the chicks were re-released on the Platte River where a few hundred cranes were still on roost that morning. After a few moments of hesitation, the chicks joined the wild cranes.

On April 15 Isabelle appeared to be heading north with a dozen wild cranes, as it was a very warm day with strong, southwesterly winds. There was no sign of Isabelle on the Platte that night. Had she migrated after all? On April 16 Isabelle re-



Nagendran raised and released three Sandhill Cranes on their wintering grounds in Texas. Upon release, they followed wild birds only as far north as Rosebud. After they were transported by car north to the Platte River and released to rejoin wild flocks, they traveled further north, but then separated from wild flocks and returned to Texas.

Urbanek (see pages 4-5) raised and released 16 Sandhill Cranes near crane breeding grounds on the Upper Peninsula of Michigan. A year after release, at least 15 had made a round-trip migration to the south and back to Wisconsin and Michigan.

appeared on the Platte around sunset, less than a quarter mile away from the other two chicks, where the three had been released! The three chicks were reunited on April 20.

On April 21 at 11:02 a.m. the three chicks were soaring on updrafts with a large flock of cranes west of Nebraska Hwy. 11. There were strong winds from the southeast and temperatures were well over 80°F. The chicks and the rest of the flock initially moved in a northwesterly direction, and then flew directly north. I followed the birds for approximately 100 mi and then lost radio contact with my chicks a little north of Burwell, Nebraska. They were cruising at a ground speed of 45 mph. I returned to the Platte that night and radio tracked along the river the next morning before cranes left their roost. It appeared that the chicks had indeed left the Platte.

An unexpected turn of events

There were no reports of these chicks until May 25, 1989. On that day I received a phone call from Mr. George Litton, the Regional Director of Texas Parks and Wildlife in Waco. Mr. Litton had seen my hand-reared birds in Waco, around 43 mi north of Rosebud, on May 22 for 20 minutes at the Lacey Lakeview Landfill. They were last seen leaving the landfill flying very low in a southerly direction.

In June the three cranes were seen on the Herd Ranch near Refugio, Texas, approximately 20 mi from the Welder Refuge. On July 26 Isabelle was killed by a bobcat a little before 7:30 p.m., a few minutes before Texas Parks and Wildlife officials arrived on the scene. The remaining two birds moved adjacent to the Welder Refuge and started visiting a horse barn to feed every day.

On August 11 I captured May and Doinker in the Welder Refuge, where they had landed that same morning, and transported them down to the Laguna Atascosa NWR where there was roosting and foraging habitat. In late January of 1990, I went to Laguna Atascosa NWR and changed May's radio transmitter (since it had been on the bird long past its life expectancy of one year), but I was unable to capture Doinker to change her transmitter. On March 8 I was back in Texas to remove May and Doinker from the wild and ship them to the Rio Grande Zoo in Albuquerque, New Mexico, because people had started feeding the birds and had caused them to become too tame.

Whether May and Doinker would have migrated north this spring is unknown. Perhaps the winter release might have been successful if the drought and lack of wild cranes hadn't greatly prolonged the reintroduction process. But unexpected new insights did result from this entire saga. The fact that the three juvenile cranes returned to their natal (rearing) area, despite travelling 694 mi north at night in an enclosed pickup truck, raises some fascinating questions about migration. The importance of the natal area cannot be understated.

Reintroduction Studies: a Summer Release

by Richard Urbanek Ohio Cooperative Fish and Wildlife Research Unit

In the fall of 1988, we were flying and driving over the countryside of central Wisconsin, radiotracking a mixed-up Sandhill Crane chick named #7. Hand-raised that summer by humans, he had joined a wild flock but then became separated from the wild birds just before they migrated from Wisconsin. With no previous experience and without wild birds to guide him, he would be unable to find Jasper-Pulaski Fish and Wildlife Area (J-P) in northwestern Indiana, the next major stop along the migration route. We were attempting to capture him and take him to J-P ourselves.

Late in the third day, we made our way ahead of the bird. I put on a crane costume and jumped out of the truck, ran to the center of a nearby field, and began playing a parent crane's brood call over a loudspeaker. As I waved my crane puppet head, #7 approached overhead. When he saw me, he responded with a greeting call, set his wings, and glided down to land at my feet. We placed #7 in a box and drove off with him. A group of deer hunters, observing this display from a nearby road, were left standing in amazement.

Since 1984 I have been studying Sandhill Cranes in the Upper Peninsula (U.P.) of Michigan and adjacent Ontario, hoping that one day the endangered Whooping Crane might be established here. Since 1988 we have used the plentiful Sandhill Crane as an experimental substitute for the Whooping Crane. Only about 140 Whoopers exist in the only natural wild population, which migrates between Canada and Texas. New wild flocks will be necessary to ensure the recovery of this magnificent species. But a major stumbling block to establishing new migratory flocks of Whooping Cranes is the lack of a proven reintroduction technique. New flocks could be started by release of captive-reared birds, but will these birds survive and migrate after release into the wild?

Isolation rearing

Although cranes are easily reared in captivity, birds reared with human contact lack fear of humans and are therefore not suitable for release into the wild. Fortunately, an alternative technique has recently been developed by ethologist Robert Horwich.

By this method, called "isolation-rearing,"



At Seney National Wildlife Refuge, a costumed parent leads a group of chicks during daily exercise. These sessions help the chicks to avoid problems with leg growth, develop foraging skills in a natural environment, and socialize with other members of their own species. The bird in the foreground is #9, a returned yearling who provided a good role model for the 1989 chicks. Photo by Ted and Jean Reuther.

crane chicks are cared for by puppets or keepers in costumes, so they have no familiarity with humans. Horwich raised five Sandhill Crane chicks and released them in Wisconsin on Necedah National Wildlife Refuge (NWR). Four of these birds returned to central Wisconsin the following spring.

In 1987, in response to this breakthrough, the U.S. Fish and Wildlife Service granted funding to Dr. Ted Bookhout, leader of the Cooperative Unit at Ohio State University, to refine the technique. Dr. Bookhout is in charge of the work at Seney NWR in the U.P., where I would be rearing chicks by the isolation method (see map, page 3).

In late March of 1988, I returned from my winter projects and was soon joined by two volunteers. We had six weeks to build and equip a complete isolation-rearing facility. An adjacent 36 by 54-ft pen would contain a pair of adult cranes to serve as role models for the chicks. With the help of the Seney Refuge staff, and with advice and training provided by ICF, the facility was completed on the very day we began egg collection.

From 19 eggs, we fledged 16 chicks (9 males and 7 females). In late summer we transferred the birds to a five-acre pen constructed on "A-Pool," an open wetland near the rearing area. Up to 100 wild cranes, attracted to corn placed in the pen, joined our chicks. In order to keep the chicks within the protection of the pen until they merged with the flock, we placed a costumed dummy there on a stake. To us, the costume looked

like a scarecrow, but the chicks thought it was their parent. We removed the dummy after the chicks began flying out to roost at night with wild birds in a nearby marsh.

The autumn migration

Wild cranes from Seney follow a route that takes them through staging areas in east-central Wisconsin, on to J-P, and finally to wintering areas in Georgia and Florida.

Chick #1 was the first to leave the release area in early September. By late September she was found with wild cranes 20 mi south of the release site, and she soon migrated to Wisconsin. Also in late September, most of the wild cranes departed, taking seven more of our chicks with them.

The other eight chicks remained in the Seney area. They attempted migration twice within the next two weeks but returned each time. They had the instinct to migrate, but with no wild birds to lead them, they did not know where to go. The last pair of wild cranes left the refuge on 18 October, and so, a few days later, we boxed the remaining eight chicks and transported them to the staging areas in east-central Wisconsin. Here they would have another chance to follow the wild birds.

Within the next few weeks six of our chicks arrived at J-P. On November 20, eight of the nine remaining chicks migrated to J-P, along with most of the remaining wild birds. Chick #7 had become separated from both the wild birds and his companion, Chick #8, so on 20

November, #7 attempted migration alone; over a three day period he flew 50 mi south, the 160 mi north, and then returned to the area where he had lost his companion. On November 23 we rescued #7 in front of those astonished hunters and released him at J-P the next morning. Two days later I found him there with #8; they apparently had no trouble finding each other among the 7,000 other birds at J-P.

In the fall migration of 1988, all of our chicks passed through J-P, except for #18, one of the birds transported to Wisconsin in a box. In early December #18 was observed off the migration route, alone in east-central Illinois. I feared the worst for this bird, but ten months later I found him in a wild flock, only 11 mi from his previous release site in Wisconsin. His second autumn migration was perfect, taking him through J-P and Tennessee to a major crane wintering area in the Okefenokee Swamp of Georgia.

During the fall migration of 1988, #7 and #8 left J-P in mid-December with the last wild birds. Again #7 behaved unpredictably. After separating from wild birds and four days of flying in a round-about pattern, he and #8 stopped in the Buffalo River bottoms of west-central Tennessee. A month later they were sighted with 24 other cranes on nearby Tennessee NWR. In mid-February, Jim Bergens, manager of J-P, reported that #7 and #8 were back at J-P with a few hundred wild birds on spring migration.

The spring migration

During the winter of 1988-89, I was able to locate six chicks in Florida, some with the assistance of the Florida Game and Fresh Water Fish Commission. I had hoped to find all of the chicks on their wintering grounds, but was hampered in my search because many wintering sites for small flocks are unknown. But by spring migration in early March, Jim Bergens reported some of the missing chicks at J-P. In all, 14 of the chicks were accounted for during spring migration.

In late April, 1989, I found ten of the cranes during a tracking flight in Wisconsin. Two (in separate flocks) were found flying northwest along the migration route that leads not to Seney, but to northwestern Wisconsin and Minnesota. Not surprisingly, one of them was #7. At least he had made it back to Wisconsin. (Recall that he had been transported from Wisconsin to J-P in a box the previous autumn and had not flown that route before.) Later in the summer, I found the other offcourse bird, #3 (who had also been transported in a box), only 13 mi from where he had been released the previous autuumn. He had apparently turned back and summered on the correct migration route.



Wearing a crane costume, Richard Urbanek (left) checks to make sure the chicks are safe and comfortable in their new release pen. The other large figure is a crane dummy, used to keep the chicks within protection of the pen until they are flying in and out with wild birds. Photo by Ted and Jean Reuther.

Our chicks return successfully

During the next six weeks we were busy adding a room to the chick-rearing facility, collecting eggs, and rearing a new batch of chicks. There was little time to monitor the "Class of 88," but I flew over the U.P. on 10 June and found ten of them, including all eight that had departed from Seney and flown to Wisconsin the previous autumn.

On 30 June, I donned my costume and walked onto A-Pool, so I could capture #12 and replace her defective transmitter. All of the birds flushed except for two. One of these, #13, then flew toward me and landed nearby. The other stayed behind. My assistant, who had been watching this activity through a telescope, later told me that the bird that had remained on the pool was #7.

I did not believe him until I observed the crane's colored bands through the scope with my own eyes; he was indeed #7. We captured him the next day and replaced his nonfunctional transmitter. Despite his trial-anderror approach to navigation, #7 had survived his first migration and returned to Seney.

Of the 16 cranes released in 1988, we know that 15 completed their first round-trip migration and survived their first summer in the wild. Of the 15, three with defective transmitters were not found during the summer of 1989 but were later seen during the fall migration. Of the remaining 12, 11 (6 males and 5 females) summered in the U.P.—eight at or near Seney and three in an area south of Sault Ste. Marie (including part of adjacent Ontario). All eight of the birds that had migrated on their own from Seney the

previous autumn returned to summer in the U.P. In addition, three of the birds that had been transported 230 mi to Wisconsin and released also found their way back. The release of isolation-reared Sandhill Crane chicks into the wild was clearly a success.

The research continues

We raised 13 more chicks in 1989. Aiding the chicks as a role model was Crane #9 from the "Class of 88." He returned to the chick-rearing facility in late June and got along well with the new chicks. He even set up the yearling equivalent of a territory, which he defended poorly against a local wild male, who attacked him frequently throughout the summer. But #9 was formidable enough to successfully drive 1988 Cranes #13 and #19 away after they too attempted to return to the facility.

The story of the 13 new chicks in the "Class of 89" is too long to continue here. Suffice it to say that isolation-reared cranes continue to test my patience. The delinquent #7 from the "Class of 1988," for example, formed a flock with five of the new chicks and migrated to an unknown area.

But despite eccentric birds like #7, malfunctioning transmitters, and the need for further refinements, the technique we employed really does work. Sandhill Cranes raised by costumed humans can survive and migrate in the wild. If these Sandhills eventually breed successfully, perhaps this technique will be useful in aiding the recovery of the Whooping Crane and other endangered species of cranes.

Asians Meet

continued from page 1

of Hanoi and Dong Thap Province hosted the meeting.

We arrived after dark at the small district town of Tam Nong in the Mekong Delta, a six hour's drive from Ho Chi Minh City. Next day, before dawn, we were sitting on the roof of a long, narrow taxi boat. We chugged down a canal lined with houses, then rounded the northeast side of the reserve, all before daylight. We planned to watch the Eastern Sarus fly out from their roosts. But first we saw spotlights from three mechanical cranes that were dredging ditches. To our astonishment, two ditches lay within the reserve and the third ran through the main feeding area for the cranes. We could not guess the purpose for these canals.

As the sun rose, cranes flew in and dropped to forage through the rushes. This contrast of elegant wild cranes and mechanical cranes working by headlights energized the whole workshop at Tam Nong.

The workshop was a lesson in communication. All of us who gathered at Tam Nong—foreign scientists, Vietnamese scientists, and local officials—agreed on one goal: the Eastern Sarus Crane in Vietnam was important and needed help. Nevertheless, each delegate saw the reserve, its management, and our mission at the workshop from a different perspective.

Tram Chim is practically unique among wetland reserves, a result of the love, labor, and money of local people. Yet local officials knew little about nature reserves elsewhere or about scientific investigations. We foreigners knew little about local economics or the constraints that local leaders face. The meeting often felt tense, despite the

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



friendliness and hospitality of our hosts.

The foreigners probed repeatedly with simple questions—about the reserve, its boundaries, and the new ditches—and could get no clear answers. The local officials asked for our support in their extraordinary undertaking, and instead received a barrage of questions.

The workshop program had been planned to use Tram Chim as a practical example for conservation projects and issues in southern Asia. That goal was fulfilled but felt secondary, less important than our persistent attempts to work together. We all wanted cranes free and wild. We all knew that people living around the reserve must have a good life if the reserve is to succeed. To the last day, we struggled to find a way to achieve both potentials for Tam Nong. And we did.

The next step will be to study the Tram Chim wetland over 14 months. In early March 1991, ICF and Vietnamese scientists will meet with local officials at Tam Nong to discuss results of this research. They will then develop a management plan. Once the plan is written, the Brehm Fund for International Bird Conservation will provide substantial funding toward achieving its goals.

By the workshop's end, delegates from 13 countries had exchanged reports and plans for Sarus Cranes, met their colleagues from neighboring countries, and left Tam Nong equipped with a slide show and other educational materials. Most importantly, delegates departed with two memories: of the Eastern Sarus in flight, and of working with our Vietnamese hosts to create a shared strategy for this restored Mekong wetland.

A Day of Special Tours

Saturday, June 30 is a special day at ICF, featuring five unusual tours. You can even include a "chick walk" at 11:30 a.m., a movie at 12:15 p.m., and one of the regular tours at 10, 1, or 3 for a full day of fun!

There is no extra charge for the special tours, but for non-members there is the normal admission charge to the site: \$3.75 for adults, \$3.25 for seniors, and \$1.75 for children (ages 5-11). If you wish to leave ICF for lunch, you can ask for a pass to return after lunch without additional charge.

All About Displays 9:15-10:15 a.m.

Birds have a simple system of signals based on calls and postures. Find out with Scott Swengel how cranes communicate.

All About Rearing Chicks 10:30-11:30 a.m.

Marianne Wellington talks about how ICF raises chicks, shows some techniques, and points out the meaning of chick behaviors.

Butterflies & Their Plants 1:00-2:00 p.m.

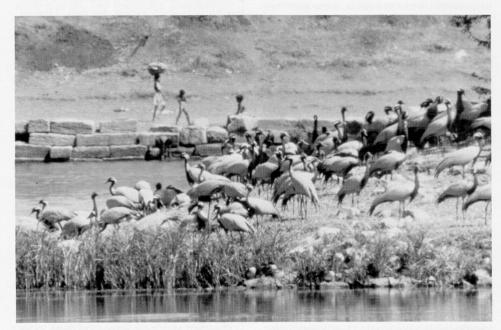
After a slide show to help with identification, Ann and Scott Swengel will take you out and teach how to recognize when butterflies are nectaring, drinking, courting, and defending territories.

Prairie Wildflowers 2:15-3:15 p.m.

Come along with Marion Hill to learn the folklore and so-called "powers" of some of the plants in our restored prairie.

Reintroduction Studies 3:30-4:30 p.m.

Wildlife photographer Ted Reuther introduces a two-projector slide show with sound, about his experiences raising crane chicks for reintroduction into the wild.



Demoiselle Cranes winter in huge numbers in Gujarat, India. From December 27-29, 1989, the Asian Crane Congress convened in Rajkot, Gujarat. Delegates discussed ways to resolve conflicts between human activities and the flocks of cranes. Photo by Sture Karlsson

Contributions

Received January-March 1990

Grants and Awards: Eugenie Mayer Bolz Family Foundation; The Lynde & Harry Bradley Foundation; Wolf Brehm; Eleanor Briggs; Ronald & Diane Buege; Chapman Foundation; Rhoda Dadian; Earthwatch Expeditions, Inc.; Douglas B. Fuller; Chris & Nancy Gloe; Nina B. Griswold; The Jacob & Terese Hershey Foundation; Peter Hujik; Institute of Museum Services; International Union for the Conservation of Nature and Natural Resources (IUCN); Thomas H. Jacob Foundation, Inc.; Beth Kubly; The Family of Carl E. Laedtke; Frank Larkin; Nancy Liggett; Wynn & Don Mahle; Menasha Corporation Foundation; James M. Mooney; Oshkosh B'Gosh Foundation, Inc.; Eleanor Parson; William Robichaud; Cheryl Rossman; William & Eloise Stierman; Kay Strutz; Trust for Mutual Understanding; U.S. Fish & Wildlife Service; United Board for Christian Higher Education in Asia; University League Birdwatching Group; Joan Werner; Terrel Wesenberg; Mr. & Mrs. William W. Wessinger; WICOR Foundation, Inc.; Wild Bird Society of Japan.

Patrons: George & Kyoko Archibald; Abigail Avery; Genevieve Bancroft; Elliott & Ann Donnelley Foundation; Koichi Kato; Mr. & Mrs. Peter Manigault; Victoria Krause Mayer; Moreau Homes (Bob & Karin Moreau); Wing M. Park; Margaret Seeger; Thomas J. Steinhaus; Solomon & Marianne Weinstock.

Sponsors: Jonathan & Rosemary Avery; Mr. & Mrs. Robert M. Bolz; Mr. & Mrs. Reed Coleman; Noel Lee Dunn; James P. Foley; Mr. & Mrs. James R. Gustman; Warren B. King; Hope McCormick; Mr. & Mrs. Harold Petraske; Daniel Sneider.

Associates: Mrs. Don Anderson; Charles B. Andrews; Dr. Dorothy R. Arvidson; Mr. & Mrs. S. S. Auchincloss; Robert L. Austin; Dorothy & Bob Babington; Martin & Kay Barrett; Will B. & Margaret M. Betchart; Bethel XYZ Center; Bill & Helen Birkemeier; Robert C. Boyer; Michael & Janet Brandt; Marcia L. Brehmer; Mary Brazeau Brown; Donald & Polly Bruckmann; Steve Bubulka; Mr. & Mrs. Robert C. Buffum; Mary Jane Bumby; Kent Chandler, Jr.; George M. Covington; Croft-Fletcher-Rimbey; Frances Z. Cumbee; Ronald E. Curio; Eleanor H. de Chadenedes; P. J. Dickert; Olivia I. Dodge; Marion L. Doherty; Mary F. Donald; Nina H. & James R. Donnelley Foundation; Du Page Audubon Society; Duane & Gloria Dunham: Theodore L. Eliot, Jr.; Mrs. Robert Emmett; John E. & Catherine G. Erskine; Mr. & Mrs. Thomas B. Fifield; Robert E. & Karen D. Fisher; Robert C. Force; David & Joan Fordham; Wood & Elizabeth Foster; Griswold Frelinghuysen; Karen E. Galley; Charles C.



Members of the Standing Committee for the Tram Chim Nature Reserve join the ICF-Earthwatch team of ten volunteers, and art students from Sa Dec City, for a photo beside the new Education Center at the reserve. Constructed in 1989 through support from the Brehm Fund for International Bird Conservation, the building provides a commanding view of the wetlands. Photo by Tom Grange.

Haffner, III; Mr. & Mrs. Corwith Hamill: Steven & Anne Hansen; George & Carol Harmon; Charles H. Heine; Dr. & Mrs. Joseph J. Hickey; Hatsue Higa; R. Haskell Hillvard: William & Leslie Hollan; Clare F. Hutson; Lt. Col. J. E. Jacoby, U.S. Army-Ret.; Patricia Ann Jaffray; William L. King; Brian & Terrie Knox; Jerry & Susan Korn; Kraut Foundation, Inc.; Landmarks Gallery (J. P. & Huetta Manion); Mary Beth Liccioni; Mr. & Mrs. Henry C. Longnecker; W. K. Macy, Jr.; Mr. & Mrs. Harold N. Malmberg; Pierre Manigault; Dr. & Mrs. David L. Manning; Kate Marrs; Alfred Marsella; Mabel R. McClanahan; Milwaukee Audubon Society, Inc.; F. Paul Mooring; Rex A. Morris; Sue Neshek; Daniel Nettesheim; Clarence J. Newbold; Northland Cranberries, Inc.; Charlotte R. Oglesby; Marianna Oglesby; Carol Cecil Oleson; Roy & Virginia Ollivier; Frederick Ott; Judith Patrick; Lt. Col. Mary A. Patterson, Ret.; Armin & Judith Pavlovic; Audrey N. Pertl; Mr. & Mrs. Charles S. Potter; Victoria & George Ranney, Jr.; Mrs. Joseph Rich; Harold W. Rock; Burton & Michele Russman; Fay L. Schoenemann; The Robert Sellinger Family; Mr. & Mrs. Clarence J. Semler; Silverbrook Middle School; Charles & Helen Sivelle; Randall Skiles; Mowry Smith, III; Mr. & Mrs. Arthur O. Smith; Tom & Rene Soucek; Don Spangenberg; Carol E. Steinhart; Robert C. Sullivan, Jr.; Doris Swartz; Sally S. Tongren; Marla & Greg Turek; Sandra F. Utech; Margaret H. Van Alstyne; R. G. & Marian Van Dellen; William P. Van Evera; M. Jay Walkingshaw; Mary Ward; Mr. & Mrs. Marvin Webster; Ruth D. Weeden; Mrs. Robert Weinstock; Dr. & Mrs. Wallace E. Wendt; Mrs. John D. West; James & Georgeann Wicklund; Donald F. Wiens: Mary F. Willson; Wisconsin Metro Audubon Society; Mary P. Wright; Ronald D. Zeigler.

Support ICF'S 2nd Annual Bird-a-thon

by Bob Hallam Development Coordinator

Last year's Bird-a-thon was a great success! Over \$16,000 was raised for ICF operations and the Ron Sauey Conservation Fund. This year, it is still not too late for you to participate. Use the envelope in the *Bugle* to pledge your support per species or to send a cash contribution.

ICF's crack team of Jim Harris and Scott Swengel hope to identify over 160 species in a 24-hour period. All who pledge support for an ICF team will receive a letter describing the day's activities and locations, along with a list of the species observed.

Last year, our fearless leader George Archibald and his teammate David Thompson (Team 2) challenged Jim and Scott (Team 1) to a birding "duel." Unfortunately, Team 2 was crushed, observing only 110 species compared to 174 for Team 1. If you would like to give some moral support to George and Dave, pledge an amount per species and indicate you are supporting Team 2.

Save Saturday
September 22, 1990
for
ICF's Annual Meeting

See your next newsletter for details

Matchmaking With Whoopers

by Scott Swengel Assistant Curator of Birds

This spring we're promoting the Whooping Crane version of "boy meets girl" at ICF. "Gee Whiz," ICF's eight-year-old son of "Tex," has met "Faith," a five-year-old female from Patuxent. And we've introduced "Napoleon," a male that was raised by Sandhill Cranes at Grays Lake, Idaho, to "Ginger," a perky female from Patuxent.

We hope these two honeymooning pairs will breed soon, and contribute to the recovery of their species. When half of the captive flock of Whoopers was shipped here late last fall, ICF became the second breeding center for this critically endangered crane. Since the Whooper is the rarest species of crane, every one of our seven pairs is important!

When we put Faith in a pen next to Gee Whiz, the two experienced love at first sight. This did not, however, mean that we could just put them together and let Nature take its course. Cranes must first overcome their nervousness when meeting a potential mate before they can safely be left together. Like people on their first date, Gee Whiz and Faith had several rocky moments early in their relationship. Twice when the two charged around the pen in a mutual dance, Faith became nervous and ran away.

The dance is a delicate balance between attraction and aggression; its intricate moves weave many threat displays into a fluid duet of courtship. Each crane constantly adjusts its dance movements to those of its mate, and if anything goes awry, the submissive crane (usually the female of a new pair) may feel threatened. Whenever Gee Whiz and Faith are put together, we must watch them until they are completely comfortable with one



"Tex" was the crane that danced with a man. She was hopelessly imprinted on humans. After four years of courtship with ICF staff, she finally laid a fertile egg that became "Gee Whiz." Now Gee is being paired with "Faith," a female that arrived last November from Patuxent Wildlife Research Center.

another. If the two do develop a firm pair bond, Faith may lay eggs this year, even though the couple is now separated by a wire fence splitting their pen in two.

Napoleon and Ginger make an unlikely couple. Napoleon is afraid of people due to his upbringing in the wild, while Ginger likes people and is very outgoing. We chose to pair them in hopes that each would adopt some personality traits of the other, since cranes with more moderate temperaments breed better in captivity. But it's too early to tell whether Napoleon and Ginger will make a good pair. Aviculturist Ann Burke has been "chaperoning" Ginger's visits to Napoleon's pen, to guard against injury to one of the birds. Ann's task became easier when Ginger learned to enter Napoleon's pen on her own whenever Ann opens the gate. Ginger also exits his pen when she's had enough of his company!

ICF hopes for Whooper chicks

We are not certain whether our Whoopers will breed this spring. They may skip a breeding season, since all but two of the cranes have just been moved a thousand miles from Maryland to Wisconsin. If the Whoopers do lay eggs, however, we will display their cinnamon-brown chicks in the chick exercise yard for part of each day this summer.

Last winter's count of Whoopers at Aransas National Wildlife Refuge in Texas was 146. The population has nearly doubled since the 1983-84 winter due to six good breeding seasons in a row. With the wild population doing so well, the Canadian and US Governments are planning a reintroduction program in central Florida. In a few years, some of the offspring of Gee Whiz and Faith may be among the chicks that will be released into this new home for wild Whooping Cranes.

International Crane Foundation

E-11376 Shady Lane Road Baraboo, Wisconsin 53913

Address Correction Requested

Nonprofit Organization U.S. Postage PAID Permit No. 179 Baraboo, Wi 53913

KARINTAKEN ANTAKAN TERMAKAN PENTAKAN PENTAKAN PENTAKAN PENTAKAN PENTAKAN PENTAKAN PENTAKAN PENTAKAN PENTAKAN P