

THE ICF BUGLE

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World Center for the Study and Preservation of Cranes

In Pursuit of Mongolia's Cranes

by Jim Harris, Deputy Director

The sun was bright but the air cool as I crossed the runway toward the terminal. I looked back. The jet shone against blue sky, but south where the runway ended, unbroken grassland ran up over hills and out in all directions to the horizon.

Our hosts looked happy to see all three foreign members of the expedition arriving together, and they looked just a little surprised. Overseas communication is difficult for the Mongolians, and we had exchanged only rare telexes. They had wondered if all of us would arrive.

We were shaking hands: Ayurzaryn Bold and Natsagdorjin Tseveenmyadag of the Mongolian Academy of Sciences, two of the country's few ornithologists; Chuluunbaatar Sugarragchaa, a mammalogist who speaks fluent English and works for a new private wildlife organization, The Baigal Company; Tsuyoshi Fujita from the research staff of the Wild Bird Society of Japan; and Peter Matthiessen, an American naturalist/writer turning his talents to cranes.

Bold, Tseveen, and Chuluunbaatar had visited Wisconsin under ICF's International Training Program in September 1991, and we had laid plans for our two-week expedition. Eastern Mongolia is extremely important for cranes, with six species, four of them endangered. Only China and Russia have more species. Our field survey would assess conservation needs, and initiate a banding program.

We had hoped to include two biologists from China, but now Chuluunbaatar an-

nounced that the Chinese had never responded to his invitation. He also explained that changes in the Soviet Union meant that Soviet oil was no longer available at discounted prices. Fuel shortages had forced cancellation of most flights to eastern Mongolia. Instead of flying, we would drive two days each way over the dirt tracks that serve as highways.

The airport lay at the south edge of Ulaanbaatar, the country's capital and only large city. We left next day, in a sudden thunderstorm with hail and a flood through eastern parts of the city.

The road climbed among lonely mountains, the sun returned. We paused at the top, a continental divide. Behind us, waters flowed into central Asian deserts. To the

north, rivers traveled through Siberia to the Arctic Ocean. We would continue east, where the Kerulen River sent water toward the huge Amur River, forming the long border between Russia and China before it emptied into the Pacific.

By the road lay a pile of rocks with prayer flags set on top and rustling in the wind—the obo of Buddhist tradition. Six decades of communist power, under Soviet domination, had destroyed established religion, but Mongolia (like eastern Europe) has recently turned to democracy. Buddhism has re-emerged.

Our two trucks drove long into the night. We stopped at last to set our tents where dark hills blotted the lower stars. Bold said wolves

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A family of traditional herdsmen used camels to move their camp while we banded twin White-naped chicks beside this lake. White-naped Cranes nest commonly in wetlands of far northeastern Mongolia, where both people and the wildlife depend on open grasslands. Photo by Jim Harris.

Our Library Grows

by Jim Harris, Deputy Director

When you walk through the hand-made, walnut door, you gain an immediate sense of calm and space. Through the north windows, you can see the white flash of wings from the chick yard, while out the south windows stand old oaks, green leaves and motionless dark trunks.

A little more than a year has passed since the dedication of the Ron Sauey Memorial Library for Bird Conservation (see *The ICF Bugle*, August, 1991). The library's collections have rapidly been growing.

The newest books are lined up under the south windows. They are not, however, the most important acquisitions. The core of our collections are the reprints, manuscripts, and letters ICF has been accumulating for almost 20 years, of a depth and variety unmatched anywhere else on earth. Our specialized materials on cranes and their habitats will serve teaching, research, and conservation needs for ICF staff and for students, officials, and scientists from all those countries where cranes live.

Our shelves and files are evidence of countless travels and visitors. The past week, for example, we received reprints on cranes and wetlands from the Victoria Department of Conservation and Environment, handcarried from Australia by Philip Du Guesclin, visiting ICF after attending a wetland conference in Ohio. We also received publications in English and in Japanese about Kushiro Marsh, home to Red-crowned Cranes in northern Japan, delivered by Drs. Fusauki Kanda and Hiroko Fujita. They came to ICF to visit Dr. Kanda's undergraduate student Tsuvoshi Watanabe, who has been volunteering in our Aviculture Department since May. Dr. Fujita also donated a vegetation map she had created of Kushiro Marsh.

We have tallied the current size of our collection: 1,500 books, 270 journal volumes, 6,300 reprints and manuscripts, 30,000 photographs, and 120 films, videos, and slide shows.

New librarian develops programs

Our collections had greatly outgrown the time available to Scott Swengel, ICF's Assistant Curator of Birds. For nine years, he managed our library despite his growing responsibilities in aviculture.

Accordingly, ICF hired a half-time librarian this past spring. Joanne Brown, with an M.A. in library and information studies from the University of Wisconsin, also holds a half-

time position at the Regional Primate Research Center Library at the University of Wisconsin–Madison. Her familiarity with the University will help as she develops ICF's access to major libraries.

In addition, the specialized nature of the Primate Center Library provides Joanne with a model for developing ICF's highly focused collection. Like ICF, the Primate Center is part of an international network of researchers. But unlike ICF, the Primate Center has sister libraries elsewhere devoted to the same specialty. The Sauey Library houses the only major crane collection.

Joanne's first task at ICF has been to talk with all program staff and become familiar with our interests and needs. She is defining our collection goals through revision of a "conspectus" drafted by Scott Swengel. As large as our library facility now feels, it could quickly fill with extraneous materials. The conspectus will guide acquisitions and donations.

Joanne has worked with staff to develop a list of 23 journals for our collection. Some of these ICF can obtain by exchanging subscriptions for *The ICF Bugle*. But the cost of journals and books is high. Funds for acquisitions are being met by the interest income from the Ron Sauey Fund, an endowment now totaling \$120,000.

In addition, ICF seeks donations of materials from ICF members and colleagues. Already ICF's library has received significant book collections. Ron Sauey himself was an avid collector, and his sumptuous volumes on birds of paradise and bower birds, and on

rails of the world will always rest here. George Archibald has also donated his books. Even before our building was ready, we gratefully received collections from the estates of Fred MacMillin and Cleveland Grant. Cleve, an international traveler and film-maker, was an early friend and advisor to ICF and to Ron. His family donated a telescope and stand in Cleve's memory, overlooking the Gromme Marsh. We are developing a book plate for insertion in donated volumes to commemorate the donors.

ICF will accept future donations with the understanding that duplicate materials or materials not needed can be disposed of in three ways: certain items may be given to our foreign colleagues, sold in our giftshop or donated to other non-profit organizations.

We improve access

Developing access is especially important for ICF's special collections, which are less a local resource than a regional or worldwide resource. How can our colleagues in Kenya or Mongolia benefit from the Sauey Library? As she listens to staff perceptions of needs, Joanne also teaches us how we can best serve our Wisconsin public and the widely scattered crane working groups.

This week, she has used funds donated by ICF Trustee Abigail Avery to acquire a computer, modem, and software. She will be using a national cataloguing service (OCLC), via computer, to organize our books and is developing an in-house database to provide easy access to the reprint collection. Ultimately, our reprint resources will become



ICF Librarian Joanne Brown (left) and Library Assistant Rosemary Bradley Goldsworthy are developing a computer database for books and reprints in the Ron Sauey Library. Photo by David Thompson.

available to distant users by combining the new database with electronic mail technology.

ICF has just joined Wisconsin Interlibrary Loan Services (WILS), so that staff can obtain materials from throughout Wisconsin without leaving Baraboo. This capability will especially benefit foreign scholars who come to work in the library while living at ICF's new Guest House. WILS will also allow students and their teachers to borrow materials without a trip to ICF.

Joanne brings technology and training to the age-old challenge of communication and information exchange. This exchange is central to ICF's mission as a catalyst for conservation.

Joanne greatly strengthens our team; her presence, and the library building itself, have sharpened our focus on what often remains a simple people-to-people process of networking. During Philip Du Guesclin's visit to ICF, for example, we decided to send 100 issues of each *ICF Bugle* to members of the Crane Club in Australia. The Australians, in recent years isolated from the world crane community, have not learned of advances in methods of release for captive cranes to the wild. Philip now realizes the opportunities the captive Brolga flock at the Serendip Center offers for crane reintroduction in wetlands of Victoria.

For Australia and elsewhere, Joanne and the library will be strengthening information transfer within our world community. A key activity will be the translation of foreign papers into English. Colleagues visiting Baraboo have already translated numerous Russian and Chinese papers that are available nowhere else in English. We will expand this effort.

We plan next year to establish regular although limited hours for visits to our library by members and the public. In the meantime, ICF members may arrange an appointment to use the library collection.

Joanne recently told me: "This is a dream job for a librarian. I come at the beginning, to work with a wonderful staff and facility. There aren't old, out-dated programs to dismantle but a chance for a fresh start, doing the job right. Plus it's a beautiful location." We look out the window at four full-sized Siberian Crane chicks. We wait to see white when they open their wings.

We wish to thank the many people who have already helped the library with materials and funds. For our colleagues who will visit ICF, we hope you will bring a reprint or a map. For our members. we hope you will come and enjoy our new facility.



In mid October, 58 teachers met in the library for a workshop on how to teach the subject of endangered species in elementary schools. Here Bob Kann shows teachers how to tell stories. Other sessions were led by ICF adviser Stan Temple, Baraboo's Teacher of the Year for '90-91 Gilbert Bird, and ICF staff. Photo by David Thompson.

Bugle Readers Talk Back!

by David H. Thompson, Education Director

ICF's members and colleagues are a vital part of our organization. And *The ICF Bugle* is one of the principal ways we communicate with and serve these important people. So in May, I enclosed a survey with the *Bugle* to establish a dialogue and find out how to serve our readers better.

And what a dialogue it turned out to be! I received over 200 responses bearing an outpouring of comments, suggestions, and praise. Thank you all for your time and care in responding with so many good ideas.

It's a challenge to serve such a diverse audience as readers of the Bugle. Our strategy has been to present solid content in an interesting way, woven together by descriptions and the feel of people and places. Nevertheless, I wondered if we had achieved the right balance between facts about ICF programs or research for our colleagues, and human interest stories for our members. Responding to question #13, 78% of those responding said "yes, the Bugle has the right balance," 15% said they would "prefer more factual information," and 5% said they would "prefer more human interest or topical stories." Readers also suggested many interesting topics for stories that I will pursue.

The survey provided the first detailed feedback from members about ICF's goals and educational messages. ICF is unusual for a conservation organization because of its narrow focus on one group of birds. But we at ICF have not felt overly constrained, because cranes really serve as "ambassadors" that allow us to pursue the broader goals of conservation of wetlands and international cooperation for conservation. Because of their worldwide appeal, cranes are the "foot in the door" that allows us to interest people in our broader goals. To save cranes, we have to save or restore wetlands, and by saving whole wetland ecosystems, many other organisms, large and small, glamorous or easily overlooked, are saved as well.

Several questions provided insight about how readers view ICF's focus on cranes. When asked to rate the importance of ICF's five principal activities, this was the order readers selected (with the most important listed first): habitat conservation and restoration, reintroduction of cranes into the wild, captive breeding, research, and education. When asked what topics are most important for ICF's education programs, readers selected: endangered species conservation and recovery, the importance of habitat, crane conservation, wetland conservation, and international cooperation.

From these responses, it would appear that readers desire a broader focus on "habitat conservation and restoration," or "endangered species conservation and recovery." The educational message of just "crane conservation" was rated third most important.

Nevertheless, in the general comment section (17), many suggested we keep our sharp focus: "Just don't spread yourselves too thin.

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Mongolia's Cranes

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were common here. I fell asleep listening for them.

We follow the Kerulen

Mongolia has a long history, and formed the core of an empire well known to Europeans of the thirteenth century. Today, Mongolia is the largest landlocked country on earth, extending 1,500 miles east to west, with an area larger than Alaska. With collapse of the Soviet empire, Mongolia has opened to foreign contacts, a process greatly impeded by difficulties of transport and communication. From ICF, we still cannot send letters or faxes to Ulaanbaatar.

For ICF, first contact with Mongolian biologists only became possible in 1989. Then, we met in July of 1991, in Siberia near the Mongolian border, for discussions about an international crane reserve where Mongolia, China, and Russia meet (see *The ICF Bugle*, November, 1991).

Our present expedition would explore wetlands near the Russian border, proposed for inclusion in the international nature reserve. But first we would survey the Kerulen River, before it flows into China and the huge lake, Dalainor. At Dalainor lies the Chinese portion of the proposed international reserve. Our expedition would investigate possibilities for adding Mongolian areas along the Kerulen.

We reached the Kerulen River late the next morning. The willow-lined river rushed through grasslands brown from drought. We passed many Demoiselle Cranes, elegant in gray and black, mostly pairs or families with one or two chicks. In European parts of their range, croplands have crowded out the cranes, but the Mongolian steppes stretch for hundreds of miles with little change since days of the old empire.

I understood why the Demoiselle remains abundant. Both here, and in its wintering area in Gujarat, India, traditional ways remain strong. Mongolian herders are still seminomadic, their lives dependent on the open range. The herders live in yurts, the felt tents they can disassemble quickly when moving camp to find fresh pasture. We passed yurts frequently, usually two or three together with herds of sheep, cows or horses. The Demoiselles were tame and foraged nearby.

We intended a hurried stop for supplies at Choybalsan, the largest city in eastern Mongolia (28,600 people in 1979). But two Chinese from Dalainor Nature Reserve waited at the only guesthouse. The

Mongolians greeted them with more than a little surprise. The Chinese explained they had accepted the Mongolian invitation, sent back a letter that never arrived, received no answer, and had come anyway, via train through Russia! We waited most of the next day in tents outside the city, while our hosts sought more food supplies, now scarce in eastern Mongolia.

Again it was evening when we left, with high expectations, for the border region sparsely populated even by Mongolian standards. We camped by the river, near an isolated mound of dirt and rocks, the site of a destroyed monastery.

Waters spilled at this great bend of the Kerulen into wetlands miles across. From our campsite, we heard Whooper Swans, watched broods of Swan Geese in the river, and counted Great Bustards on the steppe. The wetlands were half dry, with footprints of gazelle and wolves in the mud. While we scientists waded or floated about in rubber boats, it was one of our drivers who found a pair of White-naped Cranes with a mostly grown chick in the reed beds.

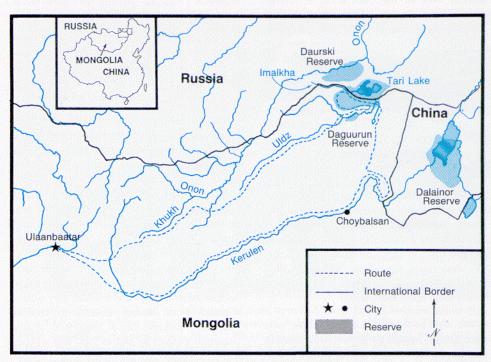
Between Choybalsan and the border 100 river miles away, we saw over 80 bird species but only one more White-naped Crane, and three Common Cranes, non-breeders. Sedge meadows along the river were wide and moist green, but lacked the standing water required by all cranes but the Demoiselle for nesting.

Mongolia has a new reserve

We left the Kerulen and traveled north toward the Russian border, about 90 miles away, to study the best crane areas that Tseveen and Bold had discovered previously. It was late on another afternoon when we stood atop a hill over the vast Tari Lake. Most of the lake lay in Russia within Daurski Nature Reserve, site of our 1991 international meeting. The wetlands immediately below us, in Mongolia, held two families of Whitenaped and one family of Common Cranes, one chick in each family. In some years, nonbreeding Siberian Cranes have summered here.

After the Daurski crane meeting, the Mongolian government had formally approved creation of Daguurun Reserve, totaling 260,000 acres in two sections. The Russian and Mongolian governments were also ready to approve the international reserve, with the three neighboring countries coordinating research and management on their protected areas. Mongolia and Russia now await a decision from the Chinese.

We left Tari Lake, driving west across the larger section of Daguurun Reserve, much of it never surveyed for birds. Where a short wire fence to our right was the border itself, we saw three small lakes to our left, surrounded by natural grasses. Croplands lay on the Russian side of the fence, one field with 13 feeding White-naped Cranes. More cranes flew across the road and fence in front of us, from the wild lakes of Mongolia to alight in the Russian fields. Beyond a wind-break of trees, we counted 23 Demoiselles,



Mongolia lies at the heart of Asia, sandwiched between Russia and China. With habitat ranging from desert to forest, it harbors six species of crane in the wide steppes of the northeast. Last summer, ICF joined with Asian colleagues to explore prime wetland habitats.

14 Commons, and 13 Hooded Cranes.

The moment was yet another demonstration of how the countries of the border region share their cranes. Also, I was becoming increasingly aware how pristine Mongolia remained, in contrast to both of its neighbors.

At Russia's Daurski Reserve, the best places for the endangered White-naped Cranes are where the Imalkha and Uldz Rivers empty into Tari Lake. But these rivers run mostly through Mongolia, with substantial parts protected by Daguurun Reserve. We spent the next days exploring the Imalkha and especially the Uldz valleys.

Another afternoon we drove across grasslands, flushing four species of cranes, to climb Eltruud Mountain where the smaller section of Daguurun Reserve protects the winding channel of the Uldz. The reserve is quite narrow, however, because local authorities did not want to include nearby expanses of farmland.

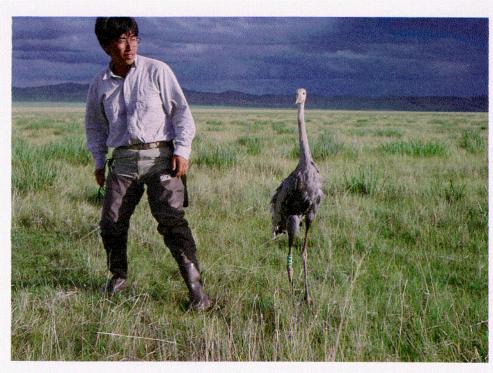
From the mountain we could see the ribbon-like Uldz, with two Whooper Swans beside the nearest channel, and the patchwork floodplain of oxbows, sedge meadows, reedbeds, willow thickets, and grassland. This mosaic of habitats is ideal for White-naped Cranes, which need wet sites for nesting, but prefer feeding in moist meadows rather than marshes. As Bold and Tseveen had shown us, cranes also forage in crop fields. This season's fuel shortages, however, had left great lines of farm machinery, Soviet imports, idle and useless on the grass. Many fields lay fallow.

Bold and Tseveen, boyish with pleasure, told us the very best White-naped areas still lay ahead, outside the reserve. We passed further up the Uldz. From one spot, we saw five pairs of White-napeds on territories and a nearby flock of ten. We crossed low mountains into the Onon River drainage, and found more White-napeds beside small lakes and marshes in the tributary valley of the Khukh River.

We run after crane chicks

Our travels were slow because we wanted to band crane chicks. Tsuyoshi Fujita of the Wild Bird Society of Japan had come prepared to teach the Mongolians how to band the cranes, as the first step in developing a Mongolian bird banding program. He brought green color bands supplied by the Yamashina Institute for Ornithology.

The Demoiselle chicks were easy to catch as we drove across the grassland. The parents would fly and wait from a distance, while the chicks ran or crouched. We banded 15. But the White-naped chicks, always near water, had stronger legs and taller vegetation for hiding. Close by the Uldz River, twin White-



Tsuyoshi Fugita, of the Wild Bird Society of Japan, released this White-naped Crane chick after banding. We hope reports of this green color band Y-21 will confirm the winter grounds for this population. Although the chick had run two miles before capture, it paused once free to peck at its captor. Then the chick walked deliberately away. Photo by Jim Harris.

napeds deftly crouched and eluded seven of us as we ran after them. Peter decided that our Mongolian-Chinese-Japanese-American team needed better organization. Thereafter, he watched fleeing chicks with a telescope from beside the vehicle, and then directed movements of the runners with hand signals.

By the time we reached the Khukh River, Tseveen had realized that we could find chicks more easily by horseback. Perhaps the loneliness of the grassland explains the remarkable hospitality of the herdsmen, who invariably welcomed us with yogurt, cream, and biscuits. They readily lent horses to Tseveen as well. The herdsmen, however, were a little suspicious of our crane catching, and showed relief when we released the banded chicks. It is not exactly a love for cranes; they believe that hurting these birds causes bad luck, or worse, for they associate the cranes with powerful spirits.

We found not just cranes but all the waterbirds to be abundant, for the human population is low, and the wetlands healthy. Waterbirds must depart for winter, however, and some of the herders believe their birds have decreased. Mongolian birds depend on conservation in the densely settled Yangtze Basin of China. Our color banding was a first step of an urgent task to discover migration routes and wintering homes of Mongolia's cranes.

To join a world community

When Mongolia created Daguurun Nature Reserve, it established two other reserves in

far eastern Mongolia, one of them in cooperation with the Chinese to protect great herds of migrating gazelle. Mongolia as yet is unable to provide funds or staff for its three new reserves. Sound management for Daguurun Reserve is the next step for Mongolia, along with expansion of the reserve to cover additional White-naped habitat along the Uldz River.

Mongolia, with its low human population, still has time to protect its land and its cranes. But development and the expanding population bring rapid change. The country is just now reevaluating its pro-population growth polices followed under the old government.

Difficulties of travel and communication make Mongolia different from anywhere else ICF has worked. Only now, at last, the country is opening to the world community. New contacts carry economic promise and also threaten Mongolian traditions and wildlife. Our worldwide network of crane friends—China, Japan, and distant ICF—can help Mongolia shape a love for wildlife and a love for the pastoral life into strong conservation programs. The future of the Uldz and the still pristine Imalkha rivers depends on preserving the traditional lives of herdsmen, their flocks, and the felt tents they move here and there over the grassland.

I wish to thank Baigal Company and the Wild Bird Society of Japan, co-sponsors of our expedition. The Trust for Mutual Understanding supported my travel.

Reader's Survey continued from page 3

Cranes are it!" "ICF should never dilute its emphasis on cranes, cranes, cranes. Other organizations deal with conservation issues generally. The wonderful thing about ICF is the intensity of its focus and the wonderful personal and international cooperation that grows from it." "You started as The International Crane Foundation and I think it should stick to Cranes and not be fractured." "Let ICF and the *Bugle* remain highly specialized. There are so many others that dabble with general stuff."

I don't think there is a contradiction between the desire by readers for ICF to deal with habitat and endangered species, and the desire to maintain our sharp focus on cranes. Cranes are superb examples of endangered species. The Whooping Crane, with its recovery from a low of 21 birds to about 249 this fall, is an optimistic symbol of what can be done for endangered species. To save certain species of crane, we have to save habitat and countries have to cooperate, so through cranes we address these challenges as well. Cranes provide a clear and compelling focus for highly complex topics.

ICF has another unusual characteristic pointed out by member Georgia Gomez-Ibanez-our optimistic message. "I think what I appreciate the most is that your stories show some successes, some cause for hope. When one knows . . . about the environment, and works...on its behalf, it's difficult sometimes to stay 'up.' There are so many things to feel discouraged about. So I appreciate hearing of things that work. I get strength from a camaraderie that exists between all of us who work to restore our planet's health; even when I don't know everyone personally, it's comforting to know that you are all there doing what you know how to do. Since I respect your work deeply, I get a lot of comfort from The Bugle!"

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.

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Ron Sauey

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ICF offers memberships at the following annual rates:

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



Computers Save Cranes

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these programs in the many countries inhabited by cranes.

Following breakfast, we hurried anxiously to the computer that had been running all night. We wanted to see the outcomes of the management decisions we had evaluated. The computer showed us that Sasha and Yuri did indeed make the right decision to capture the chick and fit it with a radio. The PHVA simulations showed that only drastic efforts to determine the migration route, educate hunters, and bolster the flock through the release of captive-produced chicks can save the Indian population of Siberian Cranes. If we are too cautious, the flock will almost surely slip into extinction. Courageous action now is our only hope for preserving the adaptations and migratory traditions of this critically endangered flock.

Our heartfelt thanks to the many people who helped to make this workshop possible, especially the dedicated staff of the Calgary Zoo and Lufthansa German Airlines. Lufthansa served as the official carrier for the workshop. We also wish to thank the following for their generous donations: Calgary Zoological Soc.; the Recreation, Parks, & Wildlife Fdn. of the Government of Alberta; U.S. Fish & Wildlife Service's Office of Internat. Affairs; Finnair; Denver Zoological Soc.; Cracid Breeding & Conservation Center; Mr. Jerry Korn; Audubon Zoological Park; and the Kansas City Chapter of the American Assn. of Zookeepers.

Volunteers Needed for China Trip

ICF is planning a work trip to Cao Hai Nature Reserve in southwestern China, from February 22-March 15, 1993. Volunteers are needed to observe behavior and habitat use by the endangered Black-necked Crane, and to visit local schools and villages to give slide talks about cranes and conservation. We'll also monitor Common Cranes, Bar-headed Geese, and other waterbirds. Cao Hai is the site of a long-term project to balance conservation and development efforts—an important model for China's large but threatened nature reserve system.

No prior research experience is necessary, only a willingness to learn. Cost for the expedition is \$2,425 plus air fare (expenses can be a tax deductible contribution). For more information, contact ICF. This trip is a great chance to learn about China, while helping assist an outstanding nature reserve.

Platte River Field Trip

See one of Earth's greatest wildlife spectacles, weekends of March 26–28 or April 2–4, 1993, with Jim Rogers. \$180 covers 2 nights in motel, breakfasts, blind, and contribution to ICF. Enrollment limit: 12 people, each trip. For more information or to reserve space with a \$50 non-refundable deposit, contact Rose Blada at ICF.



ICF staff model crane T-shirts, the most popular items in our gift shop. Orders received before Dec. 11 will be shipped in time for Christmas. Left: Turquoise T-shirt featuring a Whooping Crane (specify #345), available in adult sizes S, M, L, XL—\$13.00; or child sizes (#341), 2-3, 6-8, 10-12, 14-16—\$12.00. Center: Royal Blue T-Shirt featuring the Blue Crane (#469), available in adult sizes S, M, L, XL—\$13.75. Right: Yellow T-Shirt featuring wildflowers (#491), available in adult sizes S, M, L, XL—\$13.00. All prices include shipping and handling. ICF members may take a 10% discount off the merchandise total. Wisconsin residents please add 5.5% sales tax. Write check payable to ICF and mail to Terry Brooks at ICF. Photo by David Thompson.

Crane Foundation Awarded Challenge Grant

by Bob Hallam

The Kresge Foundation of Troy, Michigan, has awarded ICF a challenge grant for our "Finishing the Campus" capital campaign. The approved grant of \$150,000 was awarded for construction of the International Guest House and Training Center. To meet the challenge and receive payment, ICF must raise an additional \$400,000 by December 1, 1993. Attaining this goal will provide for completion of the Guest House and fulfillment of the \$1,270,000 capital campaign goal.

"The Guest House will host foreign scholars, who will have the leisure to analyze data, explore crane literature, and interact with our staff," said ICF Director George Archibald. "The Guest House, together with the Ron Sauey Library, will strengthen both ICF's on-site and worldwide operations, allowing us to live up to our mission as world center for the study of cranes."

To date, we have raised \$1,066,661 of our \$1,270,000 capital campaign goal, and \$348,661 in cash and pledges toward completion of the Guest House. Construction has started on the Guest House, with completion scheduled for May, 1993. Additional capital projects include a security fence next year, and construction of the Whooping Crane Exhibit in 1993-94.

Record Bird-a-thon

by Bob Hallam

ICF's fourth annual Bird-a-thon raised a record \$19,400 this year for the Ron Sauey Conservation Fund. Since 1987, the Fund has grown to over \$120,000. Income from the Sauey Fund supports the Ron Sauey Memorial Library for Bird Conservation. We wish to thank all who participated this year.

First place went to Cathryn Steuer, second place to Janet Flynn, and third place to Mike Putnam. All three received a signed and framed, limited edition print by Rockne Knuth entitled "Hidden Spring—Wood Thrush."

The other top-scoring teams were Viola N. White (4th), Jane P. Zubar (5th), Janet G. Helin (6th), Carol Konkol (7th), Robert Adams (8th), Lisa Mettel (9th), and Elizabeth Zuk (10th). Each team received a signed, limited

edition print by Owen Gromme entitled "Over the Tamaracks." All who counted birds and raised money also received a print by Owen Gromme entitled "Winter Field—The Christmas Cardinal."

Once again, we wish to thank ICF Trustee Mark Lefebvre and Stanton & Lee of Madison, Wisconsin, for donating all the prizes.

Special Gift Envelope

by Bob Hallam, Development Coordinator

Once again, the fall issue contains a "special gift envelope" that allows each member to donate to a particular program of personal interest. In a time of tight budgets,

there's a lot more we would like to do if we had the funds. Your special support at year's end could make a great difference for our programs as we begin 1993.

Last year's contributions to Aviculture supported construction of a bungalow for George and two imprinted Siberian Cranes. Field Ecology used its funds for restoration of ICF's parairie and for work in Vietnam. The dollars contributed last year to Education went into a fund for a second wheelchair for handicapped visitors, but more funds are still needed.

Finally, the majority of the special gifts went for "general support," including heat, light, and overhead. Although general support is the least glamorous, it is critical. The staff wishes to thank all our members once again for their continued faithful support, and we hope you will renew your "special gift to the cranes."

Contributions

Received July through September, 1992



Lufthansa

ICF's Official Airline

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Computers Help Save Siberian Crane

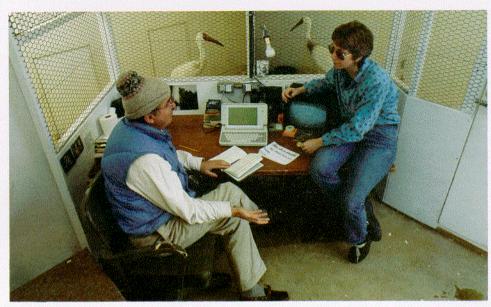
by Claire Mirande, Curator of Birds

Stiff and tired from nearly seven hours of stalking and hiding in the Siberian taiga, Sasha Sorokin and Yuri Markin had their chance. With a heroic sprint they caught the chick. It was the only chick raised by one of the last two pairs of Siberian Cranes breeding in the Kunovat region of Russia.

I imagine that Sasha paused, reflecting on the years of debate, reviewing again the decision to risk capturing the chick and attaching a satellite transmitter to its back. He knew the radio might be a burden for the chick during its 5,000-mile migration past crane hunters now armed with semi-automatic rifles. Should this priceless chick be left to fly unhindered? The satellite unit might provide the missing data on migratory routes, critical staging areas, and mortality factors, thereby enabling us to save this rapidly dwindling population.

That same week, half a world away in the Canadian Rockies, people from eight countries strove to answer Sasha's question about risk. Fingertips clicked on keyboards, computers hummed, and people conferred in many languages. Around midnight, we entered the last data, left the computer to run until morning, and slipped out into the Rocky Mountain night. Moonlight framed the mountain peaks and shimmered on the river, while a late summer breeze soothed our weary minds. Bonds and understanding grew as we shared our hopes and knowledge.

We had come together to examine the status of all the crane species and to draft global conservation and research priorities for worldwide review. We also made recommendations on the management of Siberian and Red-crowned Cranes, based on an analysis of ecological, demographic, and genetic data. Bringing together colleagues



During the last two springs, George Archibald lived with two human-imprinted female Siberian Cranes and stimulated both to lay eggs. Here he meets with Claire Mirande to discuss plans for developing global captive breeding strategies at the Crane Conservation Workshop, held in Calgary on August 8-16, 1992. Photo by David Thompson.

with valuable information and unique knowledge of these two species, we used a set of procedures called "Population and Habitat Viability Analysis" (PHVA) developed by the Captive Breeding Specialist Group of the World Conservation Union (IUCN).

The PHVA makes extensive use of computers, which allow us to "predict" the future by evaluating the risk of extinction for crane populations subject to different management strategies. We compared outcomes of different management practices to insure that we use our limited resources wisely.

We waited with suspense while the computer calculated thousands of alternative "futures." The fate of crane populations is based on a series of chance events. Birth and death rates vary from year to year. Parents pass on different genes to their offspring based on luck of the draw. The computer models incorporate these chance events and variation as they simulate hatchings and

deaths for each individual, year by year. Each simulation is repeated at least a thousand times and average outcomes are calculated, such as probability of extinction, mean time to extinction, final population size, or genetic variability retained.

We often fall into the trap of believing that certain solutions are not possible because of financial or political contraints. PHVA workshops make us look beyond these biases to develop species recovery strategies firmly based on *biological* realities.

Language barriers were just one of the challenges faced by participants of the PHVA workshop. I will never forget how Yoshi, a crane researcher from Japan, sat at breakfast with his head in his hands. When prompted with, "What's wrong?", he replied "Oh, so tired...dreamed in English!" Yet the PHVA process could not work without the expertise and support of individuals responsible for

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