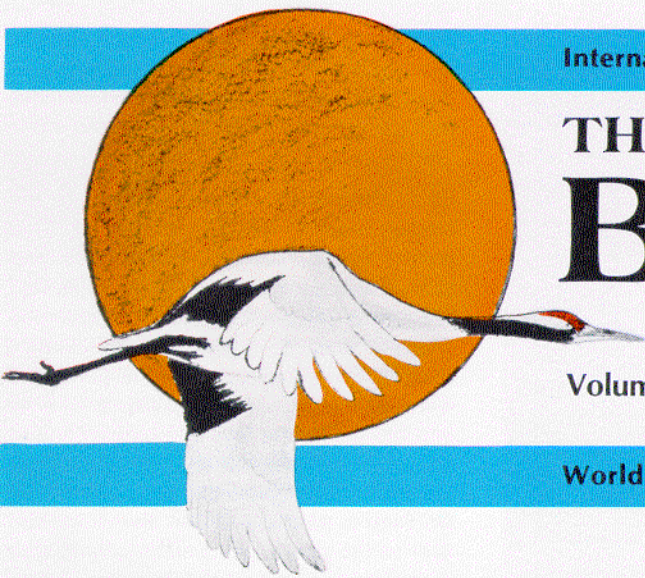


THE ICF BUGLE

Volume 14, Number 3

August, 1988

World Center for the Study and Preservation of Cranes



Wolf (at left), the oldest known crane in captivity, stands with his mate Philis. Shortly after this picture was taken in 1977, he killed Philis. More recently, as we attempt to socialize Siberian Crane pairs at ICF, we have proceeded with great caution to avoid losing another female. Photo by Jim Harris.

SIBERIAN PERSONALITIES

by Sheila Einsweiler
Aviculture Intern

Although the Chinese have found over 1500 Siberian Cranes wintering at Poyang Lake Nature Reserve, the tiny Siberian flocks wintering in Iran and India number only 11 and 35 birds. Captive breeding, and the subsequent release of cranes to the wild, may someday prevent these populations from becoming extinct. Siberians are a top priority in ICF's crane breeding efforts.

Each aviculture intern at ICF undertakes an independent project. I chose to work on socializing several pairs of Siberian Cranes in an attempt to start them breeding. Having previously worked only with wild populations of birds, I was not prepared for the array of personalities I would encounter. "Wolf," for example, our oldest crane in residence, is eccentric and aggressive; that aggressiveness changed management of Siberians at ICF.

Wolf loses a mate

Wolf, who apparently hatched shortly after the turn of the century, is one of our most popular characters on public display. He presumably survived two world wars in captivity in Europe, after being captured in India. Wolf was originally paired with a female, "Philis," who had been in captivity since the early 1950s without laying a single egg. The year following the pairing—and after the two birds were put under floodlights to simulate the arctic daylength—Philis laid 10 eggs.

Wolf was the model mate. Elaborate nests could always be found in his pen, as they are

continued on page 2

continued from page 1

today even though he is no longer breeding. Wolf actively took his turn incubating eggs. Unfortunately one year a new female was placed within sight of Wolf's pen. In a fit of redirected aggression, Wolf killed Philis. For years after that, Wolf (and all other Siberian Cranes) were housed separately, with male and female in adjacent pens where they could see but not hurt each other. Wolf continues to build nests and will incubate brown rocks or dummy plaster eggs. He actively defends his nest as he carefully turns his "eggs."

Following Philis' death, we used artificial insemination for breeding Siberian Cranes. The technique has worked with many cranes, but the Siberian males foiled our efforts: their semen production has remained low and erratic compared to other species. Recently our goal has been to socialize the Siberians, in hopes that strong pair bonds will increase the badly needed semen.

Although Wolf is fascinating to watch, his geriatric behavior provided little clue about pair bonds. My supervisor Claire Mirande directed me to "Tilliman" and "Vladimir" as the perfect couple. After studying their behavior, I would be better able to assess progress as I attempted to socialize unpaired birds.

Vladimir raises a chick

Tilliman, a male imported from the Vogelpark Walsrode in West Germany, and Vladimir, a female collected as an egg from the tundra of eastern USSR, had been socialized last season. The two birds functioned as a unit with remarkably synchronized behaviors. Upon my approach, the pair would stand side-by-side unison calling. When I reached the pen, Tilli and Vlad would threat walk along the fence with toes splayed wide, growling softly. I spent several days observing these two birds together. Most of their time passed lazing in the sun, preening, probing in the dirt.

Near the end of my observations, Tilliman and Vladimir were allowed to raise a chick. We want to develop techniques for rearing cranes suitable for release to the wild. Parent-reared chicks avoid problems with imprinting and are likely to pair normally as adults. Equally important, parent-reared chicks do not become highly accustomed to people, and therefore have better chances for survival in the wild. Cranes of other species have reared chicks at ICF, but Vladimir and Tilliman would be the first Siberians.

All of their activities suddenly centered on feeding and defending the chick. Vladimir was a super mom catching insects rather than feeding the chick our pelleted version of food. Tilliman spent much of his time as the

heavy—protecting the territory rather than helping with chick care. On one occasion when Tilliman caught an insect, Vladimir rushed over and tapped Tilli's beak until he dropped his catch. She promptly picked it up and took it to the chick, leaving Tilliman hungry.

Dr. Saab meets Eduard

With an idea of what makes a good pair bond, I set off to socialize the new pairs. All of the pairs I would work with had grown accustomed to one another in subdivided pens over the past year. The idea was to increase slowly the time the pair spent together (in one pen) until finally they could be together permanently. I started with Eduard and Dr. Saab. They seemed the most likely to pair.

My first try at pairing fortunately was aided by the encouraging words of aviculturist Marianne Wellington, who stood directing on the sidelines. First I entered Eduard's pen. He immediately defended his territory with a range of threat displays, then charged me. My boot was up and ready for the attack as I grabbed hold of Eddie's head and wing. With some strong encouragement and Marianne's help, I walked Eduard into Dr. Saab's pen. Closing the door, I watched with heart pounding to see if either bird would attack the other. Eddie, still on the defensive, maintained his threat postures toward me, standing by the pen door and oblivious to Dr. Saab. "Well, at least they haven't killed each other!" offered Marianne after our five-minute pairing was up.

I went alone for my next try several days later. After opening the door between the two pens, I approached Eddie ready for his usual charge. Just as I grabbed him and started to walk him toward the other pen, Dr. Saab stepped as calmly as ever through the pen door to join us. Thoroughly startled by this

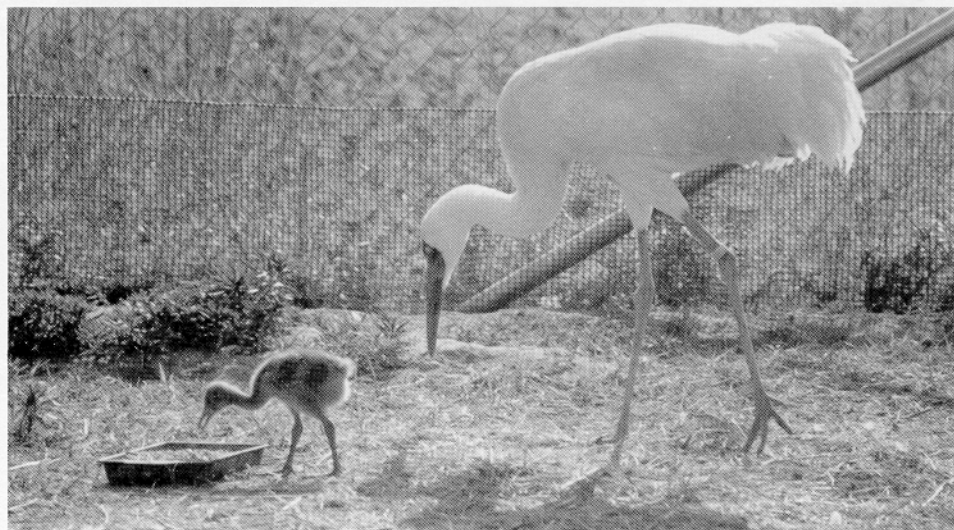
behavior I decided to leave well enough alone. Dr. Saab was clearly interested in Eddie and perfectly content to join him in his pen.

I walked along the road so that the birds could settle down without my presence. Immediately after I left, Eduard and Dr. Saab unison called, standing side-by-side and acting like a good pair should. I was thrilled to see how quickly they had adjusted to one another. After 20 minutes of socializing I reopened the door between the pens, and watched amazed as Dr. Saab sauntered back into her pen. Here was one bird willing to cooperate with the whole project! Each additional visit demonstrated the eagerness of Dr. Saab to pair with Eddie. She would run over to the pen door, contact calling, wait while I opened it, and then step through to join Eddie.

Finally the big day came. I had been leaving Eduard and Dr. Saab together the entire day for the past week. Claire decided it was now time for them to spend the night together. My night was thoroughly restless, but I headed out early hoping for the best. Walking the road along Crane City to the accompaniment of morning crane calls, I nervously wondered if I would find feathers all over and evidence of a great raging battle. As I hurried to the pen, happy unison calls greeted me. Relief welled up as I realized I had succeeded with one pair. Across the road, Vladimir, proud mother with her chick, watched us.

Tanya would rather be alone

Meanwhile life was not so easy down the road. Gandhi, the son of Tilliman, and Tanya, collected as an egg from the USSR, were resisting all attempts at pairing. Tanya should be the founder of an important genetic line,



Vladimir is the first Siberian Crane to raise her own chick at ICF. We are experimenting with parent-rearing of chicks, because this rearing method appears well suited for chicks that will be released to the wild. Photo by George Archibald.

and much work had been done with her in the years since she reached breeding age. Six different males had been presented to Tanya in the past six years. Unfortunately she had shown little interest in any of them, preferring to dance with various staff members instead.

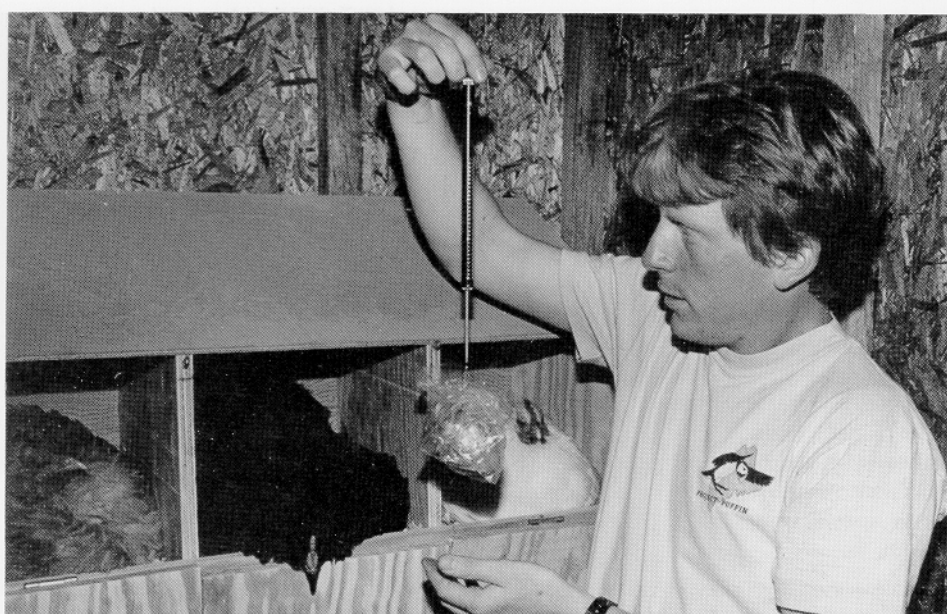
Gandhi had been chosen for the 1988 pairing attempt because we hoped his dominance and prior experience (he had been paired with another female Siberian) might interest Tanya. All my attempts at socializing became frustrating encounters with a highly imprinted female and an aggressive male. I would let Gandhi into Tanya's pen allowing her the home field advantage. Tanya would stay as far away from Gandhi as possible. Any approaches from Gandhi were met by queenly snubs as Tanya would march past looking the other way. I also spent hours observing these two when they were separated to learn if they spent any time near their mutual fence. Again Tanya couldn't care less what Gandhi might be doing.

One of my final observation days, I watched fascinated as Gandhi danced and tossed a feather around his pen. Assuming Tanya would be equally delighted with this intense display, I glanced at her pen. She hadn't even noticed. I knew then that this pair bond would take much more work if it were to succeed—if it could succeed.

Pair bond formation is ripe with complications in captivity, quite unlike pairing in wild populations. Clashing personalities of captive birds can be forced into open confrontations, where they might simply have ignored one another in the wild. Aggression becomes the major problem in all of these confined situations and it ultimately rules any management decisions.

Even though pair bond formation has been difficult, it is only one of the problems facing ICF in Siberian management. Chick personalities also demand extra attention. Siberians tend to be the most aggressive chicks raised at ICF. Hand-rearing them with other chicks nearby becomes a lesson in avoiding confrontation and attack. Even Siberian eggs seem temperamental. To increase production, we take most crane eggs from the parents and artificially incubate them. Siberian eggs have been the most difficult to incubate successfully, although chances are better when using Sandhill Cranes or chickens as foster incubators.

Although captive breeders manage cranes as populations, they must also manage each bird individually. Siberians have proved to be a challenge to breed. Yet we continue to progress toward the final challenge of releasing Siberian Cranes into the wild, and bolstering the decreasing populations.



Cochin chickens are incubating some of ICF's crane eggs this year. Chickens are more effective than artificial incubators, and certainly better suited for crane centers in remote areas. We weigh eggs daily to monitor their development. Photo by Jim Harris.

BROODY HENS SIT AT ICF

by Tom Mahan
Aviculture Trainee

It may come as a surprise, but cranes are not the only birds included in ICF's captive propagation program. Last year, we acquired 19 standard cochin chickens to use as foster incubators for our crane eggs. The cochin breed of chickens is best known for its "broodiness," the tendency for hens to incubate eggs. Aviculturists have long used broody hens for many different eggs, from waterfowl to raptors.

Although broody hens are not the real parents, their natural incubation is far more effective than artificial incubators. Many aviculturists employ broody hens to incubate for the first critical 7-10 days of incubation. After this time the egg can be placed in an artificial incubator and incubated to hatching. Hatching success following this incubating technique is better than that for artificially incubated eggs that have not been placed under broody hens.

Our flock of 16 hens and 3 roosters arrived at ICF as chicks. Thanks to the generosity of Mr. & Mrs. Larry Stocking of Baraboo, we were able to house the flock off ICF property until suitable facilities were available.

At 10 months of age, in December, 1987, the hens began laying eggs. This was a bit sooner than we had hoped, since crane egg production would not begin for several months. We used electric lights to change the chickens' photoperiod and put them on the

same schedule as the cranes. By the time cranes were laying eggs, the hens' broodiness was in full swing. Much to our pleasure the hens accepted the crane eggs as they would their own. Crane eggs are a bit big, but the fluffy hens can manage one egg easily; a few hens can take two.

We divided the flock into three smaller flocks, each with its own rooster. The hens feel more content with a rooster. We again manipulated the chickens' photoperiod, in order to stagger each flock's incubating season. In this way, we insured that broody hens would be sitting throughout the long breeding season of the cranes.

The ultimate goal of our chicken work is to develop methods for crane breeders overseas where, for one reason or another, crane eggs cannot be artificially incubated. Many facilities lack the electricity or the funds to own and operate incubators. The use of chickens as foster incubators is an efficient, low-cost alternative for propagating cranes. With all our modern technology, it seems ironic that we turn to something as simple as a broody hen to aid us in crane preservation.

* * * *

Please send your favorite slides of wetlands to ICF for use in the next Bugle. Pages 4 and 5 of our November issue will feature slides by ICF members depicting landscapes, wetland plants and animals, and people using wetlands. There is still a chance to have your photographs considered. Mail original slides (not duplicates) to Jim Harris at ICF by September 20, 1988. Please include your name and address; also identify what is in each slide, and where and when it was taken. All slides will be returned.

BUTTERFLIES THRIVE AT ICF

Ann Swengel

The variety of butterflies living on ICF's habitat restoration is remarkable and delightful. The diminutive Reakirt's Blue, with a 3/4-inch wingspan, is deep blue on the upperside of the wings and spotted on the underside. It arrives at ICF only as a stray from its permanent home in the deserts of the Southwest. At the other extreme is the resident Giant Swallowtail, a striking black and yellow species more than five inches in breadth.

Between these two extremes are dozens of butterflies as colorful in name as in appearance. Among the first butterflies to emerge after winter, the Spring Azure, a light blue species, flies throughout the warm season. The striking Milbert's tortoiseshell, prone to wide fluctuations in local numbers, is a dark, triangular-shaped butterfly with broad orange wing stripes, a welcome sight as summer begins. Large and gaudy, orange and brown Great Spangled Fritillaries, decorated with silver spots on the underside, seek Butterfly Weed during midsummer.

In just several years, my husband Scott, assistant curator of the cranes at ICF, and I have observed nearly 65 species of butterflies on the ICF site; we expect to continue finding new ones. The mixture of plant communities here, rather than any one kind of habitat, causes ICF to be a wonderful place for finding butterflies.

Diverse habitats attract butterflies

The habitat project at ICF has been restoring the diversity of natural communities that were present in southern Wisconsin before pioneer settlement. Perched on the terminal moraine deposited during the last ice age, ICF is situated at a confluence of several major community types. Northward in Wisconsin stretches the central sands transition zone—sandy from glacial deposits, and a transition between forests of southern hardwoods and northern conifers. Often labelled a "barren," this community harbors a number of specially adapted plants and animals. To the east and southeast lie the deciduous forests of oak and hickory. To the west and southwest is the prairie belt, once a vast expanse of native grasses, wildflowers, and scattered trees.

A walk around the trails at ICF passes through a variety of these communities. The Wild Lupines blooming on the hillside are typical of the central sand barrens. Down the hill beyond the prairie lies a pothole, a small

example of the marshes so important for waterfowl and cranes. Oaks occur both as forest and as scattered trees and groves at the boundary of the prairie community.

Like the birds and mammals, each kind of butterfly is specifically adapted to a certain habitat or habitats. Abundant at ICF, Spring Azures and Tiger Swallowtails are representative of the many butterflies that live along the forest edge. Forest species such as the brown satyrs, lurk in the dappled woods. The prairie provides habitat for a number of grassland species, from the large, dark, but misnamed Wood Nymph to the deep blue Eastern Tailed Blue. Wetland butterflies, such as the tiny orange Least Skipperling, patrol the grasses and sedges at the pothole's edge. Some of the species adapted to sandy barrens also thrive at the site, such as the Olympia Marble, named for the network of yellow-green patterning on the hindwing's underside.

Several of the communities in restoration at ICF are endangered in the state, occurring only in remnant preserves and private holdings not yet disturbed by development. This adds urgency and importance to the project, as ICF prepares a place for species losing their homes elsewhere. One such community is mesic prairie, the type of prairie that grows in level or gently rolling terrain, neither dry nor swampy. Another rare community at ICF is the oak savanna, a transitional community mixing prairie, normally treeless, with scattered groves of oaks.

As with other creatures, some kinds of butterflies, such as the Common and Orange Sulphurs, are widely adapted and occur throughout Wisconsin in many communities, disturbed or pristine. Other butterflies, however, are more specialized, limited to certain plants or conditions where they successfully find food or egg-laying sites. When that habitat disappears, as occurred with the fertile prairies, the specialists that inhabit the community also suffer. One of many butterflies benefitting from the restoration is the Gorgone Checkerspot, whose caterpillars eat native sunflowers, a prairie plant.

Scott was lucky enough to find a single Karner Blue last year. This lovely small butterfly is listed as endangered in New York State, is listed for study in Wisconsin, and has been declining throughout the eastern part of its range. This species' caterpillars feed on lupine, which has thrived at ICF because of the restoration. An important part of the site's management is controlled burning, an imitation of the natural fires that used to maintain prairies and barrens by preventing the invasion of trees and shrubs into grasslands. Like many other grassland species, lupines are adapted to fire, which alleviates competition

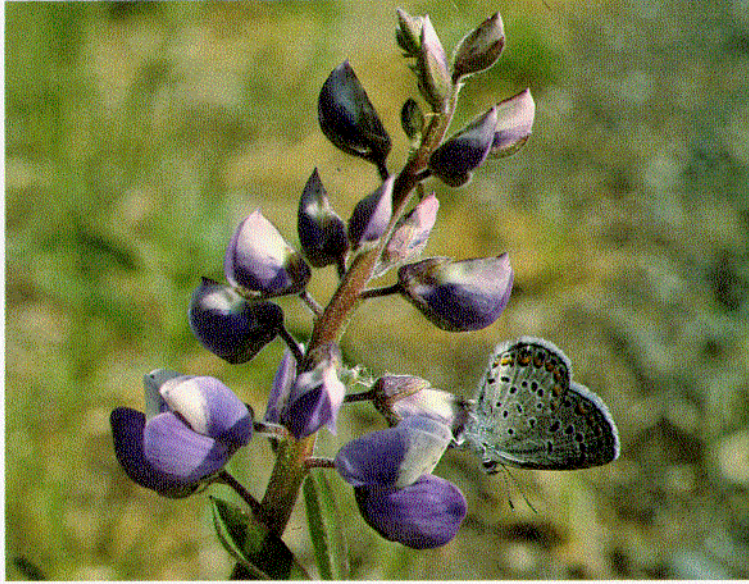


Top left: Eastern Tiger Swallowtails frequently gather at Wild Lupine; Karner Blues depend on lupines and have declined territory from atop Birdfoot Violet. Bottom right: a Spring

from woody plants. We're hoping the Karner Blue will establish a stable colony here.

Finding butterflies

In the cool of the early morning on a cloudless, midsummer day, the birds are calling and the mammals forage on the ICF grounds. As the heat of the day quickly sets in, a quietness settles over the site—but not a stillness, for the next set of characters is beginning to stir. The world of butterflies awakens at this time, when the butterflies warm themselves by basking motionless in the sunshine. After that, they go about their activities, a microcosm of courtship and aggression, feeding and defense.



...d puddles to feed on dissolved minerals. Top right: a Karner Blue rests on a Wild Bergamot through the eastern states. Bottom left: an American Copper male defends his territory. Top right: an Azure feeds on a Coneflower. Photos by Ann B. Swengel.

ICF's trails provide ample views of all the habitats, and especially explore ecotones, the borders between different habitats where butterfly variety is greatest.

A prairie in bloom is a prairie full of "nectaring," or feeding, butterflies. Eastern Tiger Swallowtails prefer Wild Bergamot while the fritillaries favor Butterfly Weed and thistles. With careful observation and a little luck, the visitor will find an Olive or Banded Hairstreak sipping furtively at Common Milkweed. The spring visitor can find Olympia Marbles rapidly flitting from flower to flower in a patch of Rock Cress.

But don't watch just the flowers along the

trails. In fact, watch your step! Several small species of butterflies, such as the American Copper and the Eastern Tailed Blue, establish little territories with boundaries the males hotly contest. Evidently they like the open flight space afforded by the mown trail, for they can often be found there on short stalks of grass.

A patch of moist ground can be as attractive as a flower to hungry butterflies, which feed on the minerals dissolved in the water. Swallowtails are particularly fond of this food, but a number of other butterflies, such as sulphurs and blues, can also be found at puddles. A "mudpuddling" butterfly can often be approached closely, since it can become

oblivious to disturbance as it feeds intently.

Choose a vantage point overlooking the open prairie to watch the active pursuits of the sulphurs. When not feeding at flowers or mud these bright yellow and orange butterflies patrol widely in search of mates. When several encounter each other, they study each other in spiral flight in order to court a female or to bully another male.

The habitat restoration at ICF is an excellent example of the hidden benefits of the foundation's conservation programs. Begun as a project to re-establish natural plant communities, the restoration has also provided a new home for a variety of other creatures, including a beautiful diversity of butterflies.

ICF MEMBERS INVITED TO JOIN FIELD TRIPS

**Sunday, October 2, 1988—Necedah
National Wildlife Refuge and Sandhill
Wildlife Area in central Wisconsin**

ICF's George Archibald and Jeb Barzen will be leading this exploration of two of Wisconsin's most important areas for cranes. Discussions will focus on the history and management of these areas as we drive through the thousands of acres of protected wetland and forest. We hope to see eagles, hawks, herons, and a fine variety of ducks and geese. We'll also be looking for color marked Sandhills, including young cranes that are part of an experimental release in upper Michigan this summer. The day will culminate in a gathering of hundreds of cranes at sunset.

In addition, this trip will be a chance to meet and talk with some of ICF's foreign visitors. We are expecting a delegation from Vietnam, and perhaps a delegation from northeastern China, to visit ICF for a month this fall. We'll discuss their conservation efforts in Asia, and objectives for their work while in Wisconsin.

Participants will be responsible for their own food and travel expenses. We'll send you information ahead of time regarding meeting site at the refuges, directions, and what to bring.

We're asking for a donation of \$25 per person. The income will help support ICF's foreign training efforts. To reserve a place,

please send full payment to ICF, including name(s), address, and phone number.

**January 18 - February 6, 1989—Crane
Surveys and Conservation Education in
Yunnan Province, China.**

ICF is organizing a work trip to southwestern China. We will visit Napahai Nature Reserve in the extreme northwest part of Yunnan Province, where the land abruptly rises onto a part of the Tibetan Plateau. We will count Black-necked Cranes and other birds, study habitat use by the wintering cranes, and make educational presentations at the Tibetan villages and schools surrounding the reserve.

No strenuous hiking is required, but early morning conditions are cold in this stark landscape, at 11,000 feet amidst taller mountains. We will visit two other wetland reserves in Yunnan, at lower elevations, to survey the birds and suggest conservation measures.

All costs are tax deductible. Send a note to Jim Harris at ICF if you would like to receive trip details. We prefer that volunteers have experience with bird watching, photography, or related skills; also volunteers with a special interest in public education efforts are welcome.

**January or February 1989—Crane Count and
Education Programming with the Wildlife
Clubs of Kenya**

Tentative plans have been made for a small ICF team (three to five people) to visit Kenya early in 1989 for three weeks. The Wildlife Clubs of Kenya have recently started a Crowned Crane Count patterned after our successful Wisconsin Sandhill Crane Count (see page 2 of the May 1988 **ICF Bugle**).

We will be working with staff of the Wildlife Clubs in the Nairobi district to



These Siberian Cranes represent one of 76 species of birds recently illustrated by John Henry Dick, renowned wildlife artist and ICF Trustee. Mr. Dick prepared the drawings for use in public education materials for wetland reserves in eastern China. ICF has reproduced the drawings and distributed them in a form ready for publication in China.

promote interest among club members by making presentations at schools. We will also help to revise procedures and materials so that the count can be held on an annual basis. The trip goals are primarily educational, with a limited amount of time in the field.

Volunteers are needed who are hardy and vigorous travelers and can tolerate varied living conditions. The work itself will not be strenuous.

All costs will be tax deductible. Please contact Marion Hill at ICF if you would like to be on the mailing list to receive trip details. Definite plans for the trip will be confirmed by late September.

THE ICF BUGLE is the quarterly newsletter for members of the International Crane Foundation (ICF). Production and mailing costs are being met by a special grant from Clairson International of Ocala, Florida. Articles review ICF programs as well as crane research around the world.

Co-Founders: George Archibald
Ron Sauey
Editor: Jim Harris

ICF offers memberships at the following annual rates:

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

The Bottom Line

Kresge Challenge Grant Met!

by Bob Hallam
Development Coordinator

It is a great pleasure to announce that the tremendous support of ICF's members, staff, and Trustees has enabled us to meet successfully the Kresge Challenge of \$200,000. We still have envelopes and contributions coming in from the last **Bugle** and we want to express our deepest gratitude to all of you who responded to our appeal. The total "Gift to the World" campaign has now surpassed \$1,185,000 in gifts and pledges.

We are now able to construct the remain-

ing pens for "Crane City" this summer. The last pairs of breeding cranes housed on the Norman and Claire Sauey property will move to Crane City this fall. Normally, cranes do not breed immediately after a move to a new location. Surprisingly, some of our pairs did breed this spring after moving into Crane City last fall. It is apparent that the cranes are content and secure in their new homes.

The completion of the capital portion of the "Gift to the World" campaign will finish ICF's move to the new site. The remaining portion of the campaign will provide endowment funds to strengthen and expand our efforts in research and international conservation.

In the next issue of the **Bugle**, we will list all the recent contributors who helped to put us over the top. Once again, on behalf of the staff and Trustees, I wish to thank you for your support.

CONTRIBUTIONS

Received April-June, 1988

ANNOUNCING:

The 14th Annual Meeting of the International Crane Foundation Saturday, October 1, 1988

ICF members and their guests are invited to attend the annual meeting and dinner. Reservations are required; please use the form provided below. Be sure to respond by September 21st, as reservations are limited. You may wish to sign up for the field trip that ICF is offering for Sunday, October 2. See opposite page for details.

Grants and Awards: Gaylord and Dorothy Donnelley Foundation; Thomas E. Donnelley II Foundation; Arman G. Erpf Fund, Inc.; Evjue Foundation, Inc.; Institute of Museum Services; Johnson Co., Ltd. of Japan; Johnson Wax Fund; Donald Kindschi; Frank Larkin; Oscar & Elsa Mayer Charitable Trust; Menasha Corporation Foundation; National Wildlife Federation; Mr. & Mrs. Laurance Rockefeller; Roger Tory Peterson Institute; Walter Schroeder Foundation, Inc.; Seebe Charitable Trust; Shade Information Systems, Inc.; Doris H. Speirs.

Patrons: Joseph & C. Barbara Brownsmith.

Sponsors: Robert M. Bolz; Colin Case; Chapman Foundation; Ostrom Enders; Kenneth Findley; Gompers Elementary School; Robert Sabin; C. Ives & Marie Waldo, Jr.

Associates: Ed & Dorothy Alexander; Ernest & Betty Lu Anderson; Hope Anderson; Susan Avery; Dorothy & Bob Babington; Mary E. Bane; Emmy Lou Barnstein; Charles & Nina Bradley; Joyce Brink; Donald & Polly Bruckmann; Louise Coumbe; George M. Covington; Frances Cumbee; Judd Day; DEC International—Albrecht Foundation; Helen Dickie; Mrs. James Donnelley; Noel Lee Dunn; Emily H. Earley; Jane Eastham; Mrs. Richard Ela; Theodore L. Eliot, Jr.; Caroline Farr; Robert Fisher; Betsy Getz; Daniel & Georgia Gomez-Ibanez; James Goodwin; Laurentine Greene; Grootemaat Foundation, Inc.; Bonita J. Hackner; Mrs. Raymond Herb; Mr. & Mrs. William E. Hollan, Jr.; Susan Horwitz & Tom Reps; Catherine Jordan; Russell & Jeanette Kienbaum; Charlotte Kitowski; Joyce & Lynn Knutson; Donald S. Koskinen; Tony Kubek; Gary Kuehn; Bert Lyons & Margaret Brandt; Manasota Beach Club, Inc.; J.P. & Huetta Manion; David & Lynda Manning; William Messinger; Thelma Moss; William & Paula Preston; Verne & Marion Read; Nathaniel Reed; Christina Savit; Janet Scalpone; Bruce & Mary Seibel; Mr. & Mrs. A.A. Silverman; Mr. & Mrs. L. R. Sjoblom; Mr. & Mrs. G. Kendall Smith; Elinor Stege; Louise P. Ten Eyck; Alice Thorngate; R. G. & Marian J. Van Dellen; Ruth Weeden; Wildlife Materials, Inc.; L. Kris Wilke.

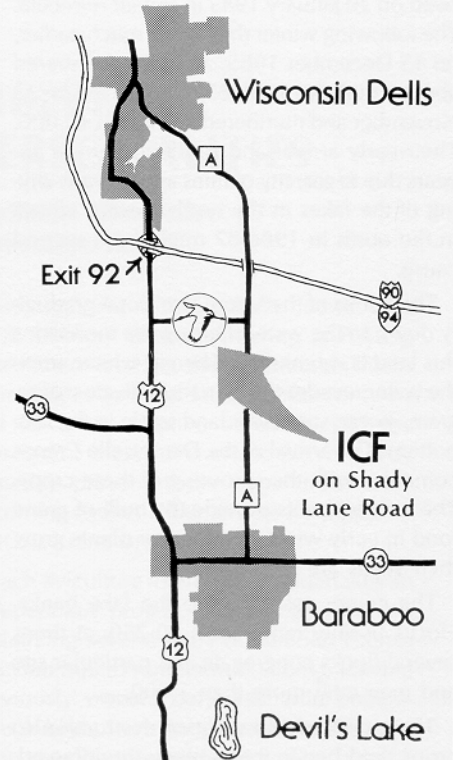
Schedule

4:00 p.m. **Tours** for members and guests, of ICF's new site — including **Crane City**. Take advantage of this rare chance to see our new breeding facility!

5:30 p.m. **COCKTAILS** (cash bar) at the Voyageur Hills Inn, Reedsburg.

6:30 p.m. **BUFFET DINNER AT THE** Voyageur Hills Inn.

7:30 p.m. **ANNUAL MEETING PROGRAM**
George Archibald and colleagues from Vietnam will present a slideshow "Bird Swamp of the Mekong Delta."



Please clip or copy, and mail to ICF, E-11376 Shady Lane Road, Baraboo, Wisconsin 53913

Reservations deadline — September 21

_____ Please make dinner/program reservations for _____ people.
My check for \$12.00 each is enclosed.

_____ I cannot attend the meeting, but please send me a copy of the Annual Report.

Name: _____

Address: _____

DEMOISELLE CRANES APPEAR AT PUNE

by Dr. Sattyasheel Naik
Indian Crane Working Group

In winter, large numbers of Demoiselle Cranes migrate to northern India. For the last few years, the cranes have traveled farther south than before to Veer Dam south of Pune in west central India.

The Demoiselles were first seen and photographed here in February 1984 when they numbered about 2,000. They next arrived on 30 January 1985 in similar numbers. The following winter they came much earlier, on 15 December 1985, and they numbered about 5,000. For 1986-87, they arrived on 23 November and numbered more than 10,000. Their early arrival and sudden increase appears due to scarcity of rains and an early drying of the lakes in the north. Severe winter in the north in 1986-87 might be a second cause.

The banks of the Veer Dam slope gradually down to the water. During the monsoons this land is submerged. Then in winter when the water recedes the farmers cultivate maize, gram, jowar, sunflower, and safola in the lake bottom. The arrival of the Demoiselle Cranes coincides with the sprouting of these crops. The tender shoots provide the bulk of crane food in early winter, and as the plants grow their seeds are consumed.

The cranes rest close to the lake banks. Flocks usually range from 50-250; at times several flocks congregate at a particular site and may total more than 1,000.

The cranes cause a lot of destruction to crops, and hence the farmers are annoyed. If a large flock settles down on an acre of land, within no time the field is stripped bare,



Demoiselle Cranes winter close to people in India. Drought, and changing distribution of the cranes, have led to conflicts with farmers working the fields where the cranes feed. Photo taken in Gujarat, India by Sture Karlsson.

as if a huge lawn mower had cut the entire area. The local farmers informed us that during the day they stood guard and scared off the cranes by making noises, throwing stones, and beating drums. They also use firecrackers. But the cranes also feed at night so it is impossible to keep them away at all times.

Because successful sowing of seed depends largely upon the rains, there is no chance for the farmers to replant. Most of the farmers have only small fields and are very poor. The total loss of their crops at this critical time is devastating and spells hunger and poverty. It is no wonder, then, that they look upon the cranes as their staunch enemies and are totally unsympathetic toward the protection of the species. For them our talk is nothing but "high flown jargon."

The farmer has my full sympathy. But I also feel equally concerned about the cranes. They should be given proper protection. This is being done by the Forest Department no doubt. I have suggested a further step. There is plenty of land that belongs to the government, lying barren in this area. This land could be cultivated with maize, gram, jowar, and other crops for the cranes. This could be an ideal compromise between the farmers and the cranes; we "friends of the birds" could also remain friends of farmers.

The Demoiselles are an inspiring sight for bird lovers. The best time to see them is at early dawn or sunset from December to March. After the crops are harvested, the cranes start migrating north toward central Asia.



ICF's
Annual Meeting
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International Crane Foundation

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