



THE BROLGA BUGLE

In Sauey Memorial Library
International Crane Foundation
Baraboo, Wisconsin, USA

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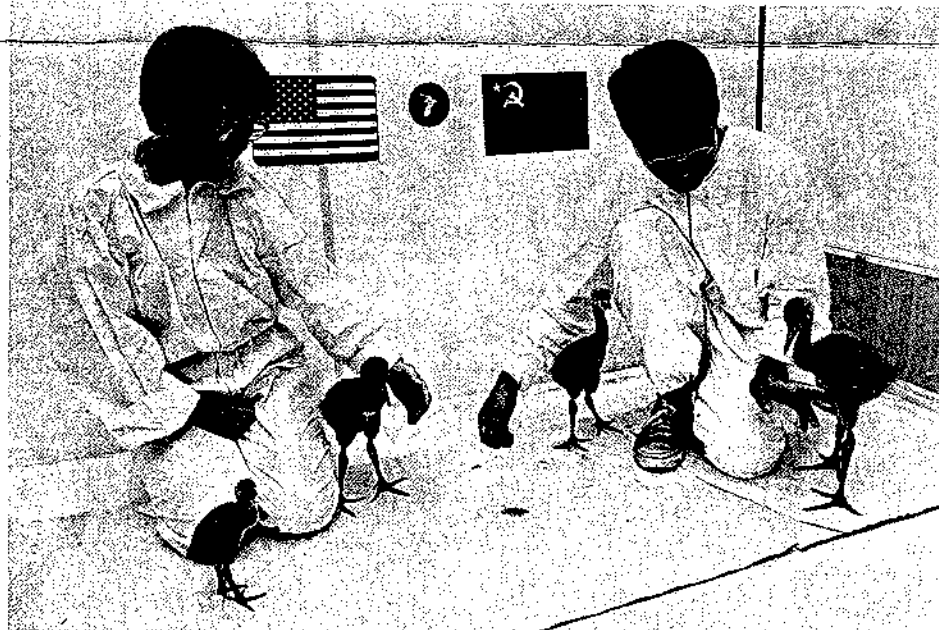
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MAKING TRACKS - news of the foundation

PROJECT STERKH-1978



The Biotron Gang, Libby Anderson and George Archibald pose with their four rare wards. From left to right: Tanya, Eduard, Bazov, and the impatient Aeroflot, who hatched enroute from the Soviet Union.

The International Crane Foundation
Continues its Ambitious Project to
Reintroduce the Siberian Crane
to Western Asia

by Ron Sauey

Suddenly I spotted him, dressed in his familiar brown fatigues and red knit cap and striding intently across the airport parking lot, a dark grey suitcase clenched in his right hand. Unable to resist the temptation to greet him in some unusual fashion, I slipped behind him unnoticed and grabbed him roughly by the shoulder: "What do you have in that case?," I demanded in mock seriousness. He turned, wide-eyed, and stared, at first not recognizing me. Then both of us laughed, and in the gold light of the Moscow dawn, Dr. Vladimir E. Flint and I embraced, Russian-style, in warm greeting.

The longest day in my life, June 30, 1978, had actually started one hour earlier at 2:30 a.m. in Moscow's austere, Stalin-era hotel, "Leningrad," when I was awakened by the telephone. Sasha Nikolaevskii, my chief contact in the U.S.S.R., was at the other end. "I'm downstairs," he said, "are you ready?"

I quickly dressed, grabbed my bags, said "Do svidaniya!" to the chamber maid I passed in the dark hall, and joined Sasha and a small retinue of Russians from the Central Laboratory for Nature Conservation who were already out front waiting in a taxi. Despite the hour, the sky was bright in the east and by the time we met Dr. Flint at Domoyevdo Airport, the sun had begun to peek over the horizon. Although I didn't consider it in the excitement of the moment, I would watch that yellow orb for another 24 hours, never seeing it set as I raced half way around the world on the strangest errand of my life.

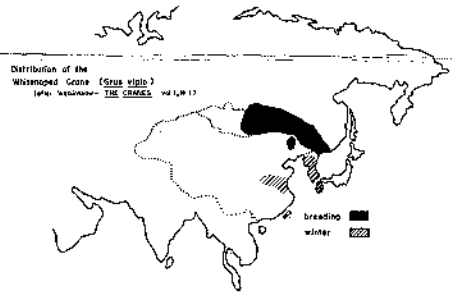
All these cloak and dagger incidents in Moscow were simply another phase in Operation Siberian Crane, or "Project Sterkh" as the Russians call it, an ambitious conservation program to save the extremely rare Siberian Crane, *Grus leucogeranus*, from extinction (see "The Great Egg Heist" in *The Brolga Bugle*, vol. 3, no. 4). The suitcase that Dr. Flint was carrying at the airport contained seven eggs of this endangered crane and soon they would be in my custody. My mission was to accompany them on their journey westward to the U.S. by the fastest possible route so that they could be placed in a waiting incubator at the University of Wisconsin's Biotron facility in Madison.

Already the eggs had come a very long distance. Dr. Flint and a small team of Soviet biologists had collected them a day earlier in a remote region of arctic Siberia, and the first leg of their eventual 10,000 mile journey had taken them

Crane Contraband Arrives at ICF

The label "Imported from Hong Kong" on the bottom of a curio from the local gift shop may not have quite the ring it once had in this age of rapid transportation and mass production, but the International Crane Foundation received some imports recently from that tiny British Crown Colony which caused a great deal of commotion in this country and abroad. The imported items weren't the usual hand-painted wallhangings or gilded bamboo screens, but six live Whitenaped Cranes, one of Asia's largest and rarest birds.

The full story behind this unusual importation actually begins nearly two years ago when Hong Kong's Department of Agriculture and Fisheries contacted ICF about six cranes that they had recently confiscated from a local animal dealer who lacked the proper permits to hold the birds. The Department asked us for advice about placing the birds since the local bird park lacked the space to house them and returning them to the wild was logistically impossible. We quickly replied that our program to keep a "species bank" of the rarer cranes, including the Whitenaped Crane, could certainly use this new genetic stock.



With that, both sides initiated the steps to transfer the birds from Hong Kong to ICF in the U.S.

The steps proved not all that easy to initiate. Mindful of the continuing drain on the world's wildlife from commercial exploitation, the U.S. and many other nations signed a document in 1973 called the Convention on International Trade in Endangered Species of Flora and Fauna which attempts to protect rare forms of life by restricting their trade on international markets. The Whitenaped Crane, *Grus vipio*, appears on one of the lists of endangered species within the Convention. To buy, sell, or transfer this crane between member nations requires that the applicants obtain

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(Continued on page 3)



MILE-STONES

In Search of the Least-Known Crane

Prakash Gole peered through his binoculars with a sense of relief. About 150 feet in front of him a Blacknecked Crane stood up on its nest and, with its beak, carefully turned the two eggs and, with its feet before settling down on them again. For most of the month of May, Prakash, of the World Wildlife Fund - India, and some companions had been travelling the marshy plains high in mountainous Ladakh in northwest India seeking cranes. Finally they had found a nest. Yet their relief was tinged with apprehension, for in all that time they had seen only two other cranes; a pair, but not nesting this year. And they knew of only one other site where cranes might be found.

Prakash's search started auspiciously enough. On his arrival in Ladakh his inquiries yielded word of seven locations visited by the cranes in recent years, and of two other locations that held cranes in the 1930s. The first spot that he and his companions examined, Hanle', produced a pair of cranes. Hanle' is, in Prakash's words, "a wide plain overlooked by an impressive Buddhist monastery built on a hillock. The tiny Hanle' village nestles underneath the hill. Several small streams meander over the surface of the plain. The surface is saline, where not swampy, and it is covered with coarse grass. It is also very uneven, being covered with little knolls encrusted



A tribal from the Api-Tani Valley holds a dead Blacknecked Crane. Photo taken by Col. Tim Betts in the early 1950s. A recent expedition to this valley in far eastern India failed to find any of these cranes. The introduction of firearms to the area in recent years has apparently destroyed this local wintering population.

with soda, some of them even floating in the marsh. Here and there are found little puddles of brackish water, their surfaces covered with a thin film of ice in early May."

The very evening that the group arrived in Hanle', they spotted the Blacknecks. Local people informed the researchers that the birds had been present in the area for about a week, and had nested in this area in 1977. Soon the birds were observed performing a courtship dance: the male, uttering a short, soft call, began pumping his long neck up and down and tiptoed three or four paces ahead of the female, then, wings spread, came dancing back to her, still pumping his neck. When he came close to her, she responded with a similar up-and-down motion of her neck, but when he turned to stand beside her and pumped his neck again, she did not respond, and the two of them soon began feeding.

Eventually Prakash concluded that these cranes were not yet ready to nest, and he and his companions moved on to investigate the other possible crane areas. But one location after another failed to harbor cranes. Some looked unsuitable as nesting habitat - being more likely to attract birds on long feeding flights from other areas of migration - while others simply were not occupied this season. The most promising place, a group of lakes near the Indus River, lies right on the edge of territory claimed by both India and China, and it was deemed too dangerous to make any more than a cursory search of the area from a nearby hilltop.

Having examined all the sites but two to no avail, the expedition arrived on May 24 in the village of Chushul, located 14,200 feet above sea level in a vast sandy plain rimmed with mountains. The expedition had almost given up hope of finding cranes here also, when they sighted a pair foraging near a flock of sheep in a salt-encrusted marsh. The birds were extremely wary and fled when the researchers came close, alighting in a freshwater marsh completely hidden on all sides by high sand dunes.

Here in the middle of a shallow pool was a nest, a platform of aquatic vegetation plucked from the surrounding water and heaped up. Two

cream-colored eggs with brown blotches lay in the nest.

Prakash and his fellow researchers quickly erected a blind and began careful observation of the nesting pair. The male and female appeared to share the incubation duties quite equally, generally taking 1- to 1½-hour turns on the nest. They were secretive and almost always silent, as if they were taking every precaution to avoid drawing attention to themselves and their nest.

At times both parents would be absent from their eggs for long periods, but no predators were seen to attack the unattended nest. The isolated marsh was occupied also by three pairs of Brahminy Ducks, which raised an alarm at the least suspicion of danger, thus providing early warning for the cranes. The ducks also signaled an end to any threat by their resumption of normal feeding.

The last location on the list of crane sites also contained no birds. Prakash concluded that the movements of people and domestic animals in all of the potential crane habitat has increased since a previous survey in 1978, and that the cranes have apparently abandoned some traditional sites and withdrawn to the least disturbed wetlands. It is obvious that this crane needs complete protection in Ladakh. Prakash Gole recommends a number of actions:

1. Due to the species' rarity, it is almost completely unknown to the army and other government personnel and even to most Ladakhis. A poster depicting the crane and explaining its situation could be distributed throughout the region; the crane could become a symbol of Ladakh, and a mascot for the army in that region.
2. The Hanle' and Chushul marshes should be made sanctuaries, with guards posted there from April to August to study and protect the cranes. The actual nest sites should remain secret.
3. Pasturing of sheep in these areas needs to be restricted, but not entirely excluded, since the Ladakhi shepherds consider the Blacknecked Crane sacred and offer it a certain degree of protection by their presence.

With so few nesting pairs remaining in Ladakh, collection of eggs for captive propagation does not appear wise at this time. Such a program would become feasible if and only if the crane increases under careful protection. Special concern exists for the Blacknecked because its status in Tibet, the only other place where it nests, is entirely unknown to western scientists.

(Editor's note: It was recently reported to ICF that the eggs of the Chushul pair were destroyed and the female bird possibly killed. Clearly the Blacknecked Crane is losing its westernmost foothold in the Himalayas. Without immediate action such as that suggested above, it is likely that the Blacknecked Crane will disappear from India.)



A Blacknecked Crane in unison call posture at the Shanghai Zoo in the People's Republic of China. This photo was taken by John Day of the Bank of Chicago's Japan Branch during his recent visit to China.



Tasaday, at one day old. This is the first Eastern Sarus Crane known to have hatched in captivity.

Project Sterkh . . .

(Continued from page 1)

across most of Asia to Moscow where I was waiting. Their next trip would be slightly less lengthy, from Domodedovo Airport, a domestic airport, to the international Sheremetyevo Airport on the other side of Moscow, a one hour taxi ride. As we drove along the outer circle road connecting the two airports, Dr. Flint told us of the hair-raising helicopter ride he had taken during the egg collecting in Siberia.

"We didn't have too much petrol after we had collected the last of the seven eggs," he related, "in fact, in Russian helicopters there are three warning signs that the aircraft is about to run out of fuel. The last one, a loud buzzing, occurs just before the helicopter drops out of the air. We landed at the small airport just as the buzzer went off!"

Shortly before we arrived at Sheremetyevo, we decided to stop to pose for photos in the beautiful morning light. As we opened the suitcase for my first glimpse at the eggs, a loud peeping sound issued forth. "Good Lord, one is hatching!" I exclaimed.

"No, it is just talking to us from within the egg," Flint said hopefully. But as he turned the egg over, a large crack appeared on the bottom. **Crisis!** One egg had indeed pipped, a critical time in the hatching process. Flint whistled between his teeth and carefully closed the suitcase. Last year, during the same egg transfer, one egg had also pipped and died before it left Moscow. We could only hope that this year's chick would prove stronger and survive the next 20 hour trip to the U.S.

Six hours later, I was aloft on Aeroflot's flight no. 315 to New York, the suitcase on the floor in front of me. The pipped egg was still alive and cheeping, and it wasn't long before I attracted the attention of my fellow passengers. Everyone wanted to know where I had obtained the eggs and why I was taking them from the Soviet Union to the U.S.

I explained that the eggs were those of a very rare species of crane and that we at the International Crane Foundation hoped to hatch and raise the chicks from these eggs, forming a captive population. Eventually, the birds produced from these eggs would produce eggs which we would return to the Soviet Union.

After thirteen sleepless hours during which I acted as a crane midwife and juggled the eggs in the suitcase every hour to keep them all uniformly warm, the Aeroflot jet landed at New York. Although it was the Fourth of July weekend and the airport was jammed with people going everywhere for the holiday, Milly Zantow, ICF's administrator and miracle worker, had alerted the customs officials of my arrival and I was soon in a special room showing the eggs to an official from the Agriculture Department. When we opened the suitcase again, the pipped egg was still alive, but the chick had become tired of waiting for good hatching conditions and had started to turn in the egg, a sure sign that it would soon emerge, incubator or no incubator.

But my next problem was making a United Airlines flight at the opposite end of Kennedy Airport. It was now 6:50 p.m. and the flight left at 7:00. "No way you're going to make it," said the Agriculture agent flatly. "It will take you half an hour to reach the United terminal."

"I've got to," I yelled as I ran out of the office, "all other flights to Chicago are completely booked!" Perhaps it was the bizarre cargo I carried, or the agent's pity at my state of utter desperation, because out he ran as well, grabbed my arm, and hurried me through a special locked door. Parked along the road outside was his car and we both piled in.

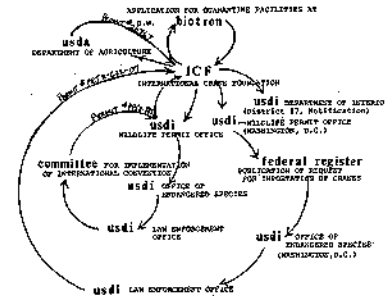
"We don't have time to take the usual roads," he shouted above the din of incoming planes, "we're going to have to take a more scenic route." Soon we were barreling down the edge of several runways, dodging enormous 747s as they taxied along the pavement. In no time we crossed the airport. Again I was ushered through a locked door and emerged behind the security check.

"Hey! Where do you think you're going?"

ICF's 1978 Breeding Season: Setback, Success

If any lesson was learned at ICF during the 1978 breeding season, it was that we cannot afford to be smug about the state of the art of crane propagation. Any self-assurance which may have been present at ICF after the wonderful 1977 breeding season (when we were almost 100% successful in raising the cranes we hatched) was totally dissipated by the reversals of 1978. First, a viral epidemic occurred in March which killed twenty-one cranes at ICF, mostly Sandhills and young birds hatched the previous year. Next came a generally undistinguished breeding season with low egg production, infertility, egg mortality, and weak chicks, some afflicted with a strange blindness which appeared almost total at hatching, but slowly lessened as the chicks became older. But not all was gloom. We did successfully raise chicks from four endangered species and also produced an Eastern Sarus Crane, *Grus antigone*

PROCEDURAL FLOWCHART FOR IMPORTING SIBERIAN CRANES



A schematic representation of the "tangled web" of applications and permits behind the importation of Siberian Cranes into the U.S. Importing any endangered species into the U.S. requires almost as much paperwork.

shouted a security guard from a crowded counter. The last sound I heard as I ran down the long carpeted corridor, the suitcase lying flat in my outstretched arms like some sacrificial offering, was the guard arguing vigorously with the Agriculture agent. But no one stopped me, and I made it to the gate — the last passenger to board the jumbo DC-10. Within minutes I was off to Chicago. For the first time since the whole wild trip had started fifteen hours earlier, I felt at ease. I felt wonderful. I felt like kissing the dark-haired woman sitting next to me.

The rest of the trip went smoothly. When I finally reached Madison, I was met by a group of ICF people and another Agriculture agent. The suitcase was opened. Within, looking wet but healthy and sitting atop a cashmere sweater that one of the passengers had loaned me, was a downy Siberian Crane. We immediately christened it "Aeroflot," the first crane to hatch at 30,000 feet — perhaps even the first bird to have that distinction.

Of the other six eggs, four hatched, but one of these chicks died when only a few days old. Still, we have four beautiful young Siberian Cranes, none of them showing any ill effects from their prenatal journey. Aeroflot, Eduard, Bazov, and Tanya join our four other Siberian Cranes at ICF. Someday, as soon as four years from now, the offspring of these captive cranes may be taking the same journey back to Siberia, perhaps the last and best hope for the future of their threatened race.

We are grateful to many people who assisted us with this phase of the Project Sterkh. Our special thanks go to the New York Zoological Society, the U.S.S.R.'s Central Laboratory for Nature Conservation, the U.S. Department of Agriculture, the U. S. Fish & Wildlife Service's Office of International Affairs, and the University of Wisconsin.

sharpi, perhaps the first ever hatched in captivity. The breeding season actually got off to an auspicious start. Zhurka, a female Japanese Crane on loan from the Moscow Zoo, laid her first egg March 8, with snow still on the ground. She continued laying at three- to five-day intervals until May 30, reaching a grand total of 16 eggs, eight times the number normally laid by wild cranes! Zhurka's history is as amazing as her reproductive capacity. She was originally displayed at the Peking Zoo in the 1950's and then presented by the Chinese to the Soviet Government as a gesture of good will in 1958. Last year, 19 years after they received her from Peking, the Russians loaned Zhurka to us in the United States, a commentary of sorts on the vagaries of political friendships on our troubled planet.

Altogether, 52 eggs were produced at ICF this spring and summer from seven species. Twenty-seven of these were fertile, from which we hatched 17 chicks. As we go to press, ten chicks remain: three Japanese, three Whitenaped, three Sarus, and one Hooded. We are also raising four Siberian Cranes which the Russians collected as eggs in the USSR and which we hatched at the Biotron at the University of Wisconsin in Madison.

One of the greater disappointments of the 1978 breeding season was that the one egg laid by Tex, our human-imprinted Whooping Crane, failed to hatch. Although the chick lived to a late stage of embryological development, it did not pip, and died several days before hatching. An autopsy conducted by the National Fish and Wildlife Health Lab in Madison showed that the embryo was malformed and probably would not have been a normal chick had it hatched.

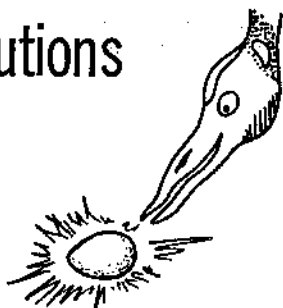
Eye problems also occurred in chicks hatched this year. Several of Zhurka's young appeared totally blind at birth and had to be force-fed until they learned to feed on their own. This was true of the first chick hatched this year, Yuri, and at least two other Japanese chicks. The blindness did not persist, however, and gradually the birds gained at least partial vision. We are not sure why this anomaly occurred, but we will experiment with turkey eggs this winter to determine whether the kind of fumigant we used this year might have damaged the eye tissue of the embryonic cranes. If, on the other hand, the condition is genetic, it will probably reappear next year when Zhurka's 1979 chicks begin hatching.

On the brighter side, ICF was successful in hatching what we believe is the first Eastern Sarus Crane, *Grus antigone sharpi*, ever produced in captivity. The Eastern or Sharp's Sarus is slightly smaller and more uniformly gray than the Indian Sarus, *G. a. antigone*. Its original range extended from Burma to the Philippines, although it appears to have had a very patchy distribution within the large area and was not reported common anywhere. Within the last fifteen years, however, this crane has extended its range into Australia where it has become locally common and even has started hybridizing with the Brolga, *Grus rubicunda*, once the only native crane in Australia. The hybrid, which George Archibald has christened the "Sarolga," is typical of most hybrids in that it blends features of both parent species. It is difficult to say what will eventually happen to the Eastern Sarus Crane in Australia. If the Sarolgas are fertile and show "hybrid vigor," they may eventually swamp both parent species and emerge as the only crane on the continent. If the hybrid shows decreased fertility or fitness, on the other hand, a reproductive barrier will probably develop between the Sarus and the Brolga and the two species will stay distinct.

Whatever happens in Australia, the chick ICF hatched this summer and named "Tasaday" is without doubt "pure" Sarus Crane since neither Painless nor Gloria, its parents, show any Brolga characteristics. We hope to continue to get fertile eggs from this pair in the future since they may be the only Eastern Sarus pair in captivity.

In summary, ICF experienced a number of serious setbacks this year in its breeding program, but we remain confident that the "bugs" can be worked out of the system and that next year we will be able to use the hard lessons of 1978 to improve our propagation techniques.

Contributions



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CONTRIBUTION OR LOAN OF BIRDS

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CORRECTION

In the Spring issue of *The Brolga Bugle*, it was reported that George Archibald's Korean study was financed by the Jersey Wild Animal Preservation Trust. The grant actually came from the Wildlife Preservation Trust International and the World Wildlife Fund. We apologise for this error.



A pair of regal Whitenaped Cranes, *Grus vipio*, stand alert at ICF. — Photo by Frank Scherschel

Crane Contraband . . .

(Continued from page 1)

permits from their respective governments.

The U.S. Government requires the applicant to show that the proposed use for the animals or plants will not be detrimental to the species' survival and that the country where the organisms have originated has no objection to the exportation.

ICF's application to import six cranes from Hong Kong was unusual in that the cranes did not originate in Hong Kong (see range map on page one) but were probably smuggled into Hong Kong from the People's Republic of China, perhaps for foreign exchange. ICF therefore had some difficulty complying with the requirement that the country of origin provide a permit for the exportation to the U.S. Because of this difficulty, an official from the Department of the Interior suggested that the birds be returned to China and released. This idea was dismissed as impractical by the Hong Kong Government since the People's Republic would probably not claim the birds originated within their borders, and no information existed as to the actual geographic origin of the cranes. The chance of successfully returning them to the wild therefore seemed nil. Eventually, after a good deal of extra paper work, telephone calls, and discussion, a permit was issued allowing us to import the cranes.

Today, the six birds are at ICF and are being carefully watched. We will soon be dividing the group into pairs for propagation purposes. Eventually we hope that offspring from these illegally-trapped birds will destroy the market for contraband cranes. For example, ICF will soon be sending a captive-produced Whitenaped Crane named Charlie to the Frankfurt Zoo in Germany to pair with an extra bird on display there. Charlie thus takes the place of a potentially wild-trapped bird and so indirectly benefits his wild relatives in Asia.

We would like to express our deep appreciation to Charles Sivelle, Dr. Ken Searles, the Hong Kong Botanical and Zoological Gardens, and the Hong Kong Agriculture and Fisheries Department for their assistance in bringing these cranes to ICF.

The International Crane Foundation is a registered, publicly-supported, non-profit organization which is dedicated to the study and conservation of cranes throughout the world. Saving cranes saves earth's vanishing wetlands.

MEMBERSHIP CONTRIBUTIONS

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Herbert Hadow, Joyce Haff, Jeanne Hageman, H. E. Haight, Teri Hall, Kimm Hamann, George Hanson, Beatrice Harding, Harlan Harrison, John Hartigan, T. L. Hartridge, Akio Hashimoto, Harold Hastings, David Hatz, Peter Hauver, F. Haverschmidt, John Hazelwood, Pamela Heaney, Varnon Hearst, Dion Henderson, Sally Mennen, Mary Hickey, Jame Hill, William Hirsh, Nicholas Houtman, Barbara Huber, Gordon Hutt, Lynette Iverson, Thomas Iverson, R. H. Jackson, Jeannie Jacobson, Japan Society, Henry Johnson, Chris Johnson, M. Johnson, Sylvia Johnson, Vanessa Jones, Mable Jonkel, Marvin Juljar, John Jung;

Herbert Kate, II, Carol Kauffmann, H. S. Kelly, Priscilla Kimberly, Greg Kindschi, David Kinnaman, William Kirtz, S. L. Kittsley, Ron Knapick, Norma Kopitzke, Donald Koskinen, Danman Kramer, B. H. Kriegh, Joseph Labus, Lakeland Audubon Society, John Lange, Eileen Lankow, Richard Lanman, Frank Larkin, Cheryl Lawson, Charles Leslie, Debra Leslie, Janet Lesuer, Rosalyn Levy, Emma Lewis, J. C. Livingston, John Lobaugh, Lodi Garden Club, Dorothy Lofdahl, Katherine Lofdahl, Charles Louch, John Louis, Paul Lyne;



A pair of nesting Blacknecked Cranes in Ladakh in northwestern India. These birds were extremely wary and Prakash Gole, the photographer, had to use a blind and telephoto lense to get this close to the birds.