

Siberian Cranes at Bharatpur

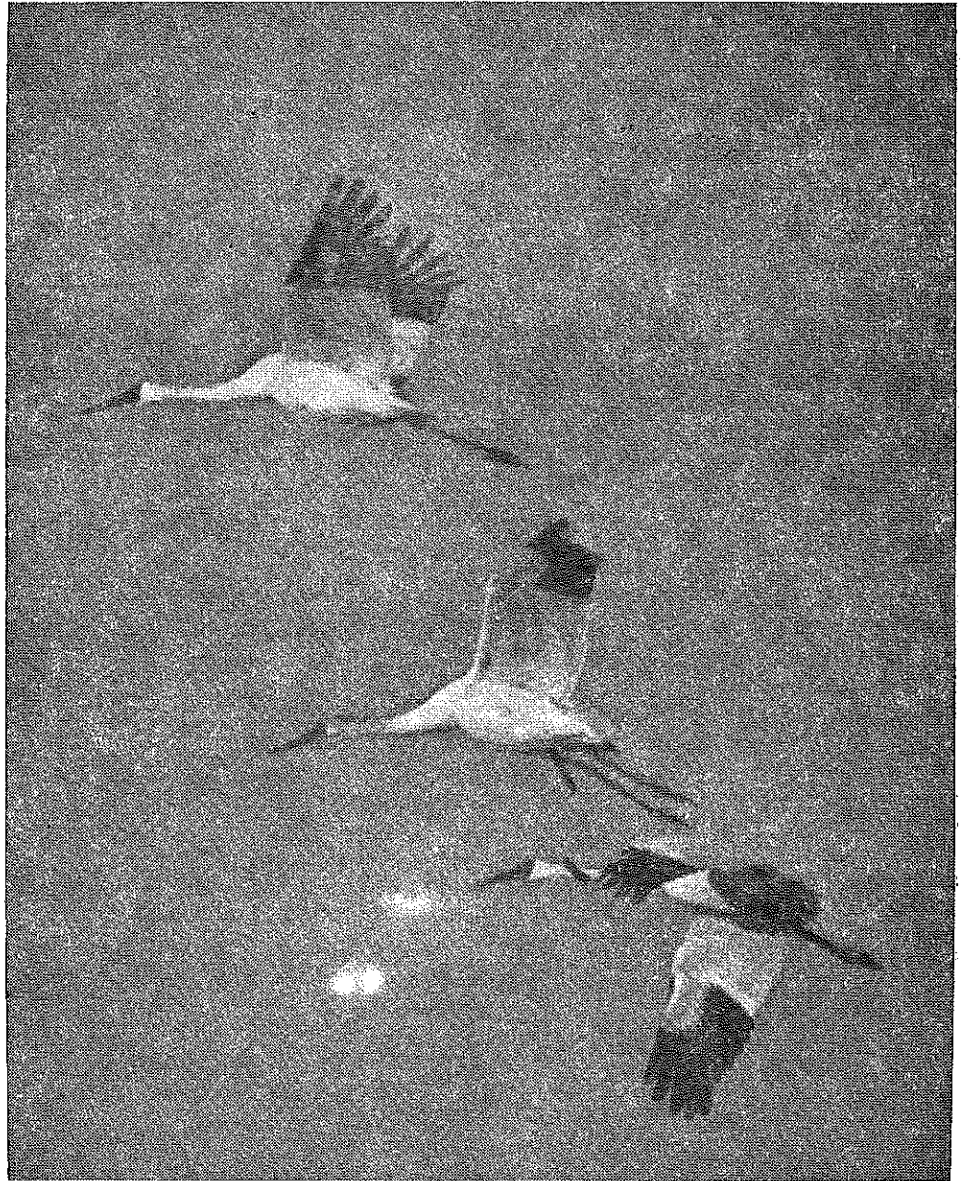
by Dr. Steven E. Landfried

In Uttar Pradesh, they are called "Tunhi" and "Chini kulang". In Bihar, it was "Burmuch". The well-known British student of birds, Allan Octavian Hume, affectionately used the term "snow wreath". Dr. Salim Ali reported that "Kare Khar" is used in northwest Pakistan. Russians called the white crane — "sterhk". Ornithologists know them as *Grus leucogeranus*. And in common English parlance, they are "Siberian Cranes".

India has long provided Siberian cranes with a refuge from the cold winter winds of breeding grounds along the Ob River in western Siberia. How long these birds have made their annual trek south is unknown, but an estimate of several million years would probably be safe. In light of this staggering length of time, it is sobering to think that human eyes may soon witness the tragic end of an era when Siberian cranes regularly arrive at the Keoladeo Ghana Bird Sanctuary in Bharatpur.

Siberian cranes are among the most endangered large migratory birds in the world. Although three wintering populations were estimated at 2,000 birds just two decades ago, projections within the last few months put their numbers at no more than 270 birds. Dr. Vladimir Flint, the leading crane expert in the Soviet Union, now believes that the eastern group — which breeds in the Yakutian tundras of Asia and winters somewhere in China — probably stands around 225. Unrest in Iran may bode ill for the small group of 8-10 Siberian cranes seen near the Caspian Sea in 1978. The remaining part of the western population winters in India. These birds have rapidly dropped from 77 in 1972 to a paltry 33 birds during 1979-80.

Relatively little is known about Siberian cranes. It was only a few years ago that Russian scientists first located the eastern breeding grounds in Yakutia. The western breeding grounds and the eastern



Siberian Crane family—among the most endangered large migratory birds in the world.

Pic. courtesy: International Crane Foundation

wintering areas have eluded researchers to this day. Until recently, the most extensive studies had been done by Hume from 1850-1880.

Hume's travels took him throughout northern India and his reports of Siberian cranes and specimens he took through hunting are still respected for their accuracy. Nearly a century later, Dr. Salim Ali wrote about Siberian cranes as part of his bird studies at Bharatpur. During the

winters of 1974-75 and 1976-77, Ronald Sauey (of the International Crane Foundation in Baraboo, Wisconsin) worked closely with the Bombay Natural History Society to conduct the first lengthy scientific studies concentrating solely on Siberian cranes at Keoladeo Ghana Sanctuary. The pioneering studies of the eastern breeding grounds began in the 1960s under the direction of Dr. Flint.

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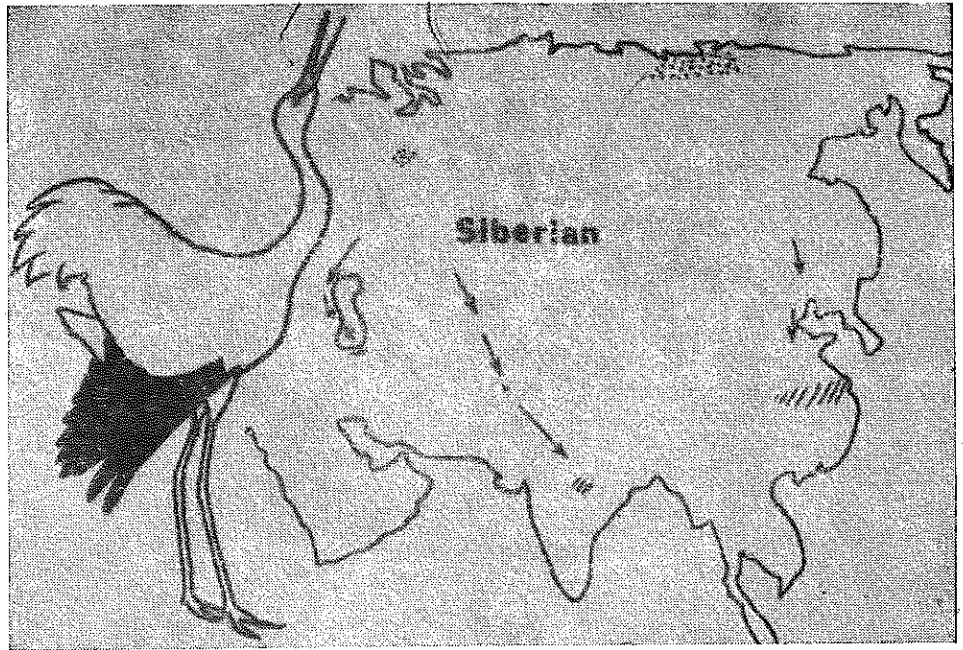
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What is known about Siberian cranes? They are beautiful, large white birds with black wing tips—which contrast with two bright yellow eyes and bare red skin on the forehead. Adults stand about 4 feet and display the longest beak of the 15 crane species. Very choosy eaters, Siberian cranes use the long beak to excavate their favourite food—nutritious roots of the sedge tuber *Cyperus rotundus*—from the mud of freshwater wetland areas. They defend breeding grounds in Siberia reported by Dr. Flint to be as large as 25 square kilometres. Predictably, this territorial nature sometimes brings them into conflict at the wintering grounds at Bharatpur with their large, more numerous cousins—non-migratory Sarus cranes.

Siberian cranes mate for life and reproduce slowly. The end of the spring breeding season finds a clutch of two eggs in most nests. While both chicks usually hatch, one hatchling is eventually lost—probably to sibling aggression or predation. Indeed, adults have never been seen at Bharatpur raising more than one chick. Although the life expectancy of Siberian cranes is uncertain in the wild, captive birds have lived over sixty years.

Several factors are believed responsible for recent declines of the Indian group. Increasing human populations here—and throughout their four nation migration route—have significantly reduced the availability of suitable wetland habitats. Hume reported sighting Siberian cranes at numerous *jheels* in north and north central India, but now Bharatpur is their only known wintering site.

Hunting in Afghanistan poses another serious threat. When Ron Sauey followed the Indian birds to Lake Abi-Estada (200 miles west of Kabul) in 1977, he photographed many Common cranes being sold for food in nearby village markets. Undoubtedly there have been occasions when nomads in the area have killed Siberian cranes for food or sale. Even if there were a way for these subsistence types to know that these great white birds are



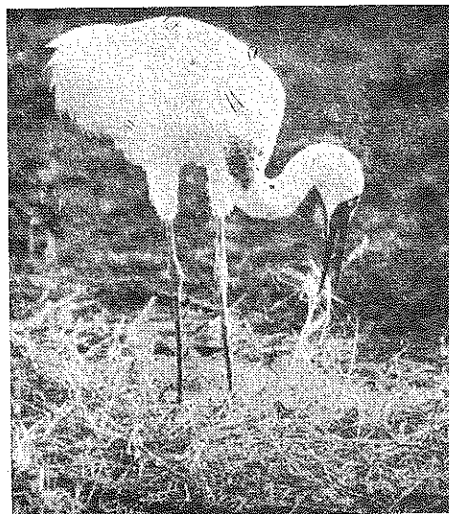
The Siberian Crane range map, showing breeding areas (dots) and three wintering grounds in Iran, India and China.

near extinction, the ravages of war probably causes them to get whatever food they can. Of course, the cessation of scientific activities by United Nations agencies in Afghanistan will not help the situation for Siberian cranes, or, wildlife generally.

Nature has not helped either. During the winter of 1979-80, the Keoladeo Ghana Sanctuary experienced a very serious drought. When the Siberian cranes arrived

over a period of time, they found it virtually impossible to dig the sedge tubers out of the rock-like ground. Within a few weeks, most of them abandoned Bharatpur. No one knows whether they were able to find satisfactory alternative feeding sites. As a result, some worry that the birds may have not been sufficiently nourished to withstand the difficult 5,000 kilometre migration.

Because the fate of the three wild populations is highly problematic, efforts have begun to establish secure captive populations. In 1976 and 1977, wild captured eggs—one per nest—were transported in 42 hours from nests in eastern Siberia, via Moscow and London, to hatching facilities in Madison, Wisconsin. Scientists at the International Crane Foundation (ICF) and the Soviet Union are now eagerly awaiting next spring's breeding season in hopes of the arrival of the first Siberian crane produced in captivity. Subsequent cooperative activities have seen ICF scientists assist the Russians in the construction of their own crane breeding centre, and the shipment of additional Siberian crane eggs to ICF's new branch in West Germany. In the future, captive produced eggs may be placed in the nests of wild Common cranes near the Oka



A Siberian Crane building a nest.
Pic. George Archibald/ICF

Reserve. Raised by foster parents, Siberian crane would probably be taught to eat a more diversified diet and to visit a wider range of habitats.

In the meantime, increasing attention is being given to the plight of the birds in the wild. Recent publicity in India and abroad has alerted conservationists and some governmental officials to the need for immediate action. Aerial and ground surveys have been suggested to investigate whether Bharatpur is indeed the sole remaining wintering site for Siberian cranes in India. Water management research at Bharatpur could improve the likelihood that adequate water would be available at the Sanctuary for the sedge tubers in the event of another drought. Public education programmes would assist monitoring activities and generally expand awareness of the ecological importance of wetlands. Cooperative efforts by World Wildlife Fund organisations in India and Pakistan during the migration periods could investigate reports that Siberian crane make stopovers in northwest Pakistan.

With the Russians apparently ready to actively search for the western breeding grounds next spring, Afghanistan is clearly the weakest link in the chain of survival for Bharatpur's Siberian cranes. Indeed, war and the demise of scientific field activities have created seemingly insurmountable obstacles to any attempts to reduce hunting pressures there.

Nevertheless, the bleakness of the situation should not cause those in India, and other countries, to ignore opportunities to initiate constructive conservation efforts. After all, the Whooping crane hit a nadir of approximately 20 birds in North America during the 1940s before intensive human intervention drastically curtailed hunting pressures and paved the way for their current recovery. With good luck and hard work, a similar scenario might be repeated for the beautiful Siberian crane.