

## Back from The Brink

Whooping cranes have been moving toward extinction ever since the early Pleistocene age that spawned them a million years ago. When covered wagons were pushing westward across the United States, there were no more than 1,000 of the great white birds in the world. By 1945, only 22 of the rare giants were left to winter at the Aransas Wildlife Refuge in Texas.



Luther Goldman

From a long neck, a mighty whoop.

So, when these 22 survivors headed north that spring for their nesting grounds somewhere in Canada, conservationists embarked on what was to be a 10-year search for the birds' summer homes, which were finally discovered in isolated, rugged territory in Canada's Wood Buffalo Park, east of Alaska.

**The discovery**, which spurred biologists' hopes of saving the whoopers by learning more about the natural and man-made sources of their demise, came none to soon. While scientists—in 1955—were thinking about long-term projects on the cranes' habitats, the Air Force was thinking about exploding flash bombs close enough to the crane's wintering place in the Aransas Refuge to wipe it out as a sanctuary. Pleas from the Canadian ambassador to the U.S. Department of State, however, lead the Air Force to change its mind.

Since then the world population of whooping cranes has climbed precariously to 55. But for the first time, there is real hope of preserving the species. Scientists have found that eggs taken in the wild can be hatched in captivity.

And, because the birds apparently reproduce prolifically if they are born and bred in captivity, scientists think they can cultivate large numbers of whoopers by transporting a few eggs a year from their nests in the Canadian wilderness to civilization.

Six eggs were stolen from their mothers' nests about a month ago by U.S. and Canadian biologists who flew them to the Patuxent Wildlife Research Center in Maryland. Plans call for stealing more eggs from family nests—about six a year—according to Dr. Ray Erickson, project director.

Scientists were alerted to nests' locations by a scouting team who had run a helicopter check of the Wood Buffalo area about two weeks before. The thievery took about 15 minutes per egg as scientists swooped down to the nest, grabbed one of two eggs, and then disappeared as fast as possible to avoid upsetting adult cranes any more than necessary.

Apparently the shy parents, who sometimes require up to 700 lonely acres of wilderness to themselves before they will even build a nest, then returned to the remaining egg which will hatch normally if all goes well.

Meanwhile, each stolen egg was carefully slipped into a styrofoam pocket nestled among heaps of hot water bottles in an ordinary suitcase en route to portable electric incubators.

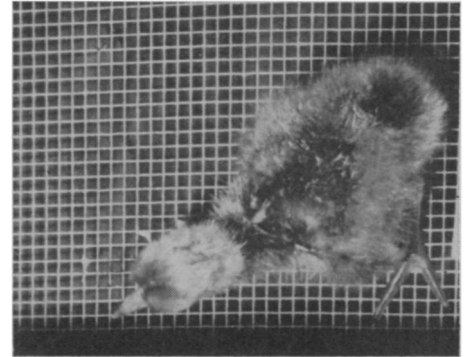
One chick hatched prematurely during the flight between Canada and the Patuxent Center and died, probably from lack of oxygen at high altitudes. The others hatched in carefully controlled incubators in Maryland.

Chances of increasing the cranes' numbers are good because they reproduce in captivity—especially if they are born and bred in captivity. However, one female whooper named Rosie, captured when she was already grown, has taken 10 years to lay an egg. Two weeks ago she laid her first two eggs at the San Antonio Zoo and the chicks ought to be pecking their way through their shells around the Fourth of July.

**The five baby cranes** at Patuxent will not mature sexually for five years, and their reproductive cycles may not hit full swing until they are 10 or so, but after that it is possible that the females will lay more than 10 eggs a year for most of their 35- to 50-year lives. However, at this point the sex of the chicks is undecipherable and will remain so for a year.

Their upbringing will be carefully controlled. They live in an eight-foot

enclosure with a "No Visitors" sign on the door. Inside, translucent partitions separate one chick from the other—they would kill each other otherwise—and cut-out figures of adult whoopers with white feathers and black-tipped wings line the walls. Biologists who enter the enclosure robe themselves in shapeless white gowns to prevent the young from concluding that their mothers are humans. An adult sandhill crane, a close



Luther Goldman

Baby whooper—the key to survival.

relative, is there to show them, by example, what they're to be like when they grow up, Dr. Erickson says. "We don't know that such precautions are necessary, but we're not taking any chances."

### SOLAR ASTRONOMY

## A Rare Flare

The first warning had come the week before with the sighting of an unusually large cluster of sunspots, but the actual alert didn't sound until the sun rose over the southwestern U.S. on the morning of May 23. As the fiery disk appeared on the horizon, a continuous stream of low-frequency radio waves was detected by scientists at the Space Disturbance Forecast Center in Boulder, Colo. For days they had been keeping the sun under the scrutiny of the "White Light Patrol," with a four-inch telescope constantly trained on the solar disk; now they knew something was about to happen.

Patrick McIntosh, an astronomer who spends three-quarters of his time keeping an eye on the sun, went about his morning business as usual, then went home for lunch. On the way back to work, he stopped to glance through a six-inch reflecting telescope that he keeps at home. What he saw sent him hurrying to his post.

The sight had been a rare one—fewer than two dozen like it had been reported in the history of astronomy—but McIntosh knew instantly what it was. Standing out against the sun's image, then fading away as he watched, was a spot of brilliant white light. This