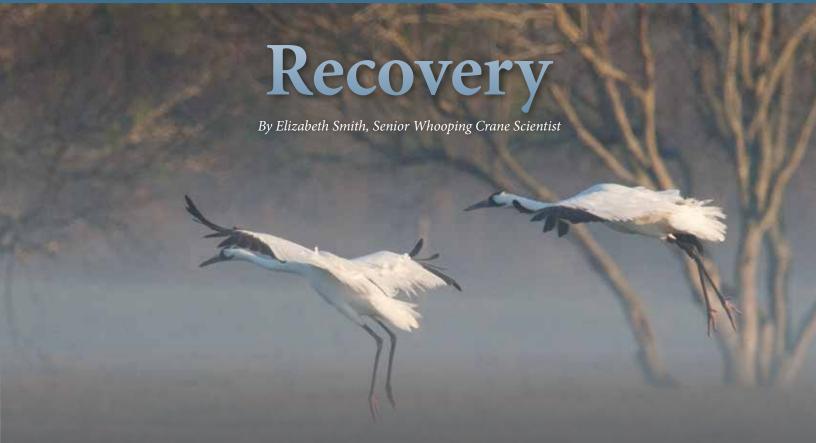
INTERNATIONAL CRANE FOUNDATION

The Saving cranes and the places where cranes dance

Volume 43, Number 4 November 2017



ugust is the time of the year when we are busily working on reports and plans in our Whooping Crane Program office in Rockport, Texas. This year was to be particularly special, as we had just secured larger office space nearby. We were outgrowing our office and needed more space to house three new positions we planned to hire. We were anticipating another good year for the cranes when they returned from their nesting grounds in Canada in November. Plenty of blue crabs were available and inland ponds were full of rainwater.

This routine was interrupted suddenly on August 22, when a tropical depression crossed into the southern Gulf of Mexico.

Predictions of it strengthening into a hurricane were imminent, as well as the likelihood of it making landfall somewhere along the Texas coast. By Thursday, the now Category 2 storm Hurricane Harvey was making a beeline toward Rockport. Although I thought it would veer eastward, I decided to haul our research boat from the water and secure it next to the office. I loaded cameras and computers into my car and moved other items to the center wall. I picked up my sister from her home in Rockport and began preparing my own home and property for wind and rain.

Continued on page 2



North America's Whooping Crane is the rarest of all cranes. They are making a steady yet fragile comeback from the brink of extinction. Recovering from a low of only 16 individuals in the U.S./Canadian wild population in 1942, to just over 400 birds today, the Whooping Crane's recovery is one of conservation's most inspiring stories. *Photo by Mike Endres*







Continued from page 1

By Friday morning, I knew we had to leave the coast. I felt apprehensive as I drove through the outlying bands of rain toward San Antonio.

Harvey made landfall directly over Rockport and Fulton, Texas as a Category 4 hurricane, and the devastation was immense. As I watched online videos prior to returning, I felt a surreal disbelief, even denial, that my community and landscape was decimated. It was days before we were allowed to return carrying proof of residency to gain access to our homes and to survey the damage. The first stop brought relief and gratitude. I found minimal damage to my home and a dozen strangers from a nearby town clearing fallen trees from my property. Unfortunately, my sister's house was damaged beyond repair. Everywhere, hundreds of volunteers cleared debris and delivered water and home-cooked food to each house.

My next stop revealed that our office complex in Rockport was completely destroyed. Luckily, the roof had fallen in such a way that it protected some of the office contents. The exterior wall had fallen over the boat, shielding it from flying debris. It sustained only minor damage. Our Immediate Response Team was activated at Headquarters in Wisconsin. We began planning our recovery and help for our partners. These virtual meetings buoyed my spirits and kept me moving. Soon our North America Program Director, Tim Grunewald and Senior Facilities Manager, Tom Davis arrived from Wisconsin with equipment, supplies, and much-needed energy that I

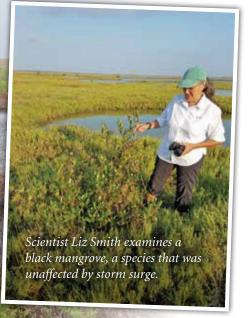
Freshwater pond vegetation "burned" by saltwater storm surge.

realized was dwindling in me. Their presence was uplifting. Together we salvaged as much as we could from the ruined building. Two months later, our communities are beginning to repair and rebuild. As we hire our new staff, our partners have offered temporary office space in Corpus Christi.

We are now assessing the hurricane's impact on the natural environment, which fared much better than the built environment. New leaves are appearing on our Live Oak trees. Grasses and forbs are covering the bare ground. The coastal marshes that comprise most of the wintering Whooping Crane habitat are fairly intact. However, storm surge filled the freshwater ponds with saltwater. Low salinities in the bays may affect the abundance of blue crabs in shallow areas. Wolfberry, another primary crane food, has responded to the abundant rain by producing fruit well before the cranes arrive.

Now I am busy with developing research plans to assess the response of the cranes to the hurricane, ordering replacement equipment and supplies, and ensuring our Texas team will be ready for the coming winter season. I am deeply grateful for the generous and rapid support of our members, and the foundations that help us continue our important work. More than ever, I will welcome the return of the

Whooping Cranes this year as assurance that both our recoveries will continue.



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The Bugle is the quarterly newsletter for members of the International Crane Foundation. ICF was founded in 1973 by Ronald Sauey, Ph.D. (1948 - 1987) and George Archibald, Ph.D.

Editor: Betsy Didrickson

Bugle comments or questions? Please write Betsy at Bugle@savingcranes.org or P.O. Box 447, Baraboo, WI 53913

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Student or Senior Citizen	\$25
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Notes from the President

By Rich Beilfuss

Finding Balance

ride a unicycle and often find myself thinking about balance. I've learned I can do all sorts of surprising things when firmly balanced on one wheel... playing hockey, riding marathon distances, or winding down a mountainside on bumpy dirt trails. Conservation is likewise about finding balance in challenging circumstances – that elusive balance that results in win-win solutions for people and wildlife, and thereby builds broad public support for conservation.

For 44 years, the International Crane Foundation has worked in some of the poorest places on Earth, like the farmlands of East Africa and South Asia and in some of the most rapidly developing places, like northeast China and the coast of Texas. Across all these lands, we have learned that genuine conservation solutions require realism and pragmatism, and good ideas emerge from

the left and the right of the political spectrum. In some places, our work has led to strictly protected areas. In other places, we've helped communities successfully market natural products to improve their livelihoods.

This October, I traveled to Namibia to share lessons from our long-term experience leading environmental flows initiatives around the world. Environmental flows describe the quantity, timing, and quality of water flows required to sustain freshwater and estuarine ecosystems

and the human livelihoods and well-being that depend on these ecosystems. We are working to implement environmental flows in places as diverse as northeast China, coastal Texas, and southern Africa. Our work in the Zambezi River Basin, for example, has taught us that healthy, wellmanaged rivers can support rich biodiversity while providing a host of valued natural resources and supporting resilient livelihoods and sustainable economic growth. The seasonal ebb and flow of the Zambezi is essential to meet the breeding, feeding, and roosting requirements of Wattled Cranes, Saddlebill Storks, Kafue Lechwe, and many other species, and give rise to productive fisheries, agricultural fields, and grazing lands. At the heart of every successful environmental flows project

is the need for balance – balance

between people and wildlife, between the demands of upstream and downstream water users, and between the contrasting world-views of river engineers and river ecologists.

Back at home, we've been reaching out to political leaders to provide a balanced perspective on the policies and regulations that wildlife most depend on. We know that the Endangered Species Act isn't perfect, but it remains our most powerful tool for biodiversity conservation. We know that not every wetland is created equal, but many wetlands are invaluable for fish and wildlife and for storing and purifying our waters. Regulations protecting wetlands and clean water help us safeguard these values for today and tomorrow. To keep our abundant Sandhill Cranes flourishing

on farmlands, we must find new ways to counterbalance their impact on the farmers' bottom line. We are working with state representatives across the political spectrum to help compensate farmers for their investment in Avipel, the non-toxic seed treatment we helped develop that prevents cranes and other wildlife from damaging new corn seedlings without harming them.

To read more about how we promote balance in all our work, I am pleased to announce the publication of our 2017 Annual Report. I

hope you will enjoy this collection of highlights from 2016-2017. More importantly, I hope you are proud of the investment you've made. We are diligent with your investment, as demonstrated by our recent achievement of GuideStar's 2017 **Platinum Seal of Transparency**. GuideStar is the world's largest source of information on nonprofit organizations. We are steadfastly committed to operating at the highest standard, so we can make the greatest difference for cranes and the places where cranes dance. Thank you for trusting the International Crane Foundation to bring you a balanced perspective.

The annual report is available to download at www.savingcranes.org/annual-report



Dear Conservation Hero:

e all have many heroes in our lives – from those who inspire us with courageous action in dire circumstances to those who capture our imagination with new frontiers of exploration. But I have a special place in my heart for the unsung heroes who are doing great things, day in and day out, to make the world a better place.

Some of my heroes are wading through deep crane marshes in Africa and Asia to protect nests. Some are working the halls of Congress to secure important protections for wildlife and wild places. And some are making all of this effort possible through their generous support. My heroes are conservation heroes.

Cranes are one of the most endangered family of birds on Earth, and it takes many hands to save them. Thanks to conservation heroes like you, we are making a difference for cranes and the wild places they need. Here's how...

In the aftermath of Hurricane Harvey in Texas, your generosity now supports our Senior Whooping Crane Scientist Liz Smith and her team as they work to ensure that Whooping Cranes have sufficient winter habitat on the battered Texas coast.

In Zambia, you are helping us solve another crisis – the widespread poisoning of Endangered Grey Crowned Cranes, vultures, lions, and many other species around South Luangwa National Park.

In Mongolia, you are helping us find meaningful solutions to the impact of heavy metals and organic pollutants that threaten many species, including declining White-naped Cranes.

By supporting our efforts across Asia, Africa, and North America, conservation heroes like you are saving some of the most beautiful and important places in the world. Your continued support ensures fellow heroes will keep fighting for the future of cranes and all we hold dear. We hope you will consider a special year-end gift, at a time when your support has never been more important.

With sincere thanks,





These examples illustrate the many ways we use your gifts to achieve our mission. We can't do it without you. Please consider increasing your donation this year so we can continue our vital and cutting-edge work.

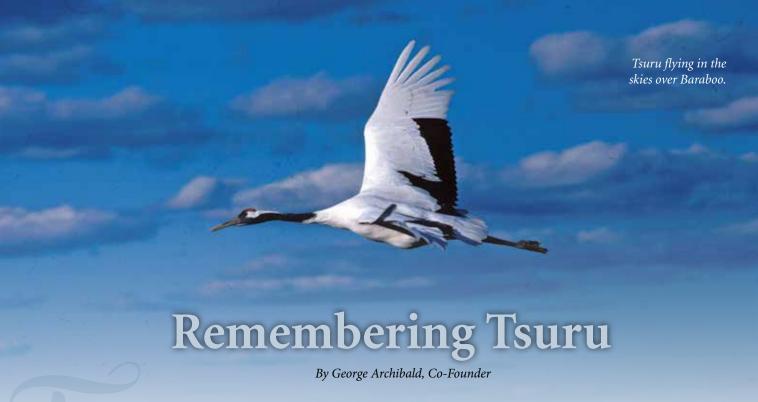
- \$5 Crane comic book for a student in Africa to learn about cranes and wetlands
- \$15 Printing 50 hunter education cards for
- \$25 1,000 crickets to feed chicks
- Cost to build a crane crate
- \$100 Daily cost of feeding crane chow to our captive flock
- \$125 Cost to keep each of our East African team on the road each month
- \$150 Tripod
- \$200 GPS unit to locate cranes in the field
- \$360 Transmitter data for one crane for a year
- Spotting scope
- \$500 A Whooping Crane education trunk
- One pair of binoculars for international field work
- \$800 A motorbike in south Asia for field staff or
- \$1,000 Camera needed for field crane monitoring on five continents
- \$1,500 Whooping Crane outreach billboard for three months
- \$2,500 Bird freight for a year
- \$4,000 Crane transmitter
- \$5,000 New camera for Crane City

Our ultimate wish is for a world where people and wildlife coexist and thrive. Thank you for your generosity. You are our hero!

WAYS TO GIVE

Call: 608-356-9462, ext. 807 Donate at: savingcranes.org, or Return the envelope in this issue!

Use our Double the Donation website widget to see if your employer will match your gift! www.savingcranes.org/support-icf/matching-gifts



Lulu, mother of Tsuru.

The International Crane Foundation "hatched" in 1973. That same year, we received an elderly male Red-crowned Crane named Phil from the Philadelphia Zoo. Phil was not in great shape. One of his wings was injured years before and was detached from the socket and dangling. We also brought in an elderly female named Lulu from Honolulu. They liked each other and soon became the only couple of their species

in the Western Hemisphere. Despite their physical challenges, Lulu laid two clutches of two eggs each. She was so arthritic she could not sit on her nest. She crouched over it and the eggs dropped some distance to a cushion of soft straw. Unfortunately, those eggs were infertile. The next spring, we tried again with artificial insemination. The first clutch was infertile. To our surprise and delight, the second clutch hatched. These were the very first chicks hatched from eggs laid at the International Crane Foundation. We called them Tancho and Tsuru, which in Japanese means Red-crowned and Crane, respectively. Unfortunately, Tancho died after several weeks from a genetic issue, but Tsuru thrived. He developed into a handsome male and was our pride and joy.

In the early days, Tsuru lived in a large flight-netted enclosure at our old farm property. He later paired with a female named Abs. Abs hatched in 1977 through artificial insemination. She was named for American Breeders Service, a company that

specialized in bovine genetics and artificial insemination. They advised us on the management of artificial insemination of cranes. But Tsuru did not need our services. Over the years, he and Abs produced 18 offspring through natural breeding.

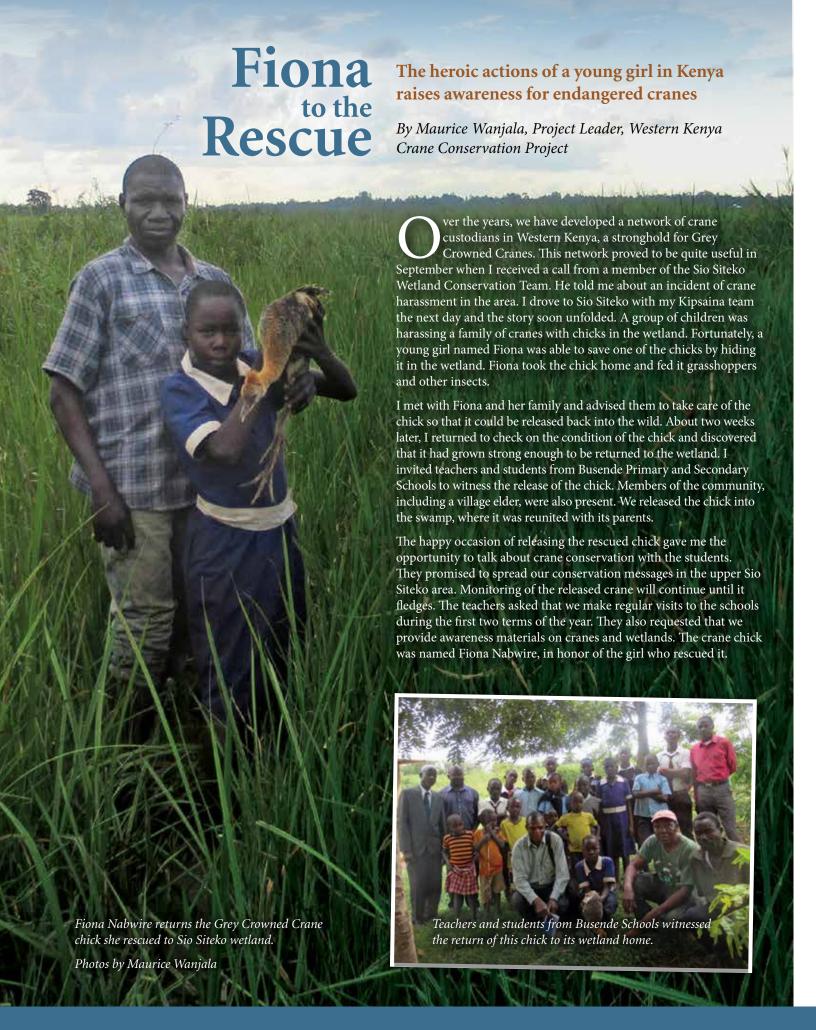
During those years on the old Sauey farm, one of my greatest joys was releasing Tsuru for a daily flight in the sky over the farm. A Red-crowned Crane in the blue sky with a snow white body

> contrasted with black neck and secondary flight feathers is poetry in motion. One day Tsuru joined a flock of migrating tundra swans and I thought we would lose him. After a short time flying at the end of their "V," he broke ranks and returned for breakfast. Tsuru was such a special bird.

> Two months ago, at the age of 42, Tsuru passed away. Red-crowned Cranes in the wild in Japan seldom live beyond the age of 20. Doubling that figure is a tribute to the excellent care we give our cranes. Tsuru made a great contribution to his own species and also to the Whooping Crane. Every spring since 1990, we trusted Tsuru and Abs to incubate a sequence of Whooping Crane eggs. Embryos that have natural incubation tend to be stronger than those incubated in an electric incubator, but there weren't enough Whooping

Cranes in captivity back then to incubate the eggs. Tsuru and Abs got the job done for many years. I rejoice in the life of Tsuru, and I feel very sad at his passing. He was with me almost from the beginning. I'll never forget his feisty personality and the memory of him trailing those swans and then flying back when I called.

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Born to Be Wild

PARENT-REARED WHOOPING CRANE RELEASE



Juvenile Whooping Cranes 36-17 and 37-17 are easily identified by their cinnamon-colored feathers. Their role model adult Whooping Cranes are parent-reared chicks that were released last year. Photo by Hillary Thompson

Recovery Team to "parent-rear" as many chicks as possible and minimize interactions with human handlers during the captive period before they are released. Because there are only a small number of suitable Whooping Cranes in captivity to raise the chicks, this method is not as prolific as using incubators and human caretakers.

Last year, we released the first group of 12 Whooping Crane chicks raised entirely by their own species. Their release areas were carefully chosen to be near wild Whooping



A female Whooping Crane chick spreads her wings in central Wisconsin. She and another female were released near two male Whooping Cranes. Photo by Sabine Berzins

Cranes that might serve as role models or even foster parents. These young Whooping Cranes bonded and migrated with older cranes. Eight of them are still alive, which is encouraging so far.

All but one of this year's cohort of 11 parent-reared chicks were raised at Patuxent Wildlife Research Center in Maryland. They were released, one or two at a time, across four counties in Wisconsin where appropriate role models were identified. Our staff and interns kept an eye on these interactions during this critical time and observed some promising natural behavior. The first two chicks released were seen imitating the dancing of two adults. Later, two parent-reared cranes from last year accepted two released chicks. They successfully chased off a coyote while the chicks watched. Observations like these give us hope that they will learn survival skills from the adults. We will continue to track and monitor their progress when they migrate. The information we collect from these releases will help us learn more about how chicks fare in the wild, and whether their rearing method is a factor in their survival.



WHERE DO CRANES LIVE?

This question is more complicated than it seems, but we're happy to announce we've consulted the experts, analyzed the satellite tracking data, talked to local people, scrutinized banding studies, and finally **created a new set of range maps!**

The last comprehensive set of crane range maps was completed in 1994. That was a long time ago. Crane populations, distribution, and technology have changed since then. Building on decades of research, we have new range maps for the 15 crane species created on behalf of the IUCN Species Survival Commission Crane Specialist Group. The maps represent the combined knowledge of experts throughout each species' range. The new maps were prepared for the updated global Crane Conservation Strategy that will be published in 2018. Until then, you can view them on our website at www.savingcranes.org/where-do-cranes-live/

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International Crane Foundation

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