

A Life Ended Too Soon vs. The Consequences of Inaction

A message from Bob Chastain, President and CEO of Cheyenne Mountain Zoo

I am writing you today with a multitude of mixed emotions. If you have been following our work here via our newsletter or social media, you may know that we have been planning for an artificial insemination (AI) procedure on our 9-year-old female tiger, Savelii.

Prior to our plan for AI, we had been working for several months to get our male, Chewy, and Savelii into a safe, natural breeding situation. Natural breeding for tigers can be precarious, because the breeding behaviors are often aggressive, including the male biting the back of the female's neck. When those natural breeding introduction efforts failed, we decided on artificial insemination as the safest way to safeguard this amazing species of Amur tiger from extinction. Numbers in the wild continue to be treacherously low at around 500. The numbers in human care, at zoos and aquariums accredited by the Association of Zoos and Aquariums (AZA) in the U.S. and Canada, hover near just 100 individuals.

On Thursday afternoon, we lost Savelii. She passed due to complications during recovery from this important artificial insemination procedure. Due to the global importance of this procedure, seven veterinarians were on hand for the procedure, as well as reproductive biologists, and representatives from three AZA-accredited zoos and one university. It was an important step forward for a species near the brink of extinction – it was requested and approved by the AZA Tiger Species Survival Plan and was funded in part by a federal grant from the Institute of Museum and Library Services. Much hope hinged on the outcome of this procedure.

If you're familiar with our Cheyenne Mountain Zoo Family, which is what we call ourselves, you know that all animal deaths have a profound impact on the keepers who spend their lives caring for them every day. A death like Savelii's can be more soul-shaking than others, which are often preceded by illness, chronic medical issues or advanced age. I had a private conversation with Savelii's keepers on Friday, where there was serious talk about how these events can change the course of a person's career, as they process such difficult losses. Our talk then shifted to the big picture of how we can make this death meaningful in the plight of wild tigers and the tigers in our care. The loss of individual animals, especially one as spunky and playful as Savelii, is deeply sad. Savelii will be missed immensely. But our sadness is not only for the loss of a beautiful individual, but also sadness for the loss suffered for the Amur tiger species as a whole.

As caretakers of endangered and threatened species, we have to walk a fine line between doing the right things for the individual animals in our care, but also making hard decisions for the future of the species, both in the wild and in human care.

I have spent my life trying to "do good" in the world, and what happened Thursday was yet another turning point for me in this life-long fight to save wildlife.

At 3:22 p.m. on Thursday, I had just left a post-surgery debrief with the reproduction team, and stopped by the offices of the Zoo's architect and landscape architect to check on the designs of our next big project at the Zoo, when my phone and radio began to light up.

Savelii was in danger.

When I arrived on the scene, I saw professionals from all over the Zoo doing the most difficult parts of their jobs. The scene was surreal. There were vets pushing life-saving drugs, vet technicians managing the supplies and drugs needed, keepers standing by shift doors, safety officers, a behavior manager and more. They were working with a singular goal, but sadly, without success.

In the moments after she passed, I approached Savelii's side to touch her as she slipped from this world to the next. I thought to myself: "This is a tiger." "This is a tiger lying here." After all these years, what we do here still amazes me. I looked at her long and amazing body, her huge 2-inch-long white teeth, and her pie-plate-sized paws. I saw her hair was shaved for the surgery site. There, on her skin, were the stripes that were once hair. The same stripes you see on their fur translate all the way through the skin. They read in tones for black and a blush pink. I don't know why that mattered in that moment, except that animals and nature are amazing and magical. It was like seeing the answer to one of life's questions. It's an age-old question that children have – "Do the stripes on tigers and zebras start at the hair or the skin?" Somehow, I was privileged enough in this odd moment to see the answer first-hand.

In today's uber-sharing, social media environment, all of our hard decisions are on display for everyone to see and second guess. In this case, the cost of our actions extracted a genetically valuable female tiger from those who loved her here at CMZoo and from the world. This is easy for everyone to see. What is less easily seen is the cost of inaction. I would like to lift the curtain, and give you a look at that steep cost, as well.

Last year, there were 49 breeding recommendations for all three AZA-managed tiger subspecies - Amur, Malayan and Sumatran. Only three litters were born, and of those, only two litters survived. This means that only six tiger cubs were added to the entire AZA-managed tiger population that includes three subspecies. Eleven tigers died from old age and other causes that year, so overall, the tiger population shrank.

Also, the world is behind the curve in the research needed to save these three subspecies. It's odd - while science has the ability to take an egg from an individual valuable cow, fertilize it, and place it in another female to have genetically viable offspring, the research isn't advanced enough to effectively do it in tigers. If a female cow had died Thursday, and her eggs were harvested, as we did with Savelii, it is very possible her offspring could be running around next winter. Based on today's knowledge, the chance this will happen for a tiger is low, but may be more likely in the future, if this work continues.

The loss of Savelii is a tragedy for our staff, for her keepers, and for our community. However, the tragedy goes far beyond that. As you read this, there are thought to be only about 500 Amur tigers left in the wild. That subspecies is literally disappearing, and yet the death of Savelii may get more attention than that crisis. That is why our work in educating people is so important, and we need to continue to take action.

Sometimes the test of a decision is, "Would you make it again?" While I think about this tonight, with the loss so fresh, the real answer is, "I don't know." But what I do know is that housing tigers is not

enough to save them. In a national study of the top 20 animals people most love, from whales to elephants, tigers were number one. And yet, they are slipping through our fingers.

There are two things I will not forget from this experience. The first is, when I asked the reproductive biologist how to explain to our guests why a non-accredited facility like the one popularized on TV last year can produce so many cubs and we cannot, his answer summed up the situation. "We could breed enough generic tigers to the point where every exhibit is overflowing, and to the point of overcrowding. The problem is that the exhibits would be full of brothers and sisters and cousins, and when you have big goals like preserving 90% genetic diversity over 100 years, you can't settle for an easy win." AZA-accredited zoos are in the fight to save tigers, not profit from tigers. If you settle for this easy breeding, when the wild population gets so low that we must cross-foster in genetic material from animals in human care to animals in the wild, you will have no valuable genetics left to contribute.

The second is a conversation I had with the expert team just before Savellii coded. Things had gone well, the procedure looked like a win, and all was calm. The reproductive biologist thanked me for having the courage to go forward with the procedure. He has a difficult time getting enough participants to do the research needed to catch up with the cattle industry, even though time is slipping away. Ten minutes after this conversation, Savellii coded and was gone, and the cost of the research was clear. It is hard to remember in times like this, when you lose something you love, that time is already running out for tigers, and while it's a tragic loss, the real loss is happening every day.

In the wake of Thursday's tragic loss of Savellii, I want to offer you an opportunity to do good in her memory. As I said, the math for tigers is not looking promising. At only 107 Amur tigers in AZA's U.S. and Canada facilities, and about 500 in the wild, the time to act is running out.

Therefore, in an effort to have something positive come from the loss of Savellii, Cheyenne Mountain Zoo, members of our executive team and our active board of directors will offer a \$34,000 community challenge. We will match each dollar raised up to \$34,000 to go directly to tiger conservation. With your help, this could grow into a \$68,000 contribution, which is significant. As we quickly mobilize this effort, we will be looking externally for the most effective organization to put these dollars to work for tiger conservation, and I will keep you informed of our search.

Please join me in supporting tiger conservation, at any amount. You can give at cmzoo.org/tiger. Maybe this is not the time for you to help, or maybe you have other issues you support, and that is amazing. We all must simply do our part for what we believe in.

Warmly,

Bob