

## Milwaukee Zoo recording big cats for study on tiger language

March 16 2016, by Meg Jones, Milwaukee Journal Sentinel

---

Strannik - all 422 pounds of him - laid his ears back and chuffed as breakfast in the form of ground beef mixed with vitamins was passed through the bars of his cage.

Earlier, he had growled at the Milwaukee County Zoo's other tigers. While human zookeepers could only guess, his furry striped compatriots knew exactly what he was saying.

And it was all captured on a small recorder with a microphone pointed toward the zoo's new male tiger, who arrived in Milwaukee two months ago from the Toledo Zoo.

Chuffs, roars, growls and whines - they all mean something in Strannik's vocabulary as well as in the voices of Milwaukee's three female tigers, Amba, Tula and Nuri. The recordings of their sounds will be used by researchers to more accurately count the endangered animal in the wild.

"As zookeepers, we want to have an impact on the wild population, but there's not a lot we can do for animals in the wild," said Amanda Ista, a zookeeper in the Milwaukee zoo's Florence Mila Borchert Big Cat Country. "With this project, though, we can have an impact."

The Milwaukee zoo is joining other American zoos participating in the Prusten Project, which collects recordings of captive tigers in an effort to determine vocal fingerprints of individual animals. Researchers hope to use the information to build a computer program that will identify

specific tigers in the wild for a better census of the majestic but often elusive animals.

The idea is to place the same recorders that are being used at the Milwaukee zoo in India and Sumatra to eavesdrop on tigers and figure out how many are still living in the wild. Sort of like a telephone party line in the jungle.

Prusten Project executive director Courtney Dunn was an intern at the National Tiger Sanctuary in Saddlebrooke, Mo., in 2011 when she met a very vocal tiger known for her strange sounds. Dunn began to wonder if tiger sounds could help save the species just as the Whalesong Project has helped whales. For her master's thesis, Dunn studied how tiger vocalizations can be used to identify individual animals.

By using a software program that turns sounds into visual spectrograms and noting the exact frequency at which a tiger's vocal cords vibrate, Dunn can determine a tiger's gender with a high degree of accuracy. Her research focused on tigers' long calls, a very deep roar that can carry as far as three miles and which is mainly used for mating and marking territory.

Dunn learned that female tigers are easier to identify individually because they have a wider variety of vocalizations.

"Males sound similar. They're unique in that you can tell individuals apart, but their vocalization frequency ranges are very similar," Dunn said in a phone interview. "Maybe the ladies over the years have chosen partners because of their vocal ranges. It might pinpoint certain characteristics that make them an ideal mate."

Recorders cost \$600 to \$900 each plus shipping, and the nonprofit Prusten Project relies on donations, research grants and fundraising.

Dunn, who was recently accepted into a Ph.D. program in quantitative biology at the University of Texas at Arlington, plans to travel to Sumatra later this year or next year to set up recorders in the wild.

In the meantime, Dunn and volunteers are listening to recordings made of approximately 50 tigers at 15 zoos in the United States, including Milwaukee, the only zoo in the Midwest that is participating. Other zoos in the U.S. have offered to participate and are waiting until a recorder can be sent.

Milwaukee zookeepers learned of the Prusten Project a few years ago and waited to request a recorder until the arrival of Strannik, whose name means pilgrim or wanderer in Russian.

The Milwaukee Zoo hasn't had a male tiger for a number of years, and officials are hoping Strannik, who is toward the end of his mating years and has sired three litters, will pair with Amba, who has produced a couple of litters, including her daughters Tula and Nuri, said Katie Kuhn, [big cat](#) area supervisor. Kuhn worked at Utah's Hogle Zoo when Strannik was born there 13 years ago.

Zookeepers are gradually introducing Strannik to his fellow tigers in Milwaukee. Before they even set eyes on him, the female tigers knew of his arrival. While he was in quarantine, Strannik could be heard roaring from the other side of the zoo.

As he sat in an enclosure not accessible to the public last week, he and the human zookeepers could hear Tula and Nuri. They were pounding on the other side of a metal door with their paws. Strannik appeared to take no notice, probably because it was meal time.

"He's very talkative. He's actually very laid back as [tigers](#) go," said Ista, as she sprinkled scents that Strannik finds attractive - allspice, apple pie

spices and cloves - in his compartment.

Ista held her hand up and called "open" - prompting Strannik to open his mouth and gulp down his breakfast, the tiger's big pink tongue curling around the [ground beef](#) and making a chuffing sound of contentment.

Then it was time for Strannik to head into the indoor observation area as families and kids excitedly pointed at the massive cat and snapped his picture with their cellphones.

©2016 Milwaukee Journal Sentinel  
Distributed by Tribune Content Agency, LLC.

Citation: Milwaukee Zoo recording big cats for study on tiger language (2016, March 16)  
retrieved 5 July 2024 from <https://phys.org/news/2016-03-milwaukee-zoo-big-cats-tiger.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.