

A publication of the Seneca Park Zoo Society

# ZOONOOZ

APRIL 2023

## BIG CATS & CONSERVATION

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### How Zoos are Helping Researchers Improve Wild Snow Leopard Population Counts

Guest essay contributed by Jen Snell Rullman,  
Senior Philanthropy Manager at Snow Leopard Trust

Walter Brooks  
Snow Leopard

 Seneca Park  
Zoo



**Seneca Park Zoo** inspires our community to connect with, care for, and conserve wildlife and wild places.

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<b>Private events:</b> 585.295.7399	

LETTER FROM

**Pamela Reed Sanchez**  
President and CEO  
Seneca Park Zoo Society

**On My Mind:  
Change and New  
and Why**

**I**t's happening. Nature is doing her thing, and the world is waking up. Spring is nature's annual sunrise, with bright colors popping out of the ground and peeking from behind budding leaves as the warblers make their way through our region. This is my favorite time of year because everything changes!

I know not everyone embraces change, but I think most people like "new," or "refreshed."

Maybe when change happens, we can reframe our minds to think, "How delightful – this is new!" It's a big ask, I know. We get set in our ways, accustomed to how things seem to have worked without issues, so why change?

For example, many Zoo members may be asking:

*Why move to digital membership cards, when the paper ones were just fine?*

*What is this thing called "Community" and why do we need an online portal for membership?*

The answers to these questions include greener practices, cost-containment measures, and efforts to make it easier for members to manager their own membership and obtain member discounts online. But it's also about preparing for growth.



In 2022, the Zoo Society invested significantly in new operating systems that move us fully into the digital age and help us build for the future of the Zoo. We know the process hasn't been seamless for all our members, and we are grateful for your patience as we move from what was into what will be.

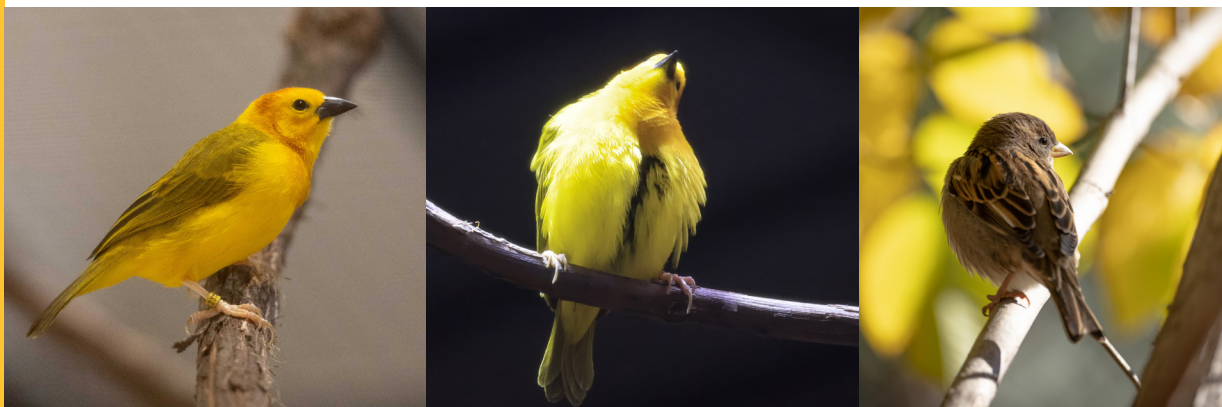
Maybe we can think of it as getting a little mud from spring thaw on our shoes. The leaves and flowers that are on their way are worth a little mud. We just didn't mean to get any of it on you! But each time you let us know when something isn't quite right, you help us grow and get better.

And as we make these changes, we want you to know there will **ALWAYS** be a friendly voice on the phone to answer your questions, seven days a week. And there will **ALWAYS** be a smile waiting for you at the member booth, seven days a week.

Before you know it, we'll be hearing the sweet-sweet-sweet of a yellow warbler, or the high-pitched chirps of spring peepers. We'll dust off our bicycles and get back out on trails and welcome much longer days with the sun on our faces. How delightful – this is new! But also, ever so familiar.

We hope to see you back here at the Zoo, very soon!

Photo credit left to right Keith Walters, Walter Brooks, Toni Bernhardt





# How Zoos are Helping Researchers Improve Wild Snow Leopard Population Counts

Guest essay contributed by Jen Snell Rullman, Senior Philanthropy Manager at Snow Leopard Trust



Snow leopards are famously elusive, making them challenging to observe and study. We rely on technology like research cameras to be our window into their wild lives. Take a good look at the two photos on the following page of snow leopards. Is it the same cat or two different ones? Now imagine the wind blowing the fur in different directions, snowflakes obscuring the rosette pattern, or maybe half the cat is hidden behind a rock. Would you be able to know with 100% certainty if it's the same cat?

Welcome to the world of snow leopard research.

The use of motion-activated research cameras to survey “hard-to-count” species has grown over the last decades. Researchers use them to estimate populations of many species, including tree kangaroos, wolverines, bears, and many species of cats. But how accurate are the resulting population estimates? There is a widespread assumption that

when looking at research camera images, scientists can readily identify individual animals from one another based on their unique characteristics. We're testing that assumption to ensure we get the most accurate population counts.

Snow Leopard Trust has launched a robust study to better understand how well we identify one cat from another and how the errors influence the population estimates, allowing us to take that

into account when developing our own population estimates of wild snow leopards. To do this, we need research camera photos of animals with known identities.

This is where zoo animal ambassadors get the opportunity to help their wild counterparts. Our scientists are working with experts from over 40 zoos, including Seneca Park Zoo, to deploy the same kind of research cameras we use in the field to

*Continued on next page*





capture photos of each individual cat species in the study: amur tiger, lynx, amur leopard and snow leopard.

snow leopard = large spots and long fur

Why all four cats? Snow Leopard Trust scientists will examine how identification error rates may vary according to different fur types in wild animals by comparing data from four species of cats with contrasting patterns.

It's relatively easy to tell these four different species apart. But how did you do on the ID test on the above? Did you know it's the same snow leopard in both photos? If you didn't, you could have overestimated the population, skewing conservation strategies for snow leopard protection.

amur tiger = stripes and short fur  
lynx = small spots and long fur  
amur leopard = large spots and short fur

The research cameras in zoos will take photos of both sides of the cat where there is 100% certainty of its identity. We will send these photos





Snow Leopard Photos Courtesy of: SLCF-Mongolia/SLT

to scientists who normally ID the species of interest in the wild (lynx photos to lynx researchers and so on) through research camera studies. Researchers involved in the project will not know how many cats are in the database, which cat is which, or where it is from. Only our lead scientist knows the true identities. The researchers will ID the cats in the zoo photos. We can then assess how accurate they are at identifying individual cats because we are certain of the true identities of the zoo animals. We can also evaluate the types of errors that most commonly

occur. For example, if it is more common to say that photos of the same cat are of two different cats, that leads to an overestimation of the population. In contrast, if it is more common to classify two photos of different cats as the same cat, that will lead to an underestimation of the population.

**“We could not learn the answer to this vital question about ID accuracy without these known cats and the generous conservation partnership of Seneca Park Zoo in this study.**

Once we have the final results, we hope to have a clearer understanding of the margin of error. We can then incorporate that into our research findings to better analyze and estimate snow leopard populations. This will help us take another leap forward in securing a future for wild felids. And we have zoo cats to thank for their part in it.” - Marissa Niranjan, Deputy Director of Snow Leopard Trust.

Seneca Park Zoo has partnered with Snow Leopard Trust for over a decade, contributing to our

conservation programs in myriad ways – inspiring zoo visitors to take action on behalf of wild snow leopards and increasing awareness of the importance of local and indigenous communities in snow leopard conservation. In 2021, Seneca Park Zoo support helped build multiple predator-proof corrals in Mongolia and Pakistan, protecting livestock from attack and decreasing negative interactions between wild snow leopards and herders.

You may be surprised to learn that Seneca Park Zoo’s conservation

*Continued on next page*



efforts also help snow leopards by supporting a growing beekeeping livelihood-improvement project in Pakistan. This initiative increases the economic resilience of high-altitude communities who share their land with snow leopards and promotes coexistence with this threatened cat. *(Check out how Seneca Park Zoo is also making a difference for pollinators in the Rochester area on the zoo website.)*

Seneca Park Zoo and the larger global snow leopard community are empowering Snow Leopard Trust to reach new conservation milestones for the magnificent ghost of the mountains. Thank you for turning inspiration into action!



We made this one easy by providing photos from similar angles.



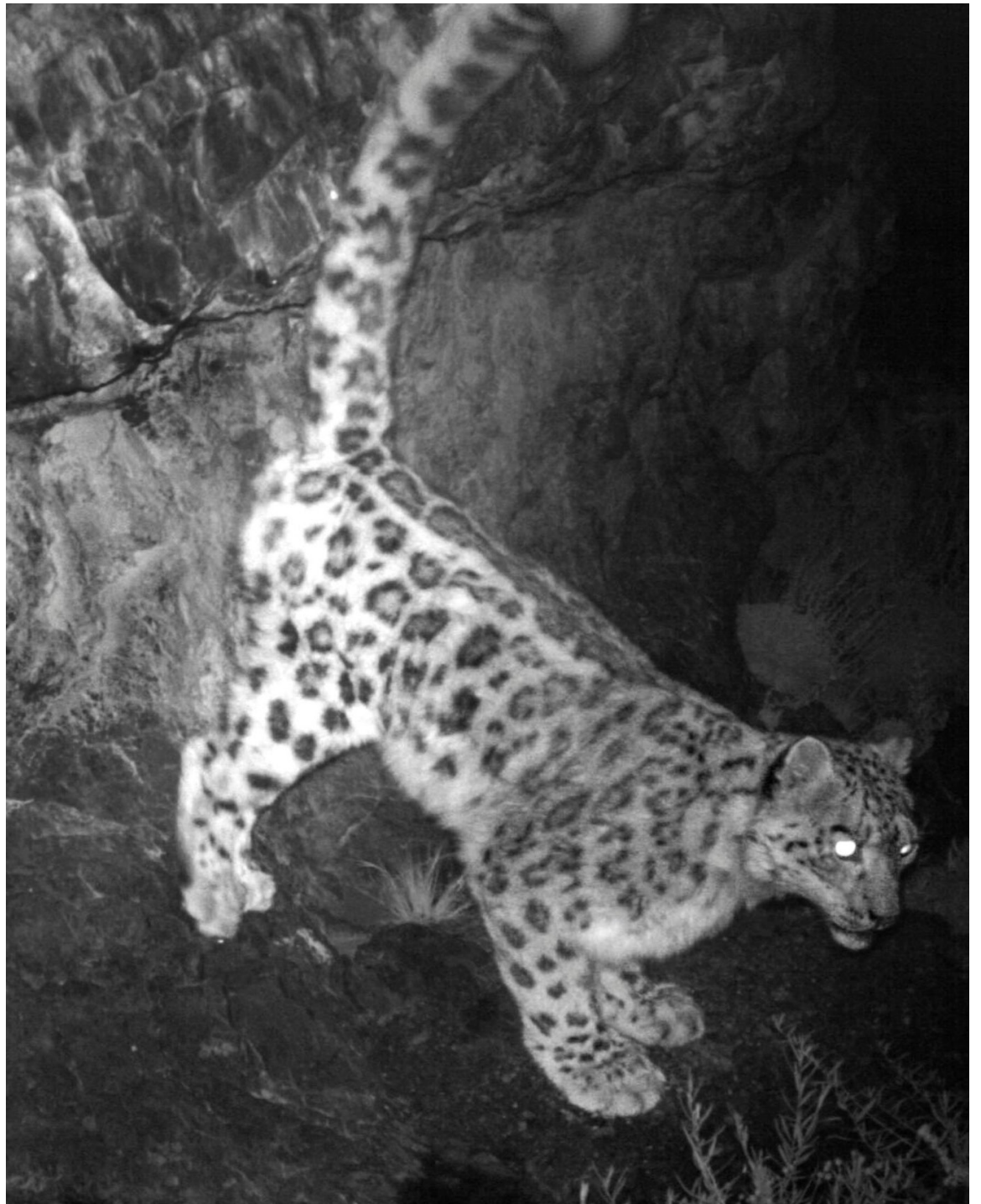
### **Bonus ID test:**

Are these photos above of two different cats or the same one?

### **Answer:**

It's the same cat. Notice the distinctive rosette pattern on her right front leg. This is a female known in our Long-term Ecological Study as Dagina. Snow Leopard Trust has monitored Dagina since she was a tiny cub in 2009 via research cameras and GPS collars. She will turn 14 years old in spring 2023, the oldest recorded female in our study. She has had five different litters between 2012 and 2021.





Snow Leopard Photos Courtesy of: SLCF-Mongolia/SLT

“Seneca Park Zoo and the larger global snow leopard community are empowering Snow Leopard Trust to reach **new conservation milestones for the magnificent ghost of the mountains.**”

- Jen Snell Rullman, Senior Philanthropy Manager



# BIG CATS AND CONSERVATION

Seneca Park Zoo is actively involved in the conservation of the cat species you find at the Zoo. Our efforts fall into one of two categories: ex situ, and in situ. We use these terms so often we often forget they aren't common vocabulary for most people.

## In Situ

"In situ" means "in the original place," so when we speak of in situ conservation, we are referring to efforts taking place in the natural range of snow leopards, African lions, Amur tigers, and Canada lynx. You've read in this issue about your Zoo's partnership with Snow Leopard Trust, and the impact of your support on snow leopards in their natural range. We also financially support Wildcats Conservation Alliance and Lion Landscapes. We choose these partners in part because of their One Health approach to conservation which ensures local populations are an integral part of determining solutions that benefit biodiversity, the environment, and people. We also choose these partners because their programs work, as evidenced by data and results they share with us. In this way, we know the funds we send – made possible by our donors, guests, event participants, and members -- are making a difference of which you can be proud.

## Ex Situ

"Ex situ" means "off site," or not in the original place. When we speak of ex situ conservation, we are referring to efforts taking place here at the Zoo, or in collaboration with other zoos, to ensure the survival of the species.

Beyond increasing public awareness of the plight of these species, how do we do this? Primarily through assisted reproduction. Our Canada lynx, snow leopards, and African lions (males and females!) have participated in assisted reproduction science designed to save species with science. We collaborate with the Lindner Center for Conservation and Research of Endangered Wildlife (CREW) and other AZA-accredited facilities in these efforts. In doing so, we help ensure the survival these species for generations to come. Should there be a major failure of the species in situ, zoos would play a role in reintroduction of the species.

To learn more,  
visit: [lionlandscapes.org](http://lionlandscapes.org)  
or [conserwewildcats.org](http://conserwewildcats.org)







Walter Brooks  
Amur Tiger



Walter Brooks  
Canada Lynx



Wayne Smith  
Lion

# Welcome to the **FUTURE!**

Memberships are now more accessible on digital devices.

We've recently introduced two new features giving Zoo members convenient access to their memberships:

Digital Membership Cards are now available for download. Your digital card can be added directly to your Apple or Android wallet and scanned off your phone.

They are an eco-friendly alternative to paper cards and one way that you as a Zoo member help conserve wildlife and wild places.

Activation emails for all current memberships were sent in December with the subject line beginning with "Your New Membership Card." You will also receive a download reminder upon renewing.

If you did not receive your activation link, please contact [members@senecazoo.org](mailto:members@senecazoo.org) to have it re-sent.

Scan here for more information on our Digital Membership Cards:



**Scan me!**



[senecaparkzoo.org/membership/digital-faq/](https://senecaparkzoo.org/membership/digital-faq/)

And the Seneca Park Zoo Community Portal allows you to access member pricing, update your contact information, apply to volunteer, and renew your membership quickly and easily. Your portal invitation email was sent to your primary account holder in February with the subject "SPZS Community Portal".

If you did not receive your invitation email, please contact [members@senecazoo.org](mailto:members@senecazoo.org).

Scan here to visit the Community Portal:



**Scan me!**



[senecaparkzoosociety.my.site.com/s/login/](https://senecaparkzoosociety.my.site.com/s/login/)



## COMMUNITY ACTIVITIES & EVENTS

### ▶ OCEAN CONSERVATION WEEKEND

**JUNE 6 - 8**

The ocean is the world's largest ecosystem. It provides a home for billions of organisms and also helps to regulate the climate. For animals all around the world to survive and thrive, healthy oceans are crucial. Join us in supporting Ocean Conservation Weekend!

**Date:** June 6 - 8

**Price:** Free with entry

**Learn More:** [senecaparkzoo.org/ocean](http://senecaparkzoo.org/ocean)

### ▶ 34TH ZOOBILATION GALA

**JUNE 3**

Our largest single-day fundraiser of the year! A 21+ gala event, Zoobilation is not only a celebration, but one of the driving forces that supports education and conservation programs for people of all ages in our community and beyond.

**Date:** Saturday, June 3

**Learn More:** [senecaparkzoo.org/zoobilation](http://senecaparkzoo.org/zoobilation)

### ▶ ZOOBREW

**MAY 5/JUNE 16/JULY 14/AUG. 11/SEPT. 8**

Everyone's favorite 21+ happy hour event will be back on five Friday evenings throughout the summer! It's the only event in town where you can help save elephants from extinction just by attending!

**Date:** May 5, June 16, July 14, August 11, September 8

**Learn More or Purchase Tickets:** [senecaparkzoo.org/zoobrew](http://senecaparkzoo.org/zoobrew)



Keith Walters



Kristen Matteo



# COMMUNITY ACTIVITIES & EVENTS

## ▶ COMMUNITY CLEANUPS

[SEE WEBSITE TO CHECK SCHEDULE](#)

Join like-minded neighbors to help clean-up our local green spaces. You'll be amazed at the impact a focused group can make in just three hours. Help us make Rochester a cleaner, greener city! Please dress for the weather and bring water to stay hydrated. Tools, bags, and gloves will be provided and all ages are welcome to attend.

**Dates:** TBD

**Register:** [senecaparkzoo.org/cleanup](http://senecaparkzoo.org/cleanup)

## ▶ CAT CONSERVATION WEEK

**APRIL 3 - 9**

Big cats, small cats, and everything in between – we love all cats! Come out and join us in celebrating some amazing felines.

**Date:** April 3 - 9

**Price:** Free with entry

**Learn More:** [senecaparkzoo.org/cat-week](http://senecaparkzoo.org/cat-week)

## ▶ ENDANGERED SPECIES WEEKEND

**MAY 25 - 29**

Come out and help us support amazing species that need our help to survive! New species are added to the endangered list every year, which is why we need to raise awareness and support for some of the ones in our care.

**Date:** May 25 - 29

**Price:** Free with entry

**Learn More:** [senecaparkzoo.org/esw](http://senecaparkzoo.org/esw)



Michaela Mueller



Suzie Webster  
Canada Lynx



Walter Brooks  
Borneo eared frog



## ▶ PAGES WITH PURPOSE: VIRTUAL BOOK GROUP

APRIL 13

Join us for a facilitated discussion of a great book tied to the Zoo's mission - *Back to Earth: What Life in Space Taught Me About Our Home Planet - And Our Mission to Protect It*. Discussions include the author, veteran NASA Astronaut Nicole Stott!

**Agnes:** Adult and Young Adult

**When:** Thursday, April 13 at 7 p.m.

**Where:** Virtual (Zoom link provided)

**Register:** [senecaparkzoo.org/wp/](https://senecaparkzoo.org/wp/)

## COMMUNITY ACTIVITIES & EVENTS

### ▶ EARTH DAY AT THE ZOO

APRIL 22

Join us as we celebrate Earth Day at the Zoo! We'll have onsite activities, animal enrichment experiences, virtual content online and information on some of today's most important conservation issues. Learn how we can all work together to make the world a greener place!

**Date:** Saturday, April 22

**Price:** Free with entry

### ▶ JUNGLE JOG 5K RUN AND WALK

JULY 16

Our annual 5k will be held in-person at Seneca Park! Run or walk in this family-friendly event to support the Seneca Park Zoo Society and our conservation efforts. You can run or walk individually or put a team together!

**Date:** Sunday, July 16

**Learn More or Register:** [senecaparkzoo.org/junglejog](https://senecaparkzoo.org/junglejog)



Marie Kraus



# CAMPS, WORKSHOPS, CLASSES

## ▶ KINDERZOO

SEE WEBSITE TO CHECK AVAILABILITY

When it comes to conservation and animal education, we say, “start them young and allow the passion to grow with them!” KinderZoo is a program for preschoolers and their grown-ups to play, discover, and learn in a fun, interactive way. Limited slots available.

**Ages:** 18 months – 2 years & 3 - 5 years

**Dates:** See website to check date availability

**Register:** [senecaparkzoo.org/kinderzoo](http://senecaparkzoo.org/kinderzoo)

## ▶ BECOME A ZOOTEEN!

JULY - MID AUGUST

The Zoo Teen program gives young adults the opportunity to work together with like-minded peers, as well as with the Seneca Park Zoo education team, to help educate the public about the animals in our care and the importance of saving animals from extinction.

**Who:** Any teen entering grades 8 -12 or will graduate high school this year

**Where:** Seneca Park Zoo

**When:** Teens complete a minimum of 48 hours of volunteering over six weeks from July – mid August. Volunteer shifts run 9:30 a.m. – 1:30 p.m., 12:30 – 4:30 p.m. or 9:30 a.m. – 4:30 p.m. seven days a week.

**Apply:** [senecaparkzoo.org/zooteens](http://senecaparkzoo.org/zooteens)  
*Application deadline is May 11*

## ▶ TREK IN THE TWILIGHT

APRIL 15, 28/MAY 6, 9/PICK YOUR OWN  
DATE (SEPTEMBER - MAY)

Trek in the Twilight is your chance to experience the Zoo afterhours! Participants are provided with dinner, a guided tour of the Zoo, and an animal presentation.

**Dates:** April 15, 28; May 6, 19 or pick your own date  
**Time:** 5:45 - 9:30 p.m.

**Price:** \$25 per scout, \$20 per chaperone

A \$50 deposit is due two weeks after booking.

**Learn More:** [senecaparkzoo.org/trek](http://senecaparkzoo.org/trek)



Dave Zimmerman



Michelle Smith



Donato DiRenzo



# Seneca Park Zoo Zoocamp

Seneca Park Zoo



LEARN MORE

## ▶ SUMMER ZOOCAMP REGISTRATION NOW OPEN!

JUNE - AUGUST

Zoocamp at Seneca Park Zoo immerses kids in wildlife, the environment, and the need to protect and care for both, all in a unique setting: the Zoo!

Zoocampers can count on:

- An immersive experience at the Zoo, including meeting animals up-close in their classroom.
- Learning about the animals they know and love.
- Plenty of time outdoors, taking nature hikes and playing
- Meeting other kids who have similar interests.

**Ages:** 3 – 12

**Dates:** Weekly from June 6 through August

**Member Price:** Members: \$155 half day, \$260 full day

**Non-members:** \$175 half day, \$285 full day

Before and After Care available for school-age campers, \$25/week





# CALENDAR

Mark your calendars for what's next at your Zoo.

## ► SUMMER PROGRAMMING RETURNS TO THE ZOO!

### ALL SUMMER LONG

One of our favorite activities is back again – scheduled summer programming for animal enrichment, feedings, conservation, and keeper chats! Every day of the week you will find exciting and interesting experiences with a variety of the animals in our care. With different animals scheduled on different days of the week, we mean it when we say there is always something new for you to see at the Zoo! Stay tuned on our social media and website for more updates on specific animal programming schedules.

Presented by:



Five Star Bank



Grant Taylor  
California Sea Lion

## SENECA PARK ZOO SUMMER PROGRAMMING



Time	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9:30	Member Animal Meet & Greet	Member Animal Meet & Greet	Member Animal Meet & Greet	Member Animal Meet & Greet	Member Animal Meet & Greet	Member Animal Meet & Greet	Member Animal Meet & Greet
10:30	Penguin Experience	Penguin Experience	Penguin Experience	Penguin Experience	Penguin Experience	Penguin Experience	Penguin Experience
10:30	Snow Leopard Experience	Red Panda Experience	Baboon Experience	Red Panda Experience	Vet Chat Animal Hospital	Snow Leopard Experience	Red Panda Experience
11:15	Crane Keeper Chat	Sea Lion Experience	Wolf Keeper Chat	Sea Lion Experience	Wolf Keeper Chat	Reptile (CRE) Keeper Chat	Elephant Experience
11:45	Giraffe Feeding (\$)			Giraffe Feeding (\$)	Giraffe Feeding (\$)	Giraffe Feeding (\$)	Giraffe Feeding (\$)
12:00	Sea Lion Experience	Elephant Experience	Elephant Experience	Naked Mole Rat Keeper Chat	Sea Lion Experience	Elephant Experience	Naked Mole Rat Keeper Chat
1:30	White Rhino Experience	Polar Bear Experience	Frog (CBE) Keeper Chat	Cichlid Keeper Chat	White Rhino Experience	White Rhino Experience	Polar Bear Experience
2:30	Snowy Owl Conservation Chat	Naked Mole Rat Keeper Chat	River's Edge Conservation Chat	Polar Bear Experience	Snowy Owl Conservation Chat	River Otter Experience	River's Edge Conservation Chat
2:45	Giraffe Feeding (\$)			Giraffe Feeding (\$)	Giraffe Feeding (\$)	Giraffe Feeding (\$)	Giraffe Feeding (\$)
3:00	Penguin Experience	Penguin Experience	Penguin Experience	Penguin Experience	Penguin Experience	Penguin Experience	Penguin Experience
3:30	River Otter Experience	Baboon Experience	Sea Lion Experience	Baboon Experience	Sea Lion Experience	Sea Lion Experience	River Otter Experience

Schedule subject to change without notice.



**Seneca Park Zoo Society**  
2222 St. Paul Street  
Rochester, NY 14621-1097  
senecaparkzoo.org



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When you're finished, please share it with a friend.

**Designer:** Amanda Lindley

**Contributing writers:**

Pamela Reed Sanchez, President and CEO, Seneca Park Zoo Society  
Donato DiRenzo, Communications Coordinator  
Jen Snell Rullman, Senior Philanthropy, Manager at Snow Leopard Trust

Internationally, and in our own backyard, Seneca Park Zoo plays a key role in species survival. Chartered as an educational institution in 1957 by New York State, the Seneca Park Zoo Society plays an integral role in supporting Monroe County, the owners and operators of the Zoo. Together, we are working to bring animals back from the brink of extinction.

**senecaparkzoo.org | 585.336.7200 | The Zoo is open 362 days a year.**



@senecaparkzoo @senecaparkzoo @senecaparkzoo @senecaparkzoo

**Follow us socially. Visit [senecaparkzoo.org](http://senecaparkzoo.org)**

Lion  
Walter Brooks

# ZOONOOZ

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