



A publication of the Seneca Park Zoo Society

ZOONOOZ

AUGUST 2022

**SPECIES
SURVIVAL
IN ACTION**

Walter Brooks

 Seneca Park
Zoo

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

Seneca Park Zoo Society
Board of Trustees

Chris Stern, Chair
Eric Allen, Vice Chair
Shelly Doran, Secretary
Trisha Butera, Treasurer

Leonard Bayer	Michael Morse
Luis Burgos	James Myers
Stephen Brown	Kevin Nowack
Gavin Brownlie, Jr.	Pamela O'Connor-Chapman
Tim DeGrave	Christine Osborne, M.D.
Maureen Dobies	Maria Robare
Tarek Eldaher	Rose Mary Villarrubia-Izzo
Peter Hin	Jay Weaver
Suzanne Hunt	Debby Wilson
Barbara Kelley	
Steve Lacy*	
Todd Liebert	
Patrick Meredith*	* Ex Officio

Seneca Park Zoo Society
Trustees Emeritus

Ruth Baltzer	James McElheny
Linda Buttrill	William Strassburg
Ralph Code III, Esq.	Bob Stiles
Michael Hurley	

Zoo Society
Leadership Team

Pamela Reed Sanchez	Sharon Peterson
Beth LaPierre	Tom Snyder
Chuck Levensgood	Kelly Ulrich

County Zoo
Leadership Team

Monroe County Executive Adam Bello	Christopher McKinney, DVM
John Adamski	Patrick Meredith
Lindsay Brinda	Richard Mikiciuk
David Hamilton	Kellee Wolowitz
Steve Lacy	

CONTACT US: HOURS:

General info:
585.336.7200

Membership:
585.336.7212

Development:
585.336.7205

Private events:
585.295.7399

Nov. 1 – March 31:
10 a.m. – 4 p.m.
last entry at 3 p.m.

April 1 – Oct. 31:
10 a.m. – 5 p.m.
last entry at 4 p.m.

**MEMBERS MAY
ALWAYS ENTER
AT 9:30 A.M.**

LETTER FROM

Pamela Reed Sanchez
President and CEO
Seneca Park Zoo Society

**On My Mind:
The Hope of
Genetics**

When I think of genetics, I recall decades-old science lessons of dominant and recessive genes, X and Y chromosomes, and the mutations that happen over generations to ensure survival of a species. I also think of the science that happens every day at Seneca Park Zoo, and at other zoos accredited by the Association of Zoos & Aquariums. This issue of ZooNooz is dedicated to shining a spotlight on the science behind-the-scenes of the Zoo's breeding programs.

You've read before in these pages about what a Species Survival Plan® (SSP) is, and that there are SSP animals at the Zoo that have breeding recommendations, and those that don't. This is our first deep dive into the role of genetics in breeding recommendations.

In 2018, when Masai giraffes Iggy, Kipenzi, and Parker came to the Zoo from three separate zoos across the United States, we were told these three youngsters were the most "valuable" breeding herd from a genetic standpoint.

While I understand the use of the word "valuable" as it refers to the relative scarcity of a particular animal's genetics, it doesn't quite hit the mark for me. Each animal has great value as an ambassador for their counterparts in nature. I think instead of the hope these specific animals hold for the perpetuation of their species.



Every animal at the Zoo plays a part in connecting you and your friends and family members with wildlife, in encouraging a sense of discovery and wonder in nature. We want you to leave feeling hopeful that actions you take in your every day life can make a difference for the species you've fallen in love with here, at the Zoo.

A subset of the animals at the Zoo plays an additional role in hope for the future. They help to address the need for diversity in the genetics of the breeding populations of animals in conservation care.

Whether it is our African penguin colony, red pandas, snow leopards, African lions, Masai giraffes, Canada lynx, polar bear, Panamanian golden frogs, or snowy owls (and I'm sure I missed a few), these incredible creatures are ensuring the survival of their species. Their genetics give us hope that these species will always exist in nature, for generations to come.

The next time you visit giraffe calf Olmy, or spy the Canada lynx kitten, or watch the red panda cubs chewing away at their bamboo, our wish is that you see more than how adorable they are and see the hope they represent for animals all over the world.

See you at the Zoo!

... Their genetics give us hope that these species will always exist in nature, for generations to come.



Erick Machajewski

SPECIES SURVIVAL IN ACTION

Animal management programs exist to sustain animal populations in human care for the next 10 generations.

In the last two issues of ZooNooz, we talked about Seneca Park Zoo's very important role in the Association of Zoos and Aquariums (AZA) animal management programs. Species Survival Plan® (SSP) programs ensure that selected zoo populations are managed responsibly. Their goal is to sustain animal populations in human care for the next 10 generations. Population management programs, like AZA's SSPs have become so successful, and the need for technical assistance has grown so much, that AZA created the Population Management Center (PMC) in Chicago. PMC is housed at Lincoln Park Zoo, conducts genetic and demographic analyses, and develops and distributes management plans for all SSPs.

PMC staff assist zoo professionals with population management plans, beginning with checking that all data for the managed species are clean and accurate. The data is then analyzed using software developed by PMC that determines the current status of the population and predicts its future status. Based on these results, recommendations are made instructing how many births are necessary as well as which individuals to breed and which not to breed. Finally, PMC sends a report with the data and recommendations to all institutions participating in that management plan. AZA SSPs then develop a breeding and transfer plan that identifies population goals and recommendations to manage a genetically diverse, demographically varied, and biologically sound population. Good population management considers multiple factors, including husbandry, demography, and genetics.

Continued on next page.

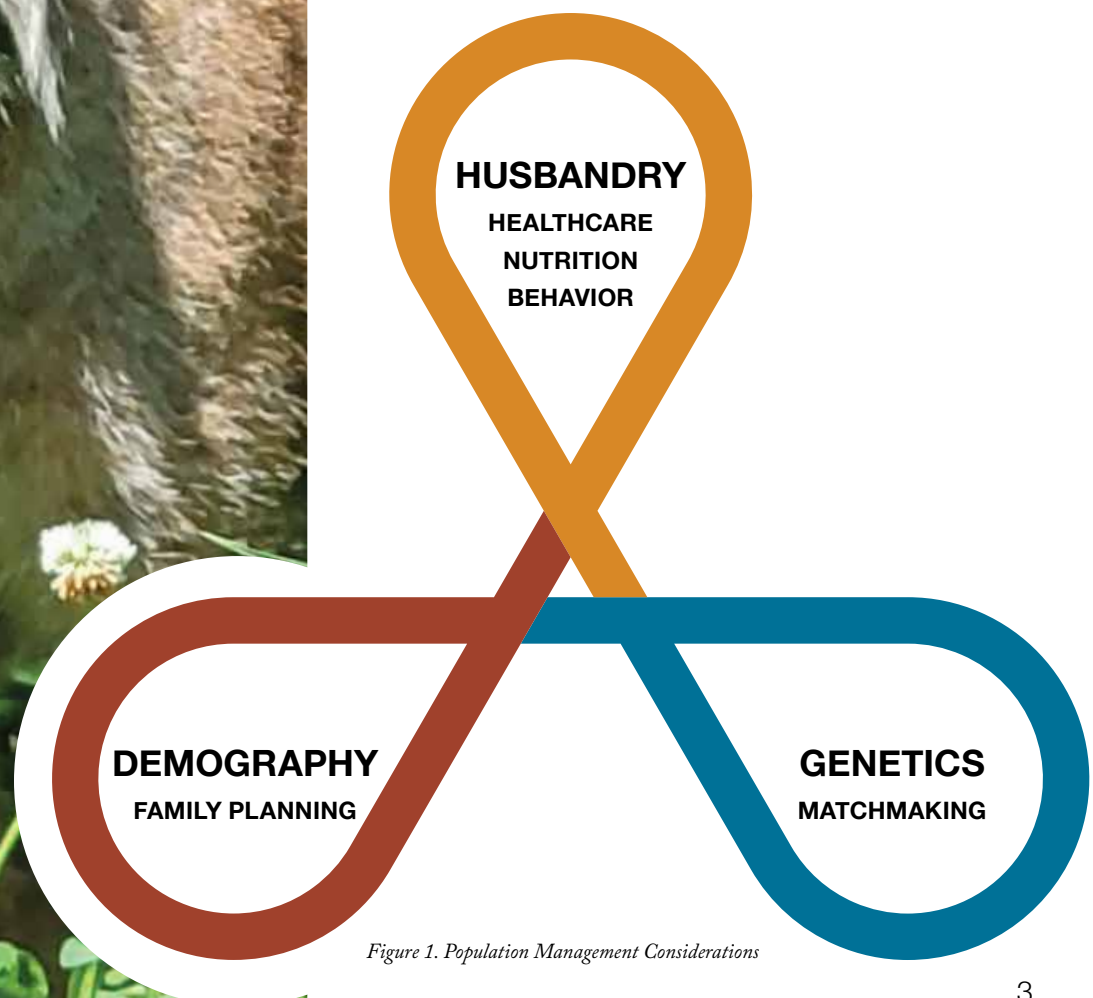


Figure 1. Population Management Considerations



Wayne Smith



Jenna Bovee

Population biologists work closely with studbook keepers and SSP coordinators to tell them who should breed with who, according to genetics, which always starts with mean kinship. Mean kinship is the degree to which an animal shares genetics with other animals in a given population. PMC looks for animals with low mean kinship, as this minimizes inbreeding and maintains as much genetic diversity as possible. Without this commitment to science, we could end up with inbreeding depression, which can cause a variety of irregularities, increased vulnerability to disease, and other negative genetic attributes.

“Population Management Centers look at the genetic variety of mostly captive populations because that’s what we know the most about,” says Seneca Park Zoo Veterinarian Dr. Chris McKinney. “You want to reduce what is called inbreeding depression,” continues McKinney, “as inbreeding can cause the emergence of recessive genes as well as higher susceptibility to viral disease and other illnesses.”

David Hamilton is the General Curator at Seneca Park Zoo and wears the hat of studbook keeper for river otters. He has been very involved with this side of our conservation mission for many years.

“Mean kinship is the percentage that an individual animal is related to the rest of the population,” Hamilton explains. “So, if you’re unrelated to anybody else in the in the conservation care population, you have a low mean kinship. If you have lots of brothers and sisters and cousins and mom and dad and everybody else is still in the population, then you’re going to have a higher mean kinship because you’re more related to the rest of the population.”



Kellee Wolowitz

Over time and continual breeding, animals in conservation care are going to begin to decrease their overall mean kinship little by little. Fortunately, today with all the software and algorithms available this work is made a little bit easier and more efficient.

“If we take an animal that’s highly valuable or low mean kinship - it’s not related to anybody else - and pair that up with an animal that is related to a lot of other animals then any offspring will have high mean kinship,” Hamilton says. “You want to match rare with rare and less valuable with less valuable. For demographic reasons you sometimes have to do that, match lower animals with each other, but ideally you don’t want to match a high with a low.”

While matching low mean kinship pairs is the ideal goal, there are times when for logistical or demographic reasons this is not always possible. That’s ok, but it is a delicate balancing act to manage. For instance, let’s say there are two potential otter mates for an otter here at the Seneca Park Zoo – one at Syracuse’s Rosamond Gifford Zoo and another at a zoo in California. Even if the one if California is a slightly “better” match genetically, it would likely make more sense logistically to pair the one from Syracuse as transporting animals over long distances can be a difficult and complicated process.

One species pair at our Zoo that is genetically valuable are Canada lynx Bianca and Gretzky. Both have very low mean kinships, meaning their offspring are less likely to share genetics with the rest of lynx residing in AZA zoos.

When an animal is born, such as the lynx kits born this year, Zoo curators and keepers enter key details about the animal into a software program called ZIMS (Zoological Information Management Software). When Canada lynx Bianca and Gretzky had a litter of kits in June 2022, Assistant Curator Kellee Wolowitz logged into ZIMS and entered the data including number of kittens, location, and nursing status.

“
Lynx breeding is difficult. There is **one three-day window**, just once a year in late February, when lynx breed.”

-Kellee Wolowitz, Assistant Curator

“Lynx breeding is difficult. There is one three-day window, just once a year in late February, when lynx breed,” says Wolowitz. “We don’t know a lot about what happens in nature because they are extremely good at hiding, which makes it hard for researchers to study.”

Wolowitz continues, “Gretzky is so valuable that CREW (The Lindner Center for Conservation and Research of Endangered Wildlife) was interested in Gretzky’s sperm.” One of CREW’s goals is to help zoos become more effective at breeding cats under human care. Together with



field biologists, CREW applies reproductive sciences to the conservation of free-ranging, wild felids, and develops vital linkages to zoo-based cat populations.

Another incredibly valuable breeding herd among AZA-accredited organizations is Seneca Park Zoo's male Masai giraffe Parker and females Kipenzi and Iggy. Parker is in the top five and Kipenzi and Iggy in the top ten for genetic diversity among all Masai giraffes in conservation care.

"Breeding giraffes is relatively easier than other species. They just do their thing," says Assistant Curator Lindsay Brinda. "Giraffes have lots of babies," continues Brinda, "If we kept Parker with Iggy overnight, she'd likely be pregnant again soon. She's flirting with him and cycling already."

"Some animals you don't keep males and females together all the time, only when they are cycling" Brinda continues, "but giraffes you can keep together." For example, elephant females may be separated from males. Animal care staff will take blood samples to find out when a female is ovulating and then they'll introduce a male when the time is right.

What happens when the PMC recommends that an animal be transferred to another facility for breeding? For example, beloved white rhino Bill left Seneca Park Zoo after a recommendation by AZA's White Rhino SSP. Bill moved to Riverbanks Zoo in South Carolina, where he was introduced to two female rhinos for potential breeding. "Sometimes an animal we love gets a breeding recommendation for a move," says Brinda. She continues, "At the end of the day, we miss them, but we do what's best for that species at the time." This is why PMC, SSPs, and other AZA animal management programs exist – to do what is best for the species to ensure survival for the next 100 years.

"Sometimes an animal we love gets a breeding recommendation for a move. At the end of the day, we miss them, but **we do what's best for that species** at the time."

-Lindsay Brinda, Assistant Curator



Species Survival Plan



Walter Brooks



Lindsay and Alex Brewer have attended ZooBrews together since 2017, became members in 2019, and are huge fans of Seneca Park Zoo. They showed how their love for the Zoo is interwoven in their love for each other when Alex not only chose it as the location for his surprise marriage proposal back in 2020, but also where they held their wedding celebration at the Zoo earlier this summer!

We caught up with them to find out what the Zoo means to them and their journey together.

Q: Why did you choose the Seneca Park Zoo for your proposal and wedding celebration?

A: At the time of the proposal, we had been members of the Zoo for a couple of years and had many great memories there. It is a special place to us given our love of animals. It was a place where Alex could fully pull off surprising Lindsay with someone there to capture the big moment (Wayne Smith had taken our photo at many zoo events!). We love to celebrate every anniversary. The Zoo was a spot that would be easy to come back to each year and reminisce about the proposal.

Having the wedding reception at the Zoo was a no-brainer! We wanted to bring our story back full circle while supporting the Zoo.

Q: What are your favorite animal species?

A: Alex's favorite animal is the polar bear so he loves Anoki! Lindsay's favorite animals to watch are the otters, she could watch them swim forever!

Our Event Manager, Laura Pennington, really surprised us for our wedding reception by having custom drink tickets made with photos of Ashkii, Sailor and Anoki! To top it off, she had both animals' zoo keepers plan to be at the reception as a surprise! Our guests were blown away with the animal enrichment experiences we got to witness.

Q: If you could tell our audiences one thing about why you became members, what would that be?

A: Throughout the years, we had visited the Zoo from time to time and always enjoyed it. One day, we thought, "Why not become members for our own benefit (early admission, unlimited visits) while also supporting the Zoo and the animals in its care?"

To inquire about hosting your special event at the Zoo, contact Laura Pennington, Special Events Manager, at lpennington@senecazoo.org or visit senecaparkzoo.org/plan-your-event.

Who are Seneca Park Zoo's **Partners in Conservation?**

As Zoo members, you have heard repeatedly that we all have a role to play in conserving wildlife and wild places. You can help when you round up your total at the gift shop, plant pollinator seeds at home, volunteer for a community cleanup, or donate to help endangered species. Some of our most ardent Zoo supporters contribute to conservation by becoming Partners in Conservation members, giving \$500 or more each year. They share in our mission to inspire people of all ages and backgrounds to care about and conserve wildlife and wild places.

Since 2015, Partners in Conservation memberships have contributed over \$887,000 in charitable support. So much of what we do would be impossible without it:

- Education programs for thousands of people each year;
- Conservation and remediation programs around our community – many for free;
- Global conservation initiatives;
- Special events, summer programming, and year-round interpretation that make the Zoo a great place to learn and explore.

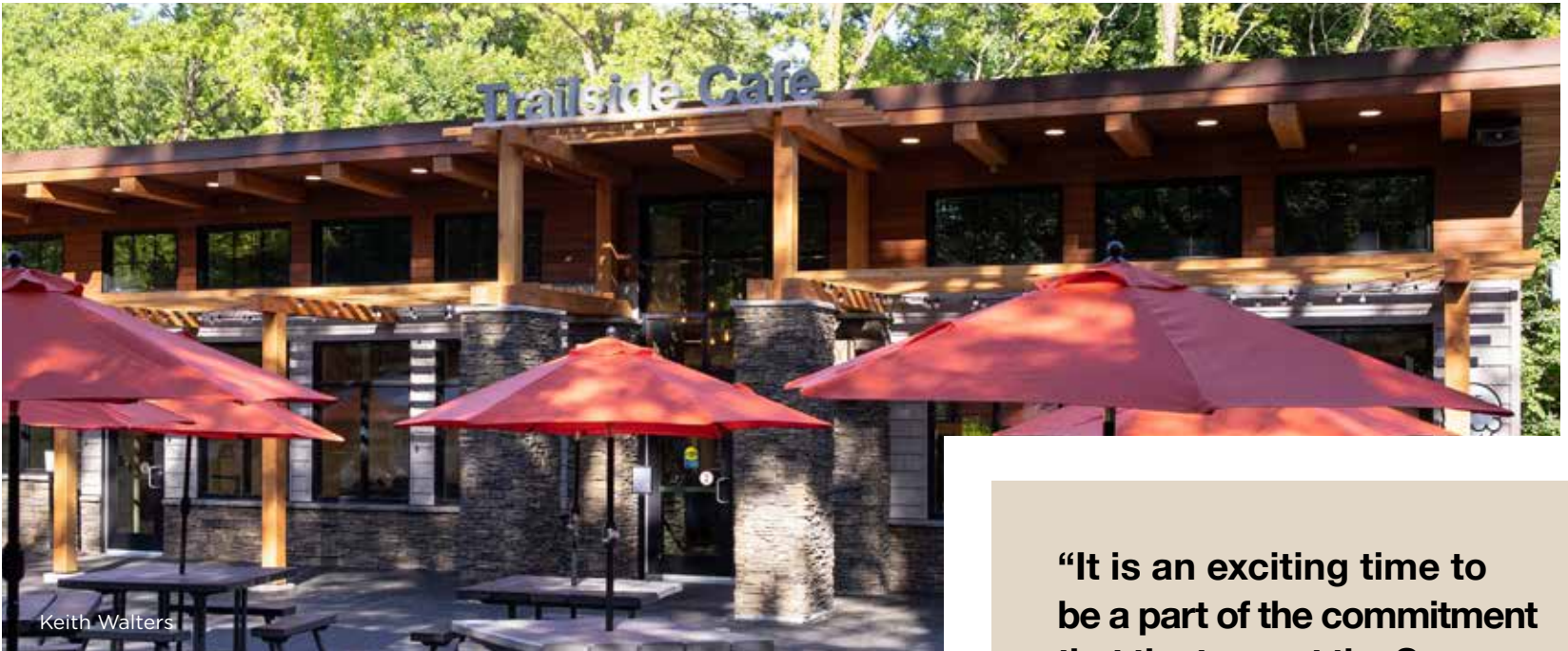
To thank our Partners in Conservation members, the Zoo Society offers invitations to special events, behind-the-scenes tours to learn more about animals in our care, and chances to meet zoo keepers. But as one of our Partners in Conservation told us, "I just want to support Seneca Park Zoo and its mission."

If you would like to join us as Partners in Conservation, visit senecaparkzoo.org/pic for information or to make your gift.





Keith Walters



Keith Walters

Sustainability at the New Trailside Café

The brand-new Trailside Café is now officially open. This gorgeous new building will provide guests with expanded amenities that model and teach sustainable practices. We are partnering with industry leaders in sustainability to continue to reduce our waste and plastic usage and source sustainably. We're excited about the recent sustainable

improvements we have been able to make at Trailside Café including reusable plates and flatware, compostable single-use items, aluminum water bottles, eco-friendly receipt paper, as well as implementing a composting program with local partner, Impact Earth, in the kitchen and for catered events.

“It is an exciting time to be a part of the commitment that the team at the Seneca Park Zoo has made to conservation locally and internationally. We are committed to eliminating single use plastic and to reducing the amount of total waste sent to the local landfill.”

Matt Long, General Manager
SSA Group
Food Service Partner to Seneca Park Zoo

▶ ELEPHANT AWARENESS WEEKEND

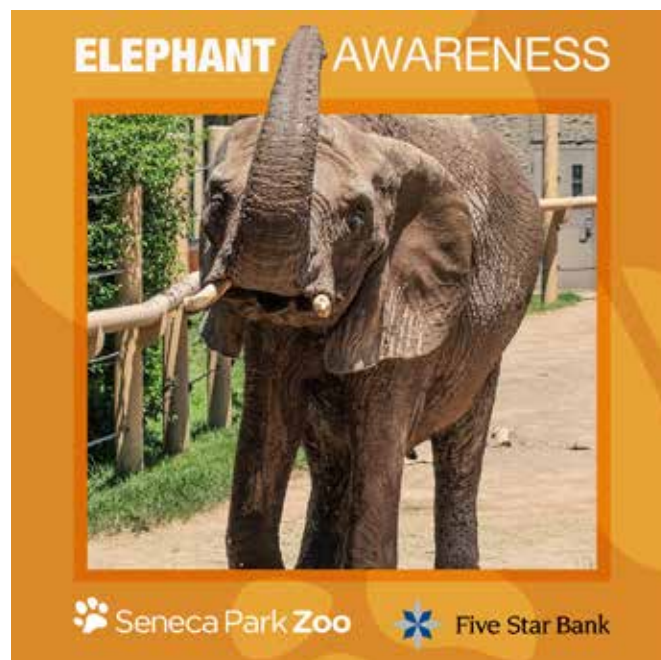
AUGUST 27 & 28

Did you know that Seneca Park Zoo is the ONLY zoo in New York State with African elephants? Come visit the Zoo's three female African elephants on August 27 & 28 for Elephant Awareness Weekend!

Date: August 27 & 28

Price: Free with entry

Learn More: senecaparkzoo.org/elephant22



▶ COLD ASIA (SNOW LEOPARD & RED PANDA) AWARENESS WEEKEND

SEPTEMBER 17 & 18

Join us in celebrating and supporting snow leopard and red panda conservation by coming out to the Zoo for our Cold Asia Weekend!

Date: September 17 & 18

Price: Free with entry

Learn More: senecaparkzoo.org/coldasia22



▶ AFRICAN PENGUIN AWARENESS WEEKEND

OCTOBER 15 & 16

Celebrate International African Penguin Awareness Day with your friends here at the Zoo! Make a trip out to visit with the African penguins that make up the colony in our care.

Date: October 15 & 16

Price: Free with entry

Learn More: senecaparkzoo.org/penguin22



► DRIVE FOR WILDLIFE GOLF TOURNAMENT

SEPTEMBER 26

Join the 2022 Drive For Wildlife Golf Tournament, a charity tournament to support the Seneca Park Zoo Society. Hosts Eric Allen and Lee Wilson have arranged a terrific event at The Links at Greystone on September 26th.

Register as an individual, or sign up a foursome plus tee sponsor.

Date: Monday, September 26

Price: \$600 Foursome and Hole Sponsor | \$125 Individual Golfer

Learn More: senecaparkzoo.org/golf



Wayne Smith

GO IN-DEPTH WITH YOUR FAVORITE ANIMALS!



Presented by:

Five Star Bank

CONSERVATION AWARENESS WEEKENDS

► PANAMANIAN GOLDEN FROG AWARENESS WEEKEND

AUGUST 13 & 14

Join us as we support and celebrate the Panamanian golden frog and some of the culture from their natural range! This fun and festive weekend will feature plenty of great live experiences, fun activities, keeper chats, and more to celebrate and support this amazing species and unique culture from where they hail. This is a conservation and cultural experience you won't want to miss!

Date: August 13 & 14

Price: Free with entry

Learn More: senecaparkzoo.org/pgf22



► WILDLIFE ACTION CREW

**SEPT. 21, 28/OCTOBER 5, 12, 19, 26/
NOV. 9, 16, 30/DECEMBER 7, 14, 21**

Wildlife Action Crew is one of our most fun, informative, and productive programs designed especially for teenagers interested in animals and conservation.

Ages: 13 to 18-year-olds

Price: \$55 for Zoo members, \$60 for non-members

When: Wednesdays 6 – 8 p.m. (6 weeks)

Dates: Fall Session I: Rhinos & Poaching- September 21, 28 and October 5, 12, 19, 26

Fall Session II: Polar Bears & Climate Change-
November 9, 16, 30 and December 7, 14, 21

Register: senecaparkzoo.org/wildlife



Donato DiRenzo

► ZOOBREW

AUGUST 19 & SEPTEMBER 9

Everyone's favorite 21+ happy hour event has been going strong and there are still a couple more to catch this season! A portion of each ticket sold supports elephant conservation. Thank you to Presenting Sponsor Lake Beverage Corporation!

Only 75 VIP tickets available!

Dates: August 19 and September 9

Price: \$9.50 in advance; \$12 at the door (if available); \$45 VIP

Learn More: senecaparkzoo.org/zoobrew



Erick Machajewski

► APPLES, ALES & TAILS

SEPTEMBER 24

This 21+ event features tasting stations throughout the Zoo. Guests will also enjoy delicious food and entertainment, with live music and the opportunity to purchase chances to win some great items in the evening's drawing. Tickets cover all drink tastings and food that evening.

Date: Saturday, September 24

Time: 5:30 – 8:30 pm | Gates close at 6:30 pm

Price: General Admission Pre-sale: \$45 | General Admission
Day-of: \$50 | VIP Tickets: \$75

Learn More: senecaparkzoo.org/aat



TJ Harrison

COMMUNITY ACTIVITIES & EVENTS

► COMMUNITY CLEANUPS

AUGUST 20 & SEPTEMBER 17

Join like-minded neighbors to help cleanup our local green spaces. Tools, bags, and gloves will be provided and all ages are welcome to attend. Thank you to our Presenting Sponsor Kinecta Federal Credit Union for supporting this amazing initiative!

Dates: August 20, September 17 OR contact us at Volunteers@senecazoo.org to schedule your own group cleanup!

Price: FREE

Register: senecaparkzoo.org/cleanup



Wayne Smith

► INVASIVE SPECIES EARLY DETECTION NATURE HIKES

AUGUST 18/SEPT. 15/OCT. 8 & 29/ NOV. 13 & 26

Join Zoo naturalists and members of the community on a hike to learn about and find invasive species in our local area.

Dates: August 18, Sept. 15, Oct. 8 & 29, Nov. 13 & 26

Price: FREE

Register: senecaparkzoo.org/hikes



Wayne Smith

► MEMBER APPRECIATION WEEK

AUGUST 1 - 7

Members visiting this week will enjoy a complimentary treat and receive an exclusive 2022 Member Pin, available only this week! (One pin per membership, available while supplies last.)

Dates: August 1 - 7

Where: At the Zoo, daytime hours

Learn More: senecaparkzoo.org/memberweek



► KINDERZOO

BEGINNING IN SEPTEMBER

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. Join us as we explore different animals and habitats, using games, BioFacts, and engaging, age-appropriate activities. Each class will also include the opportunity to meet an ambassador animal up-close and learn all about them! Limited slots available.

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

Dates: See website to check date availability for KinderZoo beginning in September

Price: \$8 for members, \$10 for non-members (anyone attending with child would also need to pay for a general admission Zoo ticket)

Register: senecaparkzoo.org/kinderzoo



Abby

► DAY-OFF ZOOCAMPS

OCTOBER 10 & NOVEMBER 11

School might be on break, but it's the perfect time to come to the Zoo! Register your child for Day-Off ZooCamp for a fun day of learning at the Zoo!

Ages: 5 through 9

Dates: October 10 & November 11

Full-day: 9 a.m. - 4 p.m.

Price: Members: \$45
Non-members: \$55

Register: senecaparkzoo.org/dayoff



Emily

CAMPS, WORKSHOPS, CLASSES

► SCOUT WORKSHOPS

Calling all scout leaders and youth groups – plan your next group outing with us! The Zoo offers an array of workshops for all levels of scout troops and youth groups looking to learn and have some fun. Programs are designed to meet badge requirements and build skills. The Zoo offers both in-person and virtual workshops for Girl Scouts, Cub Scouts, and Scouts BSA Merit Badges. Have fun and learn something new at the Zoo!

In-person workshops range from two-and-a-half to three-hour sessions while virtual workshops range from 30 minutes to 1 hour.

For more information, including pricing and requesting a date, visit senecaparkzoo.org/scouts



► TREK IN THE TWILIGHT

**OCTOBER 14, 21/NOVEMBER 4, 12/
DECEMBER 9, 17/PICK YOUR OWN DATE**

Trek in the Twilight is just like our popular Bunk with Beasts program but without the overnight! We provide dinner, a guided tour of the Zoo, and an animal presentation, but participants get to go home and sleep in their own beds at the end of the night. Trek in the Twilight programs are offered September – May, but it's not too early to look ahead to the fall schedule!

Dates: October 14, 21, November 4, 12, December 9, 17

OR

Pick Your Own Date (September - May)

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



CALENDAR

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

► SUMMER PROGRAMMING ROLLS ON AT THE ZOO!

ALL SUMMER LONG



Five Star Bank

It has been truly awesome to have scheduled summer programming for animal enrichment, feedings, keeper chats, conservation talks and more so that you can better plan a memorable Zoo experience! Check out the schedule below to see some of what we have in store for you through Labor Day. Thank you to our Presenting Sponsor Five Star Bank for supporting our summer programming!

Stay tuned to our social media and website for updates on specific animal programming schedules as they are subject to change.

View Schedule: senecaparkzoo.org/summer-programming



Walter Brooks



Walter Brooks

A publication of the Seneca Park Zoo Society

ZOO NOOZ

AUGUST 2022

Walter Brooks

Follow us socially. Visit senecaparkzoo.org



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

Designer: Amanda Lindley
Contributing writers:
Pamela Reed Sanchez, President and CEO, Seneca Park Zoo Society
Beth LaPierre, Director of Communications & Engagement
Donato DiRenzo, Communications Coordinator
Tyler Cassidy-Heacock, Associate Director of Development
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.

ZooNooz is printed on recycled paper.
When you're finished, please share it with a friend.

Nonprofit Org.
U.S. Postage
PAID
Rochester, NY
Permit No. 42



Seneca Park Zoo

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