



MYZOO

FOR MEMBERS OF WOODLAND PARK ZOO • FALL 2019



**FALL IN LOVE WITH
FOREST CREATURES**

MAKE TIME TO SEE YOURSELF IN NATURE

SCHOOL BREAK CAMPS

Spend your break from school with a naturally awesome day camp! Go wild during camps that coincide with select days off school for several local school districts.



Check out this opportunity and tons of other amazing classes at zoo.org/camps

ZOOPARENT

RIVER OTTER PUPS ADOPTION SPECIAL

Love how otterly adorable our four river otter pups are? Adopt now and help fund conservation programs and the daily care and feeding of our river otter pups and all zoo inhabitants.

ADOPTION PACKAGE INCLUDES:

- River otter plush
- Personalized adoption certificate
- River otter fun facts
- Animal photo
- ZooParent window decal
- Online recognition for one year



\$69

Actual plush may vary.



Available through
October 31, 2019

www.zoo.org/zooparent

MYZOO MEMBER MAGAZINE

WOODLAND PARK ZOO
5500 Phinney Avenue North
Seattle, Washington 98103

MAIN ZOO LINE: 206.548.2500
GENERAL EMAIL: zooinfo@zoo.org
MEMBERSHIP EMAIL: membership@zoo.org
www.zoo.org

ZOO HOURS:
Visit zoo.org/visit for hours and pricing.

Alejandro Grajal, PhD, *President and CEO*
Bruce Bohmke, *Chief Operations Officer*
Michele Smith, *Chief Financial Officer*

2019 BOARD OF DIRECTORS OFFICERS

Matt Rosauer, *Chair*
Sandy Stelling, *Vice Chair*
Jill Walker, *Treasurer*
Irwin Goverman, *Secretary*
Jeff Leppo, *Immediate Past Chair*

DIRECTORS

Amy Alcalá	Leigh McMillan
Linda Allen	Larry Phillips
Kristi Branch	Robert Plotnick
Anders Brown	Bart Ricketts
Warren Brown	Kyle Rolfe
Jim Burgett	Kevin Schofield
Lisa Graumlich	Diane Shrewsbury
Barbara Gordon	Bryan Slinker
Angela Griffin	Ethan Stowell
Mike Hanlon	Stephanie True
Marlon Herrera	Tiara Turner
Matt Hill	Pallavi Wahi
Holly Hirai	Joe Woods
Sandra Madrid	Evan Wyman

Ex officio
Jesús Aguirre
Alejandro Grajal
Jeanne Kohl-Welles

MyZoo Fall 2019. Volume 21. Issue 3.

Woodland Park Zoo, Seattle, WA

General Information: 206.548.2500 Membership
Department and Address Changes: 206.548.2400,
membership@zoo.org

Editor-in-Chief: Kirsten Pisto, kirsten.pisto@zoo.org
Design Direction: Kelly Hampson, kelly.hampson@zoo.org
Photo Direction: Jeremy Dwyer-Lindgren,
jeremy.dwyer-lindgren@zoo.org
Designers: Meghan Payne, meghan.payne@zoo.org,
Misty Fried, misty.fried@zoo.org, Kelly Hampson,
kelly.hampson@zoo.org

For Advertising Information:
zoo.ads@zoo.org or 206.548.2625
Comments or questions? Write 5500 Phinney Ave. N.,
Seattle, WA 98103-5865 or email zooinfo@zoo.org

Woodland Park Zoo is a City of Seattle facility managed and operated by the nonprofit Woodland Park Zoological Society. MyZoo (ISSN 2153-4569) is published quarterly for \$6.00 per year for Woodland Park Zoo (WPZ) members from membership dues by WPZ at 5500 Phinney Ave. N., Seattle, WA 98103-5865. Non-profit postage paid at Seattle WA.

POSTMASTER send address change to:
MyZoo, Woodland Park Zoo,
5500 Phinney Ave. N., Seattle, WA 98103-5865

All photos are property of Woodland Park Zoo unless otherwise noted.

Woodland Park Zoo is a registered 501(c)(3) nonprofit organization.

**ASSOCIATION
OF ZOOS &
AQUARIUMS**





FEATURES

6

Get to Know Our Pack

Our wolves might look alike (as sister wolves do), but their wolfy behaviors are as unique as they are.

8

Where Hope Takes Root

In the forest, you're likely to hear an orangutan long before you see one. Travel to Borneo with zoo staff to find conservation solutions to the palm oil crisis.

24

Animal Spotlight

Get to know our elk—a few with incredible second chance stories.

4

Upcoming Events

13

Member Tips

18

Otterly Awesome Things

19

Forest Bathing

20

What's Your Green Zoo IQ?

23

Carnivore Spotter

27

For the Frogs

28

Kids Pages

ON THE COVER:

A lupine greeting for an autumn morning.

Photo by Dennis Dow, WPZ.

THURSDAY, OCT. 3

6:00-9:00 PM

ZOO.ORG/BREW

#THISISHOWWEBREW

BREW O
AT
ZO



UPCOMING EVENTS

OCTOBER 1

WINTER ZOO HOURS BEGIN

OCTOBER 3

BREW AT THE ZOO*

OCTOBER 26-27

PUMPKIN BASH

NOVEMBER 5

ELECTION DAY (*Vote for animals!*)

NOVEMBER 11

VETERANS DAY DISCOUNT

NOVEMBER 29

WILDLIGHTS OPEN THROUGH JAN 5

Presented by Sound Credit Union

(Closed December 2, 3, 9, 10, 24 & 25)

DECEMBER 14-16, 21-23

WINTER CELEBRATION ENRICHMENT

DECEMBER 25

ZOO CLOSED CHRISTMAS DAY

All events included in the price of admission or membership unless noted.

**Indicates separately ticketed event(s).*

OCT. 26-27 • 9:30a.m.–3:00p.m.

**PUMPKIN
BASH**



For information visit
zoo.org/pumpkinbash

Pumpkins for the animals, trick-or-treating for your little ghouls and ghosts, and don't forget BOOmazium for a howling good time!

*Kids in costume **FREE** with paid adult admission.*



WOODLAND PARK ZOO
SAVES WILDLIFE AND
INSPIRES EVERYONE TO
MAKE CONSERVATION
A PRIORITY IN THEIR LIVES.

Dear Friends,

From the bottom of our hearts, everyone at Woodland Park Zoo thanks YOU and King County voters for passing the King County Parks Levy. This critical investment will secure acres of additional green and open space, preserve forests, combat climate change and connect natural corridors for people and wildlife. At Woodland Park Zoo, levy funding provides direct support to environmental education programs and important local conservation projects for Western pond turtles and Oregon silverspot butterflies, allowing us to introduce them back into their native habitats.

The levy will also provide the zoo with more resources to help school districts throughout King County with higher percentages of students using free and reduced meal programs to visit the zoo, often for the first time in their lives. Our ability to offer extraordinary experiences to everyone in our community, regardless of their background, will continue to be built upon the bedrock foundation provided by the Parks Levy.

Our zoo's ability to educate, inspire, and entertain relies on the trust we have earned with you, our members and guests. We are incredibly proud that the trust you place in us has been rewarded by King County voters who recognize the vast importance our parks and green spaces have for making the Pacific Northwest a beautiful place to thrive for all of the creatures living here.

In this issue, you will find stories of forest conservation and the incredible work the zoo and its partners are doing in Borneo to protect one of the last habitats for wild orangutans. Our commitment to saving species and inspiring everyone to make conservation a priority in their lives is built on the foundation you have provided for us. Thank you again for all that you do.

Sincerely,

A handwritten signature in blue ink that reads "A. Grajal". The signature is fluid and cursive.

Alejandro Grajal, PhD
President and CEO

GET TO KNOW OUR PACK



Our four wolves serve as ambassadors for their wild cousins—helping people understand and appreciate this graceful and powerful, yet timid species.



No visit to the Northern Trail area is complete without a stop to see our wolf pack. As a species, the gray wolf (*Canis lupus*) has recently made a comeback in Washington state after nearly being driven to extinction in the last century by trapping and hunting. Wolves are now a protected species in most of the Northwest and most scientists agree that they play an important role in our ecosystem—helping maintain a balance between all species that share the habitat. But wolves are still very misunderstood and they face many recovery challenges in areas where coexisting with humans can cause conflict.

Our four wolves serve as ambassadors for their wild cousins—helping people understand and appreciate this graceful and powerful, yet timid species. All our wolves are females. They are 9-year-old sisters from the same litter, named Doba, Aponi, Kaya and Shila. You may have heard about “alpha” wolves that lead the pack, or other individuals that serve a more submissive role. While each pack member does, indeed, have a special role in their family group, that hierarchy can sometimes be fluid, and individuals can occasionally change roles within the pack dynamics throughout their lives.

With similar-looking whitish coats, our fab four can be hard to tell apart at first glance, but our animal keepers tell us these girls all have very different personalities! Aponi tends to be the most forceful in the group about getting her way, while her sister, Kaya—on the other hand—tends to have a more quiet leadership style. Doba is the most curious about new people and new enrichment items. But perhaps that curiosity is distracting her, because she is also the most likely to get some of her snacks stolen by her sisters. And finally, there’s Shila. She is a little more reserved than the others—tending to keep herself off the radar. Maybe that is the smartest strategy of all!

Our wolf pack can occasionally be heard howling in the early morning or in the late afternoon—and sometimes, when they hear sirens nearby, they will join in the chorus. But before you get any ideas, just know these girls have never seemed interested in responding to visitors who try howling at them. Next time you visit, see if you can identify who is who from their pack behavior.

Elizabeth Bacher, Staff Writer

Photos by Dennis Dow and Jeremy Dwyer-Lindgren, WPZ





WHERE HOPE TAKES ROOT

By Rebecca Whitham, Staff Writer | Photos by Jeremy Dwyer-Lindgren, WPZ





In the forest, you're likely to hear an orangutan long before you see one. A rustling in the leaves. A tree limb snap. A crisp lip smack to warn you if you're getting too close.

Tracking these sounds, Mislin and her team of wildlife researchers know they are in the right place when they spot mounds of broken branches and piled leaves in the canopy—fresh orangutan nests.

There's a stirring in one of them. A treetop toddler pokes a red head through the leaves. The team's data logger records the behavior. "We take note, every three minutes," Mislin explains.

Peeling away from mom, the four-year-old orangutan climbs out on a limb for a closer view of us. It would seem she's conducting her own primate study.

Mislin recognizes the young one, whom they've named Mamai and keep regular track of in their study. Composed entirely of local community members hired and trained by HUTAN, one of Woodland Park Zoo's conservation partners, Mislin's team is here to investigate: how are endangered orangutans managing in Borneo's changing forests?

CHANGING FORESTS

To the orangutan, the forest is everything. It's a home to nest in and a restaurant to feast in. It's a school where little ones like Mamai will learn at mom's side in the longest childhood out of any mammal on the planet besides humans.

The forest is a highway for the red apes, the treetops a tangle of off ramps to fruiting trees and termite nests, offering passage over rivers, mud and human menace.

But now, that 130-million-year-old forest—one of the oldest on the planet—is disappearing.

First, land was cleared for timber at alarming rates in the 20th century. Now the palm oil industry has taken over much of Borneo's landscape.



According to the Malaysian Palm Oil Board, more than 50% of all the oil palm planted in Malaysia is on the island of Borneo. The Roundtable on Sustainable Palm Oil estimates 4.5 million people in Malaysia and Indonesia make a living from palm oil production.

The RSPO estimates 4.5 million people in Malaysia and Indonesia make a living from palm oil production.

Used in food and toiletries found in our own homes, the product is in increasing global demand, as human populations grow and become more urbanized.

Scattered over a million acres of these oil palm plantations and human-made landscapes in Borneo's Kinabatangan floodplain, only 250,000 acres of orangutan forest remain—isolated, disconnected.

Throwing borders around the remaining forest is not enough. Too many pockets of habitat—even when protected—remain detached, leaving the treetop highway at a dead end.

Unless, that is, you build a bridge.

BRIDGING THE GAPS

“As soon as we realized that habitat fragmentation was really the main concern for wildlife here in Kinabatangan, we tried to find ways to mitigate this fragmentation,” explains Dr. Marc Ancrenaz, DVM, PhD, Scientific Director of

HUTAN-Kinabatangan Orangutan Conservation Programme. “One of our projects is to build orangutan bridges. These are actually ropes erected above tributaries and drains, because orangutans cannot swim.”

While macaque monkeys quickly took to the bridges, orangutans in the area were cautious, waiting years before they made their first crossing. Now, the apes use the bridges regularly to move between forests. A simple solution made successful with time and ingenuity, the rope bridges would inspire HUTAN's next bold idea.

“When we look at the bigger scale, what we want to do is to recreate the contiguous forest corridor between patches,” adds Marc. That's why HUTAN developed a plan to bridge landscape-level gaps by replanting tens of thousands of trees between forest fragments.

REFORESTING BORNEO

“Planting a forest is completely possible,” encourages Marc, “but we need to realize it's a very long process and it's very tough.”

Very tough is a good way to describe HUTAN's all-local, all-women team of reforesters who are transforming old logging sites and even oil palm plantations in the Kinabatangan.



Armed with machetes and weed whackers, the team of eight start every reforestation project by clearing out the overgrowth to make room for new trees. They painstakingly measure off where each sapling will go, leaving enough space for Borneo's pygmy elephants to weave through growing trees.

For team leader Mariana, a life-long gift for growing and nurturing flowers at home has been the secret to turning HUTAN's vision for reforestation into a fruitful reality.

"The species we plant here, we have 10 species," says Mariana, including the fruiting kerodong, which she samples with a tart pucker and a squint of one eye. The lemon-like treat is a favorite of the orangutans.

Over time, the team has discovered which tree species grow best in different soil and light conditions. They look for balance: selecting trees that will grow fast for immediate results and fruiting trees that may take longer to root but yield richer benefits. Saplings are sourced sustainably from community nurseries to provide additional economic opportunity for local families.

The team has planted more than 150,000 trees across eight reforestation sites. But the work isn't over when the seedlings go in the ground. "What

is really important to do is to maintain the tree," explains Marc. "The team is coming back maybe once a month at the beginning to tend to the tree, to remove the grass, to make sure no creeper is going to entangle and suffocate our seedlings." It will take at least three or four years of regular maintenance before the trees are tall enough to grow and survive on their own.

"I'm very happy," Mariana beams. "[Of] the eight sites, five are already successful."

Some of the team's plots have been growing for nearly 10 years, now able to provide fruit, shade and safe passage to local wildlife. And the animals are starting to take notice.

NATURE'S RESILIENCE

"We got a catch!"

Amanda leads another research team at HUTAN, studying the diversity and composition of species in the Kinabatangan. They look for small mammals, birds and frogs, and compare their findings across three different types of habitats: protected forest, reforested areas, and oil palm plantations.

To track small mammals, such as tree shrews, rats

The team has planted more than 150,000 trees across eight reforestation sites.



and squirrels, the team baits 12 non-lethal traps in a study plot area, using salted fish, banana and oil palm fruit. Amanda approaches a full trap, carrying a wildlife guidebook to help identify the finest nuances of color and shape. But this one needs no closer inspection—the bright white fur belongs tellingly to the nocturnal moonrat, a rare catch for the team, which they record and quickly let go.

“There is definitely more diversity in the forest compared to the plantation area,” Amanda notes.

But the reforested areas are starting to show promise too.

“The good news is we just extracted photos from the camera traps and we saw orangutans that are utilizing the [reforested] area,” says Amanda. “Orangutans are actually using this place by walking on the ground.”

There have even been sightings of orangutan nests in the

trees that the reforestation team planted 10 years ago, an encouraging sign of the apes’ approval.

As research teams like Mislin’s and Amanda’s piece together the evidence, it’s clear that nature is remarkably resilient.

“I was not imagining 20 years ago that the orangutan could survive in a place like here, which is highly fragmented, highly degraded, with a lot of human activities,” says Marc. “So this means that degraded forests are very important to also protect for wildlife conservation. We cannot afford to let them go and focus our efforts on primary or pristine forests only.”

As orangutans and other wildlife make more use of the reforested areas, they’ll disperse new seeds, adding even more tree diversity that will attract even more animal diversity.

Over time, these restored forest corridors will grow rich with life once more, here, where hope takes root.



WHAT YOU CAN DO

Many of the foods we eat and the toiletries we use contain palm oil, the product derived from the plantations that now dominate Malaysian Borneo’s landscape. Woodland Park Zoo has joined the Roundtable on Sustainable Palm Oil to help strengthen the highest standards of certification to assure that palm oil is produced more responsibly. We can all consume more responsibly as well.

Choose to shop from companies committed to using certified sustainable palm oil. Here are two easy ways to get started on changing your consumer habits:

1. **Got a sweet tooth?** Get our sustainable palm oil candy list and see how many of your favorites are already on there! [zoo.org/palmoil](https://www.zoo.org/palmoil)
2. **Search “palm oil” in your app store** to download a handy barcode scanner made by Cheyenne Mountain Zoo. Use it next time you go grocery shopping to see if a product’s company is certified in good standing.



Back-to-School

WANT TO USE YOUR **MEMBER DISCOUNT** AND SAVE WILDLIFE?

Shop the ZooStore for eco-friendly back-to-school items!

From reusable cutlery and straws to bags made from recycled bottles, the **ZooStore is here to help you make environmentally-conscious purchases** in style!

Member purchases account for 10% of ZooStore sales. Since January, members have spent over \$40,000 on food and beverage at the zoo using their discount.

MEMBER TIPS

FALL 2019



Winter Hours

WINTER HOURS

Starting October 1 through April 30, the zoo transitions to its cozy winter hours: open 9:30 a.m. – 4:00 p.m. We look forward to seeing you around the zoo all winter long!

Pro tip for photo-lovers: catch amazing autumn light in the late afternoon!



In the Know

DON'T MISS YOUR **MEMBER PERKS!**

Are you receiving zoo emails? Email membership@zoo.org to update your email address on file! **You don't want to miss out on benefits like:**

- Notification about the WildLights discount for members
- ZooTunes ticket pre-sales
- And more!



OUR ZOO OUR OASIS

Ensuring a Fierce Future

2019 JUNGLE PARTY

ON JULY 12, 2019 more than 1,000 zoo supporters came together to celebrate the 43rd annual Jungle Party under the leadership of co-chairs Amy Alcalá, Diane Shrewsbury, Alyssa Sunderland and Jill Walker. Woodland Park Zoo would like to thank our generous community who collectively invested more than **\$2 million** towards our mission to embark on nothing less than an historic transformation that will redefine the relationship between people, our planet and all its creatures through a broad, social movement for wildlife conservation.

Donors also invested in our Zoo for All initiative which is breaking down barriers and ensuring access and inclusion for all.

Woodland Park Zoo ensured a fierce future thanks to the extraordinary support of donors, corporations and volunteers

2019 JUNGLE PARTY CO-CHAIRS:

Amy Alcalá • Diane Shrewsbury

Alyssa Sunderland • Jill Walker



THANK YOU TO OUR GENEROUS SPONSORS

TITLE SPONSORS



PREMIER AIRLINE SPONSOR

Alaska Airlines

PREMIER WI-FI SPONSOR

Cisco

PREMIER MEDIA

Q13 FOX

PREMIER SPIRIT SPONSOR

Hendrick's Gin

RECEPTION LOUNGE AND SUPER SILENT SPONSOR

Sound Community Bank

RAISE THE PADDLE SPONSOR

Wyman @ Compass



SILVER SPONSORS

Chevron • Cigna • Columbia Bank
Costco • Starbucks

TECHNOLOGY SPONSOR

Valence

DINNER WINE SPONSOR

Vinum Importing

MOBILE BIDDING SPONSOR

Lease Crutcher Lewis

BRONZE SPONSORS

Amazon • ASI • Deloitte
Ethan Stowell Restaurants • Facebook
Goldman Sachs • Iron Springs
Lane Powell • Moss Adams
Napoleon Co. • North Seattle College
Union Bank • USI

RAFFLE SPONSOR

Ben Bridge



HOTEL SPONSOR

Thompson Seattle

AMBASSADOR ANIMALS STAGE SPONSOR

Seattle Children's Hospital

ADDITIONAL SPONSORS

Francis Ford Coppola • Sock Club
Glass Eye • Fremont Brewing

ZERO WASTE SPONSOR

Waste Management

SPECIALTY CHEFS

Beecher's Handmade Cheese
Caffe Vita • Conversation
Dragonfish Asian Café
Ethan Stowell Restaurants
FareStart • Great State Burgers
Lark • Lisa Dupar Catering
San Juan Seltzer • Sri Bella
Whidbey Island Ice Cream

PNW TURTLE POWER: SLOW AND STEADY



While slowly making its way toward recovery, the Western pond turtle population faces threats such as the loss of suitable habitat, invasive bullfrog predation and disease. The good news? The tiniest turtles get a head start on survival at the zoo.

Western pond turtles live in wetlands from Washington to the San Joaquin Valley in California. By 1990, their numbers plummeted to only about 150 in two populations in Washington state. The last remaining individuals struggled for survival.

In 1991, Woodland Park Zoo and Washington Department of Fish and Wildlife joined forces to recover Western pond turtles by initiating a head start program. In 1999, Oregon

Zoo joined the recovery team and, over the years, other nonprofits, government agencies and private partners have contributed to the multi-institutional conservation project.

Under the recovery project, the turtles are collected from the wild as eggs and are given a head start on life under the care of each zoo; the head start improves their chance of survival in the wild when they are released each summer.

In August 2019, 40 turtles were released from Woodland Park Zoo. Collaborative recovery efforts over the last 28 years have resulted in more than 2,300 turtles being head started and self-sustaining populations re-established in two regions of the state: Puget Sound and the Columbia River Gorge. Surveys indicate

that more than 1,000 of the released turtles have survived and continue to thrive at six sites.

As a new threat emerges—shell disease—Chicago's Shedd Aquarium and the University of Illinois at Urbana-Champaign have joined the recovery efforts. The aquarium and university are looking at the disease from a microbial and pathological perspective to better understand its origin and the role environmental factors could play.

While we don't have all the answers yet, we won't stop advocating for this species and its recovery in PNW wetlands. Thanks to you, their slow and steady comeback has a fighting chance.

WILDLIGHTS

presented by Sound Credit Union

**NOVEMBER 29 – JANUARY 5
5:30 – 8:30 P.M.**

*Free parking in zoo lots on WildLights event nights.
Closed December 2-3, 9-10, and 24-25.*

www.zoo.org/wildlights



sound
credit
union

KOMO 4
So Northwest
seattle refined





5 TOTTERLY AWESOME THINGS FROM YOUR ZOO!



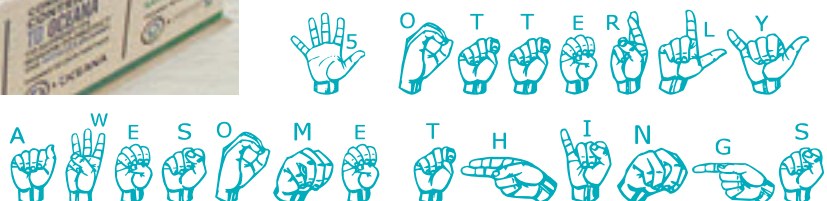
1 Shout out to Sound Community Bank for sponsoring our **Mobile Zoo** project—a zippy new feature of our Ambassador Animals program that brings the zoo to neighborhoods, **schools and community centers** throughout the Puget Sound. Blueberry the hornbill and her friends bring conservation action and sustainability lessons off campus for an outreach experience that is sure to inspire.

2 **Anything for animals!** Our awesome exhibits crew member Bill was recently working on new sign posts and suddenly thought “Hey, could I build a little bird nesting cavity into these posts?” Bill followed his creative inspiration and now it’s a thing! We won’t divulge where (birds like privacy), but hopefully the nesting cavities will work and this can be replicated on future installations.

3 Did you know the zoo provides complimentary admission to a family member/friend who accompanies a Deaf guest to interpret scheduled programs? If you **bring an interpreter**, simply let a staff member know at any ticket window to receive the complimentary admission. Certified Sign Language interpreters can also be arranged upon request to better experience zoo events, classes and programs. Learn more at zoo.org/access

4 Wise owls like Cobra say that **green investments** are the way to go! Talk with your financial advisor to see if your investments are supporting sustainable businesses and clean energy. Join Woodland Park Zoo’s endowment managers in putting our money where our hearts are. **#greenliving**

5 The perfect gift for the animal lovers in your life—pick up a pair of **Conscious Socks at ZooStore!** Protect trees, tropical rain forests, oceans and more through the work of incredible nonprofit partners. Each pair is also made with organic cotton and is Vegan and Fairtrade Certified. **#happyfeet**





FOREST BATHING

On your next PNW hike, stop for a moment to inhale the cool mountain air and smell the white bark pine, red cedar, Western hemlock or Douglas fir. You are inhaling oxygen while the forest around you is absorbing atmospheric carbon dioxide, CO₂. Trees, such as these, may be our best bet in fighting climate change. The idea of planting trees, trillions of them, as a climate change solution has recently re-emerged as trendy, with new data to back it up.

Another trend? Forest bathing. Shinrin-yoku in its original Japanese is the act of spending time amongst the trees and is a health trend with a Richard Simmons-like following. Why? It's hard to argue against the positive effects of spending time in nature. With human health benefits, mental and physical, some doctors even prescribe time in nature.

"The amount of carbon that we can restore if we plant 1.2 trillion trees, or at least allow those trees to grow, would be way higher than the next best climate change solution," says Tom Crowther, a professor of global ecosystem ecology at the Swiss Federal Institute of Technology in Zurich. Crowther, whose study in *Science* made the media rounds in July 2019, adds that it would need to be the right trees in the right landscapes for it all to work, but it's possible.

As solutions like Crowther's gain momentum, we're eager to hear about actions that would benefit human health, ecology and conservation by curbing deforestation and planting trees. Replanting areas where deforestation has occurred would benefit the species who make their home in the forests—and provide more room for those healing forest meditations.

Climate change may be the most significant threat to species of all kinds, but if planting more trees is one solution, we can all breathe a little deeper (and then get to work in our own communities and make it happen.)

Soak it up #TreeHuggers

Kirsten Pisto, Editor

WHAT'S YOUR GREEN ZOO IQ?

Here in Seattle we love taking care of our wildlife and our environment. But do you know about all the sustainable and wildlife-friendly features throughout your zoo, from permeable pavement to a compost-supervising gnome? Check out this list and see how many you already knew about. What's your green zoo IQ?

1. WELCOME TO A GREEN OASIS

At the zoo's West Entrance, you're seeing sustainability hidden in plain view. Built with Forest Stewardship Council certified wood, the windows and skylights help reduce lighting needs and keep energy use down. The gently sloping pavement directs stormwater to a 975,00-gallon underground tank—allowing water to slowly drain and reducing the chance of overflow stormwater going straight into Puget Sound.

2. NO ORDINARY PATH

We love how our PNW rain keeps the Puget Sound region lush all year! The rain, however, can send surface pollution into local waterways. Next time you're in Banyan Wilds watching our Asian small-clawed otters take a swim, take a moment to look under your feet. The permeable pathways allow rainwater to trickle through into the ground, where the soil filters out pollutants before the water reaches the Sound.

3. HANGING AROUND SUSTAINABLY

Our orangutans, gorillas and the animals in the Tropical Rain Forest building enjoy climbing on vines in their habitat. The vines are used fire hoses donated by the Seattle Fire Department, all dressed up by our exhibits crew to replicate the animals' natural habitats. Smart reusing is just one of the mad skills of our very creative exhibits team. Thanks, exhibits crew!





7



8



10

4. RENOVATION DESTINATION

The Key Arena renovation goes up—and trees come down. Where did they go? Some of these local trees have become tables, benches, and perches for our animal residents. Sloth bears, lemurs and primates are just few of the animals that enjoy lounging on this locally-sourced wood.

5. ZOO DOO

Our animals produce a lot of poo. The composted Zoo Doo is our local gardeners' "black gold". Our current Zoo Doo facility has been transforming the magic our animals make into compost for over 30 years, and it just got a major facelift. We are now more efficient, thanks in part to Doodle the Doo Gnome who supervised the construction process daily.

6. FEEDING ON SOLAR POWER

Every day, our commissary building prepares food for over 1,100 animals, and our Rain Forest Food Pavilion provides treats to hundreds of humans. The cherry on top of each is a solar panel roof. They were funded by local residents who received power discounts

in return from Seattle City Light and Washington state. The panels power our electric vehicles, putting the "zoo" in zooooom! Only fossil-fuel free vehicles cruise zoo grounds during open hours, which keeps your zoo quieter and healthier for guests and animals alike.

7. A BEDSPREAD OF ROSES

Many of our amazing animals bed down in a wood chip mix. When they're done getting their Z's, it is composted into a product called "Bedspread" at our Zoo Doo yard. Much of that goes out to our pesticide-free Woodland Park Zoo Rose Garden. The roses can then spread their leaves in a sustainable garden. Full circle? Many of the animals enjoy organic rose petal treats as special summer enrichment. We love the beauty of Northwest living!

8. WATER, WATER EVERYWHERE

We want to protect our PNW marine life from the dangers of plastic. To encourage staff and guests to use less plastic, we've installed water bottle filling stations throughout the zoo. Everyone can

make sustainable choices while visiting our awesome animals. Ahhh... so refreshing!

9. SAVE THE BIRDS

We care for all the animals that live in our zoo, including the many wild Washington birds that make it home. In places like the Jaguar Cove, Banyan Wilds and Zoomazium, decals and marks on the glass called fritting prevent birds from thinking the glass is open air, saving them from a nasty bump.

10. ON TOP OF THE WORLD

In 2006, our Zoomazium was the first LEED (Leadership in Energy and Environmental Design) Gold Certified building in any zoo or aquarium in the U.S. Its roof is literally green. Topped with native plants, it helps absorb rainwater and carbon, and provides habitat for our wild animals, too.

Now it's your turn—what can you do to green up your home or lifestyle?

Barbara Segal, Contributing Writer

Photos by Barbara Segal, Dennis Dow, and Ryan Hawk, WPZ



ALL^{for}ANIMALS GIVING DAY

WOODLAND PARK ZOO

10 | 2 | 2019

Everything we do is for animals.
Make a gift that will save
species, care for animals and
educate the next generation
of conservationists through
Woodland Park Zoo's mission.

givingday.zoo.org



Coming in 2020!

Northern Trail Becomes Living Northwest Trail

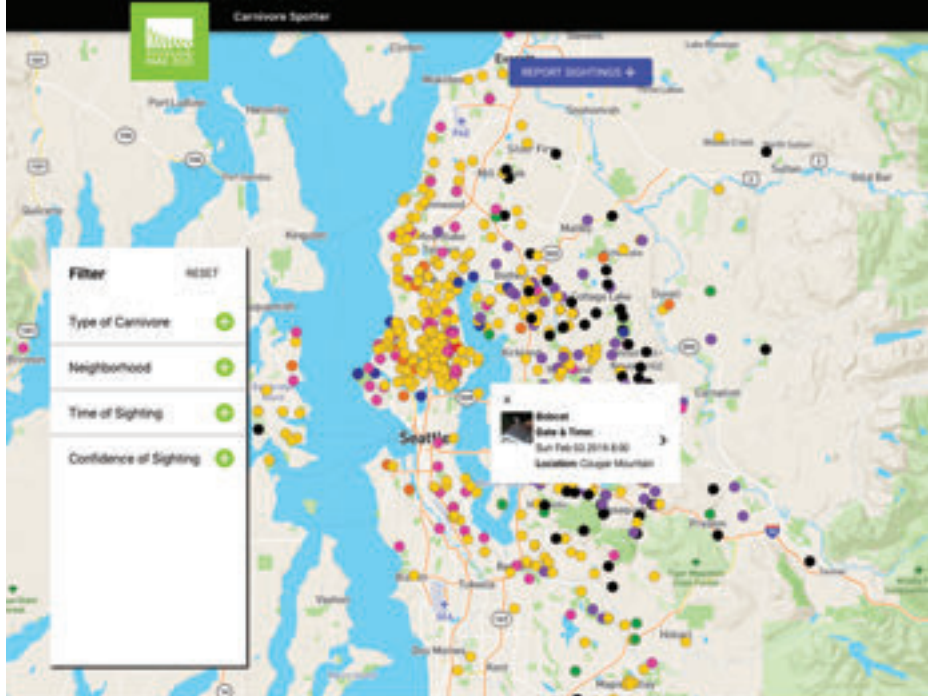
Built on the iconic Northern Trail, the Living Northwest Trail will immerse guests in an experience of the Pacific Northwest, bringing lessons of the forest to our urban oasis. Updates to the Living Northwest Trail mean new animal additions, new exhibit design, and new ways to coexist, engage and connect—both on zoo grounds and off.

Check your mailbox in November for opportunities to be recognized on the Living Northwest Trail for your donation of \$1,000 or more.





Photo by remote camera operated by Woodland Park Zoo



CARNIVORE SPOTTER!

All different kinds of creatures, ranging from bees to bobcats, have an important role to play. But some of them—and the behaviors they exhibit—can be misunderstood or even feared.

Urban spaces and suburbs are growing, pushing some carnivore species to more remote regions, while forcing others to adapt to sharing habitat with humans. In 2018, Woodland Park Zoo and Seattle University scientists collaborated to launch a new study: The Seattle Urban Carnivore Project. This study explores how carnivores—animals in the taxonomic order Carnivora such as coyotes, raccoons, and bobcats—live and interact with people across the greater Seattle area.

The project, which is participating in the Urban Wildlife Information Network coordinated by Lincoln Park Zoo's Urban Wildlife Institute, is currently collecting images using dozens of remote cameras. The network is seeking to understand why animals in different cities behave the way they do, and what patterns hold true around the world. The goal of the Seattle project is to raise awareness about the carnivores that live in our urban areas, to promote safe coexistence, to dispel myths about risks related to the presence of carnivores, all while learning more about carnivore ecology and behavior.

SUBMIT OBSERVATIONS OF CARNIVORES IN YOUR COMMUNITY!

To complement the remote camera images, the project has developed a new tool to collect your observations. Join us by reporting your Seattle-area carnivore sightings with the Carnivore Spotter tool. The data you collect will help research scientists better understand carnivore distribution, population dynamics, interactions with humans, and ways that we can safely navigate the habitat we share.

Carnivore Spotter allows you to report your sightings of local animals including black bears, bobcats, cougars, coyotes, red foxes, raccoons, river otters and more.

These kinds of animals are often misunderstood, and sometimes feared because of perceptions that they are a threat to people and pets. But the truth is that they are an important part of our environment. Humans can safely share the habitat with many kinds of carnivores, and we have been doing so for a long time, often without even knowing it.

Find the new tool at: www.zoo.org/carnivorespotter

- submit information about species
- track the location of your sighting
- upload photos, videos and sound files
- explore sightings in your neighborhood

ELK

*Have you
about*



What comes to mind when you think of a deer? Maybe Bambi, Rudolph or Doe? There are around 50 species throughout the world that make up the deer family, with the moose being the largest and the pudu—a South American species barely larger than a raccoon—being the smallest.

Elk are one of the largest species of deer and we have two different subspecies of elk that share a home here at Woodland Park Zoo: **Rocky Mountain Elk** (*Cervus elaphus nelsoni*) and **Roosevelt Elk** (*Cervus canadensis roosevelti*). Both subspecies can be found in Washington state with Roosevelt elk primarily on the western side of the Cascades and Rocky Mountain elk primarily on the eastern side.

Our herd of graceful grazers is composed of one male, and five females—and some of them have backgrounds that include a wildlife rescue story. That means at some point, a wildlife specialist determined that an injured, orphaned or human-acclimated elk could not be re-released into the wild. Places like Woodland Park Zoo and other accredited conservation facilities are giving animals like these a second chance to thrive in human care.

The leader of our herd is Goodwyn. This handsome Rocky Mountain bull elk is 17 years old. You can usually recognize him by his size, as the largest of the bunch. He also has antlers for a good part of the year. Male elk start growing their antlers, which are made of bone, each spring and shed them each winter.

Goodwyn came to Woodland Park Zoo from Colorado, where his caregivers chose his name because they said he was the “good one” compared to his naughty sibling. Both his parents were born wild but became too imprinted on humans. Most people have good intentions when they try to get close to wild animals or feed them. They might think the animal has been orphaned or needs help—but these good intentions often end badly for animals that wind up euthanized because they caused property damage or injury to pets or humans. This was the case for both of Goodwyn’s parents.

Thankfully, that was not the case for 7-year-old Buttons, who—like Goodwyn—is a Rocky Mountain elk. Buttons gained notoriety several years ago in the area between Ellensburg and Cle Elum, just east of the Cascades. She became a regular in communities there where residents—believing she was orphaned—began feeding her, petting her and even putting kids

heard our herd?



onto her back. While Buttons was usually friendly with humans, Washington Department of Fish and Wildlife (WDFW) managers say they also got calls about her damaging property, harassing pets, and occasionally acting aggressively.

For her safety and the community's, WDFW biologists tried relocating Buttons to a more remote area, but she wasn't able to integrate with the wild elk herds there. It became clear another solution was needed and this past spring Woodland Park Zoo became her new home. Now, several months later, she seems to have settled nicely into a peaceful coexistence with Goodwyn and the other elk.

Both Goodwyn and Buttons got a second chance to thrive here, in human care. They also have stories that help people understand the risks—for animals and people—that can come from trying to feed or care for a wild animal that seems orphaned or injured. The best thing to do in those situations is to call a WDFW office, or a licensed wildlife rehab expert. They are uniquely qualified to provide care in a setting that doesn't create an unnatural dependence on humans—allowing a wild animal to stay wild.



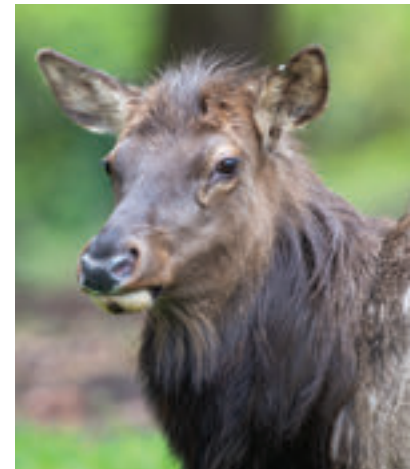
Elk Range Map

- Rocky Mountain Elk
- Roosevelt Elk



In addition to Goodwyn and Buttons, our elk herd includes four female Roosevelt elk. Newcomers Lily and Willow are both only a year old, while old timers Jessie and Sarah are both 20! The average life expectancy for a wild elk is somewhere between 10-15 years—so the age of our older herd members is an indicator of the terrific animal care they receive.

You can find our entire elk herd—old and young—in the Northern Trail habitat. In the next year, the area will be reimagined through the lens of the Pacific Northwest's unique ecosystem and will re-open in 2020 as the Living Northwest Trail. Funds raised through an upcoming Living Northwest Initiative will create a revitalized experience focusing on species recovery, human-wildlife coexistence, and saving our native ecosystems for the benefit of every species.

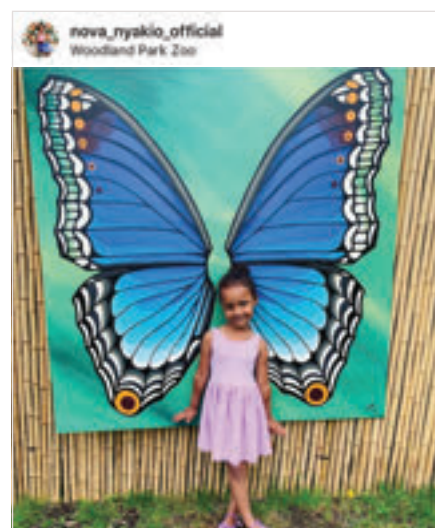
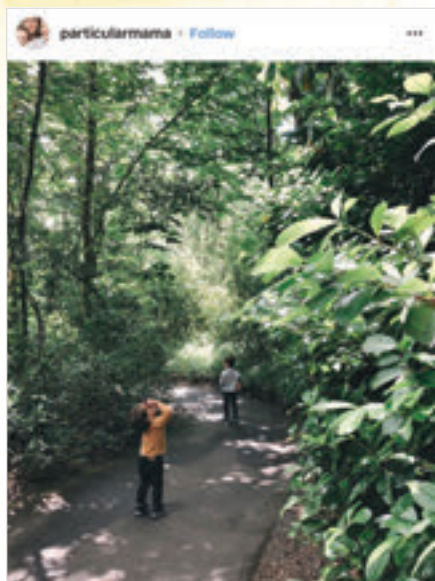


Elizabeth Bacher, Staff Writer

Photos by Jeremy Dwyer-Lindgren and John Loughlin, WPZ

SHARE THE LOVE

Your photos inspire us. Every day we are grateful for your love of animals and passion for saving wildlife—and we're thrilled to see your images invite others to join us in saving species. You tagged us, and we couldn't be happier.



Share your favorite Woodland Park Zoo pics with us using **#WoodlandParkZoo** and we might feature your photo! Use **#WPZMember** to connect to other members!



Follow us and stay connected to conservation stories, animal news and more! **@woodlandparkzoo**

FOR THE S THE G FROGS F



We have some truly outstanding amphibians in our neck of the woods! Washington is home to at least 10 species of frogs—some could live in your own backyard. They may be hard to spot due to their clever green, brown, red, or speckled camouflage, but you can hear them serenading each other in the early fall evenings.

Our frogs, however, are struggling to keep up with the changes humans are making to the environment. For one thing, they are sensitive to pollution. Their skins are permeable, meaning

water can move in and out of the animal through the skin. This means they can easily absorb any pollution that comes into their watery environments. This can threaten their health and reproduction.

On top of that, climate change may show its early

effects in the survival of frog populations. Frogs depend on their environment to keep their bodies at the right temperature, so they are particularly sensitive to warming

Frogs depend on their environment to keep their bodies at the right temperature, so they are particularly sensitive to warming habitats.

habitats. Frogs need the amount of rain that is “just right” to reproduce successfully. Too little, and ponds and shallow areas with tadpoles can dry up. Too much, and tadpole ponds can get connected to larger bodies of water with predatory fish. The more extreme weather brought about by climate change can swing bodies of water both ways.

Because they are so easily affected by pollution, climate, and other habitat changes, frogs are often what is known as an “indicator species.” When frogs start to disappear, it’s an early sign that more changes are on the way for the places they live.

So what can you do to keep frogs green instead of blue? Consider going organic in your lawn and garden. Pesticides and fertilizers can find their way into frog habitats. Next, help create a safe habitat for frogs. This can mean leaving an area unmowed with debris such as loose leaves and branches, giving a safe space for frogs to sing. Find more great tips at wdfw.wa.gov/species-habitats/living/frogs.

Together we can preserve these Northwest gems for the future!

Barbara Segal, Contributing Writer

Photo of a pacific tree frog by TJ Gehling

OTTER TIME

Who in the family?



TUCKER

NOOKSACK

PIPER

TAHU

VALKYRIE

PLAYED
WITH A LOG

MADE A
NEST IN THE
GRASS

CHASED
A FISH

DOVE
UNDERWATER
FOR A SHINY
ROCK

PRACTICED
HER PADDLING

OTTER CLUES:

- 1 The two sister otters, Piper and Tahu, did not chase a fish.
- 2 Mom, Valkyrie, was hungry and ready for a snack.
- 3 The otter that curled up in the grass for a little afternoon nap starts with a T.
- 4 Tahu spent most of her time underwater.

Each otter pup did one activity, but keepers need your help figuring out who did what. Use the clues below to fill in the logic puzzle. Make an **X** in each box that is untrue. Make an **O** in each box that is true. Once you find an **O**, you can cross off the other boxes as untrue.

Example: If Nooksack played with a log, then he did not chase a fish, make a nest in the grass, dive underwater or practice paddling.

- 5 One of the otter brothers, Tucker or Nooksack, played with a log.



What did you call us?



A **collective noun** is a name for a group of animals.

For example, a group of otters can be called a **family**, a **lodge**, a **raft**, a **bevy** or a **romp**!

Can you think of more words that describe a group of otters?

A group of otters swimming would be called a _____

A group of otters playing would be called a _____

A group of baby otters would be called a _____



You Otter Know...



River otters like living in both saltwater and freshwater areas. Here in the Puget Sound, you've probably seen river **otter tracks** on the beach or paddled by a **den** while kayaking. River otters are a very important part of the Pacific Northwest **ecosystem**.

They are at the **top of their food chain**, having few natural **predators**. Things that threaten them include **water pollution** and habitat loss. Keep waterways clean by skipping single-use plastics such as **plastic straws** and remember never to **litter**.

River otters love a fish dinner,

but they also eat whatever they can find. Otter snacks might include crustaceans, mollusks, insects, birds, oysters, shellfish, crabs, crayfish, frogs, rodents, turtles and aquatic invertebrates. River otters hunt mostly at night, so they rely on their good sense of smell to find a meal. They can also use their whiskers to help identify prey in the murky or muddy water.

A feast for an Otter!

EYE SPY:

1 Otter

5 Crabs

3 Turtles

4 Starfish

2 Octopus

3 Jellyfish

3 Snails

2 Seagulls

6 Frogs

4 Worms

3 Beetles

2 Oysters

3 Mussels

13 Fish



How do you like
to **MOVE** through the **WATER**?
Would it help if you had a powerful tail?

Learning to **swim** is hard work for an otter pup.

First, they practice swimming with mom, Valkyrie.

She shows them how to **hold their breath** underwater.

Once they get comfortable, they learn to **paddle** around
and start to **dive** deeper and deeper.

Soon they are **zipping** and torpedoing through
the pool as fast as can be.

Otters use their powerful tails to
swooooosh through the water and give
them an extra speedy swim!

Do you remember
learning to **SWIM**?
How did you feel?

Can you tell a
story about
LEARNING
something new?



These precious little pups are built for the
stream long before they take their first dip—
short legs with webbed feet, warm, thick
fur, a streamlined tail, tiny ears, and
nostrils that can close underwater.

FSC

We're here to save animals, and we can't do it alone.

We need nature, and nature needs us to take action.
Join our global community of advocates fighting extinction.

Discover ways **you** can protect species and
save habitat at **[zoo.org/conservation](https://www.zoo.org/conservation)**.

